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UTDRO by the Numbers

**STUDENTS IN 2016**
- Nuclear Medicine: 59
- Radiation Oncology Fellows: 31
- Radiation Oncology Residents: 26
- Medical Physics Residents: 9
- Masters: 4
- Radiological Technology: 115
- MRS Students in 2016: 300
  - Radiation Therapy: 126

**FACULTY (from 2011 to 2016)**
- Radiation Oncologists: 95
- Medical Physicists: 53
- Radiation Therapists: 35
- Other: 6

**TOTAL ALUMNI: OVER 2000**

423 Attendees at CE events in the 2015-2016 academic year

**RESEARCH**

$246.7 Million in funding from 2011-2016

**PUBLICATIONS (from 2011 to 2016):**
- Total: 1563
- Average per faculty member: 13.5
- Mean journal impact factor: 4.8

>50% of Ontario-based radiation oncologists trained at UTDRO

6/14 Radiation Oncology heads of Ontario cancer centres are UTDRO alumni
Executive Summary

*Note: This report covers the time period between July 1, 2011 to June 30, 2016.*

The Department of Radiation Oncology at the University of Toronto (UTDRO) was established in 1991 upon its separation from the Department of Medical Imaging. Leadership of the newly-formed department was undertaken by Dr. Bernard Cummings, who served two 5-year terms as Chair. Dr. Mary Gospodarowicz succeeded Dr. Cummings as Chair in 2001 and completed her second term in June 2012, whereupon Dr. Fei-Fei Liu was appointed as the third Chair of UTDRO, commencing her tenure in July 2012.

The Department has thrived since its inception in 1991 and has grown to its current size of 189 members from multi-disciplinary professions including radiation oncologists (95), medical physicists (53), radiation therapists (35) and biologists/other (6). During Dr. Liu’s term, 14 radiation oncologists, 17 medical physicists, and 8 radiation therapists were newly-appointed.

UTDRO is the academic base for six radiation oncology cancer centers across southern Ontario, plus one educational institute (Michener) (See map). In decreasing faculty numbers, they are:

1. Princess Margaret Cancer Centre (PM Cancer Center) at University Health Network
2. Odette Cancer Centre (OCC) at Sunnybrook Health Sciences Centre
3. The Michener Institute of Education at University Health Network (Michener)
4. Carlo Fidani Regional Cancer Centre at Trillium Health Partners (Trillium)
5. Stronach Regional Cancer Centre at Southlake Regional Health Centre (Southlake)
6. Simcoe Muskoka Regional Cancer Program at Royal Victoria Regional Health Centre (RVH)
7. RS McLaughlin Durham Regional Cancer Centre at Lakeridge Health (Lakeridge)

The current faculty is one of the most diverse departments within the University of Toronto (UofT) Faculty of Medicine with respect to the number of professional groups, which in turn, is associated with a breadth of research expertise spanning from clinical studies and trials; quality of life; health services and outcomes research; basic and translational studies related to radiation response; to advanced methods of delivering high-precision radiation and imaging. The faculty has strong collaborations locally within the Toronto biomedical community, as well as nationally and internationally, in addition to internal collaborations within the UTDRO environment.

UTDRO offers educational programs at the undergraduate, graduate, and postgraduate levels. The joint UofT and Michener Bachelor of Science in Medical Radiation Sciences (MRS) program has a current enrolment of 300 students focused on one of three professional streams: nuclear medicine and molecular imaging technology, radiation therapy, and radiological technology. The Master of Health Science in Medical Radiation Sciences degree was implemented in September 2009 to provide the skills for radiation therapists to move into advanced practice roles within their field. It is the only program of its kind in North America and has nine alumni with three current students (scheduled to graduate in 2018). UTDRO is also home to two residency programs: Medical Physics and Radiation Oncology. The Medical Physics Residency program is an intensive two-year clinical training program that prepares students for certification in clinical radiation oncology physics; the program currently has nine residents, with three more joining the program in January 2017. The Radiation Oncology
Residency program, the largest of its kind in Canada, currently has 26 residents enrolled over five years of training. Finally, the Radiation Oncology Fellowship program attracts top talent from across the globe; current enrollment comprises of 33 fellows from 13 countries assigned at both OCC and the Princess Margaret.

In 2014, UTDRO completed a strategic planning process over a 6-months period, wherein following extensive internal and external consultations, The Transformative Agenda: Roadmap to 2017 was developed, with the renewed Vision of: "International leadership in radiation oncology, research, education, and practice"; with the Mission to "Prepare future radiation oncology leaders, contribute to our communities, and improve the health of individuals and populations through discovery, application, and communication of knowledge."

Specifically, UTDRO (1) has a leadership role to play in Education; (2) catalyzes and facilitates Research, as well as Knowledge Translation and Exchange in concert with partner hospitals; and (3) influences and adds value to the Radiation Medicine community, the cancer network, as well as the broader health and public policy systems; and (4) leading in overall efficiency and efficacy of UTDRO operations.

The resulting strategic plan reinforced the faculty’s commitment to teaching, and strengthening the Department’s education offerings in order to impart the latest knowledge, and develop the next generation of Radiation Medicine leaders. It also called for higher levels of individual and collective engagement by faculty, with enhanced collaboration amongst individuals, across Departments and other important stakeholders. Specifically, it pushed for strategic aspiration in each of the three core remits of: Education, Research, and Systems Influence.

Over the last five years, UTDRO has continued to nurture and expand its national and international partnerships with various institutions. The academic programs have established partnerships with local hospitals and government organizations, as well as national associations and universities. On the international front, UTDRO faculty has an extensive network of collaborations across the continents of the Americas, Europe, Africa, Asia, as well as Australia. In particular, UTDRO faculty member Dr. Mary Gospodarowicz has been playing a highly prominent role in defining the need for access to radiotherapy as part of the global cancer control agenda, through her role as the President and Past-President of the Union for International Cancer Control (UICC) from 2010-2014.

The UTDRO operation supports a broad range of functions including the facilitation and administration of faculty appointments and promotion, communications, educational program administration, continuing education and events co-ordination, student registrarial and student service functions. The office is led by an Administrative Manager who is responsible for overseeing all aspects of operations and finance for the Department. Other staff include a Program Coordinator and Program Assistant to support the undergraduate program, an Education Officer to support graduate and post-graduate programs, a Post-Graduate Coordinator to support the post-graduate programs, a Communications Officer, a Strategic Projects Coordinator, an Events Coordinator and temporary staff to provide administrative support.

The future of UTDRO is bright and exciting; there is faculty renewal with the successful hiring including international and national recruitments of 39 new staff since 2012. There is broader engagement across the 6 departments through new initiatives such as Collaborative Seed Grants, Evening Journal Club, and vibrant participation at many UTDRO events such as graduation, the
Annual General Meeting, as well as the Annual UTDRO Research Day. In order to successfully execute the Mission of UTDRO, an increased and stable funding base is essential. Hence, revenue generation and fund-raising will be one of the key priorities of Dr. Liu’s second term.
Chair’s Overview

The Department of Radiation Oncology (UTDRO) was established by the University of Toronto in 1991. Dr. Bernard Cummings became the first Chair of the Department of Radiation Oncology in 1991, and Dr. Mary Gospodarowicz took office in July 2001. Dr. Fei-Fei Liu was appointed as the current Chair of the Department in July 2012.

The Chair reports to the Dean of the Faculty of Medicine. In this relationship, the Chair of UTDRO has received tremendous support from both the current Dean Trevor Young as well as the previous Dean Catherine Whiteside.

Organization

Faculty membership of UTDRO includes several different professional groups of radiation oncologists, medical physicists, radiation therapists, scientists, and educators. All radiation oncologists work in University of Toronto affiliated hospitals. The majority are appointed at either the Princess Margaret Cancer Centre (PM Cancer Center)/University Health Network (UHN) or the Odette Cancer Center (OCC)/Sunnybrook Health Sciences Centre. In recent years, new faculty members have been appointed from affiliate community hospitals in the adjunct (part-time) category. These community hospitals include Stronach Regional Cancer Centre at Southlake Regional Health Centre (Southlake), Carlo Fidani Regional Cancer Centre at Trillium Health Partners (Trillium), Simcoe Muskoka Regional Cancer Program at Royal Victoria Regional Health Centre (RVH), and RS McLaughlin Durham Regional Cancer Centre at Lakeridge Health (Lakeridge). Each hospital department has its own Chief selected by the hospital committee on which the Faculty of Medicine has representation. The Chair of UTDRO does not necessarily have a direct-line management authority in the hospital departments; however, the current Chair of UTDRO also does serve as the Chief of the Radiation Medicine Program at the PM Cancer Center.

Salary support for radiation oncologists comes from the Ministry of Health and Long Term Care (MOHLTC) to the provincial professional organization, the Ontario Association of Radiation Oncologists (OARO). The funding envelope provided by the Ministry to OARO includes funding for non-clinical activities including research, education and administration, with a separate funding envelope provided for clinician-scientists. The stipends flow directly from the MOHLTC to the cancer centers; the university has no role in this funding stream. The decision to appoint radiation oncologists to the position of clinician scientist is undertaken by the OARO leadership following application by the hospital department head. Clinician scientists must have at least 80% of protected time for research, a track record of research, and support from their departments and/or from directors of the respective hospital research institute. The University/Hospital affiliation agreement mandates that all medical staff at fully-affiliated hospitals hold a university appointment.

All radiation physicists are appointed to the Department to work in the affiliated hospitals, and radiation therapists work at either the hospital or at the Michener Institute of Education at UHN. Some basic scientists hold their primary appointment at UTDRO, with cross-appointments to the cognate Department of Medical Biophysics and/or Institute of Medical Science (IMS), or vice
Currently, there are 189 faculty members in UTDRO: 169 primary appointments, 3 cross-appointments and 7 clinical part-time appointments. The full faculty list is provided in Appendix 1.1.

The UTDRO Chair is supported by three Vice-Chairs and several committees to oversee the operations of the Department. In 2011, the External Reviewers recommended that the Chair of UTDRO evaluate the leadership team and empower them to execute the Department’s strategic vision. Following this, the current Chair modified the leadership structure, wherein the Vice-Chairs actively execute their respective mandates; ensuring consistency with the overall strategic plan.

The current governance structure is outlined in Figure 1.

![Figure 1: UTDRO Governance Structure](image)

**Administration**

The UTDRO Administrative Office has experienced considerable change over the recent five years. Three positions have been eliminated: Business Officer, Registrar for MRS, and Student Services Assistant for MRS. Under the leadership of Evan Donohue, Administrative Manager (2013-2016), six new positions were created: MRS Program Coordinator, MRS Program Assistant, Post-Graduate Coordinator, Events Coordinator, Special Projects Coordinator and Administrative Assistant.

Evan Donohue provided excellent leadership and oversight of the operations for UTDRO. He departed in early 2016; and Valeria Guido-Taylor recently joined as the new Business Manager of UTDRO in May 2016. The current administrative structure is shown in Figure 2 (FTE: full-time employee; PTE: part-time employee).
Funding

There are only two principal sources of funding for UTDRO; one is from the MOHLTC, and the other is the Ministry of Teaching Colleges and Universities (MTCU) for the MRS Program. The MOHLTC funding was established as part of Ministry’s response to the shortage of human resources for radiation therapy delivery identified in the 1980s. There are specific conditions in this funding stream in that these funds could not be used to support faculty salaries other than that of the Chair. The original funding was $428,000/annum to establish UTDRO, which has remained unchanged over the past 25 years despite significant growth of the Department.

The second source of funding originates from the Ministry of Teaching Colleges and Universities (MTCU) for the MRS Program. The MRS is the combined BSc/Diploma undergraduate education program for radiation therapists, radiation technologists and nuclear medicine technologists, jointly governed and taught at the University of Toronto and the
Michener Institute. In early 2016, the Michener Institute merged with UHN, to form the Michener Institute of Education at UHN. The MRS program is funded through the Basic Instructional Units (BIUs) provided by the MTCU through the University of Toronto. The funding supports the delivery of clinical and didactic courses for the program, and is currently also used to deliver the graduate programs within the Radiation Sciences stream (MHScMRS). There are occasional donations or bequests made to UTDRO and these funds are held in an account at the University Foundation. More substantial charitable donations are directed to the Hospital Foundations and considerable fiscal support is provided to the department through both the Princess Margaret Cancer Center Foundation and the Sunnybrook Foundation.

Over the past five years, research funding received by UTDRO faculty has increased, despite a more competitive funding environment. The total peer review research funding awarded to UTDRO investigators has been approximately $250 million over the past five years; all such funding is directed to support specific projects.

**Education Programs**

The Radiation Oncology Residency training program is the largest such program in Canada and amongst one of the largest in the world, with a current number of 26 trainees. The program was reviewed by the Royal College of Physicians and Surgeons of Canada (RCPSC) in 2013, and internally reviewed by the University of Toronto in 2015.

The Fellowship program has over 30 fellows enrolled from across the world. This program provides further clinical and/or research training to radiation oncology trainees, who have successfully completed their radiation oncology professional qualifying exams, and are either fully or nearly completing their clinical training in their country of origin. UTDRO offers two fellowship tracks: 1) A one-year Clinical Research Fellowship where fellows engage in a clinical research project, but are not engaged in a formal graduate training program; and 2) A two-year Research Fellowship offering deeper training in the principles and conduct of scientific research. This latter track provides 80% protected time for research, and requires concomitant completion of a graduate degree (generally an MSc) through one of the graduate departments within UofT.

The Radiation Oncology Physics Residency Program, launched in July 2007, aims to produce highly competent medical physicists who combine a comprehensive understanding of clinical radiation physics, and specific knowledge of radiation therapy and radiation oncology principles, and practice with enhanced leadership, research and teaching skills.

The undergraduate Medical Radiation Sciences (MRS) Program is a second-entry professional program, built on a strong collaboration between the UofT Faculty of Medicine, and The Michener Institute. This special partnership combines the strengths of both institutions and makes full use of their complementary resources and expertise to offer both a BSc Degree (from UofT) and an Advanced Diploma in Health Sciences (from The Michener Institute). This collaboration has contributed to the exceptional level of program integration for the education of all three MRS disciplines: radiation therapy, radiological technology, and nuclear medicine and molecular imaging technology. Following recommendations from a 2011 External Review, the MRS program leadership decided to renew the curriculum of the Nuclear Medicine and Molecular Imaging Technology stream. This renewed stream was re-launched in 2015 with a
modernized curriculum reflective of the current technological advances and practices in the profession.

The Master of Health Science in Medical Radiation Sciences (MHScMRS) Program is an innovative professional master’s program launched in 2009. The first of its kind in North America, the MHScMRS Program provides a unique graduate level education experience for practicing radiation therapists. The blended delivery model capitalizes on novel technological and pedagogical strategies to engage small cohorts of students and expert clinical faculty in an immersive curriculum. With three cohorts and nine graduates to date, the MHScMRS Program has created an inclusive, interactive, and practical environment for radiation therapists to develop the advanced knowledge, skills, and expertise necessary to serve as leaders in the radiation medicine community.

The UofT medical school administers its hospital-based teaching through four academies. Two of these four are relevant to UTDRO based on the locations of the two cancer centres. The PM Cancer Centre is affiliated with the Wightman-Berris Academy through UHN; OCC is affiliated with the Peters-Boyd Academy at Sunnybrook Health Sciences Centre. Undergraduate medical students at both the PM and OCC register with these two academies.

In addition to education programs, UTDRO also offers Continuing Education (CE) opportunities to students, trainees and all faculty, such as the RTi3 Radiation Therapy and Target Insight Conferences. In the 2011 External Review, one recommendation was to review the CE offerings and ensure that these activities remain self-funded. Indeed, in the recent 5 years, the CE programming has become financially sustainable through sponsorship from industry partners, as well as registration fees from participants.

As a result of recommendations made in the 2011 External Review and a new strategic plan, UTDRO has expanded its support for trainees and students. Research awards are presented to trainees who demonstrate strength in research. Travel awards are available to residents and fellows who wish to participate in conferences around the world. At a local level, UTDRO trainees participate in CE and professional development programs such as the Clinical and Experimental Radiobiology Course, and Target Insight Conference free of charge.

**Faculty Development**

UTDRO leadership continues to encourage faculty to undertake additional training in a variety of disciplines. The 2011 External Review identified that the mentorship and development of junior faculty at UTDRO needs to be enhanced. In response to this recommendation, the new Chair has developed a pilot mentorship program (see below), currently based at the PM for junior faculty radiation oncologists, with a view towards expanding across all disciplines and sites in the ensuing years.

Additional faculty development activities have included support of UTDRO faculty participation in the UofT Education Scholars Program (Cate Palmer 2015; Andrea McNiven 2016), with BA Millar serving as the Center’s Associate Director since 2011. Faculty with specific interest in pursuing higher degrees in education are similarly supported through hospital-based resources, such as MEd at the University of Maastricht for Jenn Croke, and Ontario Institute for Studies in Education (OISE) for Rob Dinniwell. In recognition of the need for expanded faculty
development, a newly created Faculty Development and CE Program Director role was filled in 2016.

The research activities undertaken by UTDRO faculty covers the broad spectrum from basic, translational, clinical, imaging, physics, to health sciences and quality of life. All of the research is conducted in the hospital-based departments supported by peer-reviewed, industry, philanthropic Foundation, or other departmental resources. The UTDRO faculty captures a significant amount of peer-reviewed funding ($246.7M/annum from 2012-2016); and the caliber of its publication output is comparable to its peers at Memorial Sloan-Kettering or MD Anderson Cancer Center (see Appendix 1.2). In fact, the level of per capita peer-reviewed funding of UTDRO is only second to the Department of Medicine within the Faculty. In an effort to stimulate greater collaboration across the departments, which was an issue repeatedly critiqued during the last External Review, Dr. Liu introduced the Collaborative Seed Fund initiative in 2013, which is competitively awarded through a standard application process annually. Three competitions have taken place thus far, awarding a total of $450,000 grant funding to 6 collaborative projects across four departments (PM, OCC, Southlake and Royal Victoria). This has successfully resulted in an external award from the AAPM (American Association of Physicists in Medicine), plus 2 applications for external funding (results pending), and the research results are also shared in the newly-established Evening Journal Clubs, where ~50 faculty and trainees attend each time for this knowledge exchange opportunity.

**Faculty Mentoring**

Mentorship is a personal and career development relationship in which a more experienced faculty helps to guide a junior staff member. A mentor advises on the career development of the mentee and assists them with achieving career goals, scholarly projects, academic promotion and work/life balance. Mentorship relationships may be short or long-term, depending on the career paths of both mentor and mentee.

Mentorship within academic medicine is associated with increased career satisfaction, increased academic productivity (including academic promotion and publications), opportunities for networking and improvements in faculty retention. Mentorship provides opportunities for professional fulfillment and meaningful work.

One example of UTDRO faculty leading mentorship programs is a pilot initiative at the Princess Margaret Cancer Centre. Drs. Jolie Ringash and Jennifer Croke have developed a pilot radiation oncology mentoring program at the Radiation Medicine Program (RMP) at Princess Margaret to support the career development of new faculty members and career progression of current faculty members. This program was officially launched in April 2016; adapted from the University of Toronto’s Department of Medicine Mentorship Program.

The objectives of the RMP Mentoring Program are:

- To assist with Faculty staff career development
- To improve staff satisfaction and retention
- To improve rates of academic promotion
- To improve academic productivity
The RMP Mentorship Program is governed by a mentorship committee that is responsible for overseeing, adapting and evaluating the program. The program chair is of Associate or Full Professor rank, and assists mentees to identify appropriate mentors based on mutual needs, interests and goals, and assists with conflict resolution. The program assistant is responsible for tracking mentor-mentee pairings and coordinating meetings. A formal mentorship agreement is signed by both the mentor and mentee; filed with the program assistant. Additionally, a confidential action plan is created to identify mentee goals and objectives with corresponding strategies and timelines. After one year, the mentee and mentor will re-assess their relationship to determine whether it continues to benefit both or has reached a natural conclusion; in which case, a new partnership may be formed.

There is a planned evaluation of the RMP Mentoring Program. Assessments will be both objective and subjective. Subjective evaluations will include conducting mentee/mentor surveys to assess the format, organization and satisfaction of the program and assessment of their mentorship relationship. Objective evaluations will assess meeting frequency, length of pairings, and mentee scholarly activities, including annual numbers of grants, publications and presentations, time to academic promotion and retention rates.

Given the overlap in faculty between RMP and UTDRO, this pilot initiative will be beneficial to both sites in terms of career development. Informal feedback to date from both mentees and mentors has been positive regarding this initiative. Following successful implementation of this pilot initiative, a similar model will be implemented at other UTDRO partner sites.

**Faculty Recognition**

UTDRO has a talented and capable faculty that deserves to be recognized. UTDRO has an internal awards system to recognize education and research excellence by its faculty. The Education and Research Committees undergo a nomination process whereby they nominate and select outstanding faculty members. The awards are presented at the Annual General Meeting in the fall (see Appendix 1.3). Majority of these awards are non-monetary, but UTDRO is starting to develop endowments to support three monetary awards.

**The Transformative Agenda: Roadmap to 2017**

A strategic planning process was undertaken in 2014, after the Head of the Department of Radiation Oncology at OCC was appointed (Dr. Greg Czarnota) in 2013. This process took place over a 6-month period, facilitated by an external consultant, starting with a department-wide electronic survey on perceived progress based on the previous strategic plan (*The Transformative Agenda 2010*), several retreats with leadership, and the broader UTDRO community, as well as consultation with external stakeholders such as the CEO of Cancer Care Ontario (Dr. Michael Sherar). The final strategic plan, *The Transformative Agenda: Roadmap to 2017*, was developed and focused on four key areas of activity: (1) leadership in education and training of radiation medicine personnel; (2) catalyze and facilitate radiation medicine research, including knowledge translation and exchange in concert with partner hospitals; (3) influencing and adding value to the radiation medicine community through the cancer network, as well as the broader health and public policy systems; and (4) leading in overall efficiency and efficacy of UTDRO.
operations. These four pillars of activities have been focusing the UTDRO over the current term, and will be further evaluated and renewed into Dr. Liu’s second term.
UTDRO Faculty Statement

Faculty Statement Committee

1. Robert G. Bristow (Chair)
2. Lee Chin
3. Catherine Coolens
4. Louis Fenkell
5. Kathy Han
6. Lori Holden
7. Arjun Sahgal
8. Kieng Tan

Introduction

This Faculty Statement covers the period from June 2011 to June 2016. All UTDRO faculty had the opportunity to offer their opinions in the development of this report by way of:

1. One confidential on-line survey (See Appendix 1.4)
2. Two faculty town halls at the Princess Margaret and Odette Cancer Centres

The statement was prepared on behalf of UTDRO faculty by Odette and Princess Margaret Cancer Centre representatives of the three core disciplines of radiation medicine: Radiation Oncology (R Bristow, L Fenkell, K Han, A Sahgal), Radiation Therapy (L Holden, K Tan), and Radiation Physics (L Chin, C Coolens). All faculty representatives had the opportunity to review the Statement in advance of its submission. The Faculty Statement is intended to reflect the faculty’s views and opinions regarding the strengths and weaknesses of the department.

Background

The UTDRO was established in January 1991; prior to 1991, Radiation Oncology was part of the Department of Medical Imaging. Dr. Fei-Fei Liu was appointed as the third UTDRO Chair in 2012; her second and final term will end in June 2021. Dr. Liu is also the Chief of the Radiation Medicine Program, Princess Margaret Cancer Centre; one of the four hospitals within the University Health Network (UHN).

The Odette and the Princess Margaret Cancer Centres are the two main academic institutions of UTDRO. Odette Cancer Centre is affiliated with Sunnybrook Health Sciences Centre (SHSC); Dr. Greg Czarnota was appointed Chief of Radiation Oncology, Odette Cancer Centre in 2013. There are three UTDRO faculty members in radiation therapy who are based at The Michener Institute for Applied Health Sciences (now called the Michener Institute of Education at UHN). The Michener Institute is affiliated with the UofT in offering a program in Medical Radiation Sciences (MRS); UTDRO assumed academic oversight for the Medical Radiation Sciences program in 2002.

At the time of the last Faculty Statement in 2011, UTDRO was amongst the largest academic radiation medicine departments worldwide with 147 faculty members. Since that time, the department has grown almost 30%, with 189 members now representing the professional disciplines of radiation oncology (95; 50% of total), radiation physics (53; 28%) and radiation therapy (35; 19%) as well as faculty holding positions as scientists or educators (6; 3%) (see Appendix 1.1). The growth of the department represents the successful recruitment of new
faculty in all of the radiation medicine professional disciplines. One quarter of the department obtained their appointments in the last 5 years whereas one half of the department has been appointed for more than 10 years. Note that UTDRO has 70% of its Faculty at the Lecturer or Assistant Professor level, and 30% as Associate and Full Professors (see Appendix 1.1). From 2011-2016, there have been 30 new appointments consisting of 6 (3%) Lecturers, 21 (11%) Assistant Professors, and 1 (<1%) Professor.

In the last 5 years, there has been a departmental record of successful academic career development with 14 academic promotions: 2 to Full Professor and 12 to Associate Professor. The academic development of radiation therapists and radiation physics is a tremendous opportunity for UTDRO, and non-physician faculty members have made significant research and educational contributions to radiation medicine locally, nationally and internationally. The scope and breadth of the academic profiles of non-physicians is a unique aspect of UTDRO within the radiation medicine community: 4 of the recent promotions from Assistant to Associate Professor were non-physician faculty members.

Since 2006, new community-based cancer centres have opened and started to treat patients with radiation therapy in the Greater Toronto Area (GTA). These centres include: the Carlo Fidani Peel Regional Cancer Centre (CFPRCC), The Simcoe-Muskoka Regional Cancer Centre (SMRCC), The Stronach Regional Cancer Centre at Southlake (SRCC), and Durham Regional Cancer Centre (DRCC). Several staff from these new cancer centres now hold UTDRO faculty appointments. As such, faculty members are geographically based at the Princess Margaret (90), Odette (67), Southlake (7), Carlo Fidani (14), Simcoe-Muskoka (3), Durham Regional Cancer Centres (1) and The Michener Institute (3). UTDRO engagement of these new centres creates opportunity for research collaboration, particularly recruitment to clinical trials and translational research programs. As well, UTDRO has established education and teaching relationships with the new community based cancer centres, including clinic rotations for residents at the Southlake Cancer Centre.

Salary support of UTDRO faculty employed at Odette and Princess Margaret Cancer Centres is entirely provided by the host institutions, almost exclusively through funding from the Ontario Ministry of Health and Long-Term Care. The majority of these clinician salaries are derived from a fee-for-service remuneration model. Research funding is derived from peer-reviewed grants, per case funding from cooperative groups, philanthropic contributions and industry contracts. The UTDRO has a small operating budget that is largely used for administrative purposes, and to support the Medical Radiation Sciences Program.

**Overview of Faculty Opinion**

This report builds upon discussion of previously identified strengths and weaknesses from data generated by the two town halls and the Faculty survey (80 respondents out of 189 faculty: 53 radiation oncologists, 18 physicists 10 radiation therapists and 5 educators). The diversity and interprofessional nature of the characteristics of the Faculty is a noted strength based on the survey and is summarized in Appendix 1.5.

Overall, the majority of Faculty felt that UTDRO has become stronger nationally and internationally in a number of areas including: multidisciplinary clinical care, research, and implementation of state-of-the-art radiotherapy techniques, discovery and implementation within
the physical and biological translational sciences, interprofessional research projects which include non-physician researchers, and intramural research communication and grant funding. More than 80% of Faculty felt that UTDRO ranks either highest (or at least above average) when compared to other international radiation oncology centres. The majority of Faculty felt that it was a best department for driven faculty who require minimal to moderate real-time mentoring, but align with specific strategic priorities. Since the last Faculty Statement, other areas of noted improvement within the department include: project-specific collaborations and infrastructure support between the Odette and the Princess Margaret Cancer Centres; leadership in technology development and adoption; leadership in local, national and international professional organizations; peer reviewed funding; physics and radiation therapy faculty contributions; continuing medical education and professional development; postgraduate training in radiation medicine; improved interprofessional collaboration and academic diversity. Faculty noted that the UTDRO houses multidisciplinary and interprofessional interactions on a daily basis within the major centres with individuals who have leadership roles at the national and international levels.

In 2014, UTDRO completed a strategic plan, Roadmap to 2017. This plan has been highlighted a number of times by the Chair including presentations at UTDRO Rounds and the 2015 UTDRO Annual Research Day. Overall, the Faculty was highly aware regarding this strategic plan. The majority (>50%) of Faculty identified with the goals and priorities of the strategic plan, and some felt these were already underway within the department.

A majority also felt that joint UTDRO Rounds and the UTDRO Research Day were important components of the academic goals set by the department and the Chair. The Target Insight and RTi3 meetings also contributed to the common academic goals within UTDRO. In the last 5 years, these events introduced new concepts and programs within the Faculty that have generated novel opportunities and potential research capabilities for Faculty. There is great interest in collecting and utilizing “Big Data” from diagnostic and planning imaging studies for use in radiomics, and realizing the benefits of novel inter-departmental collaborations to pump prime new areas of research such as those with the Department of Physics and the Department of Engineering and Biomaterials at UofT. This includes access to interdisciplinary trainees such as summer students and co-op students. The majority of Faculty also noted the strength and calibre of our residents and fellows who come from varied research backgrounds; enhancing the scope of research within the Department.

There was enthusiasm for the new Collaborative Research Seed grants enacted by the new Chair, which foster collaboration between Odette, the Princess Margaret, Stronach as well as the Simcoe-Muskoka Cancer Centres. In particular, these grants ($100,000/year for joint studies between the two major sites in UTDRO) are now operational, and have successfully brought together researchers from both centers, driving forward strong collaborations (e.g. a joint UTDRO gyne-oncology project). Overall, the Faculty believed that there were increased opportunities for collaborations within UTDRO (e.g. seed grants, intramural meetings such as Target Insight), and that increased collaborations between the centres would render the UTDRO a world leader in technology development and translational research. There was also a desire to continue to develop opportunities to collaborate through state-of-the-art technologies across centres and in the realm of personalized medicine and genomics.
The most improved aspects of the UTDRO over the recent 5 years included a perception of increased international profiles, research productivity and extramural funding of both individual Faculty and highly-developed, interprofessional teams. It was also noted that translational biology research had been highlighted, and productivity in this space had also increased at an international level. Most faculty also felt that there was now better interaction with the UTDRO office as well as increased communication within the department. Further strengths of the UTDRO included high quality prospective clinical research, the multi-disciplinarity of the department with unique opportunities for radiation therapy research and career development, and the diversity of Faculty in which comprehensive research projects could be designed with state-of-the-art clinical care models to lead internationally in the areas of research and education.

There were no weaknesses that were perceived by the majority of Faculty to be worse over the last 5 years. Some members felt that some of previously identified weaknesses were either unchanged, or they were unsure whether there had been any improvement in areas such as orientation and mentorship of junior faculty, UTDRO administrative support for joint grants, joint clinical and imaging databases for collaborative research and the unknown direct role and impact of UTDRO on research activities given that funding from UTDRO is low.

Below are some of the highlights from the Faculty survey listed as strengths, weaknesses and opportunities.

**Details of Strengths and Achievements**

**Faculty Leadership**

There was a feeling of tremendous research and teaching opportunities and many academic and research opportunities for junior and senior Faculty. Faculty reported that they felt it was the best national environment to advance an academic career in radiation oncology, and that the Odette and Princess Margaret Cancer Centres remain the top two academic cancer centres in Canada.

- More than 60% of respondents felt that UTDRO is a good place to develop and enhance a career in radiation oncology, and a similar percentage would recommend a Faculty appointment within the UTDRO to friends and colleagues
- There is broad membership and engagement of UTDRO faculty in professional, education and research organizations as a platform for leadership opportunities
- The Faculty hold major provincial, national and international professional organization leadership positions. Highlights of positions held between 2011 and 2016 by UTDRO faculty:
  - Padraig Warde: Provincial Head, Radiation Treatment Program, Cancer Care Ontario (CCO)
  - Michael Milosevic: Chair, Canadian Partnership for Quality Radiotherapy (CPQR)
  - David Wiljer: President, American Association of Cancer Education (2013)
  - Mary Gospodarowicz: President, Union for International Cancer Control (2012-2014)
- Faculty also show strong research organization leadership (Chairs)
  - National, International and Co-operative Groups e.g. CCTG, NRG, NCI (US)
  - Site-Specific Research Groups e.g. NRG, Children’s Oncology Group, Gynecologic Cancer Intergroup
- Grant review panel leadership
- Scientific advisory boards

- Strong educational organizational leadership at Odette and Princess Margaret Cancer Centres Local, provincial, national and international courses, conferences and workshops

- Major Recognition/Awards:

  **2011**
  - David Jaffray: James A. Purdy Lectureship (Washington University School of Medicine)
  - Normand Laperriere: D’Angio Lecture at the 43rd Congress of the International Society of Paediatric Oncology
  - Kieng Tan: Philips Award, Certificate of Merit (CAMRT)
  - Angela Turner: E.I. Hood Essay Award (CAMRT)
  - Bradly Wouters: Klaas Breur Gold Medal Award (ESTRO)

  **2012**
  - Rob Bristow: Picchione Visiting Scholar Award (Dalhousie Medical Research Foundation)
  - Rob Bristow: John Ferguson Hero Award (PCC Research Strategy, Prostate Cancer Canada)
  - Fei-Fei Liu: Gordon Richards Lecture (CARO)
  - Fei-Fei Liu: Women of Action (Israel Cancer Research Fund)
  - Mary Gospodarowicz: May Cohen Award for Women Mentors (Canadian Medical Association)
  - Mary Gospodarowicz: Honorary Fellow (Royal College of Surgeons of Ireland, Faculty of Radiologists)
  - David Wiljer: CAMRT E.I. Hood Essay Award

  **2013**
  - Jean-Pierre Bissonnette: Fellow of Canadian Organization of Medical Physicists (FCOMP) Award
  - Mary Gospodarowicz: Lifetime Achievement Award (ESTRO)
  - Arjun Sahgal: Best of ASTRO Award
  - Michael Sharpe: Editor in Chief Award of Excellence (AAPM)

  **2014**
  - Two 2014 Terry Fox New Frontiers Team grants worth a total of $8.6M for research in ultrasound and MRI as well as research around hypoxia-directed precision cancer medicine
  - Alejandro Berlin: Merit Award (The Conquer Cancer Foundation of ASCO)
  - Mary Gospodarowicz: ASTRO Gold Medal
  - David Jaffray: Fellow of COMP Award (Canadian Organization of Medical Physicists)
  - Brian O’Sullivan: Roentgen Ray Lecture (Fox Chase Cancer Centre)
  - Jolie Ringash: Best of ASTRO Award
  - Eric Tseng: Best of ASTRO Award

  **2015**
  - Rob Bristow: Top 10 Research Discovery in 2015 (CCSRI)
- Mary Gospodarowicz: Officer of the Order of Canada
- Michael Milosevic: Gordon Richards Lecture, Targeting Cancer at the Biology Technology Interface (Canadian Association of Radiation Oncology)
- Michael Sharpe: Fellow of the American Association of Physicists in Medicine

2016
- Charles Catton: Best of ASCO Award
- Meredith Giuliani: Young Leaders Award (CMA)
- David Jaffray: Fellow of the American Association of Physicians in Medicine
- Fei-Fei Liu: Ted Phillips Distinguished Speaker (University of California San Francisco)

Leadership in Technology Development and Adoption

There are a number of areas in which UTDRO faculty expressed enthusiasm for national and international leadership using the technologies of SBRT, MR-Linac, adaptive radiotherapy and integration of HDR Brachytherapy into external beam radiotherapy programs. Particular interest was in generating delivery of state-of-the-art MR-based treatments including MR-Linac projects

- Technology developments in: a) State-of-the-art imaging and radiation treatment delivery infrastructure as a platform for innovation; b) Leadership in research, development, education and adoption of new technology; c) Image-guided radiotherapy with tomotherapy and cone-beam CT IMRT
- Active involvement and leadership in development of evidence-based IMRT provincial guidelines (CCO Program in Evidence-Based Guidelines)
- Active involvement in CCO-sponsored IMRT implementation ‘coaching’ of provincial cancer centres

- Physics
  - Strong physics research, clinical and education leadership
  - Successful major program funding
  - Strong interdisciplinary research collaboration
  - Patent and commercialization success

- Quality Assurance and Radiation Therapy Standards Implementation
  - Provincial leadership in quality initiatives - CCO Radiation Program Quality Physics Lead
  - National leadership in quality initiatives - Canadian Partnership for Quality Radiotherapy (CPQR)
  - National organizational leadership in quality themed Continuing Medical Education – Canadian Association of Medical Physicists (COMP) Winter School in Quality and Safety in Radiation Oncology
  - Canadian Partnership against Cancer (CPAC) Treatment Guidelines

Research: Clinical, Physics and Biology

- There are diverse research programs in technology development and implementation, basic and translational biology, evaluation of biologic response modifiers with radiotherapy, palliative radiation therapy, brachytherapy, quality of life, health services research and clinical trials (see Research)
• Competitive national and international peer-reviewed grant funding including major program support e.g. STTARR, Terry Fox Program Projects in hypoxia and ultrasound therapy, International Cancer Genome Consortium (ICGC), Ontario Consortium for Adaptive Interventions in Radiation Oncology, Electronic Living Lab for Interdisciplinary Cancer Survivorship Research (ELLICSR), and Canada Foundation for Innovation (CFI) funding for a dedicated MR-guided radiation therapy (MRgRT) facility

• Increased publication productivity

• Competitive nationally and internationally in the recruitment of clinical fellows and other research trainees

• UTDRO faculty supervision of students, residents and fellows with post-graduate research degrees leading to training of the next wave of researchers with increased productivity

• A perceived strength of the UTDRO is the large amount of data (“Big Data”) that has been collected as clinical, imaging and recently genomic databases; particularly at the larger institutions (Odette and Princess Margaret Cancer Centres). Faculty felt that if the UTDRO could implement a way to access these data across institutions and better harmonization of the databases; this would be an extraordinary resource for intramural and extramural research, with increased UTDRO collaborations and scientific productivity. Centres outside of the two major centres are enrolling patients in clinical trials and there was excitement that this could drive large databases and these data need to be captured.

• UTDRO Collaborative Research Seed grants between the two major centres for collaborative projects is an initiative that has great promise and enthusiasm within the Faculty

Intramural and Extramural Education

• Continuing Medical Education (CME)
  - Leadership in radiation medicine Continuing Medical Education through site-specific and thematic courses
  - Target Insight (in collaboration with Cancer Care Ontario)
  - RTi3: Radiation Therapy Conference
  - AEP courses
  - Monthly rounds with provincial participation via videoconferencing
  - Continuing Medical Education themed publications

• UTDRO has the largest post-graduate radiation oncology training program in Canada, with consistently high pass rate in the Royal College of Physicians and Surgeons of Canada (RCPSC) specialty licensing examinations

• Largest radiation oncology fellowship program in Canada, with between 15 and 30 trainees annually distributed between Odette and Princess Margaret Cancer Centres. Graduates of the programs have leadership roles in radiation oncology centres world-wide

• Graduate degree MSc and PhD programs in Radiation Sciences, through the University of Toronto, Institute of Medical Sciences (IMS). Several faculty members from Odette and Princess Margaret Cancer Centres are cross-appointed to IMS

• Excellence in Radiation Research for the 21st Century (EIRR21), a CIHR-sponsored program to train the future leaders in radiation medicine research in an interactive, multidisciplinary and collaborative environment
The Michener Institute of Education at UHN provides a unique academic and educational focus for the radiation therapists who are appointed to UTDRO

The professional master’s degree program – MHSc Medical Radiation Sciences is the first of its kind in North America for radiation therapists

Recently combined UTDRO Clinical Physics residency program at Odette Cancer Centre, Princess Margaret Cancer Centre, Carlo Fidani Peel Regional Cancer Centre, and Durham Regional Cancer Centre

Strong commitment to innovative patient, family education and programs in survivorship; e.g. Electronic Living Lab for Interdisciplinary Cancer Survivorship Research (ELLICSR), a collaborative space for health, wellness and cancer survivorship research, opened June 6, 2010.

The RTi3 meeting that has increasing international recognition for showcasing research within radiation therapy

Interprofessional/ Interdepartmental Expertise and Collaboration

- Interdisciplinary collaboration in research and education activities
- Interdisciplinary research productivity; meeting presentations; publications; peer reviewed grant funding; research awards
- Faculty noted novel and stronger collaborations with other University departments such as the Department of Physics and Department of Engineering and Biomaterials. This has led to new scientific collaborations and grant captures, including access to trainees, such as summer students and co-op students.

Weaknesses and Challenges for the Future: Prospective Opportunities

Collaboration between Odette Cancer Centre and Princess Margaret Hospital

Optimal collaboration and joint grants between Odette and Princess Margaret Cancer Centres continues to be an identified challenge among some UTDRO faculty. Faculty members acknowledged that there are now more disease-site specific academic collaborations between the two institutions; one was in the form of a Seed Grant. Also, faculty identified the potential for more collaboration between the two centres that will increase the scope of UTDRO research portfolio beyond the existing complementary research programs at the two institutions. The drivers and champions of increased collaboration will be the newer generation of UTDRO investigators, and the UTDRO Chair should continue to foster these future collaborations. However, unique differences in hospital governance, research agendas and institutional research infrastructure continue to hamper larger scale research collaboration and this will continue to be a challenge for UTDRO.

The relationship between Odette and Princess Margaret Cancer Centres has improved over the past decade; but an active and real time strategies are still required to continue to engage faculty in joint UTDRO activities.

The Radiation Oncology training program integration has improved with the Clinical Physics residency program combined at Odette and the Princess Margaret Cancer Centres through its formal association with UTDRO.
Faculty also noted that many within UTDRO are interacting within the department solely through educational events, rather than collaborative projects within tumour site groups or shared databases. Given the reduced funding overall for clinical trials in Canada, there is a desire to explore clinical trials under the umbrella of UTDRO between the two major sites, which could be an opportunity worthy of further exploration.

**Faculty Development**

- Survey responders felt that mentoring of junior staff across all centres in the UTDRO was adequate or unchanged over the last 5 years; this should be improved to maximum potential of new recruits
- New staff orientation was noted to be either lacking or non-existent by some faculty in the last report. However, since 2009, new faculty now meet with the UTDRO administrative office and the Chair to discuss expectations of their academic appointments and administrative matters such as schedules, award/grant opportunities for new staff, and information regarding UofT services. The UTDRO orientation process should be reviewed to ensure that it is meeting the needs of the new faculty
- Research-based radiation therapists felt that it can be difficult to obtain dedicated research time away from clinical practice/duties due to current models of clinical practice. Radiation therapists currently identify with their home centre rather than with UTDRO. At present, radiation therapists do not always feel that they can take advantage of the breadth of collaborations between the two major centres

**UTDRO Enhancement of Academic Productivity**

- Faculty members acknowledge the importance of UTDRO in advancing their academic career, specifically for academic promotion. However, some faculty felt that their research was more tightly linked with their own institutional identity rather than to UTDRO given the importance of institutional research infrastructure and lack of infrastructure research support from UTDRO
- During the town halls, Faculty recognized the need for greater financial resources to be made available to the UTDRO Chair for collaborative projects that can enhance productivity across the centres; the Collaborative Seed Grants were seen as an excellent new addition to trial projects between the two centres. Within this concept is the need for new models of protected time for physicists and radiation therapists for scholarly and research activities.
- A point made by the medical physicists at the Princess Margaret Cancer Centre is that they do not have access to graduate students. Summer students only stay for a short time, and medical physics resident trainees have education demands that do not always allow time for research. At the Odette Cancer Centre, there is access to graduate students by cross-appointment to Ryerson University. Such a model could be explored by the Chair for the Princess Margaret Cancer Centre to increase academic productivity.
- The Faculty noted a strong need to develop a means for real time communication within UTDRO to understand ongoing collaborative research projects and interests, awarded grants, and research interests across centres. The UTDRO website was noted to have been improved for some real time content but there was a wish for regular emails or posts on the website of
research interests to optimally stimulate research interactions and collaborative research questions.

Overall Summary

Based on two town halls and a Faculty wide survey, UTDRO faculty members felt that the department has become stronger over the past 5 years. Some of these strengths can be linked to new initiatives by the new Chair such as: joint seed grants, academic courses, meetings and Research Day, and the perceived potential of the department for new advancements in the disciplines using MR technology, big data and genomics, and novel educational curricula and delivery. Importantly, Faculty are very positive about their academic career within UTDRO with its international prominence in relation to other academic radiation oncology departments. The Faculty felt that they were in a positive research environment enabling productivity in publications and ability to compete for grants. There is a positive outlook for the future in which UTDRO is uniquely positioned to take advantage of many opportunities in the field of precision oncology and radiation medicine; academic and professional leadership across multiple disciplines; interprofessional education programs; and leadership in treatment technology and translational biology research.
Academic Programs

UTDRO is the academic home to a comprehensive range of training programs in radiation medicine, where the mission is to train the leaders of tomorrow. For the practicing professional, continuous medical education offerings are provided through multiple formats with a strong focus on interdisciplinary learning. As a result of the 25 years of cumulative training of residents and fellows, UTDRO has an alumni network of 2000+ members, spanning across the country and the world, shaping the practice of radiation medicine globally.

The six pre- and post-certification professional training programs include:

1. A joint BSc and Advanced Diploma in Radiation Therapy, Radiological Technology, and Nuclear Medicine and Molecular Imaging Technology in Medical Radiation Sciences (MRS)
2. Postgraduate residency in radiation oncology
3. Postgraduate medical physics residency
4. Fellowship in radiation oncology
5. MScHSc in medical radiation sciences (radiation therapy)
6. STARS21 (formerly EIRR21), a research capacity building program in radiation research first initiated in 2003 funded through a Canadian Institutes of Health Research (CIHR) grant, sustained and expanded in 2015 through a Terry Fox Foundation Grant.

Our faculty also contributes significantly to the UofT undergraduate medical education curriculum. In addition, through cross appointments to multiple UofT graduate departments including Medical Biophysics, Dana Lana School of Public Health, Institute of Health Policy, Management and Evaluation (IHPME), Institute of Medical Science (IMS), and Institute of Biomaterials and Biomedical Engineering (IBBME), our faculty provides supervision to MSc and PhD candidates in radiation medicine, medical biophysics and clinical epidemiology. UTDRO also offers an annual 1-week long clinical and experimental radiobiology course taught by both local and international faculty. Designed for trainees and practicing professionals, it is a unique Canadian resource, relied upon to fulfill the radiobiology training requirements for most Canadian radiation oncology training programs.

Our continuous medical education program includes offerings using different formats designed to reach our peers nationally and internationally. There are two annual scientific conferences for external audiences, Target Insight and RTi3. Target Insight highlights new developments in radiation medicine with a special focus on integration with our practice community. RTi3, now in its 13th year, has become the Radiation Therapy Conference of choice, commanding between 150 and 180 participants from across the country and around the world annually. At the PM Cancer Center, under the auspices of the Accelerated Education Program, there is an intensive interactive workshops (1-3 days) focus on ahead-of-the-curve practice topics; and there is also a newly-developed Executive Personalized Learning Program (3-6 months) that allows visiting scholars to observe and become immersed in the PM Cancer Center practice culture and environment. The UTDRO Evening Journal club, another new initiative, takes place three times per year, providing a forum to highlight active collaborations and their impact across UTDRO.
UTDRO Strategy to Enhance Education

In the preceding years, the UTDRO educational strategy has been focused on five areas of developing leaders, introducing enriched streams and inter-professional practice into training programs, building a robust continuing education program, extending depth and scope of radiation sciences skills (with a focus on imaging literacy), and establishing a radiation oncology Clinician Scientist program (*The Transformative Agenda 2010*). In 2014, UTDRO completed a “Taking Stock” survey which indicated that the most significant progress was made in continuing education; the least was in developing oncology leaders. In the new Strategic Plan *Roadmap to 2017*, specific strategies were refined, including:

1. Foster mastery in teaching through faculty and trainee development in education pedagogy, with provision of timely evaluation and feedback
2. Closing the gaps in training, delivery and skills between different stages of training through adoption and implementation of competency-based radiation oncology residency training
3. Introducing of streaming, subspecialty, and enriched training
4. Evolve existing programs to reflect the inter-professional clinical care environment
5. Engage the learners in the creation and delivery of curriculum
6. Extend education reach, efficiency and effectiveness through continuous improvement of existing offerings, building partnerships, distribution capacity, and learners networks.

Each of these strategies has been actively pursued and is expected to advance the UTDRO strategic aspiration “to be known as the educator of choice internationally for radiation medicine professionals and researchers”.

Faculty

There is broad engagement in education across the department wherein >80% of faculty provide teaching hours in the undergraduate curriculum; and participating in the education of resident and fellowship training. In 2016, UTDRO faculty consisted of 95 radiation oncologists, 53 physicists and 35 therapists, with 31 Full Professors, 26 Associate Professors, 86 Assistant Professors as well as 34 Lecturers and 12 Instructors. Special note is made of the growing depth of expertise among radiation therapists; the promotion of Tara Rosewall to the rank of Associate Professor is a Canadian first, and 10 radiation therapists now hold academic ranks of Assistant Professor.

The high caliber of UTDRO faculty is corroborated by external educational awards bestowed upon our member and programs. Some highlights include the Canadian Medical Association (CMA) Award for Young Leaders (Meredith Giuliani 2016); the American Association of Physicist in Medicine (AAPM) - Innovation in Medical Physics Education Award 2016 (Marco Carlone, Nicole Harnett); and the American Association of Cancer Education Margaret Hay Edwards Achievement Medal in 2014 (the late Pam Catton).

External world class faculty are also invited on a regular basis to enrich the depth and breadth of UTDRO educational offerings, and is integral to the UTDRO strategy of curriculum design for Annual Conferences, the Radiobiology Course, as well as the Accelerated Education Program courses. Examples include Dr. Anita Mahajan (MDACC; 2014); Dr. Steve Hahn (University of...
Pennsylvania; 2014); and Dr. Bert van der Kogel (University of Wisconsin (2012-2016), to name a few.

**Challenges and opportunities**

UTDRO has faculty across six geographic sites which creates some challenges in communication, and collaboration both for its faculty and trainees. While it is recognized that introduction of the discipline of radiation medicine into undergraduate medical training is one of the most effective ways of attracting talented candidates, the relatively small faculty size creates pressure on the ability of UTDRO to drive engagement at all levels of training. Time pressure and competing research, clinical and administrative demands limit the amount and breadth of faculty development in the area of pedagogy.

Such challenges also bring opportunities for innovation. The multiple geographic sites translate into increased capacity and opportunity for our trainees to gain experience across a diverse practice setting (academic and community-based). The recent (2016) integration between UHN and Michener Institute to form the Michener Institute of Education at UHN provides opportunities to align resources and enhance existing and potential future educational offerings. International engagement also creates training opportunities to build global capacity in radiation medicine. Strategic alliance with careful and thoughtful planning would be expected to provide the greatest yield. Key collaborations under development include radiation therapy training in Ethiopia through the Toronto-Addis Ababa Academic Collaboration (TAAAC), select African countries including Kenya and Ghana, Jordan in the Middle East, as well as China in Asia.
Medical Radiation Sciences Program

University of Toronto Department of Radiation Oncology (UTDRO) is committed to building capacity in research and professional expertise among all radiation medicine professional groups. In the recent decade, it has become evident that the role of the radiation therapist is rapidly changing, evolving and growing within the radiation medicine enterprise. In order to maximize the potential of this professional group, UTDRO embarked on a long-term higher education strategy targeting medical radiation technology at the undergraduate pre-certification, and postgraduate post-certification levels, in collaboration with other academic organizations, government, and leaders of the profession.

The undergraduate BSc/Advanced Diploma in Medical Radiation Sciences (MRS) was implemented in 1999, and until the University of Alberta’s BSc Radiation Therapy Program was launched in September 2014, the MRS Program was unique in Canada. A second-entry professional program, the MRS is built on a strong collaboration between the Faculty of Medicine, University of Toronto (UofT) and the Michener Institute for Applied Health Sciences (Michener)\(^1\). This special partnership combines the strengths of the two institutions and makes full use of their complementary resources and expertise to offer both a BSc Degree (UofT) and an Advanced Diploma in Health Sciences (Michener). This collaboration has contributed to the exceptional level of program integration for the education of all three medical radiation science disciplines: radiological technology, nuclear medicine and molecular imaging technology and radiation therapy. In 2002, UTDRO assumed academic oversight for this program within the Faculty of Medicine.

The current Joint Program Agreement between U of T and Michener was renewed in 2015, and is valid through to February 29\(^{th}\), 2020.

\(^1\) As of January 1\(^{st}\) 2016, the Michener Institute for Applied Health Sciences integrated with the University Health Network (UHN) becoming The Michener Institute of Education at UHN
Program Objectives

The objectives of the MRS Program as highlighted in the agreement are to:

- Deliver a leading Medical Radiation Sciences Program
- Continuous improvement with a view towards innovations in the curriculum
- Provide opportunities for faculty cross-appointments and collaborative pedagogical activity
- Encourage development of joint research opportunities
- Prepare students for tomorrow’s professional practice, for future leadership roles and graduates who pursue advanced degrees

Program Governance

The Joint Strategic Executive Committee establishes the overall strategic direction of the MRS Program, a joint degree/diploma program between the University of Toronto (The University) and The Michener Institute of Education at the University Health Network. Primary responsibilities are to:

- Develop the long-term strategy for the MRS Program; appreciating the strategic directions of both The University and the Michener
• Ensure the implementation of the MRS Program Strategic Plan (Collaborative Program Renewal)
• Monitor the progress of the MRS Program Strategic Plan (Collaborative Program Renewal)
• Generate and deliver an annual MRS Program Report to institution specific committees
• Address future capital needs and resources for the MRS Program

Membership

University of Toronto Representation
• Vice Dean, Undergraduate Medical Education, Faculty of Medicine
• Chair, Department of Radiation Oncology
• Academic Director, MRS Program

Michener Institute of Education, UHN
• Executive Vice-President, Education
• Senior Director, Academic Programs
• Senior Director, Applied Education Research

Joint Department of Medical Imaging, UHN
• Radiologist in Chief, Joint Department of Medical Imaging
• Chief of Education, Joint Department of Medical Imaging
• Executive Director, Joint Department of Medical Imaging
• Clinical Director, Joint Department of Medical Imaging

Admission Requirements

The MRS program has been designed to accommodate up to 114 students per cohort year; 40 in Radiological Technology, 24 in Nuclear Medicine and Molecular Imaging Technology, and 50 in Radiation Therapy. The Nuclear Medicine and Molecular Imaging Technology stream is the only such education program in Ontario.

Academic Requirements

Applicants must have a minimum of one year (5 full-year courses) of university education with a cumulative Grade Point Average (GPA) of B- including one full course in each of the following:

• Biology
• Mathematics
• Physics
• Chemistry (Grade 12U-level or OAC level – for Nuclear Medicine and Molecular Imaging Technology only)
• English Language Proficiency as per Enrollments Services, University of Toronto
Non-Academic Requirements

Applicants who meet the academic requirement are invited to a Multiple-Mini Interview (MMI) wherein a series of timed mini-interview stations need to be completed as well as response to a scenario or question.

Table 1: Current MRS Student Enrollment

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>Radiological Technology</th>
<th>Nuclear Medicine</th>
<th>Radiation Therapy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 2014 (2011)</td>
<td>32</td>
<td>22</td>
<td>45</td>
<td>99</td>
</tr>
<tr>
<td>Class 2015 (2012)</td>
<td>38</td>
<td>0</td>
<td>49</td>
<td>87</td>
</tr>
<tr>
<td>Class 2016 (2013)</td>
<td>32</td>
<td>0</td>
<td>42</td>
<td>75</td>
</tr>
<tr>
<td>Class 2017 (2014)</td>
<td>37</td>
<td>13</td>
<td>29</td>
<td>86</td>
</tr>
<tr>
<td>Class 2018 (2015)</td>
<td>37</td>
<td>22</td>
<td>43</td>
<td>102</td>
</tr>
</tbody>
</table>

*As of May 30th 2016

Structure of the Program

This four year interprofessional degree is delivered over a three calendar year period; comprised of didactic, simulated and clinical courses. The integrated three-year curriculum aims to provide students in each of the three disciplines a core curriculum of broadly based theoretical and analytical foundation along with discipline-specific courses and clinical practice activities for their professional responsibilities.

The program provides breadth and depth of knowledge and develops analytical, critical and evaluative skills. Professional values, responsibility, accountability, sensitivity and ethical attitudes towards both the patients and the health care community are emphasized. Students learn to evaluate and consider the implications of their professional actions. The clinical practicum components integrate and apply the materials taught in lectures and labs, leading to the development of clinical competence. Each student is required to complete a minimum of 42 weeks of full-time clinical practice.

The curriculum emphasizes critical thinking, evidence-based practice and problem solving in the belief that these attributes play a crucial role in the optimal delivery of health care in today’s evolving health care environment. UTDRO has academic oversight of 50% of the curriculum, in particular the majority of the Radiation Therapy stream, and the clinical courses for the Nuclear Medicine and Molecular Imaging Technology and Radiological Technology streams.

Courses delivering knowledge and imparting skills required in common by all three disciplines comprise the core curriculum and include instructions in anatomy, clinical behavioural sciences, inter-professional collaboration, patient care, physiology, relational anatomy and in particular, an elective research methods course is available to students with an excellent academic record. A Departmental Research Prize is awarded to the student with the highest grade in this course. Students in each discipline also undertake sets of courses focused on discipline specific material, including interprofessional courses that focus on communication, collaboration, leadership, and
professionalism, an integrated imaging course for all three disciplines, a clinical simulation semester, with shortening of the clinical practical experience by the equivalent time. Clinical practice and experiences at the affiliated hospital sites are specific to the discipline.

The Nuclear Medicine and Molecular Imaging Technology (NMMIT) stream underwent a major curricular change in 2013. Over the academic year of 2013-2014, following a two-year suspension to the stream in February 2012, the program devoted significant resources and time to the redesign of the NMMIT stream. This redesigned NMMIT stream was launched in September 2014, with the first cohort due to graduate in April 2017. The main features of the redesigned NMMIT program allow students to build competency as they progress through the program and include:

- Hybrid delivery model in both asynchronous and synchronous learning environments (live, tutorial, simulation and lab work)
- Integrated program design with common content threads and competencies interwoven across courses and learning environments
- Earlier clinical experiences with three 4-day clinical placements being introduced into the 4th and 5th semesters of the program
- Case-based learning to encourage critical inquiry and problem solving abilities

Please see Appendix 2.2 and Appendix 2.3 for more detailed description and information.

**Quality Indicators**

**Graduates**

**Attrition**

Overall attrition from the MRS Program is very low, with rates for the last five years being less than 10%. Using the Class of 2015 as an example, which started with a total cohort size of 97 in the fall of 2012:

- 83% of students completed the program in the allotted 32 months of study
- 11% of students required a modification to the length of their studies
- 6% discontinued the Program

**National Certification Results**

Upon graduation and to be eligible to practice in Canada, MRS students must sit a national examination. The examinations are held three times a year in January, May and September. The following Table highlights the examination results for the last four years (a total of all three writes of the examination).
Table 2: National Examination Results

<table>
<thead>
<tr>
<th>Year</th>
<th>Radiological Technology (%)</th>
<th>Nuclear Medicine (%)</th>
<th>Radiation Therapy (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>95 (91)</td>
<td>87 (88)</td>
<td>75 (73)</td>
</tr>
<tr>
<td>2013</td>
<td>100 (90)</td>
<td>88 (84)</td>
<td>97 (90)</td>
</tr>
<tr>
<td>2014</td>
<td>81 (90)</td>
<td>95 (86)</td>
<td>90 (92)</td>
</tr>
<tr>
<td>2015</td>
<td>92 (88)</td>
<td>100* (98)</td>
<td>87 (82)</td>
</tr>
</tbody>
</table>

*N = 1

These data indicate the % of students successful on the first write of the exam; percentage in parenthesis indicates the national average.

Employability

The program does not have rigorous data on how many or where the graduates are gaining employment. Traditionally, graduate surveys had extremely poor response rates; hence the surveys were discontinued.

Faculty

Didactic Teaching

Throughout the MRS program, curriculum content is delivered by over 50 discipline-specific faculty at Michener, clinical faculty, content experts from various fields of specialty, including oncology, physics, therapy, imaging and allied health professional practitioners.

Students complete faculty evaluations on all individuals invited to participate in teaching for the MRS Program. The Teaching Effectiveness Scores (TES) are calculated each year, and at the Annual General Meeting of the Department of Radiation Oncology, the faculty with the highest TES is recognized with an award.

The overall Teaching Effectiveness Score for 2014/2015 was 4.1 out of 5.0, with several faculty/invited lecturers scoring 4.7 or more.

Table 3: Teaching Effectiveness Scores (2011-2015)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5</td>
<td>4.4</td>
<td>3.8</td>
<td>4.1</td>
<td>4.1</td>
</tr>
</tbody>
</table>
Clinical Teaching

There are opportunities for MRS students to recognize their clinical teachers in the various institutions with which they are affiliated. Students are encouraged to nominate exceptional clinical teachers through awards at their clinical placement sites, Michener and the University of Toronto.

Through a new online evaluation process, accessed through the Michener intranet, students are also encouraged to evaluate the clinical placement site as well as clinical teachers, generating more quantifiable data.

Student Awards/Funding and Support

Students registered in the MRS Program are eligible to apply for several awards, bursaries and scholarships administered by both the University of Toronto and Michener.

Michener Awards and Scholarships

Michener has established a robust awards and scholarship program over the years, with contributions from individuals and industry. Some awards are granted based on the discipline while others are open for general application/nomination. The awards can be categorized as:

- Discipline specific awards
- Entrance scholarships
- Clinical Scholarships
- Industry scholarships
- Named awards
- Michener President’s Award
- Michener Alumni Award

University of Toronto Student Financial Assistance and Awards

Students registered in the MRS Program are eligible to receive full Ontario Student Assistance Program (OSAP) and University of Toronto Advance Planning for Students (UTAPS), which are administered through Enrollment Services, University of Toronto. The MRS Program is committed to supporting students for their success including ensuring that no student is economically disadvantaged. In addition to OSAP and UTAPS, students have access to the MRS Bursary; 173 students received OSAP funding for 2014/2015.
### Table 4: Financial Assistance and Awards Received by MRS Students by Year

<table>
<thead>
<tr>
<th></th>
<th>2011-2012 ($)</th>
<th>2012-2013 ($)</th>
<th>2013-2014 ($)</th>
<th>2014-2015 ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSAP</td>
<td>3,084,968</td>
<td>3,220,477</td>
<td>3,060,851</td>
<td>2,701,323</td>
</tr>
<tr>
<td>UTAPS</td>
<td>138,100</td>
<td>260,400</td>
<td>258,400</td>
<td>319,457</td>
</tr>
<tr>
<td>Bursary</td>
<td>87,988</td>
<td>84,300</td>
<td>84,500</td>
<td>70,200</td>
</tr>
<tr>
<td>Disability grants</td>
<td>14,000</td>
<td>12,000</td>
<td>18,000</td>
<td>4,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,325,056</strong></td>
<td><strong>$3,577,177</strong></td>
<td><strong>$3,421,751</strong></td>
<td><strong>$3,094,980</strong></td>
</tr>
</tbody>
</table>

### Accreditation

The Canadian Medical Association (CMA) is the accrediting body for the MRS Program, which was successfully granted a 6-year accreditation status (the maximum) in all three streams until 2019.

In January 2013, in concert with the CMA Accreditation survey, the MRS Program undertook the University of Toronto Quality Assurance Process (UTQAP). On April 1st, 2014, the UTQAP review summary, the Chair’s response and the Dean's response were presented to the Committee on Academic Policy and Programs of Governing Council and were favorably received (see Appendix 2.4).

Additionally, the Canadian Association of Medical Radiation Technologists (CAMRT) has issued a new professional Competency Profile for each of the three disciplines. Over the summer of 2014, the program faculty mapped the curriculum to the new competency profile which came into effect for the 2015 incoming cohort. The supporting documents demonstrating that the MRS program has successfully mapped the competencies were submitted to the Canadian Medical Association in May 2015; ensuring that all disciplines remained in full compliance with accreditation requirements.

### Challenges/Opportunities and Future Directions

#### Admissions and Enrollment

Enrollment to the MRS Program continues to be a strategic focus for UTDRO leadership, and several different strategies are currently being explored and implemented. A closer link to the Registrar’s office at the Faculty of Medicine has provided additional recruitment tools, such as Calling Campaigns, prospective UofT student communication tool – Hobsons, and access to the UofT International recruitment team. A review of our academic entrance requirements (pre-requisites) is underway, to determine appropriateness of the requirements in a changing applicant demographic. A social media presence on Facebook, introduced in 2015, continues to gain momentum, and potential prospects are using this forum to seek information regarding the Program. The entire admissions process has been and continues to be streamlined to provide a more coordinated approach between the University and Michener – focusing on improved customer service.
**Enhanced Involvement of Medical Imaging**

The Joint Department of Medical Imaging (JDMI) at University Health Network (UHN) is keen on collaborating with the MRS Program formally to develop an innovative and progressive curriculum. Leadership from JDMI has been key contributors to the revised Governance Structure further stimulated by the recent merger (January 1st, 2016) between UHN and Michener, forming the Michener Institute of Education at UHN.

**Rapidly Changing Practice**

Maintaining and delivering a curriculum that is relevant to practice in professions that are rapidly changing is a challenge. Changes to the practice of nuclear medicine for example due to the recent isotope shortage resulted in the suspension of that stream for two years while a major curriculum redesign was undertaken. Planning for a major curriculum renewal for both the radiological technology and the radiation therapy streams is currently in the early stages, and involvement from JDMI is crucial. One on-going concern relates to the ability of the didactic faculty at Michener to remain current. With the recent integration between Michener and UHN, this concern is considered a high priority.

**Accreditation**

In January 2016, the CMA announced that following an extensive review it “…will divest itself of responsibility for assessing and accrediting health education programs within the next 24 months.” The Canadian Association of Medical Radiation Technologists (CAMRT) has begun developing a plan to identify an alternative solution for assessment and accreditation to achieve a smooth transition. The MRS Program will be accredited until February 1st, 2019.

**Engagement of Students**

The MRS Program continues to explore strategies to strengthen students’ identification with the University of Toronto. This area continues to be a challenge as the physical location for the majority of the Program is on site at Michener. The Program Leadership has actively engaged the Medical Radiation Sciences Society (MRSS), which manages both academic and social aspects of student life, to become more involved in activities such as orientation, recruitment and graduation. In 2012, the MRS Program introduced Volunteer Awards for those individuals who contributed their time and support for UofT-led events and activities.
Radiation Oncology Residency Training Program, University of Toronto

The Radiation Oncology Residency Program is a fully accredited 5-year specialty training program of the Royal College of Physicians and Surgeons of Canada (RCPSC). Medical students enter this program directly and applicants apply through the Canadian Residency Matching Service (CaRMS), or through the International Program via the Postgraduate Medical Education Office (PGME) at the University of Toronto which provides training positions for foreign nationals sponsored by their country of origin. The program is allocated four CaRMS intake positions annually; the intake of foreign nationals varies from year to year, and is based on eligibility and capacity.

The aim of the program is to develop future academic leaders in Radiation Oncology. UTDRO has the largest residency training program in Canada, and the trainees benefit from engagement at two large academic teaching centres in Toronto: the PM Cancer Centre at UHN, and the Odette Cancer Centre at Sunnybrook Health Sciences Centre. The breadth of resources, in terms of both faculty (see Appendix 3.1) and technology which the trainees are able to experience and learn from during their five years, is unparalleled. The residents are able to gain knowledge from the large patient populations at both centres, and be involved in leading edge treatment modalities and care within the academic settings.

Program Director: Barbara-Ann Millar (until August 31, 2016); Andrea Bezjak (September 1, 2016-current)

Administrative Education Coordinator: Catherine Wong
Program Governance

The Program Director directly reports to the Vice Chair of Education, and in turn, the Department Chair, with guidance from the Vice Dean of the PGME at the Faculty of Medicine, UoT. The program is overseen by the Residency Program Committee (RPC) which is responsible for maintaining the quality of the program, and standards for accreditation. It has broad representation from across the faculty and residents, including the Program Director (Chair), the Vice Chair of Education (ex officio), Associate Chairs, Faculty at large from the PM Cancer Centre, Odette Cancer Centre, Southlake Regional Cancer Centre, and Royal Victoria Hospital, Director Physics Education, Chief Resident, Assistant Chief Residents, Chief Fellow, Resident Elect. The Committee meetings are held 10-12 times throughout the year.
Program Objectives

The mission statement of the program is to develop the future leaders for the specialty of Radiation Oncology. Residents have access to excellent and cutting edge resources and faculty who are international experts in their fields. There are significant opportunities to engage in research and quality improvement projects throughout their training. The academic program offers opportunities to learn from local, national and international experts who teach and share their expertise with the trainees. This has often led to further opportunities such as electives or fellowships. The integrated nature of the department has also allowed ongoing collaboration between Fellows in the department with residents, which has facilitated unique opportunities such as Global Health projects.

Student Recruitment

The Selection Committee oversees the selection of trainees into the residency training program. Residents for the CMG positions are selected for the program from applications on the Canadian Residency Matching System (CaRMS) website. All applications are reviewed by the Program Director and members of the selection committee. Each application is assessed using a standardized set of selection criteria which includes academic record, clinical skills, interpersonal skills, motivation and innovation, scholarly productivity and intellectual curiosity, understanding of the specialty, commitment to further academic training, and leadership potential. A standardized form is completed by each reviewer for each candidate; scores are then aggregated and the top applicants are invited to attend for interview.

The interview team includes one to two panels of interviewers (depending on number of candidates) comprised of multidisciplinary faculty and trainees; since 2012, the Chair has participated in the interview process. All candidates are asked a standardized, preset list of questions, agreed upon prior to the interview; with a standardized scoring scheme for each candidate. The selection committee then creates a final ranking combining the pre-interview (from the written application) with the interview scores, which is then submitted to the CaRMS.
Table 5: Number of applicants to the Radiation Oncology Residency Program through CaRMS

<table>
<thead>
<tr>
<th>Year</th>
<th># of Applications Received</th>
<th># of PGY1 Residents at UTDRO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CMG</td>
<td>IMG</td>
</tr>
<tr>
<td>2010-2011</td>
<td>26</td>
<td>12</td>
</tr>
<tr>
<td>2011-2012</td>
<td>18</td>
<td>54</td>
</tr>
<tr>
<td>2012-2013</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>2013-2014</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>2014-2015</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>2015-2016</td>
<td>17</td>
<td>-</td>
</tr>
<tr>
<td>2016-2017</td>
<td>19</td>
<td>-</td>
</tr>
</tbody>
</table>

CMG: Canadian Medical Graduates; IMG: International Medical Graduates (stopped considering IMGs starting 2012-13); Sponsored: trainee from a country that has an agreement with Faculty of Medicine. Applications received are for consideration for enrollment in the following academic year.

In recent years, there has been a reduction in the number of applicants to Radiation Oncology through the CaRMS process at University of Toronto and the rest of Canada. This likely reflects a concern amongst the medical students regarding employment opportunities on completion of training both in the number of potential positions and their location within Canada. Recent graduates from the program however, have all been gainfully employed as Fellows, or successfully obtained staff positions in the United States, British Columbia, Northern Ontario, and community Radiation Oncology Centres in the Greater Toronto area.

**Curriculum and Program Delivery**

The residency training program is delivered by many different faculty members within the Faculty of Medicine at the University of Toronto. The initial 18 months of training involves a significant off-service component to meet the Specialty Training Requirements of the Royal College of Physicians and Surgeons Specialty Committee. This component engages faculty across a range of surgical and medical subspecialties. From PGY3 onwards, the clinical components are predominantly based within the Department of Radiation Oncology.

The academic program is taught by the multi-disciplinary UTDRO faculty comprised of radiation oncologists, medical physicists, radiation therapists, and dosimetrists. Allied faculty within radiology, biostatistics and other health specialists are also involved; the curriculum involves didactic, case based, as well as practicum sessions.

One important recent development in the academic program has been the integration of imaging competence within the longitudinal physics course. Due to the high level of utilization of different imaging modalities within our specialty, the program recognized the necessity for this knowledge to be taught at an early stage of training for the residents.
The creation of the PGY2 and PGY3 core site rotations has allowed a more uniform learning experience for all trainees in the areas of Breast, GI, GU, Lung, Gynecology and Palliative radiation. It has also included a 4-week block of integrated treatment planning and delivery early within the specialty specific component of training.

List of Courses offered in this program.

Longitudinal Physics (PGY2)

This longitudinal course is run in conjunction with the Medical Physics faculty to impart the fundamental knowledge of radiation physics and treatment planning and imaging to the PGY2 residents. This takes place each week on a Tuesday morning from 8-11 am, and the residents are excused from clinical commitments to attend. The program is taught on a modular basis including didactic and practicum based sessions. It is evaluated throughout the year with written and practicum evaluations, and also includes a collaborative project undertaken in conjunction with the medical physics residents.

This course was developed and taught by Dr. Jean-Pierre Bissonnette and will be under the supervision of Drs. Patricia Lindsay and Beibei Zhang starting with the 2016-2017 academic year.

Applied Physics (PGY3)

This is a case-based course designed to teach and evaluate the use of applied medical physics principles in standard clinical scenarios. Cases are selected to cover the breadth of clinical sites, techniques, available machinery and available professional support. This takes place on a weekly basis on a Wednesday 8-9 am from September to May at the Odette Cancer Centre. It is supervised by Dr. Kathy Mah (medical physics) and Dr. May Tsao (radiation oncology). The residents are evaluated with an oral examination at the end of the course.

Academic Block 1 & 2 (PGY1)

The Academic Block is delivered as two 1-month blocks incorporating didactic teaching in research and scholarship, professionalism, communication and education, as well as clinical topics in radiation oncology. Each block is delivered in 2 weeks of an academic component, and 2 weeks of the clinical component where the PGY1 residents shadow a PGY3 resident on a core site rotation both at Odette and the Princess Margaret.

Academic Half-Day (all levels; see Appendix 3.2)

Attendance at Academic Half-Day is mandatory for all residents; the first half of each session is allotted for a drill, using a format emulating the Royal College of Physicians and Surgeons of Canada (RCPSC) oral examination. It can be 2 cases (one for the junior and one for the senior resident), or 1 case with training-level appropriate questions and objectives. The cases are selected to reflect the level of training and experience. For junior residents, cases that emphasize patient workup, treatment decision making and general radiation treatment planning principles are most effective. For senior residents, the cases can be more advanced and may require knowledge of the current medical literature. Residents are expected to develop and defend treatment decisions and articulate the treatment planning principles. The second part of the
academic half day is devoted to lecture and discussion on a specific topic, delivered by a faculty member.

**Radiobiology (PGY2 mandatory, PGY4 optional but recommended)**

This intensive 1-week program provides a comprehensive overview of radiation biology with particular emphasis on aspects of direct relevance to the practice of radiation oncology. It addresses the molecular and cellular responses to radiation-induced damage that influence cell death in both tumors and normal tissues. Quantitation of radiation effects and the underlying biological basis for fractionation of radiotherapy and dose-response relationships in the clinic are covered in depth (see *Clinical and Experimental Radiobiology*). The biological basis for current approaches to improve radiotherapy will be described including novel fractionation schemes, retreatment issues, targeting hypoxia, biological modifiers and combined radiotherapy/chemotherapy. The Faculty for this course are international experts in the field, and this course is now serving as a national resource for residency training across Canada.

**Accelerated Education Program (AEP) Courses at the Princess Margaret Radiation Medicine Program**

Created as a faculty development opportunity, the AEP courses offered at the Princess Margaret Cancer Centre has excellent faculty and teaching objectives. The AEP courses regularly reserves seats during each course for senior residents, which have included: Head & Neck IGRT, Lung IGRT, and Quality & Safety.

**Toronto Head and Neck Oncology Course**

The treatment of head and neck disease involves a multidisciplinary team approach. Medical imaging plays an important role in initial diagnosis and staging of disease as well as post-therapy surveillance. There is a substantial need to provide imaging and associated clinical practitioners involved in the care of head and neck patients with core information regarding the radiographic anatomy of the extracranial head and neck as well as the clinical and imaging findings of the various diseases. This program includes a structured review of some of the more common clinical entities that are encountered in both community and tertiary radiology practices as it pertains to head and neck disease. It is offered to radiologists, technologists, radiology and oncology trainees, otolaryngologists, surgeons, advance nurse practitioners, dentist and dental professionals.

**Bi-Annual Molecular Oncology for Residents Retreat**

This is a weekend retreat dedicated to discussions on key basic science topics highlighting the emerging molecular targeted treatments, delivered in conjunction with Medical Oncology residents and faculty. This course is offered to PGY4/5 residents.

**Student Awards**

UTDRO Radiation Oncology residents are competitive for internal UTDRO, national, as well as international awards.
Table 6: Awards Received by UTDRO Radiation Oncology Residents

<table>
<thead>
<tr>
<th>Year</th>
<th>Award</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Canadian Urologic Oncology Group Young Investigator Award</td>
<td>Dr. Nafisha Lalani</td>
</tr>
<tr>
<td></td>
<td>Robert Brady Award</td>
<td>Dr. Derek Tsang</td>
</tr>
<tr>
<td></td>
<td>W. J. Simpson Award</td>
<td>Dr. Derek Tsang</td>
</tr>
<tr>
<td></td>
<td>Research Day 2013 – Best Poster Award</td>
<td>Dr. Alireza Fotouhi-Ghiam</td>
</tr>
<tr>
<td></td>
<td>Excellence in Radiation Research 21 (EIRR21) Award</td>
<td>Dr. Adam Gladwish</td>
</tr>
<tr>
<td>2013</td>
<td>UTDRO Annual Research Day Best Poster Award</td>
<td>Dr. Alireza Fotouhi-Ghiam</td>
</tr>
<tr>
<td></td>
<td>PSI Foundation Resident Research Prize, PGME, UofT</td>
<td>Dr. Alireza Fotouhi-Ghiam</td>
</tr>
<tr>
<td></td>
<td>Joseph M. West Memorial Fund for Excellence in Postgraduate Research, UofT</td>
<td>Dr. Alireza Fotouhi-Ghiam</td>
</tr>
<tr>
<td></td>
<td>Timeposters Fellowship Award for Excellence in Postgraduate Research, UofT</td>
<td>Dr. Alireza Fotouhi-Ghiam</td>
</tr>
<tr>
<td></td>
<td>ASTRO’s 55th Annual Meeting Resident Best Clinical/Basic Science Research Award</td>
<td>Dr. Alireza Fotouhi-Ghiam</td>
</tr>
<tr>
<td>2014</td>
<td>WJ Simpson Award</td>
<td>Dr. Adam Gladwish</td>
</tr>
<tr>
<td></td>
<td>UTDRO Chair’s Award</td>
<td>Dr. Adam Gladwish</td>
</tr>
<tr>
<td></td>
<td>American Society of Therapeutic Radiology and Oncology (ASTRO) Digital Poster Award</td>
<td>Dr. Adam Gladwish</td>
</tr>
<tr>
<td></td>
<td>Radiological Society of North America (RSNA) Trainee Research Award</td>
<td>Dr. Adam Gladwish</td>
</tr>
<tr>
<td></td>
<td>Postgraduate Medical Trainee Leadership Award, UofT</td>
<td>Dr. Alireza Fotouhi-Ghiam</td>
</tr>
<tr>
<td>2015</td>
<td>WJ Simpson Award</td>
<td>Dr. Derek Tsang</td>
</tr>
<tr>
<td></td>
<td>UTDRO Chair’s Award</td>
<td>Dr. Hamid Raziee</td>
</tr>
<tr>
<td></td>
<td>FoM PGME Trainee Leadership Award</td>
<td>Dr. Danielle Rodin</td>
</tr>
<tr>
<td></td>
<td>RMP Excellence in Teaching as a Resident Award</td>
<td>Dr. Mark Niglas</td>
</tr>
<tr>
<td></td>
<td>FoM PGME Social Responsibility Award</td>
<td>Dr. Danielle Rodin</td>
</tr>
<tr>
<td></td>
<td>CARO Resident - Jean Roy Memorial Award</td>
<td>Dr. Danielle Rodin</td>
</tr>
<tr>
<td></td>
<td>CARO CIC Radiation Oncology Global Health Scholarship</td>
<td>Dr. Horia Vulpe</td>
</tr>
<tr>
<td>Award</td>
<td>Recipient</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------</td>
<td></td>
</tr>
<tr>
<td>UofT PGME Research Award</td>
<td>Dr. Alireza Fotouhi Ghiam</td>
<td></td>
</tr>
<tr>
<td>STARS21 Scholar Award</td>
<td>Dr. Ezra Hahn</td>
<td></td>
</tr>
<tr>
<td>STARS21 Scholar Award</td>
<td>Dr. Srinivas Raman</td>
<td></td>
</tr>
<tr>
<td>STARS21 Scholar Award</td>
<td>Dr. Pencilla Lang</td>
<td></td>
</tr>
<tr>
<td>WJ Simpson Award</td>
<td>Dr. Jenna Adleman</td>
<td></td>
</tr>
<tr>
<td>UTDRO Chair’s Award</td>
<td>Dr. Chia-Lin (Eric) Tseng</td>
<td></td>
</tr>
<tr>
<td>MASCC/ISOO 2016 Young Investigator Award</td>
<td>Dr. Srinivas Raman</td>
<td></td>
</tr>
<tr>
<td>UofT PGME Research Award</td>
<td>Dr. Rachel Glicksman</td>
<td></td>
</tr>
<tr>
<td>UofT PGME Research Award</td>
<td>Dr. Ezra Hahn</td>
<td></td>
</tr>
<tr>
<td>UofT PGME Research Award</td>
<td>Dr. Sylvia Ng</td>
<td></td>
</tr>
<tr>
<td>UofT PGME Research Award</td>
<td>Dr. Hamid-Reza Raziee</td>
<td></td>
</tr>
<tr>
<td>STARS21 Scholar Award</td>
<td>Dr. Neil D'Souza</td>
<td></td>
</tr>
<tr>
<td>STARS21 Scholar Award</td>
<td>Dr. Jennifer Kwan</td>
<td></td>
</tr>
<tr>
<td>STARS21 Scholar Award</td>
<td>Dr. Laurence Lee</td>
<td></td>
</tr>
</tbody>
</table>

### Funding and Support

Residents are funded to attend national and international radiation oncology conferences to present their research work. There is also an opportunity for the PGY5 residents to attend one conference to allow networking opportunities for fellowship or employment opportunities.

Residents in their final PGY5 year are also able to attend the Examination Preparatory course with time allocation and course fee supported by the program. The Residency training program will also offer financial support to attend certain approved courses or conferences offered within the University of Toronto or Academic Hospitals. Finally, residents are financially supported to maintain their Advanced Cardiac Life Support certification.

### Assessment of Learning

- The residents are evaluated throughout the five-year residency program utilizing a variety of methods which includes written and oral examinations, simulation and OSCE examinations, clinical evaluations and multisource feedback
- An outline of the timeframe and evaluation techniques is shown in Appendix 3.3.
Quality Indicators

- The UTDRO residency program has had a 100% pass rate for the Specialty Examination at the Royal College of Physicians and Surgeons for the last 10 years.
- Residents have been successful in completing additional further degree qualifications during training and obtaining grant funding for research projects.
- The academic output of the residents far exceeds the expectation of the training requirements of one research project developed to the level of a manuscript. Many residents are first authors on papers published within specialty related journals (Appendix 3.4).
- Many residents will choose to undertake post-residency fellowship training to enhance specific skills within the specialty. As mentioned previously, recent graduates from the program have assumed staff positions in the United States, British Columbia, northern Ontario and community radiation oncology centres in the greater Toronto area.

Quality Enhancement and Optimization

The program is constantly seeking strategies to adapt and improve the training opportunities for the residents. Some examples of improvements over the recent 4 years include: a) the introduction of longitudinal physics and radiobiology training into the PGY2 year, aligning the learning environment of the trainees in the early rotations within radiation oncology; b) the core rotations in PGY2/3 years allowing a breadth of experience within a 3-month period where the trainee is immersed in that specific site to gain expertise from a number of physicians in that subspecialty site; and c) the written examination at the end of the PGY3 rotation enables the residents to consolidate their knowledge of the preceding two years, and develop the experience to prepare for the written component of the final specialty examination. From a program perspective, this also allows identification of gaps in areas of core knowledge which can be addressed within the PGY4 year.

At the end of each year, the Program Director meets with the residents to discuss areas for improvement within the program. The resident feedback is always constructive, and has helped tremendously to shape the clinical and academic components of the training program.

For the first time ever, a residency program retreat was held in June 2016, for both residents and faculty involved in key components of the program. It is hoped that further modifications and developments will emanate from this retreat; allowing the program to start reviewing components as it moves forward into ‘Competency by Design’ with the Royal College.

Teaching Faculty and Effectiveness

Over the last five years, the mean teaching evaluation and effectiveness scores have fluctuated between 4.2 and 4.7. See Appendix 3.5 and Appendix 3.6.
Challenges/Opportunities & Future Directions

The national move towards competency based training will create significant opportunities to review and reassess the way in which residents are trained in radiation oncology; this is anticipated to commence in 2018. It is likely that the structure of the program may significantly change reflecting the adaptability in time frame for advancement of learners in this model including transition to specialty, foundations of specialty, core specialty and transition to practice. This will replace the previous trainee time-defined model of training. Significant efforts will be devoted to developing faculty to lead the transition, both at the curricular level and in methods of assessment. Integration of technology to allow the collection of resident evaluation data and portfolio data for trainees will require technical and administrative support. There will also be requirement for faculty development for clinical teachers to understand the transition into this model, the changes in the expectations for evaluation, and the various evaluation tools which will be utilized.

The examination format and timing will also undergo major changes wherein the final examination will occur at the end of the core specialty, and perhaps more integration of the basic science component at the completion of foundations of specialty. In conjunction with this evolution, for the first time since 2001, there is now a PGY2 resident who will be exiting the clinical training program to pursue a PhD, starting in mid-2017.

This is a challenging time for trainees as there will be at some point, two streams of trainees within the training program. It will be important for the training program to provide clear details of change to the residents as we move forward and engage them in the process. The integration to the competency model is being primarily guided by the Royal College and the Specialty Committee for Radiation Oncology and the Training Program Directors. The UTDRO residency program has significant representation at this RCPSC Specialty Committee, which will be invaluable. In fact, the exiting Program Director Dr. BA Millar will be its incoming Chair.

The coordination of the education portfolios at the UTDRO office continues to be developed. It is anticipated that the adoption of technology will improve coordination of schedules for all learners within the department. Increased administrative support will continue to be required, particularly as UTDRO transitions to the new model of residency training.

Learners Report

From the learners report of 2011 and the recent Residency Program Retreat (June 2016), the UTDRO Residency program is identified as having significant strengths with a wealth of opportunities including diversity in patient cases, cutting edge technology and excellent frontline care. The residents value the significant research opportunities and faculty mentorship which they can undertake during their training.

In reviewing areas for improvement, it was felt that there could be improved preparation for independent practice including engagement in the manpower discussions both at local and provincial levels. Career mentorship, curriculum vitae development, and mock job interviews were all discussed as opportunities to enhance career building for trainees.
Another area which will be under review is the Academic Half Day. This is a program component which has evolved significantly over the last ten years. Most recently, the ability of the on call resident’s pager to be covered at the Princess Margaret site during this time has been a very positive improvement. Also, a return to increased faculty engagement in teaching as well as drill component has been positively received by the trainees. As the time for academic half day is currently situated on a Friday afternoon, there is suggestion that this can lead to challenges in particular allowing trainees to extract themselves from clinical duties and inability to follow up on patient issues prior to the weekend. In addition, the travelling from one site to another to participate adds to the stress of being able to attend in a timely manner. As such, a Friday morning session is currently being piloted for the academic half day.
**UTDRO Radiation Oncology Physics Residency Program**

**Program Overview**

The Residency Program in Radiation Oncology Physics started in July 2007 by combining existing long-standing medical physics residency programs at the Princess Margaret Cancer Centre and Sunnybrook Health Sciences Centre – Odette Cancer Centre (OCC). Three affiliate sites have also joined the program in subsequent years, with residents training at Durham Regional Cancer Centre (DRCC), the Carlo Fidani Regional Cancer Centre (CFRCC), and the Stronach Regional Cancer Centre (SRCC). The goal of the joint program is to produce highly competent medical physicists who combine a comprehensive understanding of clinical radiation physics, and specific knowledge of radiation therapy and radiation oncology principles, and practice with enhanced leadership, research and teaching skills. On March 10, 2008, the program was first accredited through the Committee on Accreditation of Medical Physics Education Programs (CAMPEP). This accreditation was most recently renewed in March 2013, and the program is currently accredited until December 31, 2017. Maintenance of this certification is essential as The Canadian College of Physicists in Medicine (CCPM), the certification body in Canada for medical physics, has set graduation from a CAMPEP accredited residency program, or graduate school, as a mandatory eligibility requirement for board certification.
Program Leadership

Chair, UTDRO
Dr. Fei-Fei Liu

Vice Chair, Education
Rebecca Wong

Director
Andrea McNiven (Feb 2016-current)
Jean-Pierre Bissonnette (2008-2016)

Physics Residency Program Committee

Registrar
Young Lee (Apr 2016-current)
Claire McCann (2015-2016)

Director, RO Residency Program
Andrea Bezjak (Sept 2016-current)
Barbara-Ann Millar (until Aug 2016)

Director, MRS Graduate Programs
Nicole Harnett

Chief Physics Resident

Site Coordinator,
Princess Margaret
Patricia Lindsay

Site Coordinator,
Durham (Oshawa)
Katharina Sixel

Site Coordinator,
Carlo Fidani (Mississauga)
Raxa Sankreacha

Site Coordinator,
Odette
Brian Keller

Site Coordinator,
Stronach (Newmarket)
Ivan Yeung

Local course supervisors, project supervisors, rotation supervisors and mentors

Figure 5: UTDRO Physics Residency Program Leadership


**Program Governance**

Dr. Jean-Pierre Bissonnette completed his term as Program Director in February 2016; Dr. Andrea McNiven was appointed as Program Director, effective February 1, 2016 after an internal search. A Chief Resident is also nominated by the residents each year to ensure appropriate representation on the Physics Residency Program Committee.

**Program Objectives**

The goal of the program, as stated previously is to train highly competent medical physicists with enhanced leadership, research and teaching skills, consistent with the UTDRO strategic plan. There is also a strong focus on inter-professional development with interaction with fellow trainees and faculty from all disciplines of radiation oncology, medical physics, and radiation therapy.

**Student Recruitment**

As a CAMPEP accredited program, minimum eligibility is defined by CAMPEP in that program applicants must have graduated from an accredited graduate program (MSc or PhD), have completed a CAMPEP certificate program or have met some pre-requisite course work if their graduate school was not CAMPEP accredited. These courses include three upper level physics undergraduate courses (3rd or 4th year), and a minimum of 4 out of 6 required courses (radiological physics and dosimetry, radiation protection and safety, fundamentals of medical imaging, radiobiology, anatomy and physiology, radiation therapy physics). All applicants must meet these minimum requirements. Our preferred entry requirements are a PhD in Medical Physics or related field from a CAMPEP accredited graduate program.

Our two-year program has two potential start dates, September 1st and January 1st. Application deadlines are April 15th and October 15th respectively. On average, 10 residents are enrolled at any one time, approximately equally divided between Year 1 and Year 2. We must publish our results as part of our CAMPEP requirements; the application history is detailed in Table 7.

The Program Registrar reviews credentials and determines eligibility of applicants. A shortlist is then created by the Admissions Committee for interview. The interview process includes a panel interview, after which a matching system is used (applicant ranking of sites combined with sites’ ranking of the applicants) to place the residents at specific training sites.

In 2016, 2 residents entered the program, with one spot going unmatched; three residents have started in September 2016 with all 3 available positions being filled. The transition to CAMPEP program requirements for board certification over the past few years has resulted in some changes in recruitment. We do face some challenges at the University of Toronto as we do not have a direct line into the residency program since UofT does not have a CAMPEP accredited graduate program. Ryerson University is just beginning to graduate students from its CAMPEP graduate program, but to date have only received applications from MSc graduates, who are not competitive with the PhD graduates from other programs.
Table 7: Recruitment Statistics since Initial Accreditation by CAMPEP (Including # of Applicants and # of Residents Entering Program)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Applicants</th>
<th>Number of Students Accepted</th>
<th>Number of Graduates</th>
<th>Number of Students Certified</th>
<th>Clinical Staff</th>
<th>Disposition (Academic)</th>
<th>Disposition (Industry)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>59</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>42</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>26</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>59</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>41</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2013</td>
<td>39</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014</td>
<td>53</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2015</td>
<td>54</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Curriculum and Program Delivery

The UTDRO Residency Program in Radiation Physics is an intensive two-year practical training program that prepares students to become future leaders in medical physics. Through clinical rotations, a research project in clinical physics and educational components, students are equipped with fundamental knowledge of the disciplines of radiation oncology and radiation therapy. Physics residents learn to recognize, understand and address scientific, clinical and technical problems by working directly with experienced radiation oncologists, medical physicists and radiation therapists.

The program length is 2 years and includes a mix of didactic courses, clinical rotations and clinical projects. Each resident chooses a faculty member to be their mentor who acts as a guide throughout the program. During the first two academic terms, physics residents may take didactic courses if they did not have all of the six pre-requisites for the program. All residents are offered the UofT Radiation Biology Course. All residents complete rotations in Instrumentation, Treatment Planning and Quality Management. In the second year, there are rotations in Brachytherapy and Imaging Physics, Advanced Treatment Planning and continuation of Quality Management, and the Applied Physics course. One distinguishing feature of the program is that residents interact in a multi-disciplinary environment, involving radiation oncologists and radiation therapists during parts of the Academic Block, the Applied Physics course, and the Interdisciplinary Rotations that follow specific patients from first clinic to treatment. Additional clinical projects involve acceptance and commissioning of new equipment. All residents also select a research supervisor and will complete a research project as part of their residency.
Assessment of Learning

Resident knowledge is evaluated at regular, topical resident question and answer sessions as indicated in the program syllabus (25 topics repeated each year). Comprehensive oral examinations are held at the end of each academic year. Residents are forwarded to the Year 2 final exam by their site coordinator if all other components of the residency have been successfully completed (courses, clinical rotations, projects and tutorials). After successful completion of the Year 2 exam, they are considered to have fulfilled all program requirements. One change since the 2011 report is that the “Ontario Review A” oral examination is no longer a part of the final assessment as that exam was deemed provincially to be redundant with the emergence of CAMPEP accredited residency programs, and the previous addition of an oral component to the national certification exam.

Quality Indicators

After 2010, we have had 25 graduates, with all completing within the 2 years except for three extensions of 3-4 months in order for the residents to successfully complete all aspects of the program. All graduates have successfully found employment, all in clinical medical physics, except for two who have entered industry. Additionally, amongst the 36 CAMPEP graduates to date, 89% of graduates have completed board certification in either Canada (Canadian College of Physicists in Medicine) or the US (American Board of Radiology).

All residents must present an abstract at the UTDRO Research Day at least once within their two year program. Additionally, residents are also supported to attend one conference per year. Over the past two graduating years, all residents have had at least one first author abstract for a major conference, with up to 4 first author abstracts, as well as some residents contributing to other projects. About half of the residents also have a publication from their residency research.

Quality Enhancement and Optimization

Resident feedback is obtained on a regular basis; since the last program review, resident feedback has resulted in minor changes to rotations and scheduling. Additionally, resident feedback has improved the website, and the interview day now includes tours and lunch with the residents.

The program would benefit from electronic evaluations. This would improve tracking, reporting capabilities, as well as compliance with forms for rotation and supervisor evaluations. Initial work is being undertaken to address this issue at this point in time.

Challenges/Opportunities & Future Directions

Recruitment

As already stated, recruitment may be a challenge in regards to student eligibility based on CAMPEP standards and the lack of a local program that supplies well-documented qualified candidates. It is both a challenge and an opportunity that this residency program is currently
highly competitive. A matching program has started that 77 programs have joined, primarily American centres, but also including Vancouver and Calgary. This year, 49% of the participants were not matched (106 of 111 open spots were filled through the matching process). This indicates an abundance of applicants, which is an opportunity for UTDRO; the challenge is to ensure that we maintain a high level of qualified applicants for our program. Another challenge may be that we have two fixed starting times (September and January) in contrast to the programs in the match which have a fixed start date of July. However, since there is not a definitive end date to a PhD, we did not wish to lose excellent candidates to the match. Another challenge to recruitment is job opportunities post-residency, which are currently limited in Ontario. It is perhaps a programmatic challenge as well, in that each centre hires their own resident directly, and there is some variability in benefits and pay from centre to centre.

Curriculum and Assessment

As already stated, the use of forms and resident tracking capabilities could be improved. A cloud system has been developed, but it relies on the individual sites to upload documents to the University and involves no easy filing or organizational capabilities with no ability to pull data readily (all scanned paper documents). An electronic system would improve feedback to residents, faculty and the program. Opportunities to standardize delivery of some of the curriculum across centres still exist. Variation in the size of participating sites and nature of the sites (academic vs. community), and a wide range of available hardware and software also offer opportunities for collaboration that must continue to be explored. The transition to competency by design for the Radiation Oncology Residency program also offers opportunity as more competency-based evaluations in the Physics Residency Program could provide opportunity for streaming, additions to the curriculum in emerging areas in medical physics, or a transition to practice rotation. All of these opportunities should be investigated for feasibility in the future.

Learners Report

The learners report was compiled from current residents (9 at the time of the survey) from four different training sites and in various stages of the 2 year residency program.

Strengths

A major strength of the residency program, based on resident feedback, is that the majority of residents do believe that they receive a high quality education and that UTDRO is a good place for them to develop or enhance their career. All residents agree that UTDRO ranks highly both nationally and internationally in terms of academic reputation. Access to different technologies, cutting-edge facilities and infrastructure, inter-professional collaboration, and opportunities for inter-professional education were all highlighted by residents as strengths of UTDRO, and as such, many improvements have been made in the past 5 years.

Weaknesses

Collaboration between centres, particularly Odette and the Princess Margret Cancer Centres was identified as a weakness. In general, comments reflect either a weakness in UTDRO or the Residency Program; one of which is the lack of distinction between UTDRO and the individual
training sites. For the Medical Physics Residency Program, this may be greater due to the gaps in orientation and clarity regarding local program components vs. UTDRO components.

Challenges

Orientation to UTDRO, the distinction between UTDRO and local training sites, and uniformity in experience across the five training sites are all challenges that the Medical Physics Residency Program faces; also apparent in the feedback provided by the learners. An individual’s experience can vary greatly within the program as the bulk of their program is completed at a single training site. Other variations can include the timing of their training (January vs. September start dates) and a variable rotation schedule. Interpreting resident feedback on changes in the past 5 years is therefore challenging as their time in the program at the time of feedback could range from <6 months to 22 months. The variability in responses, and some specific comments also clearly indicate that one challenge of the program is to ensure that the quality of the residency experience and their education is consistent across all training sites. The majority of residents report that support for conferences and additional training was adequate or very good. It should be noted however; that there is no funding from UTDRO for physics residents for conferences. Additionally, the training they receive from UTDRO is the radiobiology course. Other additional training is not UTDRO-specific, but the Accelerated Education Program courses such as ATEC or IGRT courses from the Princess Margaret Cancer Centre. Several residents indicated that the line between UTDRO and the cancer centres is somewhat unclear, and this may influence some of their answers. This lack of distinction could influence their answers regarding the amount of available funding at UTDRO for research opportunities as the answers ranged from N/A to Very Good. The answer for all residents should have been N/A as any funding for conferences originate from their local sites.

Teaching Opportunities

Based on resident feedback, there is an opportunity for the Medical Physics Residency Program to continue improving upon the current methods to better leverage the acquisition and implementation of new technologies at all sites, as well as the variety of treatment platforms that exist across all five training sites. This would provide residents opportunities to learn at different sites and gain experience with different platforms to render them more marketable. Improved leveraging of these opportunities or associated teaching related to these opportunities may help address the variable experience of residents across all training sites. In the past, not all centres have participated in sending residents to other sites for activities such as machine commissioning. This may be impacted by the local site-specific funding of the residents and lack of an identity as a single residency program. There is also clearly an opportunity for improved program orientation, and perhaps a broader orientation than currently provided.

A program retreat was held in October 2016 to discuss many of the issues that were identified. In order to enable electronic tracking of residency progress, a greater uniformity in curriculum execution is required. Syllabi for each rotation including competencies do exist and need to be shared with all residents on a routine basis across all sites. This will aid in reducing resident
anxiety over uncertainty in what materials and skills they need to learn during their time in the program.

The program would benefit if standardization was pursued through provision of an explicit list of core competencies and experiences for residents to acquire under each section of the master rotation list. Linkages to real-life clinical activities and decision making should be described whenever possible.

A non-trivial portion of trainee cognitive load (i.e. time, effort, anxiety) is related to determining what materials and skills they should be learning, and whether they have had sufficient exposure. Provision of a detailed master rotation list should:

i. Empower the trainee to self-organize and take initiative during their training
ii. Improve training effectiveness by enabling redirection of unproductive cognitive load towards achieving training objectives
iii. Increase program uniformity across training centers which should facilitate interpretation of future feedback

In addition, rotation and program feedback mechanisms could benefit from placing a greater emphasis on providing specific comments rather than rankings. For example “What did the trainee do well?” and “What are some suggestions for the trainee to improve” vs rankings such as “Below Expectations”, “Satisfactory” and “Outstanding.” This applies equally for trainee feedback to educators and the program as a whole. While it is important to know if expectations were not met operationally, specific comments on what was done well and how one might improve are necessary in order for the feedback to be constructive.
Radiation Oncology Fellowship Program

Executive Summary

The University of Toronto, Department of Radiation Oncology Fellowship is one of the largest and best developed programs of its kind in the world. It has a reputation for excellence; hence continues to attract high quality applicants from around the globe. Fellows are afforded a myriad of opportunities to develop their skills in subspecialty expertise in radiation oncology, technical radiotherapy, research methodology, publication, grantsmanship, education, and leadership. Exposure to the diverse faculty and peers fosters a collaborative environment that facilitates networking which enhance their experience during their Fellowship, as well as helping to launch their careers.

Program Overview

The Radiation Oncology Fellowship Program at UTDRO is one of the largest fellowship programs in the world; in the current 2015/16 academic year, there are 32 fellows between the two sites of the PM and Odette Cancer Centers. Over the recent decades, the UTDRO Fellowship Program has attracted a large number of excellent candidates from across the continents including Australia/New Zealand, UK and Western Europe, Africa, Asia, South America, USA and Canada. With its cadre of fellows and the number of faculty involved in a broad spectrum of research, it offers an unprecedented opportunity to interact with individuals across multiple disciplines of radiation medicine and science. It also provides opportunities for enhancing expertise across a spectrum of clinical radiation oncology, in addition to further training in research, acquiring leadership skills, as well as developing networking opportunities with peers and faculty.

Program Leadership

Program Director: Dr. Peter Chung
Vice Chair, Education: Dr. Rebecca Wong
Administrative Education Coordinator: Catherine Wong
Program Objectives

The overarching objectives of the UTDRO Fellowship Program include the provision of in-depth training in clinical, education, and research expertise, with a view towards training future leaders in Radiation Oncology around the world. The specific objectives are:

- To develop clinical expertise in subspecialty disease sites
- To enhance specific expertise in technical radiotherapy e.g. brachytherapy, stereotactic radiotherapy, gamma-knife
- To provide a foundation in clinical and translational research methodology
- To enable pursuit (where applicable) of graduate degrees such as a MSc (or PhD), awarded by another UofT graduate department
- To provide grounding in the development of clinical, research, education, and leadership networks
Fellowship Recruitment

Admission requirements for this program are as follows:

- Minimum requirement of successful completion of specialty certification in the country of origin
- Funding availability; the enrolment numbers have varied from year to year, dependent upon funding support; in recent years, upwards of 20 fellows have been selected based on a competitive process

Applications Process

All applicants must submit a CV, Letter of Intent and 3 Reference Letters. There are two intake periods every year – January and July, with applications due 12 months before the intake period.

All complete applications are reviewed by the Fellowship Program Director and a short-list of applicants meeting minimum requirements are ranked by a Selection Committee based on quality of previous experience, potential to excel in the UTDRO environment, and the candidate’s potential alignment with program objectives. A final shortlist of candidates are selected based on a competitive ranking for interviews, and a number of the final successful candidates are then selected from the interviewed group based on a match of the successful candidates with availability for a specific fellowship funding position.

Enrollment Numbers

<table>
<thead>
<tr>
<th>Year</th>
<th># of Applications (Jan)</th>
<th># of Applications (Jul)</th>
<th># of Accepted (Jan)</th>
<th># of Accepted (Jul)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
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<td>N/A</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>2012</td>
<td>N/A</td>
<td>56</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>2013</td>
<td>N/A</td>
<td>39</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>2014</td>
<td>24</td>
<td>49</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>2015</td>
<td>22</td>
<td>42</td>
<td>5</td>
<td>21</td>
</tr>
</tbody>
</table>

N/A: not available

Curriculum and Program Delivery

There is no specific curriculum for Fellowship training; the training is provided primarily through the supervisor(s)/trainee relationship.
• Fellows are supervised by one or two faculty member (supervisors) from either the PM or Odette
• The supervisors are always Radiation Oncologists, although Medical Physicists or Medical Radiation Therapists may also serve as co-supervisors
• There are over 60 potential supervisors in the Department of Radiation Oncology
• All Fellows have specific goals and objectives for their Fellowship defined prior to commencement of training
• For Fellows pursuing a graduate degree, appropriate faculty supervisors are identified, and protected time is provided to allow successful completion of the degree
• Each Fellow is expected to complete at least one prospective or retrospective research project during the fellowship that is suitable for publication in a peer reviewed journal under the supervising faculty

Awards Received by Fellows

Fellows are encouraged to apply for research awards and grants as applicable under faculty supervision; many of our UTDRO Fellows have successfully captured internal, national or international awards.

Table 9: Awards Received by Fellows

<table>
<thead>
<tr>
<th>Year</th>
<th>Award/Grant</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>RS Bush Award</td>
<td>Dr. Minh Thi Tieu</td>
</tr>
<tr>
<td></td>
<td>Residents' Award for Excellence in Clinical Teaching by a Fellow</td>
<td>Dr. Swetha Sridharan</td>
</tr>
<tr>
<td></td>
<td>Society of Neuro Oncology Sponsored International Research Development Fellowship, grant of $50,000 USD for salary support (2013-2014)</td>
<td>Dr. Rahul Krishnatry</td>
</tr>
<tr>
<td>2014</td>
<td>RS Bush Award</td>
<td>Dr. Alejandro Berlin</td>
</tr>
<tr>
<td></td>
<td>Residents' Award for Excellence in Clinical Teaching by a Fellow</td>
<td>Dr. Jennifer Croke</td>
</tr>
<tr>
<td>2015</td>
<td>RS Bush Award</td>
<td>Dr. Andrew McPartlin</td>
</tr>
<tr>
<td></td>
<td>Residents' Award for Excellence in Clinical Teaching by a Fellow</td>
<td>Dr. Julia Skliarenko</td>
</tr>
<tr>
<td></td>
<td>Dr. Richard Steevens’ Scholarship</td>
<td>Dr. Aisling Barry</td>
</tr>
</tbody>
</table>

Fellowship Funding and Support

Funding sources for Fellowship support are derived from the supervisors themselves (research grant, or philanthropy), or hospital Departmental Academic Enrichment Funds. Fellows are
permitted to be partially or completely self-funded provided they show evidence that the source originate from a grant, bursary or from their host centre. All self-funded Fellows however, must be supported at the same level as internally funded Fellows.

Assessment of Learning

As a non-accredited program for certified specialists, there is no formal assessment of learning; however, fellows are invited to evaluate the program at completion of their fellowship training period. Assessment of graduate student supervision is performed with the UTDRO program within the relevant UofT graduate department.

Quality Indicators

Given the consistently high number of applicants, and the strong reputation of the UTDRO Fellowship Program, we would consider this program to be successful. Almost all Fellows complete the entire duration of training; early departure is strongly discouraged. Additional metrics include:

- Number of peer reviewed publications produced by Fellows
- Number and monetary value of awards and grants received by fellows

Quality Enhancement and Optimization

- Ongoing assessment of the needs for each Fellow is undertaken within the first 3 months, and thereafter as required
- Changes to clinical and research schedules as required will be monitored in conjunction with faculty supervisors

Challenges and Opportunities

The Program has successfully enhanced the clinical and academic goals as well as the international profile of the UTDRO. The Program’s ability to attract high numbers of qualified applicants annually in excess of the number of positions available is a reflection of its international reputation, which has been successfully sustained despite its size.

Challenges

Future expansion may be constrained by:

- Availability of current and possibly future work space for fellows
- The Program has outgrown its administrative support; additional support is essential
- Level of funding; the Fellows’ remuneration was previously based on the PARO (Professional Association of Residents of Ontario) scale that has outpaced the level of fellowship funding
- Perceived lack of dedicated time for research, and increasing demand on clinical time
- Perceived competition of clinical training with the Residency Program
Opportunities

- Improve efficiency in application and application review process through use of on-line data transfer
- Improve efficiency of program evaluation through the use of on-line review and data transfer
- Expand Fellows’ role in undergraduate and graduate teaching
- Increased number of available projects for research
- Build programmatic fellowships that are not clinical site based but focused on technical expertise e.g. Stereotactic Body Radiotherapy, Brachytherapy, Combined modality
- Accreditation for Certificates of Special Competence from the Royal College of Physicians and Surgeons
- Develop additional metrics of program evaluation
- Maintain funding by encouraging partial and full self-funding
- Increase defined clinical fellowship period in order to have more time to complete research endeavors

Learners Report

The Fellowship program at UTDRO is the largest of its kind in Canada, and worldwide. In a recent survey, the majority of trainees rated UTDRO as a good place to train, the quality of education as very good, and would recommend the program to colleagues/friends. Trainees ranked the program above average on both national and international scale. The following attributes of the program were identified:

Strengths

The UTDRO Fellowship program benefits from the following strengths: diversity of academic interests and goals, leadership in technology development and adoption, access to facilities and infrastructure, translational biology research, access to research opportunities with distinguished faculty, and access to patient volumes.

Weaknesses

The program’s areas for improvement include faculty involvement in teaching, protection of time for research, and mentorship opportunities.

Challenges

The UTDRO Fellowship Program currently faces the following challenges: collaboration between Princess Margaret and Odette Cancer Centres, UTDRO profile within the broader oncology community, biostatistical access, patent and commercialization activities, familiarization with the UTDRO strategic plan, maintaining quality of teaching, and teaching opportunities.
Executive Summary

The Master of Health Science in Medical Radiation Sciences (MHScMRS) Program is an innovative professional master’s program; the first of its kind in North America, providing a unique graduate level education experience for practicing radiation therapists. The blended delivery model capitalizes on novel technological and pedagogical strategies to engage small cohorts of students and expert clinical faculty in an immersive curriculum.

The Program was launched in 2009, and redesigned in 2013 to broaden its reach internationally through online, distributed learning. In 2015, the program underwent a curriculum redesign following an environmental scan and stakeholder consultation. The renewed curriculum allowed students to focus on one of three key program goals (clinical expertise, research or leadership) aligned with their own professional objectives, along with the creation of new courses to support the curricular pathways. Supported by the Program Director and Associate Director, 20 interprofessional Program faculty (see Appendix 4.1), including two MHScMRS graduates, as well as a series of expert guest lecturers and research supervisors have created a rich and diverse curriculum, imbued with advanced and emergent concepts that will form the foundations of future practice.

With three cohorts and nine graduates to date, the MHScMRS Program has created an inclusive, interactive, and practical environment for radiation therapists to develop the advanced knowledge, skills, and judgement necessary to serve as leaders in the radiation medicine community. The Program’s delivery model and content have influenced initiatives in other UTDRO training programs and broader University of Toronto activities.

Program Overview

The MHScMRS Program is offered through the Institute of Medical Science (IMS) and UTDRO, and constitutes the first professional master’s program for radiation therapists in North America. The Program offers three specialization pathways – clinical, leadership, and research – approached through the lens of the role of radiation therapy in cancer care, while ensuring all graduates have a core foundation in all three pillars. The Program is designed specifically to develop professional leaders who can meet the demands in contemporary radiation medicine practice.

The objectives of the MHScMRS Program are to prepare graduates who will:

- Assume/create positions that capitalize on the advanced knowledge, skills, and judgment in clinical practice and research
- Contribute to the advancement of radiation medicine
- Improve the way care is provided for cancer patients
• Accelerate the pace of innovation in radiation therapy through clinical research and academic endeavours

Using a blended delivery model, the Program capitalizes on online learning technologies and strategies to allow students to complete most of their studies from home while continuing to work fulltime as radiation therapists. This model of combining online course delivery with intensive campus-based Institutes plus the immersive and personalized practica is explained in greater detail under ‘Program Structure & Modes of Delivery’.

Program Leadership & Governance

Director: Nicole Harnett  
Associate Director: Caitlin Gillan  
Vice Chair, Education: Dr. Rebecca Wong

Figure 7: MHScMRS Organizational Chart (See Appendix 4.2)
Program Curriculum and Learning Outcomes

The Program consists of 8.0 full course equivalents (FCE) completed over a 2-year period, with the potential for a three year ‘extended full time’ format (no students have pursued this option to date). All three pathway options (Clinical, Research, and Leadership) have the same breakdown of core courses, electives, and immersive practica, as follows:

- Required coursework (4.5 FCEs), completed through a mix of online format and face-to-face interactions
- Elective coursework (1.0 FCE), consisting of field-related courses, as approved by the Program Director
- A major research paper (0.5 FCE)
- Experience-based immersive practica (2.0 FCEs)

The curriculum maps for all three pathways are included as Appendix 4.3. Course descriptions are included as Appendix 4.4. Program outcomes and objectives, as aligned with defined Degree Level Expectations (DLE), are elaborated in Appendix 4.5.

Program Structure and Modes of Delivery

Using a blended delivery model, the Program consists of three major curricular elements – online course delivery, week-long intensive, campus-based Institutes, and eight month experience-based practica.

Online Delivery - This is the primary method of content delivery, capitalizing on technologies and pedagogical approaches that combine the ideals of classroom learning with the unique opportunities afforded through online learning. Faculty-student interactions are maximized using the ‘inverted classroom model’, where most content delivery is managed through asynchronous approaches allowing live sessions to focus on interactive exploration and deeper learning.

Institutes - For one week in each of the first three semesters, students meet in Toronto for a combination of live sessions, labs, and group work to foster engagement and build practical skills.

Practica - Immersive practicum experiences over the final eight months of the Program, in an approved clinical department, further ensure the student develops the relevant and applied skills fundamental to a professional graduate degree. Depending on the pathway, practica can be structured in a number of ways, as long as the required time commitment, level of engagement, and objectives can be achieved:

- Clinical - based in a specialized disease site or technique, integrating advanced radiation therapy practice into specific patient populations or niche areas
- Research – based in a laboratory or clinical environment, usually engaged in discrete elements of a larger scale research project team
- Leadership – based in a clinical, government, or advocacy group, engaged in advancing relevant projects, policy development, or other areas of leadership
**Innovation** - The move to blended learning has been an evolving innovation, with the first cohort completing their studies in this format in 2013-2015. Hand-in-hand with the move to blended learning was a focus on the concept of the inverted classroom – maximizing the value of synchronous videoconferencing time by taking as much didactic learning as possible offline.

**Student Recruitment**

The Program’s admissions criteria (eligibility) are as follows:

- Either hold relevant certification in radiation therapy in one’s home jurisdiction of practice or provide evidence for eligibility AND
- Have completed a recognized bachelor’s degree in Medical Radiation Sciences or in an equivalent field
- Have obtained a minimum average grade of B+ over the final two years of full-time undergraduate studies
- Have performed a minimum of one year (900 hours) of professional practice within two years prior to application

A further criterion for admission (if applicant is from outside the UT catchment area) is approval that the applicant’s home clinical department has the necessary expertise, resources, and culture to support the applicant in engaging in advanced roles and research during the practicum element.

**Student Enrolment & Selection**

Currently, the ideal cohort size for the Program is small at 4-5 students. This goal may change in the future as advanced practice and roles in radiation therapy are rolled out more broadly across the country and around the world. When the Program moved from a campus-based model to a blended learning format in 2013, the potential applicant pool expanded to include international students.

Applicants who have been out of post-secondary education for more than 5 years will have their contributions to professional practice (elements of their curriculum vitae) assigned more weight than their undergraduate grades, as this has proven more reflective of the expectations of the Program.

<table>
<thead>
<tr>
<th>Intake Year</th>
<th># Students Admitted</th>
<th># Graduates (Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3</td>
<td>2 (2011)</td>
</tr>
<tr>
<td>2011</td>
<td>4</td>
<td>4 (2013)</td>
</tr>
<tr>
<td>2013</td>
<td>3</td>
<td>3 (2015)</td>
</tr>
<tr>
<td>2016</td>
<td>3</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Funding & Awards

As a professional program, many students maintain full-time employment throughout their studies. For this reason, many traditional sources of funding (bursaries, government funding, etc.) are not available to MHScMRS students. Depending on the jurisdiction and employment status, students do have a number of opportunities for funding, through employers, government funds, and professional associations. The Program endeavours to keep up-to-date information on the website and frequently provides advice to applicants and current students seeking funding support. In the past, students have made use of the following sources of funding:

1. **CAMRT Foundation Grants** – grants of varying amounts (depending on demand) through the national professional association
2. **Matthews Scholarship** – scholarship of up to $10,000 per year at the Princess Margaret Cancer Centre
3. **OAMRS Beth Wastle Bursary** – grants of varying amounts (depending on demand) through the provincial professional association
4. **Ontario Allied Health Professional Development Fund** - provincial fund for allied health professionals, awarding up to $1,500 per year

Assessment of Learning

For most courses, assessment is based on written work, major oral presentations, and other project work. Most assignments are structured according to traditional forms of communication in the academic world – business cases, grant applications, and journal manuscripts. Each course also has a formal participation grade requirement (maximum ~20% of the course grade), often assessed through participation in synchronous sessions as well as through Blackboard functions, such as discussion boards, blog posts, peer feedback/assessment, and wikis. Multiple choice and short answer exam are a small part of several courses.

The practica are structured based on an individualized learning plan, developed by the student in collaboration with the Course Director and the Faculty Supervisory Committee. Assessment is based primarily on the submission of a portfolio of evidence compiled and assessments from local supervisors that show the achievement of stated goals throughout the eight month practica.

Three graduate level assessment rubrics are used for evaluation – Paper, Presentation (Oral or Poster), or Participation (Appendix 4.6).

Graduate Student Supervision

The Faculty Advisory Committee will oversee and guide the learners as they work to achieve their learning goals in learners’ electives, research and clinical practica.
Quality Indicators

Comparable Programs

Few other graduate programs exist focusing specifically on radiation therapy, and those that do tend to be research-based MSc programs, as opposed to a more interactive, practical, professional degree such as is offered through the MHScMRS program. Sheffield Hallam University (England) and Charles Sturt University (Australia) have well-established programs that are offered fully through distance education online models, weighted towards a final research project.

A survey and series of interviews were conducted in the summer of 2015 to determine the factors used by therapists to select a graduate program, and perceptions of the MHScMRS program. The Program is perceived to be academically rigorous and attracted candidates accordingly. Historically, therapists who wished to pursue more research-based or leadership roles would select tangentially related programs such as MBAs, MAs in healthcare leadership, or MEds in healthcare education. The introduction of specialization pathways, advertised for September 2016, seems already to be redirecting some potential candidates to the MHScMRS Program.

Program Attrition & Time to Completion

All nine graduates of the Program were registered in the 2-year full-time program, and completed the program within that timeframe. None selected the 3 year extended full-time option. The one student who was lost to attrition was a member of the first cohort, and took leave from the program after the first semester, due to difficulty in maintaining a desired work-life balance. With such an intentionally small student population, students benefit from strong support from Program leadership. Individualized learning plans have been implemented when necessary, primarily to assist in the completion of the Major Research Project (MSC1509) and practica (MSC1510/11) courses, but all students have graduated and convocated with their initial cohorts.

Presentations While in the Program

Students in the program have presented at multiple local, national, and international conferences – RTi3 Radiation Therapy Conference, Canadian Association of Radiation Oncology Annual Scientific Meeting, and American Society for Therapeutic Radiation Oncology Annual Meetings. Some students published in peer-reviewed journals while in the Program (primarily in the Journal of Medical Imaging and Radiation Science).

Publication & Grants Post-Graduation

Five out of nine graduates have published since graduation (two of the four who have not are less than a year out since graduation). They have a total of 31 publications; nine as first authors (including two book chapters) and 22 as collaborators.

Grant opportunities for radiation therapists are few, but are slowly emerging – primarily through local institutions and professional associations. MHScMRS graduates have secured $19,500 in funding as either principal investigators or collaborators since 2012.
Post-Graduation Employment

Two of the nine graduates have assumed novel advanced practice roles since graduation. Four graduates have been appointed as faculty (at the level of Lecturer) in UTDRO; an impressive achievement for allied health professionals. Three have been formally engaged as stream coordinators (graduate level) or Course Directors (undergraduate level) in academic courses within the UTDRO’s MRS Program.

Teaching & Program Evaluation

Regular quantitative evaluation (teaching effectiveness scores, course evaluations) is difficult given the small size of the Program; thus the Program is reliant on surveys, informal feedback, and polling of graduates. This is expected to improve moving forward as the class size is anticipated to increase to 4-6 students. Course, guest faculty, and program evaluations are included as Appendices 4.7, 4.8, and 4.9 respectively. Anonymity is a challenge given the small class size; hence only aggregate data are reported.

Quality Enhancement and Optimization

Following the regular cycle of evaluation and review, two significant program reviews and redesigns have occurred since its inception in 2009. The first was the move to a blended learning model, launched in 2013; the second revision approved for implementation in 2016 was focused on increasing flexibility for the target population, in terms of both opportunities for specialization and the ability to maintain full-time employment. Both modifications were seen to be important in responding to the needs of our applicants.

Program leadership is heavily immersed in emerging education strategies and technologies, as well as emerging areas of innovation and discovery in radiation medicine. New opportunities to explore novel curricular content and to harness creative methods of delivery are constantly being investigated, balanced with the need to offer a reliably structured and consistent experience for both faculty and students.

Challenges and Opportunities

UTDRO believes that over time, the call for radiation therapy leaders will become more prevalent and has geared this program to build just those kinds of practitioners. As the changing landscape of radiation therapy takes hold across the country (and beyond), UTDRO believes its MHScMRS graduates will be poised to lead the charge, both nationally and internationally.

There are challenges to running this small specialized program. Tremendous support from staff and faculty must be present at all levels of the program including on the ground where the individual learner practices and learns. This takes a level of coordination that is not usual in a graduate program, but the close relationship that is built makes it easier over time to communicate program expectations to the learners, as well as their supporters and supervisors. While there is a plan for program expansion over time, maintaining the intimate and immersive experience will continue to be important. While the opportunity for this program to have an impact on professional practice at an international level is significant, the current funding model
dis-incentivizes this pursuit; this represents a major barrier for international recruitment and opportunity for international impact.
Undergraduate Medical Education

The Department of Radiation Oncology (UTDRO) actively participates in undergraduate medical education (UME), with 60 staff radiation oncologists contributing directly to the UME curriculum. The UofT administers its hospital-based teaching through four academies; two of which are relevant to UTDRO, since they are based in the locations of the two cancer centres. The PM Cancer Centre is affiliated with the Wightman-Berris Academy through UHN; the Odette Cancer Centre is affiliated with the Peters-Boyd Academy at Sunnybrook Health Sciences Centre. Undergraduate medical students at both PM and Odette Cancer Centres register with these two academies.

The majority of teaching occurs in the clinical setting with students rotating amongst faculty members in one to six-week rotations. Students participating in these rotations do so within a number of programs administered by the FoM, and other national and international medical schools. In addition, UTDRO contributes to UME through the Wightman-Berris and Peters-Boyd Academies; formal requests are made annually from the medical school to UT-DRO for teaching participation. With the current curriculum renewal at the medical school, the nature of these requests are changing to accommodate the 2016/17 double-cohort at the medical school.

Undergraduate medical education is currently divided into preclerkship (Year 1 and 2) and clerkship teaching (Year 3 and 4). For the purpose of this report, the academic year is recognized as beginning on July 1st and concluding on June 30th of the following year.

Program Leadership

![Diagram of Program Leadership]

Figure 8: Undergraduate Medical Education Program Leadership
Program Objectives

- To provide a foundational experience to medical students regarding the role of radiation therapy in the management of cancer patients as well as promote educated referrals to the discipline
- To facilitate career exploration opportunities in Radiation Oncology
- To support the academic programs at the University of Toronto medical school

Student Recruitment

The University of Toronto Medical School receives approximately 3000 applications annually. Each application undergoes independent file review by several individuals for each section. The Medical School interviews approximately 570 students per year; each student is interviewed by a faculty and medical student team. These interviews are conducted over several months from January to March of each year; in the end approximately 250 students are enrolled per year.

Students apply for elective opportunities or transition to residency placements through the UofT, and are then allocated to available placements in UTDRO.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Clinical Rotations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2013</td>
<td>69</td>
</tr>
<tr>
<td>2013-2014</td>
<td>49</td>
</tr>
<tr>
<td>2014-2015</td>
<td>43</td>
</tr>
<tr>
<td>2015-2016</td>
<td>53</td>
</tr>
</tbody>
</table>

Table 11: Number of Coordinated Undergraduate Clinical Rotations

Curriculum and Program Delivery

Preclerkship (Years 1 and 2) – DRO Contributions (Preclinical Teaching)

Mechanisms, Manifestations & Management of Disease (MMMD)

This is a 36-week course which runs throughout the second year of medical school. The first nine weeks focus on the mechanisms of disease: the pathogenesis and the changes that occur at the tissue, cellular and molecular levels and their clinical manifestations. A comprehensive understanding of the mechanisms and structural alterations produced by disease is a necessary framework with which one can plan strategies for prevention, diagnosis and treatment.

The mechanisms section covers the major categories of human disease, and is divided into four major topics:
- genetics and genetic diseases
- immunology and disorders of the immune system
- microbiology (including bacteriology, virology, mycology, and parasitology)
- pathology (including cellular and molecular responses to injury, inflammatory disorders, and neoplasia)

The remaining 27 weeks deliver a systems-based program that covers the manifestations and management of most diseases across the age spectrum. The major disease categories addressed are:

- obstetrical/gynaecological
- paediatric and adolescent
- surgical
- internal medicine
- psychiatric

A primary care perspective is prominent throughout, and considerations of laboratory medicine are integrated into the systems portion. The themes of ethics and professionalism, manager, collaborator, medical imaging, and pharmacology all receive attention throughout the course. This MMMD course incorporates lectures, seminars, and problem-based learning (PBL) tutorials.

**Clerkship (Years 3 and 4)**

**General Electives**

Year 3 and 4 students have the opportunity to rotate through a clinical elective in UTDRO. A total of 102 students participated in 2011-2016. The intent of a general elective is to expose students to the field of radiation oncology. The students rotate with a number of faculty to experience new patient clinics, follow up clinics, planning and review; the duration of each rotation varies from two to six weeks.

The goals of the Electives program are to provide students with flexibility and opportunities to explore career possibilities, to gain experience in aspects of medicine beyond the core curriculum, and to study subjects in greater depth. Knowledge, skills and attitudes are further developed in a clinical context selected by students. Individualized experiences may occur within the University or at other recognized sites of practice such as other medical schools across Canada and in northern and non-urban areas. Students may also undertake Global Health Electives in accordance to UofT policies.

The student and the supervisor are responsible for ensuring a clear, mutual understanding of the learning activities designed to meet the objectives of the Elective. Students are responsible for arranging and completing a total of 12 weeks of electives during their designated fourth year Elective period. Each Elective must be at least two weeks in duration. Students must complete Electives from three different disciplines, with a “discipline” defined as being any one of the Canadian Residency Matching Service (CaRMS) direct entry programs.
Portfolio

The Portfolio course consists of seven sessions, 2 hours each, where students have the opportunity to reflect with their peers and two supervisors (a faculty member and a resident) on their clinical learning from each of the Canadian Medical Education Directives for Specialists (CanMEDS) roles. These sessions take part throughout the third year.

Longitudinal Integrated Clerkship (LinC) Pilot

The UofT UME Program is piloting a novel approach to train third year medical students entitled the Longitudinal Integrated Clerkship (LInC). A critical element of the LInC experience is that students assume a meaningful level of responsibility for a “panel” of patients, whom they follow in a longitudinal manner in a variety of clinical care settings.

Faculty and hospital staff facilitate their learning by:

1. Allowing the student to accompany the patient during their visits with the consent of the patient
2. Incorporating the contributions of the student who should have a comprehensive knowledge of the patient’s history
3. Involving the student in the clinical conversations
4. Reviewing with the student the clinical results and physical examination as appropriate

Transition to Residency (TTR)

Medical students devote the final 14 weeks of the four-year MD program to synthesize the concepts they have learned about functioning as physicians, and applying them into practice in real world settings, as preparation for PGY1. The majority of TTR consists of ten weeks assigned for selectives (two of which are three weeks in duration, the final one is four weeks long). In addition, there are four weeks for centralized teaching, divided into two blocks of one week each and a third block of two weeks.

The selectives promote workplace-based learning, where students have increased (graded) responsibility under supervision. These experiences allow the students to bring together many different areas of knowledge and skill in the care of patients or populations, as they prepare for the increased responsibility of their PGY1 programs.

Students are required to complete at least one of the selectives in a community setting, and at least one of the selectives in either a medicine or surgery-based area. Students may use one of their selectives to satisfy the requirement for three different direct-entry electives in their UME program. From 2011 to 2016, 74 students have completed this process.

Other Activities

Oncology Interest Group: The Oncology Interest Group at UofT is a group governed and coordinated by medical students for their peers to learn about the field of Oncology. They facilitate mentorship opportunities and host semi-annual events with invited speakers from various oncology disciplines.
Comprehensive Research Experience for Medical Students (CREMS): CREMS is a research opportunity for students, which exists outside the mandatory curriculum. It consists of two independent programs.

CREMS Research Scholar Program is a 20-month longitudinal program that runs from January of the student’s first year in the MD program to the end of August in the summer between second and third year, with full-time research during the summers. Student funding is divided equally between the CREMS program and the research supervisor.

CREMS Summer Program is a full-time 10-12-week summer research program between first- and second-year, or second- and third-year. Student funding is divided equally between the CREMS program and the research supervisor.

CARO-CROF Studentship: The Canadian Association of Radiation Oncology and the Canadian Radiation Oncology Foundation have established a studentship to provide clinical experience in Radiation Oncology for Canadian medical students to assist them in future career selection.

Based on the previously successful Ivan Smith Summer Studentship Program in Ontario, this program offers a six-week summer clinical elective for Canadian medical students between their second and third year. There is a competition for funded slots and students are allocated to participating residency programs across Canada. This process is adjudicated by the CARO Education Committee; from 2011 to 2016, 8 students have received the CARO-CROF Studentship.

DOC Talks: DOC Talks are a series of career coaching lectures hosted for UofT medical students in all 4 years. They meet with a small panel of specialists to explore career opportunities.

Student Awards

UTDRO has hosted 6 medical students through the CARO-CROF summer studentship program since its inception in 2013. This is a competitive, funded, summer program to allow career exploration in Radiation Oncology.

Assessment of learning

There are 3 main forms of assessment in the UME program.

1. Medical students receive written mid- and end-of placement evaluations through the MEDSIS electronic assessment system. These evaluations are completed with input from all of the rotation supervisors.

2. The medical students provide electronic assessment of the placement upon rotation completion. The program administrator tracks response rates with the goal of 100%.

The medical students provide electronic assessment of teaching effectiveness (TES) for each faculty supervisor upon rotation completion. Faculty receive annual feedback on teaching performance provided they have a minimum of 3 assessments to provide anonymity. They also receive a 3-year rolling TES scores to ensure more faculty receive feedback on their teaching.
For UTDRO faculty who teach in the formal programs in the medical school (such as Mechanisms and Manifestations of Disease), assessment of their teaching is conducted by the medical school and available to the faculty in their MEDSIS portal. The UME director provides annual reminders to faculty on how to access these reports or assists at other times as needed.

**Quality Enhancement and Optimization**

Dr Meredith Giuliani became the UTDRO UME director in 2013. The three main program optimizations and innovations since this time were enhancing assessment response rates (and faculty feedback), increasing UTDRO participation in formal UME courses, and leading the development of the cancer curriculum for the medical school curriculum renewal.

Starting in 2013, a new electronic system was implemented which is administered centrally by the UTDRO office. This has resulted in reduced work to collate the evaluations and an improved completion rate. Timely and comprehensive teaching feedback to faculty is essential to maintaining engagement in the program.

UTDRO also sought out additional opportunities to participate in UME programs specifically to engage in the multitude of opportunities that require residents as teachers. This serves a dual purpose of providing teaching opportunities for residents and to increase UTDRO presence in UME. In the 2014/15 academic year, 11 UTDRO residents participated in 8 UME programs.

The UME Program at UofT is currently in the process of a curriculum renewal which will start in the fall of 2016. Dr Meredith Giuliani is leading the development of the cancer curriculum for this renewal with an interdisciplinary team. The new comprehensive cancer curriculum will be based on a Canadian curriculum document for oncology. This new oncology curriculum will have longitudinal integrated components in Units 1-3, and a dedicated cancer week in Unit 4. The first iteration of the Cancer Week in Unit 4 will roll out in the spring of 2018.

**Challenges and opportunities**

Greater faculty engagement in supporting clinical placements (electives and TTRs) is required to expand the clinical opportunities for medical students within UTDRO. Increased faculty engagement is also needed to support the core medical school programs especially with the significant increase in cancer content with the curriculum renewal.

**Learners Report**

The aggregated teacher and rotation effectiveness scores are outlined in Appendix 5.1. Overall, UTDRO has very high rotation (4.2-4.5/5) and teacher (4.3-4.7/5) scores. There was a slight decrease in the TES in 2014/15 (from 4.7 to 4.3) as this coincided with implementation of electronic evaluations and an increase in the percentage of teaching faculty evaluated. Going forward, 2014/15 will be used as the baseline benchmark.

The individual teachers are provided their scores as well as site and departmental means annually. This is also sent to the UTDRO Chair and site leads. Resources to support teachers with lower scores who may benefit from attending workshops/courses on teaching are needed.
**STARS21 (Formerly EIRR21)**

**Program Overview**

The Terry Fox Research Institute (TFRI) Strategic Training Initiative for Excellence in Radiation Research for the 21st Century (EIRR21) is designed to provide graduate students, postdoctoral fellows (PDF), residents and clinical fellows, the essential skills to conduct innovative translational and transdisciplinary research in Radiation Medicine, as well as the leadership and collaboration proficiencies necessary to define them as future leaders of Canada’s biomedical community. The program facilitates the integration of trainees in various fields such as biology, genomics, chemistry, pharmacology, informatics, health policy, medical physics, radiation oncology, imaging, biostatistics and clinical outcomes research within a learning community that resembles the multidisciplinary nature of today’s team-based science.

EIRR21 was created in 2003 by the founding Program Director, Dr. Fei-Fei Liu with funding from CIHR. Since the appointment of Drs. Anne Koch and Marianne Koritzinsky as the new EIRR21 Co-Directors in 2012, the Authorization for Funding for 2013-2015 was updated by CIHR, wherein the program was selected for full funding by the TFRI. In July 2015, EIRR21 was awarded two years of transitional funding from the TFRI to further develop and advance the program’s impact across Canada. This funding was generously matched by the Princess Margaret Research and Radiation Medicine Programs.

**List of Program Leadership**

Program Co-Directors: Drs. Anne Koch & Marianne Koritzinsky

**Program Governance**

Program directors are supported by an external Scientific Advisory Board (SAB; Appendix 6.1) and an internal Program Advisory Committee (PAC; Appendix 6.2). The Program Advisory Committee (PAC) conducts most of its business via email, but schedules 2-3 in-person meetings per year when major programmatic issues and strategic directions are discussed. The SAB advises EIRR21 on strategies for continued improvement and achieving the objectives of the program. In order to ensure continued excellence in the EIRR21 Training Program, EIRR21 undergoes an annual external review by the SAB.

**Program Objectives**

The goal of EIRR21 is to recruit and train innovative Radiation Medicine Researchers who will form the next generation of investigators in developing and implementing an integrated perspective that encompasses novel diagnostic, therapeutic, and evaluative approaches to Radiation Therapy in Canada.
Student Recruitment

Applicants to the EIRR21 Training Program must:

- Be working towards or have successfully completed an MSc, PhD, or MD
- If MSc or PhD, be affiliated with the School of Graduate Studies at the UofT (Medical Biophysics, Institute of Medical Science, Institute of Health Policy, Management and Evaluation, Medical Genetics), or Universities of Alberta, British Columbia and McGill. For Clinical Fellows, it is preferable if the applicant is registered in one of the Departmental Graduate Programs, but not mandatory
- Be supervised by a Mentor who is a member of EIRR21. Exception is made for UTDRO Radiation Oncology or Physics residents who do not require an EIRR21 mentor, but a trans-disciplinary research project is essential

Enrolment Numbers and Applicant Selection Process

The criteria for selection of scholars into EIRR21 (see Appendix 6.3) are based on academic excellence, prior research productivity, interpersonal communication, and potential leadership skills. These attributes are determined from the applicants’ transcripts, curriculum vitae, research proposal, and letters of reference. The EIRR21 training program encourages application from various disciplines, and both Canadian and international students are eligible to apply for the program. From 2010-2012, scholars were eligible to apply to remain in the program with full funding for two years. There was therefore an average of 4 new scholars per year. From 2013 to present, scholar stipends were reduced to one year of full funding; this allowed for an increase in enrollment, which grew to an average of 17 new scholars in the program per year including IMS students.

Curriculum and Program Delivery

Each year, new invited speakers are asked to present on novel research practices and comment on the relevance to current translational research, and provide insights into future directions. Speakers are experts in their field of study and represent various areas of research, industry, academia and health professions.

Program Requirements and Learning Outcomes

Scholars must attend at least 80% of the program’s Brainstorming Sessions. In addition, scholars must participate in the annual group project, and present a research poster at the UTDRO Research Day. Remote scholars must login to the video conference to receive participation credit, and contribute to their group project at the Research Day.

Modes of Delivery

The EIRR21 Brainstorm Sessions are at the core of the program curriculum, and are held on average twice per month from September-June. These sessions provide a forum for scholars to interact on a regular basis and exchange scientific ideas on an informal basis. Such sessions impart skills not offered through standard university courses, and can be led by non-academic
experts, such as executive coaches or diversity officers; thereby exposing EIRR21 scholars to individuals from a broad spectrum of backgrounds. Sessions are attended in person or via video conference for scholars located outside the province.

**Innovation in the Content and/or Delivery of the Program**

The ability to deliver educational content nationally relies heavily on our ability to harness technology. In an effort to drive this strategic priority forward, EIRR21 utilized the Radiation Medicine Program’s Cisco Show & Share (SnS) technology to both distribute Brainstorm Sessions to our remote scholars live, as well as to capture each session and post onto a secure online portal for asynchronous viewing. This provides scholars the opportunity to re-watch sessions they enjoyed or missed. Going forward, to better engage remote learners, live streaming and two way connectivity will be explored.

**Opportunities for Student Learning Beyond the Classroom**

EIRR21 Program scholars are encouraged to network with the growing program alumni who are accessible to them, and learn from their experiences.

**Opportunities for Student-Faculty Interaction**

Scholars interact with faculty during the Brainstorm Sessions and are invited to liaise with faculty mentors during preparation of the year-end group project presentation. They also present posters and discuss their research with faculty at the year-end research day.

**Student Awards**

**Scholarships, Competitions, and Awards**

In addition to the scholar stipends, scholars are eligible to apply for two travel award competitions that are held each academic year ($4,000/annum). Travel awards are intended for EIRR21 scholars attending conferences, workshops or visiting laboratories to expand scientific skill sets.

**Professional Development of Students**

For the past two years, the EIRR21 program has included a “Career Development” session in the curriculum whereby program alumni, mentors, and affiliated scientists are invited to speak to scholars regarding their experience with the EIRR21 program and the paths they took to their current roles in their careers. The format of this session is very informal, and scholars are placed in groups and rotate between the invited discussants. This session has been highly regarded and valued by both scholars and discussants alike.
Student Funding and Support

Between 2010-2015, 63 trainees were enrolled in the EIRR21 training program. On average, EIRR21 has provided 48% of their stipends (see Appendix 6.4). Funding consists of a 1-year stipend of the following amounts:

- MSc: $25,000
- Post Doc Fellow: $40,000
- Clinical Fellow: $30,000
- PhD: $30,000
- Residents: $3000 (travel funds)

Assessment of Learning

In spite of trainee testimonials to the importance of EIRR21 for their career development, a substantial challenge that these types of training programs have faced is the lack of a uniform and objective evaluation of impact and excellence. In fact, there is a dearth of evaluation tools for trans-disciplinary training programs in the education literature, although our program has attempted to contribute to the literature (C P'ng et al. *IJOBP* 2012; M Koritzinsky et al. *CBE Life Sci Educ* 2016). To better evaluate the impact of the EIRR21 program, new evaluation tools have been developed and implemented this past academic year. Pre- and post-programmatic assessments have been performed to better understand the perceived change in learning that scholars experience from beginning to end.

Preliminary pre- and post-course evaluation data have been collected and analyzed for 2015. Amongst the respondents, 90% (n=10) indicated that the EIRR21 program either met or exceeded their expectations; 100% (n=10) would recommend the program to their colleagues; the breadth and depth of the curriculum was at the right level, and 100% (n=10) found it relevant to their research education. Overall, the EIRR21 curriculum succeeded in not only increasing scholar’s perceived proficiency in scientific areas such as interprofessional collaboration, transdisciplinary radiation medicine and cancer research, scientific communication, translational cancer research and personalized medicine, but it also increased the scholar’s overall perception of the importance of these critical elements. Appendix 6.5 provides a summary of the pre- and post-proficiency and the average importance ratings.

Quality and Availability of Graduate Student Supervision

The EIRR21 program relies on individual mentors to supervise scholars in the progression of their research projects. The Program Directors are available to scholars for guidance and support, but are not directly responsible for the scholar’s supervision.

Quality Indicators

Graduates

In 2013, the EIRR21 program transitioned from a 2-year funding to a 1-year funding model, whereby all scholars graduated after one year of full stipend support in the program. Following
their first year, scholars may decide to continue in the program as an alumnus and receive a modest top-up of $2500; if they do not continue, scholars must graduate from the program.

Over the past 5 years, from 2010-2015, the EIRR21 program on average has had 92% of scholars continue as alumni in the program for at least one additional year. Alumni participate in the EIRR21 curriculum alongside new scholars.

**Student In-Course Reports on Teaching**

In addition to the overall programmatic evaluation tool update, we have also undertaken considerable revisions to our teaching effectiveness evaluations. Please see Appendix 6.6 for a summary of the 2015 speaker evaluations.

**Quality of the Educational Experience and Teaching**

Program trainees report a high degree of satisfaction, are productive, participate in impactful research, and alumni continue to contribute to research capacity in Canada. EIRR21 sessions are rated highly, on average at 4.4 on a 5-point scale from 2010-2014; and 4.6 in 2015.

**Academic Productivity by Trainees (Research, Presentations, Publications)**

Please see Appendix 6.7 for a list of EIRR21 scholar academic productivity from 2010-2015. Listed academic activities include publications, patents, grants and presentations that took place while scholars were enrolled in the program. Trainees publish on average 1 paper per year, including several papers in high impact journals such as *PNAS, Molecular Cell, Nature* and *Science*. Two EIRR21 trainees have also been awarded the prestigious John Polanyi Prize from UofT, and several are now leading their own research programs supported by highly competitive peer-reviewed funding such as CCSRI Impact Grant, TFRI Program Grant, CIHR Operating Grant, and NSERC Discovery Grants.

**Employment Rates Post-Graduation**

From 2010-2015, 51 trainees have been enrolled in the EIRR21 training program; the majority are still in training, transitioning or in the very early phase in their careers. However, amongst the ~43% tracked alumni who have reached a more permanent stage of their career; all continue to contribute to research in various capacities. Approximately 35% are clinician scientists, 35% work in industry, 21% are in academia, and a small fraction serve as scientific advisors to government.

**Quality Enhancement and Optimization**

As previously mentioned, the program transitioned from a 2-year funding to a 1-year funding model. This allowed for a greater pool of applicants to be considered and allowed for a larger number of high quality scholars to participate and contribute to the program.

Two measures have been implemented in recent years to address the programmatic issue of critical mass while maintaining funding levels. One is the inclusion of residents (radiation oncology and medical physics residents) who do not receive stipend funding but a small
contribution to travel (max $3,000). They enter the program in a competitive process to maintain a high level of scholarly achievement. The second is the launch of the EIRR21 program as a module within an IMS graduate course.

A curriculum development in recent years was the introduction of scholar group presentations in the beginning of the year. Groups consisted of scholars situated within similar fields, such that the presentation provided a broad overview to introduce the field, followed by a short discussion of individual scholar research.

Challenges and opportunities

Sustainability and recruitment of excellent candidates have always been the key challenges facing EIRR21. We continue to update the curriculum to encompass state-of-the art research directions, recruit outstanding trainees, deliver an excellent training program, and develop EIRR21 mentor composition to increase research excellence, diversity, mentorship and program scope. Financial sustainability will remain a strategic priority to ensure the continued growth and success of our program.
UTDRO Continuing Education Programs

The UTDRO Continuing Education (CE) portfolio promotes the dissemination of new knowledge and fosters the adoption of best practices generated by UTDRO academic programs. The focus of this portfolio is to stimulate the development of collaborative academic networks. Challenges for Continuing Education within an inter-professional department of radiation oncologists, physicists, therapists and nurses practicing at two geographically distinct clinical sites have been turned into opportunities to develop innovative, inter-professional learning initiatives, and to embark on a program of computer-based learning which incorporates webcasting and videoconferencing opportunities.

Continuing Education Leadership and Governance

Chair: Dr. Doug Moseley (2012-2016)

The CE Committee is responsible for designing, implementing and evaluating best practices, innovative continuing education and professional development activities for oncology health care professionals within the Department, University and community settings, and advises the Chair through the Vice Chair of Education, on CE issues as they relate to UTDRO. The CE Committee is composed of members of UTDRO with a particular interest in the theory, scholarship and best practice of continuing education to enhance the knowledge, skills and performance of oncology health professionals and improving patient care. Several educators within the Department hold postgraduate degrees in medical education and have particular academic interests in professional development, inter-professional education, and practice based learning. All of these elements are key in the clinical practice and academic environment within the Department. This Committee meets bi-annually and reports to the Vice Chair of Education, UTDRO.

Program Objectives

In keeping with the Faculty of Medicine’s key strategic priorities for Continuing Professional Development, the objectives for the CE program include:

- Providing opportunities for professional development through distance learning and online education initiatives in order to enhance scalability of CE offerings
- Increasing outreach of CE offerings
- Enhancing skills-based education initiatives (e.g. AEP program)
- Advancing research, innovation and scholarship
- Promoting patient and public engagement
UTDRO Rounds

The UTDRO Rounds profile the academic programs of UTDRO; through these Rounds, UTDRO shares information and ideas between the two campuses of the PM and Odette Cancer Centers; fostering new research collaborations and stimulating inquiry. The UTDRO Rounds are integrated with the regularly scheduled Radiation Medicine and Odette rounds in order to share ongoing research on a monthly basis. In addition, the Rounds are web-casted and archived to increase the number of faculty who can access these events on a regular basis. From 2011 to January 2015, 37 faculty have delivered rounds at 28 different events; in addition, one Visiting Professor has also delivered rounds.

The overall feedback from these rounds has been positive, wherein 84% of attendees found that they learned something new at the Rounds. These rounds however, have been replaced by the UTDRO Evening Journal Club due to scheduling challenges at Odette Cancer Centre.

Target Insight

Target Insight 2017 Co-Chairs

Drs. Alejandro Berlin and Ewa Szumacher

Conference Description

UTDRO has hosted nine installments of the Target Insight Conferences since 2001. This innovative meeting has attracted influential practitioners, health policy experts and decision makers in the field of radiation medicine, including interdisciplinary health care providers such as therapists, nurses, physicists, students and administrators.

Target Insight (TI) has been a mechanism to present state-of-the-art information to the radiation oncology community. In the recent past, the content of TI has included best practices of advanced technologies such as IMRT, VMAT, IGRT and brachytherapy. This is a unique conference that provides a highly interactive environment allowing its participants every opportunity for discussion and to have their specific questions addressed.

Event Learning Objectives

The target audience for this conference is radiation oncologists, radiation therapists and medical physicists from national and international centres. The format of the event is a one-day conference. The theme of the 2017 Target Insight Conference is Personalized Radiation Medicine: From Theory to Practice. The learning objectives are:

- To expose the Radiation Oncology community, especially the Canadian community, to exemplary international research in Personalized Radiation Medicine in order to disseminate knowledge that will inform clinical care, professional practice and treatment policies
- To facilitate discussion on the barriers and enablers to implementing personalized medicine into routine clinical practice
• To present the current best practices for implementing this new knowledge to clinical, research and education areas

Yearly Themes

2012:  [Lung Cancer, Prostate Cancer, Liver & Spine, Gynecologic Cancer, Biologic Insights and Thoughts from the Trenches]
2013:  [Rethinking Radiation Therapy in Metastatic Disease (two days)]
2014:  [4PRT – Photons, Protons, Particles and Progress in Radiation Therapy]
2015:  [Applying Information and Technology to Cancer Care]

Highlights

• To influence evidence-based practice-changing educational content, principles and discussions in the field of radiation oncology, proton therapy, and palliative care
• The conference is an inter-disciplinary CE event dedicated to radiation oncologists, physicists, therapists, as well as other allied health care providers

Challenges

• Funding at host institutions and partner hospitals during this time of fiscal constraint, but there remains an ambition to advance clinical care and delivery
• High quality content attractive to various groups of participants
• Decreasing attendance
• Finding an international expert speaker
• Advertisement of the conference
• Lack of conference theme without a specific focus that is clear to participants

Opportunities

There is an opportunity to partner with ASTRO, ESTRO, CARO, ASCO, and American Association of Cancer Education (AACE)

Attendance

<table>
<thead>
<tr>
<th>Year</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>157</td>
</tr>
<tr>
<td>2013</td>
<td>140</td>
</tr>
<tr>
<td>2014</td>
<td>107</td>
</tr>
<tr>
<td>2015</td>
<td>91</td>
</tr>
</tbody>
</table>

Table 12: Target Insight Attendance by Year
RTi3

RTi3 Radiation Therapy Conference, hosted by the UTDRO CE Office, is Canada’s premier radiation therapy conference. The Conference continues to focus on the theme of “Inquire, Inspire and Innovate”; the science and practice of radiation therapy. Over the past decade, the scope and caliber of the program continues to set the bar for radiation therapist-led research across the country.

2015/2016 Co-Chairs

Lisa Di Prospero and Kieng Tan

Event Purpose

- To disseminate the latest evidence in radiation therapy to inform and stimulate clinical practice
- To provide learning opportunities for practitioners to update their clinical knowledge
- To facilitate networking and communication, and development of professional communities of practice

Event Learning Objectives

- To provide a forum for the dissemination of new knowledge on: the innovative application of radiotherapy technology, measurement and management of organ motion, factors influencing clinical outcomes, personalized radiation medicine, quality improvement in radiotherapy, new roles and practice models, patient education and supportive care, student and continuing education
- To provide a forum for updating practitioner knowledge and clinical skills through lectures and workshops on: standardization of decision making in radiotherapy, skin cancer etiology, sexual health and intimacy for cancer patients, and the planning and treatment of primary brain cancer
- To provide a forum for discussion of challenges and opportunities related to advanced practice initiatives, career specialization and development, research publication and smoking cessation programs

Event Format

RTi3 is an annual conference event that is held over 2 days during the first Friday and Saturday in March. Preceding the conference is a full day themed Pre-Conference in which interactive workshops focus on building skills. Two co-chairs, one each from Odette and the Princess Margaret are charged with establishing the overarching theme and content as well as leading the Organizing Committee, which includes representation from affiliated UTDRO clinical site partners.

Highlights

RTi3 has contributed significantly to the development of professional communities of practice and to the academic culture of the radiation therapy profession locally, provincially and nationally. The growth of this academic culture is supported by:
2014 – collaboration with the national professional body Canadian Association of Medical Radiation Technologists (CAMRT) to deliver the ELIIT Research Academy

2015 – highest number of abstract submissions at 93

2016 – collaboration with provincial professional body, Ontario Association of Medical Radiation Sciences (OAMRS)

Publication of all abstracts in the *Journal of Medical Imaging and Radiation Sciences*

Focused plenary sessions on dosimetric advances, innovations in practice, patient and supportive care, as well as panel discussions on career transitions, and research

Established a provincial following throughout Ontario, which is growing nationally and internationally with delegates from New Zealand, United Kingdom, and the United States

**Challenges**

The lack of staff coverage and CE funding support at clinical sites across Canada continue to erode attendance of delegates. This is unlikely to change in the immediate future, thus there remains a need to make a concerted effort to broaden reach internationally. The lack of clinical site support of delegates has the greatest impact on Pre-Conference attendance.

**Opportunities**

RTi3 has been fortunate to attract international delegates; however there remains an opportunity to increase international attendance, especially from the United States. Thus, collaboration with the American Association of Medical Dosimetry (AAMD) is being explored. Nationally, there is an opportunity in 2017 to collaborate with the Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting which will be held in Toronto. Also, further collaboration with the Ontario Association of Medical Radiation Sciences (OAMRS) will be pursued. In addition, restructuring the Pre-Conference to be offered as a post-conference event delivered on the Sunday following RTi3 may alleviate clinical site support barriers for attendance.

**Attendance**

<table>
<thead>
<tr>
<th>Year</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>54 accepted abstracts; 150 delegates</td>
</tr>
<tr>
<td>2013</td>
<td>76 accepted abstracts; 152 delegates</td>
</tr>
<tr>
<td>2014</td>
<td>81 accepted abstracts; 160 delegates</td>
</tr>
<tr>
<td>2015</td>
<td>93 accepted abstracts; 178 delegates</td>
</tr>
<tr>
<td>2016</td>
<td>79 accepted abstracts; 157 delegates</td>
</tr>
</tbody>
</table>

*Note: There was no RTi3 conference in 2012*
Clinical and Experimental Radiobiology

Co-Chairs: Drs. Marianne Koritzinsky and Bradly Wouters

Course Description

Since 2009, UTDRO has been offering a week-long intensive course entitled “Clinical and Experimental Radiobiology”. During the immersive course, trainees in radiation oncology, physics and biology learn the language and science of radiobiology as well as its application in the clinic. With multidisciplinary faculty and students in the course, the rich discussions that take place in the classroom help connect concepts and theories that stem from basic biology to imaging and physics. The course content covers areas of radiobiology that are relevant to radiation oncology. This includes topics such as molecular and cellular responses to radiation-induced damage that influence cell death in both tumours and normal tissues, quantitation of radiation effects, fractionation of radiotherapy, retreatment issues, hypoxia and combined modality treatment.

Course Purpose

The course is designed primarily to address the needs of radiation oncology and physics residents who are in radiation oncology departments. In addition, the course will be valuable to new researchers in radiation biology and to radiation oncology fellows or practicing oncologists who wish to update their knowledge.

Learning Objectives

The learning objectives of the course are such that after active engagement in this five-day program, participants will be better able to:

- Apply novel forms of therapy, including combination therapy with chemotherapy and targeted agents to improve patient outcomes
- Improve the safety of radiation therapy and reduce side effects through an understanding of its biological principles
- Describe the key aspects of radiation biology that are of particular relevance to the practice of radiation oncology
- Predict the molecular and cellular responses to radiation-induced damage that influence cell death in both tumors and normal tissues
- Quantify the radiation effects and the underlying biological basis for fractionation of radiotherapy and dose-response relationships in the clinic
- Evaluate the biological basis for side effects that limit safe doses of treatment and retreatment

Course instructors/core teachers in the field also have their own specific objectives for their sessions (see Appendix 7.1). Teaching faculty includes internationally recognized Visiting Professors Mike Joiner, Bert van der Kogel, and Soren Bentzen, who are also key contributors to the leading text book in the field (Basic Clinical Radiobiology, Ed: Joiner and van der Kogel).
Participating Faculty

Table 14: Radiobiology Teaching Faculty

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Institution</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bentzen</td>
<td>Soren</td>
<td>University of Maryland School of Medicine</td>
<td>Professor</td>
</tr>
<tr>
<td>Brade</td>
<td>Anthony</td>
<td>Princess Margaret Cancer Centre</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Bratman</td>
<td>Scott</td>
<td>Princess Margaret Cancer Centre</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Bristow</td>
<td>Robert</td>
<td>Princess Margaret Cancer Centre</td>
<td>Professor</td>
</tr>
<tr>
<td>Dawson</td>
<td>Laura</td>
<td>University Health Network</td>
<td>Professor</td>
</tr>
<tr>
<td>Hill</td>
<td>Richard</td>
<td>Princess Margaret Cancer Centre</td>
<td>Professor</td>
</tr>
<tr>
<td>Hodgson</td>
<td>David</td>
<td>University Health Network</td>
<td>Professor</td>
</tr>
<tr>
<td>Joiner</td>
<td>Michael</td>
<td>Wayne State University</td>
<td>Professor</td>
</tr>
<tr>
<td>Koritzinsky</td>
<td>Marianne</td>
<td>Princess Margaret Cancer Centre</td>
<td>Co-Director, Assistant Professor</td>
</tr>
<tr>
<td>Liu</td>
<td>Stanley</td>
<td>Sunnybrook Odette Cancer Centre</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Milosevic</td>
<td>Mike</td>
<td>Princess Margaret Cancer Centre</td>
<td>Professor</td>
</tr>
<tr>
<td>Morton</td>
<td>Gerard</td>
<td>Sunnybrook Odette Cancer Centre</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>van der Kogel</td>
<td>Albert</td>
<td>Radboud University Nijmegen &amp; University of Wisconsin-Madison</td>
<td>Professor</td>
</tr>
<tr>
<td>Wong</td>
<td>Shun</td>
<td>Sunnybrook Odette Cancer Centre</td>
<td>Professor</td>
</tr>
<tr>
<td>Wouters</td>
<td>Bradly</td>
<td>Princess Margaret Cancer Centre</td>
<td>Co-Director, Professor</td>
</tr>
</tbody>
</table>

Course Format

The course is presented in class by the different faculty. The course is followed immediately by an examination; residents take a 3-hour exam for course credit; non-residents take an optional 1-hour exam. See Appendix 7.2 for the 2016 course schedule.

Highlights

The course has contributed significantly to the knowledge and professional development of radiation oncology residents, physics residents and radiobiology researchers. It is recognized nationally as an essential course for the education of residents in radiation oncology. The course currently serves as a template for the development of curriculum for the Royal College certification exam. In addition, the course tutorials serve as a platform to discuss best practices amongst centers across Canada, and integrate trainees in different disciplines who will continue to interact throughout their respective careers.
Attendance

Over the last 7 years, this course has trained more than 250 residents and fellows from across Canada. Each year, this course receives accreditation for 27.5 Continuing Professional Development credits from the Royal College of Physicians and Surgeons of Canada.

Table 15: Clinical and Experimental Radiobiology Attendance by Year

<table>
<thead>
<tr>
<th>Participants</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td>2012</td>
</tr>
<tr>
<td>37</td>
<td>2013</td>
</tr>
<tr>
<td>41</td>
<td>2014</td>
</tr>
<tr>
<td>36</td>
<td>2015</td>
</tr>
<tr>
<td>44</td>
<td>2016</td>
</tr>
</tbody>
</table>

Challenges

The course is very intensive, it is 9 AM – 4 PM, Monday – Thursday, plus a half day on Friday (see full schedule in Appendix 7.2). Full participation requires preparation and self-study. Participants have disparate backgrounds, rendering different parts of the curriculum challenging for the various groups.

Residents are encouraged to take the course twice, as PGY2 and PGY4. In PGY2, this course prepares them for the residency program; in PGY4 they are better positioned to appreciate the curriculum in the context of real life practice.

Opportunities

Opportunities remain to increase attendance from more centers in Canada and beyond. There is also an opportunity to develop this course to be offered for credit to non-residents, such as graduate students.
Accelerated Education Program

The **Accelerated Education Program (AEP)** is an educational platform within the Radiation Medicine Program (RMP) at the PM Cancer Centre, endorsed by UTDRO. Its mandate is to deliver timely and accessible educational content to improve the quality of radiation therapy across the globe. Capitalizing on the size and academic excellence of RMP, the AEP has engaged over 100 experts in various fields in the last 5 years. There were 78 faculty/subject matter experts from the PM RMP, 50 of who are also UTDRO faculty. Odette Cancer Centre had 4 additional UTDRO faculty members who were also involved in teaching several courses. In addition, 21 “other” health care professionals such as surgeons, hepatologists, radiologists, and nurses have also served as faculty over the last 5 years.

**Highlights from the Last 5 years**

In response to the continued increase in complexity of radiation therapy, the AEP has shifted focus for its educational offerings on a number of fronts. Originally created to provide general education on the use of volumetric imaging in everyday radiation treatment practice, experience showed that specific disease sites presented different challenges that needed to be addressed in unique ways. This led the AEP to develop several site- and technique-specific courses.

Given that image-guided approaches to radiation treatment were becoming standard practice, six specific course offering were developed including Lung IG/SBRT, Liver IG/SBRT, Head and Neck IG/IMRT, Paraspinal SBRT, CNS IGRT, and SABR for Oligometastases. AEP also recognized the importance of enhanced attention to quality and safety in radiation therapy; and as such, developed and implemented such a course that ran 5 times between 2011 and 2015.

The AEP also launched its “Accelerator Technology Education Course” (ATec) in 2012, which has been held annually since 2012. The course has been identified by the Canadian Nuclear Safety Commission as a mandatory training element for its new employees in the Accelerator Regulation Division.

In 2015, the AEP installed and activated a learning management system designed to automate the capture and distribution of online education content. Harnessing the new technology and optimizing its use continue to be a key focus for the AEP as it attempts to expand its audience and reach both locally and globally.

**Attendance from July 2011 to June 2016**

Since 2011, a total of 22 education courses have been held for 530 radiation medicine professionals; amongst these, 251 were external attendees, representing 23 countries.
Feedback from the Last 5 years

The AEP continually collects feedback on the quality and impact of its programming from participants. Participants are extremely satisfied with their experiences in these courses, and comment on the wealth of experience of our faculty and the impressive access learners have to these experts. Both overall course satisfaction scores and TES across faculty remain very high.

Other Important Elements of AEP

The AEP is increasing its public profile on a regular basis. In 2013, the AEP was a recipient of the Colin Woolf Award for Excellence in Course Coordination from the FoM, University of Toronto. This was in recognition of the sustained importance and quality of AEP programming.

The AEP also acknowledges staff and trainee contributions to its program every year at the RMP Education Awards. The “AEP: Teaching Effectiveness Award” recognizes the faculty receiving the highest overall TES in any of the AEP courses delivered in the previous academic year. The “AEP: Putting Innovation to Work Award” recognizes the individual(s) providing the most significant contribution to AEP educational offerings.

Table 16: 2011-2016 Recipients of AEP Awards

<table>
<thead>
<tr>
<th>Year</th>
<th>Teaching Effectiveness Award</th>
<th>Putting Innovation to Work Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2012</td>
<td>Sophie Foxcroft</td>
<td>John Kim</td>
</tr>
<tr>
<td>2012-2013</td>
<td>Andrew Bayley</td>
<td>Arjun Sahgal</td>
</tr>
<tr>
<td>2013-2014</td>
<td>Laura Dawson</td>
<td>Marco Carlone</td>
</tr>
<tr>
<td>2014-2015</td>
<td>Andrew Hope</td>
<td>Alana Pellezzari and Laura Dawson</td>
</tr>
<tr>
<td>2015-2016</td>
<td>David Jaffray</td>
<td>Robert DeSimone</td>
</tr>
</tbody>
</table>
Also in 2013, AEP launched its YouTube Channel for distribution of important selected offerings within the AEP. To date, the YouTube Channel has received 17,045 hits, growing from 1,110 in 2014 to 9,257 in 2015, and exhibiting a trend to exceed that in 2016.

Figure 10: AEP YouTube Channel Hits “Per Month”
**Evening Journal Club**

UTDRO encompasses an academic community of six Cancer Centers in Southern Ontario (Princess Margaret, Odette, Southlake, Royal Victoria, Oshawa and Credit Valley). Therefore, it is critically important to provide a forum to exchange clinical, research and educational knowledge. The UTDRO Evening Journal Club (EJC) is designed to establish collaborative interactions with members from different cancer centers to advance scholarly mandates.

**Purpose and Objectives**

1. To develop knowledge exchange on clinical, research and educational topics within UTDRO
2. To promote opportunities for collaboration within UTDRO
3. To provide the participants with a global overview on the selected theme for the event
4. To showcase UTDRO innovations in the topic theme
5. To strengthen our academic community within UTDRO through social interactions

**Delivery Format**

In the 2015/2016 academic year, the UTDRO Evening Journal Club was held two times; in future years, the plan is to host 3 events per year. Two co-chairs, each from the two geographic sites are charged with organizing the academic presentations. The agenda of the evening should address the event objectives. One suggested format is 2-3 presentations to provide a global overview of the topic to be discussed; highlighting the importance, relevance, current approaches and future evolution with respect to radiotherapy. The second proposal was to highlight successful collaboration between the six geographic sites of the UTDRO academic communities.

**Program Highlights**

The inaugural UTDRO Evening Journal Club was held in January 2016. The topic was “Brain Metastases and Neurocognition: The Toronto Brief Neurocognitive Battery Project”, which was co-led by Drs. Caroline Chung and May Tsao. The second event was held in April 2016. This topic was “Comprehensive and Personalized Radiotherapeutic Management of Patients with Locally Advanced Cervix Cancer – Current and Future Initiatives”; the speakers included Drs. Lisa Barbera, Jennifer Croke, Eric Leung and Julia Skliarenko. Both events were well attended and were found to enhance participants’ learning through the speaker presentations which stimulated active discussions. Additionally, there was positive feedback provided by participants; the next event is currently under planning, targeted for the fall of 2016.

**Challenges**

The first two EJCs were very well-received but there were challenges to the organization, preparation and execution of these events. Firstly, the spirit of the EJC is to involve members of the different UTDRO cancer centers, and identifying a date that could accommodate all presenters proved to be challenging. As the different centers have their own schedule of internal functions, and every individual’s schedule is very full, it has been necessary to limit the participation to 2-3 centers due to the challenge of finding a common date/time that worked for all presenters. The location of this event can also be a barrier for attendance since the start time is usually around 6:30 PM to allow for sufficient time for in-depth and interactive discussions.
around the topic. As the events have been held at the Sunnybrook Estates, those from Odette have not had issues with the location, but those travelling from other centers needed to account for travelling time to attend these events after a busy clinical day.

Although many members of UTDRO have expressed an interest in presenting for an EJC event, choosing a topic within a site group can be a challenge. This speaks to the academic diversity and success in each site groups of all the centers. There are many different interests in each group, and multiple discussions have been necessary to select a topic that is not only of high interest to other members of the department, but also a topic that will foster active audience participation.

**Opportunities**

The UTDRO EJC events allow for increasing collaborative opportunities between the various cancer centers constituting the department. The planning of each topic involves multiple interdepartmental meetings between the speakers of the site groups (and also input from those not on the speaker list), and this opens new opportunities and new ideas. The centers of UTDRO each have their individual strengths and interest, and sharing this with each other during the planning process can be advantageous to the department as a whole. During the event, the discussion of the chosen topics allows for those not only within the site group but all others in the department to have the opportunity to learn about projects and initiatives that collaborative groups are building. This also showcases the success of such collaborations and motivates others to initiate their own collaborative work within the site groups. Finally, the engaging and positive atmosphere of the EJC helps to strengthen the relationship and communication between departments which in turn, opens the door to new opportunities.

**Attendance**

Tuesday, January 26th, 2016 at 6:30-8:30 PM - 44 in attendance
Wednesday, April 27th, 2016 at 6:30-8:30 PM - 37 in attendance
Research

The UTDRO Research Landscape

The University of Toronto Department of Radiation Oncology (UTDRO) and its affiliated academic hospitals and radiation treatment programs comprise one of the largest and most productive academic radiation medicine programs worldwide. Much of the research originates from the Princess Margaret Cancer Centre (University Health Network) and Odette Cancer Centre (Sunnybrook Hospital) and their research institutes. Many UTDRO faculty members have laboratory space or are able to access resources and personnel within the research hospital environment. In addition, there are dedicated facilities or Centres of Excellence available to UTDRO investigators that enable specialized research. Examples include the TECHNA Institute (Princess Margaret campus) for accelerated technology development in support of health care, the Spatio-Temporal Targeting and Amplification of Radiation Research (STTARR) facility (Princess Margaret campus) for pre-clinical imaging and therapeutic studies, the Sunnybrook Imaging Research Laboratories, and the Institute for Clinical Evaluative Sciences (ICES) for health services research. Research is conducted in collaboration with other University of Toronto clinical and basic science department, as well as with external partners including national and international clinical trial groups, Cancer Care Ontario (CCO) and numerous industry partners.

Over the past five years, there has been increasing research engagement by UTDRO affiliated community radiation oncology programs at the Stronach Regional Cancer Centre (Newmarket) and the Simcoe Muskoka Regional Cancer Program (Royal Victoria Regional Health Centre, Barrie). This is the result of a deliberate effort to integrate activity within the UTDRO community through partnerships focused on collaborative, interdisciplinary clinical care, research and education that are relevant to the general radiation treatment and cancer care communities in Canada and abroad.

UTDRO clinical faculty members are appointed with different expectations for research engagement and productivity to balance departmental clinical, academic and administrative demands. The job descriptions define a continuum from clinical-teacher and clinical-administrator with <25% of time for research, to clinician-scientist with 80% of time protected for research activities.

Key UTDRO measures of research productivity and research impact include:

- Amount of peer-reviewed research funding annually
- Number of peer reviewed publications annually
- Impact of peer reviewed publications relative to other leading international radiation medicine programs
- Number of patents filed annually
- Number of commercialized inventions annually
- Faculty awards and acknowledgements
UTDRO Priority Research Themes

The priority UTDRO research themes are outlined in the strategic plan: “The Transformative Agenda: Roadmap to 2017”. They were derived through extensive consultation with faculty and stakeholders and critical evaluation of departmental strengths, and opportunities for future impact. The priority research themes drive innovation along the entire patient trajectory from diagnosis through treatment to end-of-life care and long-term survivorship:

- **Bio-physical tumor targeting** through innovation in precision radiation delivery and microenvironmental/genomic/molecular targeting of tumor biological vulnerabilities to enhance treatment efficacy
- Define the role radiotherapy in the management of recurrent and metastatic disease, including the identification of and treatment of oligometastases
- **Enhanced patient and survivor health** by better understanding their needs, measuring outcomes in a more relevant manner, managing long-term side effects more effectively and mitigating toxicity through tissue regeneration
- **Learn from all of our patients** by assembling comprehensive clinical, biological, dosimetric and outcomes ‘big data’ repositories

UTDRO research activities in support of these themes span the full spectrum from fundamental biologic studies through translational biology and physics to clinical trials, health service and education research. Strategies implemented over the past five years to build research capacity in these areas and accelerate discovery, translation and impact include targeted recruitment of highly qualified new investigators, the development of existing faculty, new collaborative research initiatives across multiple UTDRO sites, and the integration of research and education to drive uptake and practice change.

UTDRO Faculty Strengths and Successes

The research accomplishments and future potential of UTDRO are grounded in the strength, diversity and commitment of faculty members. Over the past five years, there has been a focused effort to recruit highly qualified new clinical investigators and clinician scientists that align with the UTDRO strategic plan, and fill programmatic gaps necessary to maximize impact. S Bratman was recruited from Stanford University to bring expertise in genomics research, including circulating blood biomarkers. A Berlin, K Han and S Liu were recruited from the UTDRO residency and/or fellowship programs because of their excellence in the transdisciplinary research domains of MR imaging biomarkers, MR-guided therapeutics, molecular/cell biology and/or clinical trials of novel molecular therapeutics to overcome radiation resistance. These recruits have complemented and further diversified the UTDRO faculty, which already was internationally recognized for research excellence. Future recruitment and faculty development efforts will continue to build capacity in the priority research areas outlined in the strategic plan.
Domains of UTDRO research excellence include (but are not limited to):

A. Radiogenomics in Head & Neck and Prostate Cancers

UTDRO Expert Faculty: R Bristow, F-F Liu

Key Successes 2011-16: Discovery of predictive and prognostic DNA/RNA signatures for radiation treatment, including high impact research awards and publications.

B. Hypoxia and the Tumor Microenvironment

UTDRO Expert Faculty: R Bristow, A Fyles, R Hill, M Kortizinsky, M Milosevic, B Wouters

Key Successes 2011-16: Terry Fox Research Institute (TFRI) Program Grant for: A Research Pipeline for Hypoxia-Directed Precision Cancer Medicine. The tumor hypoxia research program at the Princess Margaret Cancer Centre has been funded continuously by the TFRI since 1994, and is internationally recognized as an exemplary model of translational bench-to-bedside research. Since the last renewal of the program grant in July 2014, there have been 65 unique peer reviewed publications from the hypoxia team that span the full spectrum from laboratory discovery to clinical translation studies with the potential to change practice.

C. Ultrasound Biomarkers and Therapeutics

UTDRO Expert Faculty: G Czarnota

Key Successes 2011-16: TFRI Program Grant for: Ultrasound and MR for Cancer Therapy has produced high impact publications that have advanced the science of ultrasound as a biomarker of cell death and novel ultrasound-based treatments.

D. Adaptive Radiotherapy

UTDRO Expert Faculty: JP Bissonnette, D Jaffray, M Milosevic, T Purdie

Key Successes 2011-16: Ontario Consortium for Adaptive Interventions in Radiation Oncology (OCAIRO) grant to accelerate the development and application of innovative adaptive methods in radiation therapy through focused scientific, technical, and clinical developments.

E. MR-Guided Radiotherapy

UTDRO Expert Faculty: D Jaffray, C Menard (now at University of Montreal), M Milosevic, A Sahgal

Key Successes 2011-16: Development and clinical activation of a globally-unique MR-guided radiotherapy suite at Princess Margaret built around an MR-on-rails that moves between a linear accelerator room and a brachytherapy room. The Odette Cancer Center Cancer Ablation Therapy (CAT) program obtained a grant from the Ministry of Research and Innovation to join the Elekta MR Linac International Consortium to develop the new Elekta MR LINAC product, and acquired the first-in-Canada device to be installed in 2017. The combined impact of these initiatives will establish UTDRO as a global leader
in MR-guided radiotherapy, including MR-guided brachytherapy for prostate, cervical and other cancers.

F. Stereotactic Body Radiotherapy for Prostate, Liver and Spine Tumors

UTDRO Expert Faculty: P Cheung, W Chu, L Dawson, A Loblaw, A Sahgal

Key Successes 2011-16: Numerous publications in high impact journals that have changed the management of these diseases. For spine SBRT, a national randomized Phase 2 trial is underway through the Canadian Clinical Trials Group that has potential to transition to a phase 3 trial with the potential to change practice.

G. Hypofractionated External Beam Radiotherapy for Prostate Cancer

UTDRO Expert Faculty: C Catton, P Cheung, W Chu, A Loblaw, G Morton

Key Successes 2011-16: Positive finding from the large, international Phase III PROFIT hypofractionation trial led by UTDRO investigators; Phase I/II studies of extreme hypofractionation in prostate cancer are currently being conducted.

H. New Biomarkers and Novel Treatment Approaches for Brain Tumors

UTDRO Expert Faculty: C Chung (now at MD Anderson Cancer Center, Houston), D Jaffray, N Laperriere, A Sahgal

Key Successes 2011-16: Positive finding from a large Phase III trial lead by UTDRO investigators of short course radiotherapy for elderly patients with glioblastoma multiforme; MR-based imaging biomarker discovery for patients receiving radiotherapy for brain metastases; industry collaboration to develop new image-guide technology for stereotactic treatment of brain metastases. The development of hypofractionated stereotactic radiosurgery (SRS) by UTDRO investigators has been recognized with a major practice guidebook endorsed by international leaders in the field.

I. Palliative Radiotherapy and Symptom Management

UTDRO Expert Faculty: E Chow, R Wong

Key Successes 2011-16: Positive findings from two, large, international Phase III trials led by UTDRO investigators that have impacted on the management of patients with bone metastases.

J. Global Health

UTDRO Expert Faculty: M Gospodarowicz, D Jaffray

Key Successes 2011-16: The Global Task Force for Cancer Control in Radiotherapy (GTFRCC) brought together global leaders in radiation treatment, public health and health economics to a global investment framework to close the gap in the availability of radiotherapy services between high income and low/middle income countries. The task force findings were published as a Lancet Commission Report in September 2015.
K. Cancer Staging

UTDRO Expert Faculty: J Brierley, M Gospodarowicz, B O’Sullivan

Key Successes 2011-16: UTDRO faculty led the development of the 7th and 8th editions of the UICC TNM Classification of Malignant Tumours, which is used globally to stage patients with cancer.

L. Quality of Care and Patient Safety

UTDRO Expert Faculty: JP Bissonette, S Breen, B Liszewski, M Milosevic

Key Successes 2011-16: UTDRO faculty led the development of multi-parametric key quality indicators of radiation treatment quality and safety nationally to drive practice harmonization and system-level process improvement. This initiative was described by external reviewers as: ‘… the first successful example in the history of the Canadian health care system where professionals from different disciplines have worked together to improve the quality and safety of their practice’.

Ontario Clinician Scientist Program

The Ontario Ministry of Health and Long Term Care provides support for radiation oncology clinician scientists in Ontario as part of the physician services agreement. These positions are intended to promote excellence and build capacity in radiation medicine research in Ontario by providing partial base salary support to highly qualified, academically motivated radiation oncologists with independent research programs supported by external peer-reviewed funding. The positions are appointed on a competitive basis and reviewed every three years. Currently, UTDRO investigators hold 16 of the available 26 positions. Many are recognized internationally for important contributions to their research fields.

Table 17: UTDRO Ontario Clinician Scientists

<table>
<thead>
<tr>
<th>Investigator</th>
<th>Research Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>L. Barbera</td>
<td>Health service research, end of life care</td>
</tr>
<tr>
<td>R. Bristow</td>
<td>Prostate cancer genomics and DNA repair</td>
</tr>
<tr>
<td>E. Chow</td>
<td>Palliative radiotherapy and symptom management</td>
</tr>
<tr>
<td>L. Dawson</td>
<td>Liver SBRT</td>
</tr>
<tr>
<td>A. Fyles</td>
<td>Breast cancer, GYN oncology, tumor hypoxia</td>
</tr>
<tr>
<td>K. Han</td>
<td>Imaging biomarkers, MR-guided brachytherapy, molecular therapeutics</td>
</tr>
<tr>
<td>D. Hodgson</td>
<td>Pediatric oncology, health service research</td>
</tr>
<tr>
<td>A. Koch</td>
<td>DNA damage signaling and repair, breast cancer, late radiation toxicity</td>
</tr>
<tr>
<td>S. Liu</td>
<td>Prostate cancer radioresistance</td>
</tr>
<tr>
<td>A. Loblaw</td>
<td>Prostate cancer: clinical trials and surveillance</td>
</tr>
</tbody>
</table>
UTDRO as a Catalyst for Collaborative Radiation Medicine Research

UTDRO research is largely based at the Princess Margaret and Odette Regional Cancer Centres; each with established, highly regarded research institutes to support discovery and innovation. Salary support for UTDRO investigators is provided by the hospitals and/or Ontario Ministry of Health and Long Term Care (for clinician scientists and clinical investigators). Operating and infrastructure research grants usually flow through the hospitals and not the University of Toronto. Philanthropic donations to support radiation medicine research are grounded in hospital-based foundations. Research facilities are provided and maintained by the hospitals with cost recovery from grants and other funding sources. This organization promotes alliance of investigators and programs with hospitals and local research institutes rather than with the university. Nonetheless, UTDRO is an important catalyst for transdisciplinary radiation medicine research by providing an academic home for investigators, and promoting collaborations and partnerships in areas of common interest or themes. UTDRO promotes exchange of research findings and stimulates collaboration through research rounds, and an annual research day with poster and oral presentations. One example of successful research collaboration over the past five years is in the domain of palliative radiotherapy and symptom management. This research was co-led by investigators at Odette and Princess Margaret and yielded two practice-changing international clinical trials published in *Lancet Oncology* and the *Journal of Clinical Oncology*. Looking forward, both the Princess Margaret and Odette Cancer Centres have established industry collaborations to investigate the clinical utility of an innovative, integrated MR-LINAC platform for real-time, MR-guided adaptive radiotherapy. Only six other centres worldwide will have access to this technology initially. It presents an unprecedented opportunity for UTDRO investigators to focus collaboration on a common research theme with high potential to change the paradigm of radiation therapy delivery.

UTDRO Collaborative Research Seed-Funding Program

The UTDRO Collaborative Research Seed-Funding Program was established in 2013 by the current Chair to capitalize on synergies within the UTDRO community, and promote new partnerships by providing seed funding to support projects with the potential to significantly impact radiation medicine science and improve patient outcomes. Seven $50K grants were awarded over three years to support a diverse range of projects jointly proposed by investigators at the Princess Margaret, Odette, Stronach and Simcoe Muskoka Cancer Centres. While the program is still in its infancy, there have been tangible deliverables that highlight its value, including an AAPM Innovation in Medical Physics award, and two submissions to peer-review granting agencies (CCSRI and CRS, results pending).
### Table 18: UTDRO Collaborative Research Seed-Funding Program

<table>
<thead>
<tr>
<th>Year</th>
<th>Investigators</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>C. Chung&lt;br&gt;M. Tsao&lt;br&gt;J. Wong</td>
<td>The Toronto Brief Neurocognitive Battery (BNB): A novel brief telephone battery for neurocognitive assessment of patients with brain metastases</td>
</tr>
<tr>
<td>2013</td>
<td>T. Purdie&lt;br&gt;M. Ruschin&lt;br&gt;B. Zhang</td>
<td>Prospective collection of tolerance outcomes in women receiving breast cancer radiotherapy: A multi-institutional initiative</td>
</tr>
<tr>
<td>2014</td>
<td>S. Bratman&lt;br&gt;K. Han&lt;br&gt;E. Leung</td>
<td>Circulating HPV DNA in patients with locally advanced cervical cancer treated with definitive chemoradiation</td>
</tr>
<tr>
<td>2014</td>
<td>I. Poon&lt;br&gt;B. Wouters&lt;br&gt;J. Wong</td>
<td>Defining hypoxia targets for HN cancer irradiation: Correlations between pre-operative FAZA PET imaging and pimonidazole binding in surgical specimens</td>
</tr>
<tr>
<td>2014</td>
<td>M. Koritzinsky&lt;br&gt;J. Kamra&lt;br&gt;S. Wong</td>
<td>Metformin with neoadjuvant chemoradiation to improve pathologic responses in rectal cancer: A phase I-II trial</td>
</tr>
<tr>
<td>2015</td>
<td>M. Carlone&lt;br&gt;N. Harnett&lt;br&gt;B. Keller&lt;br&gt;A. McNiven&lt;br&gt;K. Sixel&lt;br&gt;I. Yeung</td>
<td>Assessment of SIMAC linear accelerator simulation software</td>
</tr>
<tr>
<td>2015</td>
<td>L. Barbera&lt;br&gt;J. Croke&lt;br&gt;M. Follwell</td>
<td>Feasibility and acceptability of measuring cervical cancer specific patient-reported outcomes in clinical practice</td>
</tr>
</tbody>
</table>

### UTDRO Peer Reviewed Research Support

Despite a more competitive funding environment, peer review research funding to UTDRO investigators between July 1, 2011 and June 30, 2016 was stable at approximately $50M CAD annually. In fact, UTDRO is only second to the Department of Medicine in the FoM in terms of per capita peer-reviewed funding; demonstrating the level of excellence and innovation in its research.

### Table 19: UTDRO Annual Peer Reviewed Research Funding 2011-2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Peer Reviewed Grant Funding (CAD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2012</td>
<td>$48.9M</td>
</tr>
<tr>
<td>2012-2013</td>
<td>$45.6M</td>
</tr>
<tr>
<td>2013-2014</td>
<td>$52.0M</td>
</tr>
<tr>
<td>2014-2015</td>
<td>$50.8M</td>
</tr>
<tr>
<td>2015-2016</td>
<td>$49.3M</td>
</tr>
</tbody>
</table>
In addition to operating grants, four infrastructure grants from the Canadian Foundation for Innovation (CFI) and/or Ontario Ministry of Research, Innovation and Science were awarded to investigators at the Princess Margaret and Odette Cancer Centres, as well as two prestigious Terry Fox Program Grants from the Terry Fox Research Institute:

- G. Czarnota (Program PI): *Ultrasound and MR for cancer therapy*. Terry Fox New Frontiers Program Project Grant, $2.0M total over 4 years, awarded 2014.
- R. Bristow and B. Wouters (Program PIs), M. Kortizinsky (P1 PI), M. Milosevic (P4 PI), A. Fyles (P5 PI), D. Jaffray (Program core PI): *A research pipeline for hypoxia-directed precision cancer medicine*. Terry Fox New Frontiers Program Project Grant, $6.7M total over 5 years, awarded 2014.

R. Bristow also led a large pan-Canadian team that was awarded $20M for *The Canadian Prostate Cancer Genome Network (CPC GENE)*, an ambitious program to unravel the genetic basis for disease progression and post-treatment clinical outcomes in patients with intermediate risk prostate cancer, which has yielded several high impact publications in prestigious journals, such as *Nature Genetics* and *Nature*.

**UTDRO Peer-Reviewed Publications**

UTDRO investigators published a total of 1,563 peer-reviewed papers from July 1, 2011 to June 30, 2016, corresponding to 13.5 papers per investigator or 2.7 papers per investigator per year (see Appendix 1.2). The majority of UTDRO investigators published at least one paper. The most prolific 7% of UTDRO investigators published almost 18 papers per year and were authors on 40% of UTDRO publications. This variation in research productivity to some extent reflects different research expectations of UTDRO faculty along a continuum from clinical-educators and clinical-administrators at one end, to clinician-scientists at the other.

There were 112 papers in journals with impact factors >10, including the *New England Journal of Medicine* (3), the *Lancet Oncology* (11), the *Journal of Clinical Oncology* (43) and the *Nature* group of journals (18). A team led by R. Bristow, based on work completed during the review period, published a landmark paper in *Nature* in December 2016 entitled: *Epigenomic and Genomic Correlates of Aggression in Curable Prostate Cancer*. These publications highlight the breadth of high impact research being conducted by UTDRO investigators.

A unique strength of the UTDRO is the diversity of its 189 faculty members with respect to both expertise and professional or scientific background. In addition to radiation oncologists, medical physicists and radiation medicine scientists, there are 35 radiation therapists with faculty appointments. This is unique to UTDRO; other radiation medicine university departments have not capitalized on the academic potential of radiation therapists to the same extent. In total, radiation therapists were the principal, co-principal or senior responsible authors of 85 publications during the review period, corresponding to approximately 17 papers annually. For comparison, the annual academic output of the most productive UK radiation treatment centre was five papers annually, which speaks to the talent and commitment of the UTDRO radiation
therapy faculty\textsuperscript{2}. An example of academic excellence by a UTDRO radiation therapist is the first-author, high-impact publication by S. Huang in the \textit{Journal of Clinical Oncology} entitled: \textit{Refining American Joint Committee on Cancer/Union for International Cancer Control TNM stage and prognostic groups for human papillomavirus-related oropharyngeal carcinomas}.

**UTDRO Comparative Publication Impact**

As one of the top radiation medicine programs worldwide, UTDRO strives to discover new science that translates to improved practice and better clinical outcomes, and to report these findings in high impact peer reviewed journals. \textit{Appendix 1.2} is a publication impact assessment prepared by the Research Program Planning and Analysis Office of UHN Research Support Services for the 5 years from July 1, 2011 to June 30, 2016. It compares UTDRO to two other internationally recognized radiation medicine programs: MD Anderson Cancer Center (MDA), Houston, Texas and Memorial Sloan Kettering Cancer Center (MSK) in New York. Key findings of this assessment include:

- The number of peer-review publications was similar to MSK and MDA (UTDRO 1563 total or 13.5 per investigator, MDA 1709 or 15.4 annually per investigator, MSK 943 total or 12.6 per investigator).
- UTDRO investigators published slightly fewer papers in journals with impact factors >10 than MDA or MSK investigators (UTDRO 7.2% of all publications, MDA 8.5%, MSK 8.7%).
- The total number of UTDRO manuscript citations (17,242) was similar to MSK (17,396) but lower than MDA (24,163). The percentage of highly cited publications (top 10% by field and year) was lower than both of the peer institutions (UTDRO 21% of all publications, MDA 29.4%, MSK 33.6%).

**UTDRO Patents and Commercialization**

Patents and commercialization of inventions are important metrics of research productivity and knowledge translation. There were 24 patents registered by UTDRO inventors between 2011 and 2016. Most of these were for radiation treatment technology-based hardware or software inventions, but there were also patents to protect the intellectual property associated with new prognostic and predictive gene signatures and new tumor delivery vehicles for contrast agents and drugs. A total of 15 inventions were licensed for commercial use during the review period; an important vehicle for dissemination research discoveries to the broader clinical and scientific communities and promoting practice change.

\textsuperscript{2} Probst \textit{et al.} Research from therapeutic radiographers: An audit of research capacity within the UK. \textit{Radiography} 21, 112-118, 2015.
<table>
<thead>
<tr>
<th>Inventor(s)</th>
<th>Invention</th>
<th>Company</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Moseley W. Li D. Jaffray</td>
<td>Pentaguide</td>
<td>Modus Medical</td>
<td>2011</td>
</tr>
<tr>
<td>D. Jaffray C. Menard S. Breen M. Carlone</td>
<td>Magnet resonance guided radiotherapy integrated linear accelerator</td>
<td>IMRIS</td>
<td>2011</td>
</tr>
<tr>
<td>D. Jaffray M. Carlone</td>
<td>Rotating door and RF shield for a linear accelerator moveable MR system</td>
<td>IMRIS</td>
<td>2011</td>
</tr>
<tr>
<td>R. Weersink D. Jaffray P. Lindsay</td>
<td>Bioluminescence system for XRAD pre-clinical irradiator</td>
<td>Precision Xray</td>
<td>2012</td>
</tr>
<tr>
<td>T. Purdie M. Sharpe</td>
<td>Automatic treatment planning software for tangential-breast radiation therapy</td>
<td>Raysearch Laboratories</td>
<td>2012</td>
</tr>
<tr>
<td>C. Coolens H. Keller</td>
<td>Dynamic flow phantom</td>
<td>Shelley Medical</td>
<td>2012</td>
</tr>
<tr>
<td>C. Coolens H. Keller</td>
<td>DCE calibration phantom and software</td>
<td>Modus Medical</td>
<td>2012</td>
</tr>
<tr>
<td>K. Brock D. Jaffray L. Dawson M. Sharpe</td>
<td>MORPHEUS technology for soft tissue deformable modeling</td>
<td>Raysearch Laboratories</td>
<td>2013</td>
</tr>
<tr>
<td>D. Letourneau M. Islam R. Heaton D. Jaffray S. Breen</td>
<td>AQUA quality assurance software</td>
<td>Acumyn</td>
<td>2014</td>
</tr>
<tr>
<td>N. Decker D. Moseley D. Letourneau</td>
<td>Tilt platform</td>
<td>Modus Medical</td>
<td>2014</td>
</tr>
<tr>
<td>T. Stanescu D. Moseley</td>
<td>Decaguide</td>
<td>Modus Medical</td>
<td>2014</td>
</tr>
<tr>
<td>T. Stanescu T. Tadic</td>
<td>MRID phantom</td>
<td>Modus Medical</td>
<td>2014</td>
</tr>
<tr>
<td>Y. B. Cho M. Islam</td>
<td>Panoramic phantom</td>
<td>Elekta</td>
<td>2014</td>
</tr>
<tr>
<td>F-F. Liu E. Ito I. Kim</td>
<td>Sensitizing agents for cancer therapy, methods of use and methods for the identification thereof</td>
<td>N/A</td>
<td>2014</td>
</tr>
</tbody>
</table>
In addition, UTDRO faculty engaged in several large research and development projects with industry collaborators, including an MR-guided external beam and brachytherapy radiotherapy suite in collaboration with IMRIS and Varian Medical Systems, an image-guided stereotactic radiotherapy system with Elekta, new PET imaging probes for tumor characterization and treatment response assessment with the Centre for Probe Development and Commercialization (CPDC), and adaptive radiotherapy with 16 industry partners linked through OCAIRO.

**UTDRO Research Awards and Distinctions**

Since 2011, UTDRO faculty members have received numerous national and international awards and distinctions for their exceptional contributions to research and the radiation medicine community in general.

**Table 21: UTDRO Faculty Research Awards and Other Distinctions 2011-2016**

<table>
<thead>
<tr>
<th>Year</th>
<th>Faculty</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>B.J. Cummings</td>
<td>ASTRO Gold Medal</td>
</tr>
<tr>
<td></td>
<td>R.P. Hill</td>
<td>International Association for Radiation Research, Henry S. Kaplan Distinguished Scientist Award</td>
</tr>
<tr>
<td></td>
<td>B. Wouters</td>
<td>ESTRO Klass Breur Gold Medal Award</td>
</tr>
<tr>
<td></td>
<td>M. Gospodarowicz</td>
<td>ESTRO Lifetime Achievement Award</td>
</tr>
<tr>
<td></td>
<td>M. Gospodarowicz</td>
<td>Canadian Medical Association May Cohen Award for Women Mentors</td>
</tr>
<tr>
<td></td>
<td>M. Gospodarowicz</td>
<td>Elected President of the Union for International Cancer Control (UICC)</td>
</tr>
<tr>
<td></td>
<td>F-F. Liu</td>
<td>CARO Gordon Richards Lecture</td>
</tr>
<tr>
<td></td>
<td>T. Rosewall</td>
<td>CAMRT George Reason Memorial Certificate of Merit</td>
</tr>
<tr>
<td></td>
<td>B. O'Sullivan</td>
<td>Distinguished Visiting Professor in China</td>
</tr>
<tr>
<td></td>
<td>B. O'Sullivan</td>
<td>Distinguished Visiting Professor in India</td>
</tr>
<tr>
<td>2013</td>
<td>R. Bristow</td>
<td>Prostate Cancer Canada John Ferguson Memorial Award</td>
</tr>
<tr>
<td></td>
<td>M. Gospodarowicz</td>
<td>American Radium Society Janeway Medal</td>
</tr>
</tbody>
</table>
Training the Next Generation of Clinical Investigators and Scientists

The UTDRO strategic plan: “The Transformative Agenda – Roadmap to 2017”, describes the imperative to develop the next generation of radiation medicine clinical investigators and scientists as a necessity for continued innovation in clinical care and scientific discovery. The UTDRO research and educational programs are closely aligned and tightly integrated. The UTDRO residency and fellowship programs place high expectations on trainees to engage in research supervised by UTDRO faculty, and develop the research skills necessary for independent academic practice. Over the past five years, 45% of new residents entering the UTDRO program had graduate degrees, of which 35% completed PhDs prior to entry. These exceptionally qualified individuals often bring new research perspectives and research skills that enrich the UTDRO academic environment.

All residents are expected to develop one or more research proposal(s) during the five year training program, conduct the research and publish their finding in peer reviewed journals. Many residents are involved in several research projects in addition to their clinical responsibilities, which promotes the development of real-world prioritization and time management skills that are essential to success in academic practice. Residents are able to step away from clinical practice for up to six months to focus on research without extending their training beyond five years. There is also the opportunity to combine residency and formal graduate training, although this is not a requirement of the program. The UTDRO Associate Director of Residency Research oversees resident research and mentors trainees to ensure that an appropriate balance is struck.
between the clinical and research aspects of the program. From 2009 to 2014, there were a total of 156 peer-reviewed papers from current or recently graduated residents. Several of these were published in high impact journals. One example is a 2014 publication by a PGY3 resident D. Rodin in Lancet Oncology entitled: The need to expand global access to radiotherapy. Most residents purse fellowships after residency to develop specialized clinical or research skills. This in part reflects the job market over the past five years, but also the culture of research and innovation that is engrained during residency.

The UTDRO fellowship program enrolls approximately 30 fellows from around the world each year. This program provides further clinical and/or research training to new radiation oncologists who have just completed clinical training in their country of origin. UTDRO offers two fellowship tracks for those interested in pursuing academic radiation oncology: 1) A one-year clinical research fellowship with involvement in one or more research projects without formal graduate training; and 2) A two-year research fellowship with formal graduate education in the principles and conduct of scientific research. The latter requires concomitant completion of a graduate degree (generally an MSc) through the UT School of Graduate Studies (SGS); fellows in this track have 80% protected time for research. UTDRO fellows have gone on to establish independent research careers that are changing the radiation treatment paradigm in Canada and abroad. M. Yap is an example of a recent UTDRO fellow (2011-13), now in Sydney Australia, who has leveraged her fellowship experience to become an internationally-recognized young leader in health services research and global health with a particular focus on building capacity for radiation treatment in underdeveloped parts of the world.

UTDRO is a clinical department within the Faculty of Medicine at the University of Toronto. Clinical faculty members are able to supervise research conducted by clinical trainees. However, UTDRO faculty members are not able to supervise graduate students (or sit on thesis committees) without being cross appointed to another university department or institute affiliated with the University of Toronto SGS. There are currently 23 UTDRO faculty members with graduate school appointments, mostly through the Institute of Medical Sciences, Medical Biophysics or the Dalla Lana School of Public Health. Over the past five years, UTDRO faculty members were primary thesis supervisors or participated as advisory committee members for 257 graduate students.

Transdisciplinary engagement is a cornerstone of impactful radiation medicine research and a priority within UTDRO. Diversity of professional background and clinical/scientific expertise within UTDRO and the University of Toronto community in general is a strong driver of transdisciplinary engagement, and is embedded in the research training experience of clinicians and scientists at all levels. The UTDRO STARS21 (formerly EIRR21) research capacity building program exemplifies this model of transdisciplinary research engagement. This program was founded in 2003 and is designed to provide residents, clinical fellows, graduate students and postdoctoral fellows with the essential skills to conduct innovative translational and transdisciplinary radiation medicine research, as well as the leadership and collaboration proficiencies necessary to define them as future leaders in Canada’s biomedical community. The program facilitates the integration of trainees in various fields such as biology, genomics, chemistry, pharmacology, informatics, health policy, medical physics, radiation oncology, imaging, biostatistics and clinical outcomes research, within a learning community that resembles the transdisciplinary nature of today’s team-based science. The STARS21 program has evolved over the past five years to reach a greater number of research trainees. Since 2013,
an average of 17 new trainees have participated in the program each year. Trainees publish one paper per year on average, not infrequently in high impact journals such as *PNAS*, *Molecular Cell*, *Nature* or *Science*.

Training the next generation of clinical investigators and scientists must also include research mentorship of junior faculty to maximize impact over the course of their careers. UTDRO offers research mentorship through several mechanisms. There is a nascent formal mentorship program that pairs each junior faculty member with a senior, experienced colleague to provide career counseling and advice regarding research direction, grant procurement and publication strategy. Junior faculty are encouraged to join research teams that cross clinical sites to learn new research skills and build new collaborations both within the UofT community and externally. Clinical site group leaders at the host hospitals ensure that faculty are fully integrated into site group research activities and are provided opportunities for academic growth and development. The UTDRO Vice Chair of Research and the Director of Research provide one-on-one mentorship to ensure that faculty members fully capitalize on all available research opportunities.
Partnerships

Across its programs, UTDRO values partnerships and collaborations with other University of Toronto departments, government groups, professional organizations and other academic institutions across all constituencies. Over the last five years, UTDRO has continued to nurture and expand its national and international partnerships with various institutions. Within the UTDRO campuses, it has played a significant role in enhancing both the clinical and academic ambitions in Royal Victoria in Barrie, Southlake Cancer Center in Newmarket, as well as Credit Valley Fidani Cancer Center in Mississauga.

Locally, our faculty is engaged with many cognate departments in collaborative research and education programs. Perhaps the strongest collaborations are with the Departments of Head and Neck Otolaryngology, Gynecologic Oncology, Neurosurgery, and Medical Oncology with multiple translational and clinical trial research studies. Many of our faculty members are cross-appointed to other university departments such as Medical Biophysics, IBBME (Institute of Biomaterials and Biomedical Engineering), IMS (Institute of Medical Science), IHPME (Institute of Health Policy, Management and Evaluation), ICES (Institute of Clinical Evaluative Sciences), to name a few.

Through our strong relationship with Cancer Care Ontario (CCO), members of our faculty are engaged in provincial and national efforts to improve the quality of modern radiation therapy through their leadership in quality initiatives within CCO, CARO (Canadian Association of Radiation Oncology), and CPAC (Canadian Partners Against Cancer). UTDRO faculty also provides extensive teaching and mentorship to our provincial colleagues in the deployment of IMRT and IGRT programs. CCO has Community of Practice (CoP) initiatives across the province for multiple disease sites which are led by our faculty. UTDRO faculty has also provided leadership in multiple practice guidelines for CCO Program in Evidence-Based Care. These projects align the UTDRO and CCO mission to promote access to high quality clinical care for all patients across the province.

UTDRO maintains a strong presence internationally through a variety of projects such as partnerships through The Academic Model Providing Access to Healthcare (AMPATH), with University of Indiana and Moi University in Eldoret, Kenya, to work towards increasing radiation capacity in Kenya. UTDRO is also exploring strategies to educate and train radiation therapists in Ethiopia through the TAACC (Toronto Addis Ababa Academic Collaboration). The Princess Margaret/UHN has a contract with the Kuwait Ministry of Health to improve cancer service delivery in Kuwait. Finally, Dr. Rebecca Wong has initiated a research mentorship program with a cancer center based in Accra, Ghana. The principle of many of these international projects is based on leveraging existing partnerships through the FoM at the UofT (AMPATH & TAAAC), as well as strong linkages through previous trainees.

One highlight is Dr. Mary Gospodarowicz’s important leadership role in Union for International Cancer Control (UICC) in the International TNM Project in promoting a harmonized staging system for cancer categorization across the globe. This decades-long project also has active involvement from many other faculty members such as Drs. Brian O’Sullivan and Jim Brierley. More recently, in her role as the President-Elect of UICC (2012-2014), Dr. Gospodarowicz created the Global Task Force on Radiotherapy for Cancer Control, which made a compelling
argument for investment in radiotherapy resources in low- and middle-income countries, based on economic analyses. This legacy project recruited the participation of many faculty and trainee members within UTDRO, and produced many high impact publications; thereby raising awareness of this very important issue across the globe.

**Program Specific Partnerships in Education and Training**

Many of the academic programs at UTDRO flourish with the ongoing relationships with several internal and external groups. These include departments within the University of Toronto, government agencies, professional organizations and groups at international centres.

The undergraduate Medical Radiation Sciences (MRS) program is funded by the Ministry of Health and Long Term Care (MOHLTC), and is administered by two different academic institutions, which also relies on several different groups to deliver its curriculum. The UTDRO and the Michener Institute of Education at UHN co-lead this program. At the FoM, UTDRO seeks input and reports to the Vice-Dean MD Program. Enrollment support is provided by the Undergraduate Medical Education Office, and student counseling is provided by the Office of Health Professions, Student Affairs, and the VP of Relations with Health Care Institutions. Some of the course content is created with assistance from the Department of Physiology, the Department of Pharmacology and Toxicology, and the Division of Anatomy. Other internal partners include the Council of Health Sciences, the Medical Radiation Sciences Society which represents the student body, the Office of the Vice-Provost, Students (WSIB, student incidents), and of course, the teaching faculty from both Princess Margaret and Odette Cancer Centres.

The MRS Program also has relationships with the Centre for Interprofessional Education (UHN/UofT), and the Hospital/University Education Committee (TAHSN/UT). In addition, the following external groups provide important support for program: Joint Department of Medical Imaging at UHN, all the fully- and community-affiliated teaching hospitals/centres for the clinical placement of MRS students, the Canadian Medical Association (Accreditation – until Feb 2018), and many external teaching faculty for selectives, subspecialty, and research courses.

The MScHSc in the Medical Radiation Sciences Program is hosted by the Institute of Medical Science (IMS) and the School of Graduate Studies (SGS) at the University of Toronto and the Ontario Council on Graduate Studies. Tuition for the students flows from SGS to IMS; then in turn, to UTDRO.

The Radiation Oncology Residency program is under the remit of the office of the Dean of Postgraduate Medical Education (PGME) in the FoM at UofT. Residency training is funded by the MOHLTC, and training takes place at the Princess Margaret, Odette Cancer Centre, and Southlake Regional Cancer Centres, Royal Victoria Regional Health Centre, Credit Valley at the Trillium Partners and SickKids Hospital. This program also has an inter-university agreement with Queen’s University, University of Ottawa and McMaster University wherein trainees from these three institutions complete part of their training at UTDRO’s teaching hospitals.

Funding for visa trainees originates from their home country with an expectation of returning to service at the completion of training, and is coordinated by the PGME. For specific areas of expertise within the residency training program and academic hospitals, there are inter-university agreements to allow residents from external residency programs to attend UTDRO for required elements of training. Examples of such arrangements include paediatric radiation oncology
rotations at UTDRO for Queen's University residents. Within University of Toronto, residents from other subspecialties rotate through UTDRO programs such as those from pathology, palliative care, medical oncology, gynaecology oncology, surgical oncology, internal medicine, emergency medicine, otolaryngology, radiology, urology, urgent care, medical genetics and respirology. Radiation oncology is increasingly incorporated into medical students training both for career sampling and transition to residency.

The Medical Physics Residency program is an integral education component of UTDRO; operated within the Radiation Programs at both the Odette and the PM Cancer Centres. Under a formal affiliation agreement with UofT, the residency program is also operated at three neighbouring clinics (Southlake Regional Cancer Centre in Newmarket, Durham Regional Cancer Centre at Lakeridge Health in Oshawa, and the Carlo Fidani Regional Cancer Centre at Credit Valley Hospital in Mississauga) that share close ties with the two main sites. Medical physics residents are enrolled at the UofT and are employed in the radiation programs at their main clinical site. Residents may spend some time at other sites for specific rotations that cannot be offered at their home site. Salaries and benefits are paid according to the policies of the assigned clinical site. The MOHLTC partially funds the residency programs at all Ontario Cancer Centres.

Finally, the Radiation Oncology Fellowship program works closely with both of the major clinical sites of the PM and Odette Cancer Centres, in addition to SickKids Hospital. Internationally, the Fellowship program has fostered relationships with the Saudi Cultural Bureau, Kuwait Cultural Bureau, Chaim Sheba Medical Centre, Pontifica Universidad Catolica de Chile, King Hussein Cancer Centre (Jordan), and the RamBam Health Care Campus in Haifa, Israel. These relationships have been critical in attracting top ranked trainees, and even junior faculty, into our UTDRO Fellowship program.
The Administrative Office of UTDRO is comprised of a Business Manager who oversees, in conjunction with Program Directors, four full-time (FTE) and one part-time (PTE) administrative staff, plus two part-time casual staff who collectively support the operations of the UME, postgraduate education programs, the MRS, the graduate education program, continuing education, and events programming. Furthermore, this team also manages the financial operations, as well as providing overall support for faculty including recruitment, promotions, and research activities. The numerous activities and events organized by UTDRO are also supported by various Committees comprising of Administrative Office and Faculty members (see Appendix 8.1).
Education officers and program coordinators specifically support the education portfolios and the respective program directors and learners. These include but are not limited to recruitment, admissions, curriculum and program delivery, assessment of learning, awards administration, and support of initiatives for program review and enhancement.

Continuing education programs such as the Target Insight and RTi3 conferences are designed and planned by UTDRO faculty with the support of a (part-time) Events Coordinator and the Communications Officer who coordinate and integrate these events with other UTDRO programs and events. The Events Coordinator and Communications Officer have been integral to the development and delivery of promotional material to advertise the department’s CE offerings to faculty, alumni, and potential sponsors. There are five UTDRO community events taking place every year: i) near the beginning of the academic year, there is an annual Welcome Event for the Fellows and Residents at UTDRO and their families; ii) the Annual UTDRO Alumni Reception at ASTRO (American Society for Radiation Oncology); a marquee event that celebrates the accomplishments of UTDRO faculty and trainees, along with the 2000+ alumni community; iii) later in the fall, there is an Annual General Meeting attended by Faculty and their spousal partners, celebrating the academic achievements by Faculty; iv) in the spring of each academic year, there is the Annual UTDRO Research Day, showcasing research conducted by the trainees; and v) at the end of each academic year, there is a graduation event, celebrating the completion of training of Radiation Oncology and Medical Physics Residents, as well as the UTDRO Fellows. The efforts of the Communications Officer, Events Coordinator, and program coordinators over the years have ensured that faculty, trainees, and alumni are all connected and engaged in the UTDRO community.

The current staffing level has sustained the operations of the department, but at times, the operational team has been under-resourced. In particular, over a period of six months between 2012 and 2013, the department experienced a gap in operational leadership and transition to new management, which significantly impacted administrative operations. In 2013, a move from the Fitzgerald Building to a larger space at the Stewart Building at 149 College Street also disrupted operations and contributed to an increase in expenditures.

In recent years, the organizational structure has changed significantly to achieve efficiencies. In 2015, a Post Graduate Coordinator was hired to provide dedicated support to the Residency and Fellowship Programs, and an Undergraduate Program Coordinator was hired to focus on the recruitment efforts for the MRS Program. Each of these initiatives aligned with the strategic focus of UTDRO leadership. The responsibilities of the Education Officer were revised so that the role provides dedicated support for the Physics Residency and MHScMRS programs. Further efficiencies are possible, but financial constraints have rendered this difficult and challenging.

UTDRO continues to operate on a budget of less than $2M/year. Approximately half of the budget comes from the FoM, indirectly supported by grants received from the Ministry of Training, Colleges and University (MTCU) based on enrollment numbers in the MRS and MHSc programs. The remaining half of the budget is derived from PGME funding from residents enrolled in the residency program, from MOHLTC funding, and conference revenues. MOHLTC funding supports the stipend payments for the UTDRO executive team. The level of funding from the MOHLTC has remained constant over the last 25 years despite at least trebling in the size of the faculty. In order to support the growth and change of programs within this inadequate
level of funding, leadership stipends have been reduced to allow for growth in the number of leadership positions. Continuing education events remain self-funded. Staffing resources are utilized at all levels of the CE program organization from budget planning to prospectus development to ensure that delivery of CE programming achieves program goals and objectives while remaining cost efficient.

Over the recent five years, base funding administered by the FoM and distributed to the department has been consistent; however, budget cuts from the FoM ranging from 13% to 23% over the last three fiscal years have resulted in significant UTDRO operating deficits. This has eroded the department’s cumulative carryforward significantly, and impeded the ability to reserve funds for contingency and planning of departmental initiatives. As student enrollment in undergraduate and graduate programs increases, it is anticipated that tuition-based revenue to UTDRO should be distributed proportionally, which has just been resolved recently with the FoM at the time of this report.

Deployment of additional staffing and other resources will be necessary in order to incentivize and support the growth of UTDRO programs. Over the last five years, and looking forward, some UTDRO programs have had and will experience curriculum changes in response to external environmental changes that will impact on administrative operations. For instance, with the migration to Competency-Based Residency Training in Radiation Oncology, there will be increased reporting requirements, associated with increasing documentation workload. While this is, and will continue to be a challenge with the existing resources, administrative staff have identified opportunities for streamlining procedures. Dedication of (appointed) staff resources to specific programs and portfolios have facilitated the streamlining of processes, while facilitating the sharing of best practices and ideas to achieve efficiencies within a team context.

It is important to note that this model of dedicating resources and achieving efficiencies have relied on appointed staffing resources. It has been a challenge to achieve long-term efficiencies in portfolios assigned to short term staff. Financial constraints within the context of a unionized environment are not permissive conditions for long term staff resource planning. Additional financial resources will create the opportunity to optimize staff resource utilization and enable the delivery of efficient administrative support to the department’s faculty clients, as well as current and prospective learner clients.

Table 22: UTDRO Five-Year Financial Budget

<table>
<thead>
<tr>
<th></th>
<th>Actuals ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOM Budget</td>
<td>1,068,472</td>
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<tr>
<td>MOH Budget</td>
<td>428,310</td>
</tr>
<tr>
<td>T&amp;R Budget</td>
<td>74,340</td>
</tr>
<tr>
<td>Other Revenue</td>
<td>317,307</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td><strong>1,888,429</strong></td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td><strong>1,947,929</strong></td>
</tr>
<tr>
<td>Actual/Planned Over Budget</td>
<td>(59,501)</td>
</tr>
<tr>
<td>CFW at the End of April</td>
<td>1,473,441</td>
</tr>
</tbody>
</table>

FOM: Faculty of Medicine; MOH: Ministry of Health; T&R: Teaching & research funds; CFW: Carry forward
Leadership

Director: Dr. Charles Catton
Vice Chair, Clinical Affairs: Dr. Shun Wong

Introduction

Since the initial appointment of the UTDRO Equity Officer in 2008, the scope of the office was expanded in 2012 to include professionalism and social responsibility; in 2015, conflict of interest (COI) guidelines were added. The office serves as a resource for UTDRO, working to align our culture, principles and philosophies with that of the FoM Office of Equity and Professionalism, as well as other external professional bodies such as the CPSO (College of Physicians & Surgeons of Ontario).

Equity refers to the principle of providing a welcoming and accommodating environment to all, including sexual minorities, visible minorities, and people with disabilities. Professionalism is reflected by a set of skills and behaviors that validate the trust put in us by our patients, our students, our colleagues, and our society. While the scope of social responsibilities can be extremely broad, we strive to fulfill this by developing leaders, contributing to our communities, and improving the health of individuals and populations through the discovery, application and communication of knowledge.

Goals

To ensure that the UTDRO faculty, staff and trainees have access to support to address and fulfill the UofT’s position on Equity, Professionalism and Social Responsibility. To ensure that all learners have transparent access to faculty COI declarations, and that these conflicts have been successfully managed.

Activities

Overall, there have been no reports of equity issues within UTDRO between 2011-current. In the area of professionalism, the office investigated two cases of potential professional misconduct by MRS undergraduate students during the course of their studies. The students were interviewed and counselled, and a report was provided to The Director, MRS Program.

In the area of social responsibility, a rich platform of activities ranging from hosting of international students and observers in UTDRO, to international outreach activities by our faculty, organized program-wide activities, to leadership with international organizations (e.g. ASTRO, ESTRO, UICC); all attest to UTDRO’s deep commitment to knowledge dissemination of best practices across a broad range of constituencies around the world.
In 2015-16, UTDRO led the development of COI guidelines for all teaching faculty within the department. These guidelines were developed in recognition of the importance of transparent disclosure of faculty COI to all learners, and the importance of managing these conflicts effectively. These guidelines were developed in alignment with existing guidelines for the FoM, but were extended to include all teachers with UTDRO appointments, including medical physicists, radiation therapists, as well as full- and part-time appointees. All faculty members who have successfully declared and managed their COIs have their names posted on the UTDRO website for all learners to view. UTDRO leads all the departments within the FoM at UofT with this public posting of COI management.

**Future Activities**

In the next 5 years, we will continue to support our students and faculty in the areas of equity, professionalism, social responsibility, as well as disclosure and management of COIs. Our university web page will be updated with current activities, and COI disclosures on an annual basis. An inventory of activities will be compiled and disseminated, as a strategy to build awareness and synergy. We might also explore workshops for diversity, professionalism, as well as COI management in collaboration with other departments in the FoM and the UofT.
Communications Report

The Academic Communications Committee (ACC) was created in 2006 to advise the Chair of UTDRO on various communication tools, communication strategies, and public relations to further its academic programs, as well as ensuring that the image of the department reflects its constituencies.

The ACC oversees the UTDRO website, digital communications including social media, newsletters, annual report, event communications, alumni engagement, management of publications such as the strategic review and external review, news stories, and marketing initiatives to promote the department, and provide information to prospective and current students. The ACC is also responsible for ensuring that the communication channels abide by the policies and guidelines in accordance with the FoM and UofT.

Membership

The ACC is comprised of representatives from each academic program, and faculty members from each discipline at UTDRO. The term of membership for each member is either 3 years, or the term of their appointment/position. The ACC meets two to four times a year, or as deemed necessary by the Chair.

- Academic Communications Committee Chair (3-year term)
- Medical Physicist (faculty member)
- Radiation Oncologist (faculty member)
- Radiation Therapist (faculty member)
- Representative from Undergraduate MRS program
- Representative from Graduate MRS program
- Chief Physics Resident
- Chief Radiation Oncology Resident
- Chief Fellow
- President of the Medical Radiation Sciences Society (undergraduate student)
- UTDRO Administrative Manager
- UTDRO Communications Officer

Communications Activities

Annual Report: Each fall, the Academic Communications Committee releases an Annual Report for UTDRO. Historically, this report was produced as a long report and a short report. Due to lack of interest in the long report, the ACC has discontinued producing the long report in 2013.

The short report is now produced annually in both print and digital format. The stories in the annual report reflect activities within the program and highlights research conducted by each discipline at UTDRO. Over the last 5 years, 44 features have been produced for the annual report (in the 2015-2016 report, 10 additional features were published). The annual reports are
produced “in-house” with the UTDRO Communications Officer overseeing design, writing, photography and layout.

The annual reports for the previous 5 years are available on the UTDRO website:

- Annual Report 2011-2012
- Annual Report 2012-2013
- Annual Report 2013-2014
- Annual Report 2015-2016

**Newsletter:** From 2011 to 2013, the UTDRO Communications Officer created one e-newsletter per month. This newsletter was e-distributed to the entire department. In 2013, with the hire of a new Communications Officer, the e-newsletter was re-evaluated, wherein faculty deemed that email traffic was too extensive. Therefore, the ACC decided to send e-newsletters once every quarter; since 2011, UTDRO has produced 11 monthly and 6 quarterly e-newsletters.

**Social Media:** Since 2013, UTDRO has been following a social media strategy to increase engagement and awareness of our programs and events. UTDRO has a Twitter account with almost 1000 followers. Engagement rates fluctuate between 1% and 3% depending on the events and initiatives occurring each month. In addition to Twitter, UTDRO has also been using Periscope to livestream events, and YouTube to broadcast longer videos. UTDRO has also produced videos to promote conferences and innovations in the research portfolio. For student recruitment and engagement, a Facebook page has been established for the undergraduate MRS program. In addition, the department has been running paid ads on Facebook for its MHScMRS program.

In the coming year, UTDRO has invited past alumni to share videos from their sites around the world. These videos will be added to the UTDRO YouTube account. The team will also experiment with tweet chats and livestreaming social media at conferences.

**Website:** In the last 5 years, the UTDRO website has been completely overhauled. The new website was developed after extensive consultation with representatives from each program and area. The new website caters to both the external and internal UTDRO communities. In addition, it now meets Accessibility for Ontarians with Disabilities Act (AODA) standards and has a responsive design.

**Print Materials:** Print materials for marketing, promotion, and support of the education programs are produced in-house. This includes all materials for CE events and conferences, viewbooks and handbooks for the education programs, advertising pieces and other materials. In addition, this includes the production of the current External Review Self Study Report.

**News Stories:** The UTDRO Communications Officer is tasked with translating research innovations and program highlights into news stories for the external audience. Since 2011, the department has produced five news stories which were published by U of T News.
**Challenges**

The challenges for the communications portfolio fall under two categories:

i. **Operational:** These challenges include limited resources and budget; the majority of the tasks are undertaken in-house, which affects production quality.

ii. **Access to Information:** Access to information and the flow of information within UTDRO is a major challenge for the communications team. Since faculty members and trainees are positioned at various clinical sites around the Greater Toronto Area (GTA), the flow of information between the sites and towards UTDRO is limited. This affects the types of stories that UTDRO communicates to the external community as well as the department’s ability to produce materials in a timely manner.

**Opportunities**

After a hiatus of 2 years, the ACC is re-grouping to share information and assist UTDRO with production of various assets. In addition, the upcoming 25th anniversary celebrations will provide stories and content to the Communications Officer. These two vehicles will help the department with content ideas and production in a timely manner.

There are also opportunities to seek content from the community in the form of alumni videos, behind-the-scenes videos, tweet chats and engagement on social media.
Alumni and Advancement Report

Overview

The UTDRO alumni activities fall under the Academic Communications Committee and is overseen by the Academic Communications Director. In the 2011 External Review, alumni relations were identified as an opportunity for UTDRO to pursue: “We will revitalize and strengthen our relationship with our alumni including creating opportunities to involve them in our programs and establishing outreach and engagement activities.”

Following the 2011 External Review, a team was formed to maintain alumni databases and actively engage UTDRO alumni in various activities.

Membership

The UTDRO community is comprised of approximately 2200 members who are located on all continents of the world except Antarctica. These alumni have graduated from at least one of the following programs in the last 25 years:

- Radiation Oncology Residency
- Medical Physics Residency
- Fellowship in Radiation Oncology
- Master of Health Science in Medical Radiation Sciences
- Bachelor of Science in Medical Radiation Sciences

Activities

Since 2010, UTDRO has been hosting an annual social networking event to coincide with the annual American Society for Radiation Oncology (ASTRO) Conference. The ASTRO Conference is the largest meeting of the radiation medicine community globally, and many UTDRO’s alumni and past faculty attend this meeting. This social event is hosted by the UTDRO Chair, held at a venue near the ASTRO conference. In the last five years, 556 members of the UTDRO community, including alumni, have attended this social networking event. This event serves multiple purposes:

- Engaging the alumni community and informing them of the activities of the department
- Fundraising for the department and its various scholarships
- Collecting information for the alumni database
- Facilitating discussions regarding future collaborations
- Fostering a sense of belonging amongst our alumni community

In addition to the annual social event at ASTRO, UTDRO alumni also participate in various CE activities. They are invited to our conferences as delegates and also as speakers. They are also invited to participate as faculty members and mentors to our trainees and students.
Challenges

The alumni activities at UTDRO continue to face challenges. Since the alumni activities fall under Communications, their mandate and purpose are often lost or forgotten. Without a formal academic committee focused on alumni relations, engaging alumni is considered an afterthought, and is often passed down to the administrative team. This is a missed opportunity since the strongest connections with our alumni are in fact, with the faculty members, and not the administrative team.

In addition, UTDRO alumni do not always associate with the University department as their primary place of training. In particular, students in the undergraduate MRS program attend the majority of their classes at the Michener Institute, and upon graduation, they consider themselves Michener alumni. Similarly, residents and fellows spend their time training at the hospital sites; hence, the association is much stronger with the hospitals than with UTDRO after graduation.

Opportunities

Since UTDRO is celebrating its 25th anniversary in 2016, UTDRO has an excellent opportunity to engage its alumni. The Academic Communications Director is working on programming to engage alumni through various social media activities:

- A series of YouTube testimonials from alumni
- A LinkedIn alumni group to network and share career-related information

In addition to these activities, the ASTRO Alumni event will also serve to bring together alumni to celebrate UTDRO’s milestones.
Clinical Reports

Princess Margaret Cancer Centre

Program Overview

Leadership: Andrea Bezjak, Director, Clinical Program, RMP/PMH/UHN

Princess Margaret Cancer Centre Radiation Medicine Program (RMP) is the largest single-site radiation program in the world with 36 radiation oncologists, 33 physicists, and 160 radiation therapists. There are 3 advanced practice nurses, 6 advanced practice radiation therapists, 115 support staff, and numerous trainees and students in all disciplines. The clinical program is organized by clinical sites, namely lung, breast, GI, GU, CNS, head and neck, gynecological, lymphoma, skin, endocrine and pediatric. Specialized programs include the brachytherapy, stereotactic radiation therapy, oligo-metastases, gamma knife radiosurgery, pediatric and palliative radiation oncology program (PROP). Given the common planning and treatment delivery aspects of different anatomical regions, therapy and physics is organized into four teams to ensure best practices from clinical decision-making to simulation (using one of 4 CT simulators, a PET and a MRI simulator), planning utilizing Pinnacle treatment planning system (soon to transition to RayStation), with IMRT and increasingly VMAT for many sites, and delivery of image-guided RT on the 16 linear accelerators. The radiotherapy equipment also includes two Gamma Knife Perfexion units (the one at Toronto Western Hospital is reserved for benign conditions), orthovoltage, HDR and manual (ocular) brachtherapy facilities plus an MR-guided RT facility (MRgRT) wherein an MRI moves between a linear accelerator and a HDR brachtherapy suite.

The multi-talented, inter-professional group enables all aspects of the program to succeed; led by the Chief, Dr. Fei-Fei Liu. In turn, Dr. Liu is supported by the RMP Steering Committee which defines the principles of operation, and policies of governance for the management of clinical, quality assurance and safety, research, educational, operational and IT activities.

Program Leadership

Chief, RMP: Fei-Fei Liu

The structure of the RMP Steering Committee (Fig 13) is comprised of: Sophie Foxcroft (Director, Clinical Operations); David Jaffray (Head, Radiation Physics); Michael Milosevic (Director, Research); Rebecca Wong (Director, Education); Andrea Bezjak (Director, Clinical Program); Elen Moyo (Director, Radiation Therapy); Richard Tsang (DRO Resource Allocation Adviser); Catarina Lam (Manager, RMP); Daniel Letourneau (Associate Head, Radiation Physics) and John Waldron (Director, Quality and Safety).

The structure, terms of reference, membership and reporting structure and meeting frequency of all RMP committees were examined and revised in the recent few years. Committees that report
directly to Steering are Quality, Education, RMP Operations, Research and RT radiation safety; committees that report to Operations are Imaging, External Beam, Interventional RT processes and Data and Technology.

Figure 12: RMP Leadership Structure
Innovations

RMP maintains a fleet of state-of-the-art equipment to enable high precision image guided RT, including daily image guidance in all sites. Significant infrastructure innovations in the last 5 years include the deployment of the globally unique MRgRT suite: the MR magnet moves on rails between a LINAC and HDR brachytherapy suite, merging the imaging capabilities of a full-strength (1.5 T) open bore MR imaging system. To date, the MRgRT facility has treated over 200 gynecological HDR brachytherapy patients, with the prostate interventional program successfully migrating to the facility in 2015.

RMP has introduced key performance indicators and are currently tracking RT courses on a weekly basis, and have also created a more robust system of referrals and turnaround metrics. In 2013, RMP benefitted from recommendations of the PERM-T (Performance Excellence in Radiation Medicine Team) initiative, whereby a multi-professional RMP team evaluated various aspects of the program, focusing on excellence and efficiency. In 2015, RMP underwent a program-wide Strategic Planning, with extensive involvement of members of the program, designing the Strategic Roadmap to 2020, and defining programmatic priorities.

Program innovations in the last 5 years include VMAT implementation in many clinical sites, establishment of twice per month PROP/palliative RT QA rounds, and once per month multi-site Oligometastases rounds, introduction of automated planning in breast cancer including same day planning, transformation of the gynecologic brachytherapy program to a MRI-adapted technique, a unique Head and neck survivorship program, institution-wide smoking cessation initiative, and an innovative pre-operative short course RT for mesothelioma program.

Collaborations

Since July 2011, RMP has been developing even closer collaborations with the Local Health Integration Network (LHIN) partners of St Michael’s Hospital (SMH) and St Joseph’s Hospital (SJH). At SMH, Department of Radiation Oncology (DRO) staff continue to attend weekly Friday AM Breast cancer multidisciplinary clinics, and provide inpatient Radiation Oncology consultation services. In addition, DRO staff participate in multi-disciplinary cancer conferences (MCCs) for CNS, Hematology, GI, GU, and Gynecologic site groups, and have signed a Memorandum of Understanding (MOU) with SMH leadership in May 2014. At SJH, DRO staff attend lung, GI and GU MCCs held on alternating weeks, and the lung radiation oncologists consult on patients at SJH. In addition, DRO staff provide telehealth consultations to patients within Ontario and other provinces, particularly for patients being considered for SBRT in centers and provinces where SBRT is not readily available. RMP has close clinical collaborations with Southlake, with all radiation oncology staff appointed as Associate Staff at UHN and attending QA rounds regularly; additionally, RMP provides physics and IT resources to Southlake. The Collaborative Research Seed grant from UTDRO has enhanced research collaborations with both Southlake and Odette Cancer Centers.

International engagements include the UHN/PMH Kuwait collaboration, and more recently the UHN/Qatar collaboration. December 2015 marked the end of the five-year contract with the Kuwait Cancer Control Center (KCCC). The goal of the partnership was to improve patient access to cancer-related services in Kuwait and expand best practices. External validation of
KCCC’s programs and services through its first hospital accreditation, introduction and initial development of the KCCC hospital information system and electronic patient record, and development of specialized oncology nursing competencies for over 100 KCCC nurses were some of the successful outcomes of the program.

Faculty

Several faculty members are involved in many leadership roles including Medical Director of Princess Margaret (M Gospodarowicz), Vice Chair of Medical Advisory Committee at UHN (F-F Liu), PM site group leaders (for CNS, lung, ENT and till recently GU), UHN MSA leadership (J Waldron), Executive Vice-President, Technology and Innovation at UHN (D Jaffray), and Associate Director for the Education Scholars Program at the Centre for Faculty Development (BA Millar), to name a few.

The various external initiatives include those at CCO (Provincial Lead of Radiotherapy (P Warde), Ontario Head and Neck Cancer Lead (J Kim), leaders of the CCO Community of Practice (CoP) (Michael Sharpe as Physics CoP Co-Lead and Radiation Safety Officers CoP Co-Lead; Andrea Shessel (Radiation Therapy Lung CoP Co-Lead), Stephen Breen (Head and Neck CoP Co-Lead), and Michael Milosevic (Gynecological CoP Co-Lead)); leadership positions at CARO (A Bezjak was President, J Kim was Treasurer); Canadian Partnership for Quality Radiotherapy (CPQR – Milosevic President); NCIC CTG (now CCCN) Committee Chairs (Symptom control (R Wong), QoL co-chair (J Ringash), ENT (J Waldron)), and NRG/RTOG committee members (A Bezjak, A Sun, L Dawson, and others).

Continuing Education Programs

Continuing Education program at PMH centers around the Accelerated Education Program (AEP) – a multi-professional course, typically 2-2.5 days in duration, focused on a topic or technique (e.g. lung image guidance (IG)/SBRT, liver IG/SBRT, head and neck IG/IMRT, paraspinal SBRT, CNS IGRT, and SABR for Oligometastases). Courses were taught by 78 subject matter experts from the RMP, including 50 UTDRO faculty, and attended by radiation professionals (MDs, physicists, therapists, planners) locally, nationally and internationally. AEP also offers an annual Quality and safety course; and the “Accelerator Technology Education Course” (ATec) was launched in 2012, which has since then been held annually. ATec has also been identified by the Canadian Nuclear Safety Commission as a mandatory training element for its new employees in the Accelerator Regulation Division.

In addition, there are numerous rounds held weekly at the PM Cancer Centre, members of the department participate at UTDRO rounds and conferences, as well as CME events locally, nationally and internationally, both as faculty and as participants.

Performance Metrics

In 2015-2016, RMP saw 8,287 new patients and delivered 10,616 courses of radiation therapy. There were more than 6,000 visits to the Radiation nursing clinic for symptom control during radiotherapy. Wait times are tracked and reported to CCO; the median wait time from radiation
referral to consult is 7 days, 81% of patients are seen within 2 weeks (the CCO target). Radiation “ready to treat” to treatment median is 5 days, with 90% of patients starting RT within the target of 14 calendar days.

In terms of research activities, RMP is very active and productive; the average over the past 3 years has been $43M in peer-reviewed funding per year, 224 publications per year, and 192 active prospective clinical research protocols. RMP holds 145 peer-reviewed grants, and 10.5% of new patients have been accrued to prospective clinical research studies.
Program Overview

Sunnybrook Health Sciences Centre (SHSC) is fully affiliated with the University of Toronto. The Odette Cancer Centre (OCC) is the comprehensive cancer program of SHSC and houses one of North America’s most dynamic radiation oncology programs (OCC DRO). SHSC provides an exciting and innovative research environment for radiation oncologists to work alongside a diverse team of health care professionals which include 29 radiation oncologists. In 2015, over 7000 new radiation oncology patients were seen at the OCC, which is currently equipped with 13 linear accelerators, and PET/CT and MR imaging. The OCC offers advanced clinical and research programs in IMRT, IGRT, brachytherapy, SRS, and SBRT and has a Medical Physics department comprised of over 40 members and a Radiation Therapy department with 135 staff. Infrastructure enhancements pending, as summarized below, include a MR brachytherapy suite, Gamma Knife Icon unit and MRI Linac unit.

Program Leadership

OCC DRO Program Leadership: Gregory Czarnota (Chief); Arjun Sahgal (Deputy Chief; Technology, Infrastructure and Physics), and Danny Vesprini (Deputy Chief; Clinical Care). Program Directors include Ian Poon (SBRT); Hans Chung (Brachytherapy); Hany Soliman (Education)

DRO Site Group Leads: Justin Lee (Breast); Irene Karam ((Head and Neck); Arjun Sahgal (CNS); Hans Chung (GI); Andrew Loblaw (GU); Lisa Barbera (GYN); Larry Paszat (Haem); Ian Poon (Lung); Edward Chow (RRRP); Toni Barnes (Skin)

Medical Physics Leads: William Song (Head of Medical Physics); Steven Babic (Deputy Head; EBRT Lead); Ananth Ravi (Deputy Head; Brachytherapy Lead)

Radiation Therapy Leads: Steve Russell (Manager and Head); Donna Lewis (Supervisor); Linda Easton (Supervisor)

Innovations

The following are significant infrastructure innovations at OCC in the last 5 years:

- A major program for advanced image guided-radiotherapy has been in development centered on Gamma Knife Icon technology, MRI Linac technology and an integrated MR Brachytherapy suite. This program represents a $25M investment within the OCC for research and development.

- The Gamma Knife Icon represents a 14th unit at the OCC expanding the complement by one radiation delivery unit
In addition, the following significant program innovations also occurred at OCC in the last 5 years:

- One of the primary clinical and academic foci over the past 5 years has been stereotactic body radiotherapy (SBRT). The SBRT program has clinical and research programs within each major discipline, e.g. prostate, pancreas, liver, CNS, etc. OCC also has an active oligometastases program. Several clinical trials and academic partnerships have been developed for outcome studies.

- The Cancer Ablation Therapy (CAT) program lead by Dr Arjun Sahgal has been instrumental in identifying the OCC DRO as an emerging leader in advanced radiation. The program has active research programs prior to the installation of the Gamma Knife Icon, MR Brachytherapy suite and MR Linac.

- A photodynamic therapy for skin cancer has been established and this has yielded a major increase in clinical volumes and a research program based on ultrasound mediated response.

- In conjunction with the MR HIFU program, radiation oncology has developed several new programs aimed at integration of radiation with this novel technology. World firsts in brain tumors, rectal cancers, and head and neck cancer have resulted in active research programs.

- The brachytherapy program continues to expand. With the addition of Dr Eric Leung, an interstitial GYN brachytherapy program is continuing to grow with provincial leadership in helping to develop similar programs in other regional centres.

- Ultrasound mediated therapy response detection continues to be a hallmark of the cancer research program with first-in-human testing to begin in 2017. Collaborative studies continue with PMH and the MDACC to test this novel technology.

Collaborations

The OCC DRO has continued to provide regional leadership in cancer care which is a major strategic goal of the Department. Our previous administrative and clinical leadership of the Durham Regional Cancer Centre (for which there were evening clinics at the OCC) and the Simcoe Muskoka Regional Cancer (for which Kathy Mah, our then Head of Medical Physics was appointed Head of Physics, and Dr Gerard Morton was Head of Radiation Treatment from 2013 to 2015) has continued as a strong clinical partnership through cooperation in multiple MCCs. Access to multidisciplinary care has continued to improve over the past 5 years with radiation clinics at Toronto East General Hospital (lung, GU), Scarborough General Hospital (GI, GU, Breast), Rouge Centenary (GU, Breast, GI), and North York General Hospital (GU, Breast). Radiation Oncologists also provide MCC support to cancer care teams at many community hospitals including Humber River Hospital, York Central Hospital, Markham Stouffville Hospital, Mackenzie Richmond Hill Hospital, Royal Victoria Hospital, St Michaels Hospital and all those mentioned previously where radiation clinics are established.

Academic partnerships over the past 5 years have also continued to expand, including an active collaboration with Johns Hopkins with the Oncospace platform. Clinical testing of this technology has begun. Collaborations with the MRI Linac consortium have been successful in
promoting academic productivity, and other members in this consortium include MDACC, Utrecht, Netherlands Cancer Institute, University of Madison Wisconsin, the Royal Marsden and the Christie. Other collaborations with various Elekta based research consortium continue with the Spine Consortium, Oligometastases Consortium and Linac-based SRS brain consortium. In addition, our connection with Ryerson University has led to a partnership to train medical physics residents and a shared program has begun.

**Faculty**

Members of the OCC DRO Program, including faculty members from physics, radiation therapy and radiation oncology have continued to support numerous undergraduate, postgraduate, interprofessional, continuing medical educational and administrative activities which are outlined elsewhere in the 5 years UTDRO report. Notably, members either chair or co-chair multiple international and national oncology committees, demonstrating continued leadership at all levels. Our members have also continued in the strong tradition and dedication to pre- and postgraduate education, as evidenced by the many teaching awards received.

**Programs**

A number of CE programs are offered at OCC, including in-house oncology rounds, cancer research rounds, various scientific seminars and symposia that are offered annually.

**Performance**

The OCC DRO has continued to excel in clinical performance over the past 5 year. The number of new radiation oncology patients seen at OCC has increased from 6584 in 2011/12 to 7000 in 2015/16. This number is projected to continue to increase at a rate of 3% per year with over 8000 new consults expected by 2020/21. Treatment complexities and number of treatment courses have likewise increased over the past 5 years. In 2010, there were 7089 courses of treatment (plus 680 brachytherapy factions). This has increased to 8132 courses in 2015 (14.7% increase within 5 years). Our brachytherapy program continues to be the most active in the country with 967 fractions delivered in 2015 alone.

Over the past 5 years, the OCC DRO has continued to be a major academic radiation oncology enterprise. The Department has 8 clinician scientists (Barbera, Chow, Liu, Loblaw, Paszat, Rakovitch, Sahgal, and Wong). The number of peer reviewed papers per year, from just over 100 in 2011, to over 350 in 2015 (155 as primary or senior author). Many of these papers appear in high impact journals (*JCO, Lancet, JAMA, NEJM*, etc.). The department continues to be successful in securing multi-year external grant funding with over $30M in external peer-reviewed and industry supported grants to date. In 2015 alone, the collective members of the department secured over $7M in additional grant funding. A full list of publications, grants and awards are detailed elsewhere in the 5 years UTDRO report. Our diverse group of academic radiation oncologists spans a wide range of research foci; examples of world leading academic innovations include:

- MR guided focused ultrasound for recurrent rectal cancer (William Chu; 1st–in-man)
- World’s largest and most mature Active Surveillance cohort for prostate cancer (Andrew Loblaw)
- Biomarkers of radiation resistance (Stanley Liu)
- MRI guided prostate biopsy in unselected BRCA mutation carriers (Danny Vesprini; 1st-in-man)
- Ultrasound activated microbubble enhancement of cancer therapy (Gregory Czarnota)
- Ultrasound guided focused ultrasound for palliation of bone metastasis (Edward Chow)
- SBRT with Radium 223 for oligometastatic prostate cancer (Patrick Cheung)
- Whole gland salvage HDR for recurrent prostate cancer (Hans Chung)
- Epidemiological and biomarker studies in DCIS (Eileen Rakovitch)
- Advancing cancer prevention in low-income neighborhoods (Lawrence Paszat)
- Stereotactic Radiosurgery for spine and brain metastasis (Arjun Sahgal)
- Mechanisms of radiation-induced inhibition of neuronal development (Shun Wong)
- MRI Linac treatment for primary brain tumors (Arjun Sahgal)
Mississauga Halton/Central West Regional Cancer Program - Trillium Health Partners (Credit Valley Hospital)

Program Overview

Site Lead: Anthony Brade

The Carlo Fidani Cancer Centre at Credit Valley Hospital, Trillium Health Partners (THP) is a regional cancer program located in Mississauga providing cancer care to the Mississauga-Halton and Central-West (MHCW) LHINs, a population of ~2.1 million people. The radiation program opened fully in 2005; now assessing ~3500 new patients for radiotherapy in 2015. The program has been growing in terms of patients seen and radiotherapy courses delivered at >4% per year over the last 5 years. The program has expanded from 3 radiation oncologists at inception in 2005 to its present size of 12 (11 FTE; 1 (0.6 FTE)). The department runs 6 linear accelerators, 2 CT Simulators and an HDR brachytherapy unit (currently used for skin and vaginal vault brachytherapy). The program provides full service radiation oncology with the exception of sarcoma, head and neck, and interstitial brachytherapy. Up until 2012, an active oncology clinical trial program was present at the cancer centre but this was suspended in 2012 to be reevaluated. In May 2016, a new oncology clinical trial program has been launched and is ramping up.

Program Leadership

Anthony Brade MD PhD: Division Head, Radiation Oncology; Regional Lead, Radiation, CCO

Gaylene Medlam MRT: Manager, Radiotherapy

Raxa Sankreacha: Head, Physics

Sarah Banbury MRT (outgoing), Sandy Garraway (incoming): Program Director Oncology Services, THP

Sarah Banbury MRT (outgoing, replacement TBD): Regional Director MHCW Regional Cancer Program

Denny De Petrillo MD (outgoing, search ongoing for replacement): Medical Director, Oncology

Leslie Starr: Senior Vice-President, Cancer Services

Innovations

2011 Program Implementation of Lung SBRT
2011-2013 Construction of State-of-Art Brachytherapy Suite
2012 CT Simulator upgrade to Philips Big Bore with 4DCT
2013-14 Program implementation of Stereotactic Radiosurgery (SRS) (BrainLab TPS)
2013 Program Implementation of Brachytherapy (Endometrium and Skin)
Installation and Upgrade of 3 TrueBeam linear accelerators - two with high definition MLC and one with 6 DoF couch

Transition of VMAT treatments to Truebeam HDMLC linear accelerators

The following is a list of significant program innovations that have taken place in the last five years:

**2011-2013**

Introduction of Total Skin Electron program for Non-Malignant Skin (Mycosis Fungoides) [program decommissioned due to linear accelerator upgrade and primary RO leaving THP]

**2011-present**

Introduction of Prone Breast Radiation Treatment

**2011-present**

Peer Review Sustainability – achievement of peer review for radical cases with second Radiation Oncologist contour QA

**2011-present**

VMAT planning standardization for quality and efficiency, site implementation and treatment

**2011**

GU and upper GI

**2011-present**

SBRT/SRS program, site implementation and treatment

**2011**

SBRT Lung

**2013**

SRS for Brain Mets (Linac Cone based – Brainlab)

**2013**

SRS for Brain Malignancies (Linac MLC based)

**2013**

Brachytherapy Program implementation of Skin SCC/BCC followed by Endometrium in July 2014. Brachytherapy treatment for keloid started in 2015

**2013**

Introduction of one Clinical Specialist Radiation Therapist (CSRT) role in Palliative Radiation Therapy

**2014**

Introduction of one Clinical Specialist Radiation Therapist (CSRT) role in CNS/SBRT Lung Site Group

**2014**

Lymphoma

**2015**

Anal Canal

**Collaborations**

The following is a list of collaborations and partnerships involving UTDRO faculty in the last five years.

1. Since 2011, Medical Physics residency affiliated with UTDRO CAMPEP accredited program (current success includes residency completion for 3 candidates employed full-time into Medical Physicists positions); 1-2 residents per year accepted.
2. Program accepts between 3-5 Radiation Therapy Students (Michener) per year for final year didactic teaching (since 2013).
3. Faculty Medical Physicist (Dr Grace Zeng-Harpell) – joint collaboration with Dr M Poojien: Comparison of treatment of brain metastases with VMAT or Leksell Gamma Knife (2015 to present)
4. Odette Cancer Centre: Partnership to provide brachytherapy service for patients with genitourinary malignancies (prostate brachytherapy)
5. Princess Margaret Hospital: Partnership to provide brachytherapy service for patients with gynecological malignancies (cervix)
### Faculty Activities at Trillium Health Partners

<table>
<thead>
<tr>
<th>Faculty Member</th>
<th>Activities</th>
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<tr>
<td><strong>Internal</strong></td>
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<tr>
<td>Anthony Brade</td>
<td>Division Head – Radiation Oncology</td>
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<tr>
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<td>Radiation Oncology Representative – Scientific Review and Oversight Committee</td>
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<td></td>
<td>Member - Integrated Cancer Program Committee, THP</td>
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<td>Member - Radiation Safety Committee, THP</td>
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<td>Member - Radiation Clinical Operations Committee, THP</td>
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<td></td>
<td>Member - Treatment Delivery Review Committee, THP</td>
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<td></td>
<td>Member - Outpatient Oncology Clinic Redesign Team, THP</td>
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<td>Member - Grand Rounds Planning Committee, THP</td>
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<td><strong>External</strong></td>
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<tr>
<td>Jonathan Wan</td>
<td>Regional Lead – Radiation Oncology, THP-Mississauga Halton Central West Regional Cancer Program</td>
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<tr>
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<td>Member - Radiation Oncology Provincial Advisory Committee (Cancer Care Ontario)</td>
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<td>PROCLAIM Trial radiation quality lead</td>
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<tr>
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<tr>
<td>Senti Senthelal</td>
<td>Lead - SBRT site group</td>
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<td></td>
<td>Co-Lead CNS site group</td>
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<td>Yongjin Wang</td>
<td>Lead - Breast site group</td>
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<tr>
<td>Jonathan Tsao</td>
<td>Lead - GI site group</td>
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<tr>
<td>Marisa Finlay</td>
<td>Lead - Lung site group</td>
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<td>Vice Chair - Professional Staff Association, THP</td>
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<tr>
<td>Jidong Lian</td>
<td>Lead - Heme site group</td>
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<td>Charles Hayter</td>
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<td>Sarah Rauth</td>
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<td>John Radwan</td>
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<td>VMAT implementation, planning standardization and</td>
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<tr>
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<td>2011 CCO RapidArc Physics Coaching</td>
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**Continuing Education Programs**

The Physics Residency Program has been offered since 2011. In addition, from 2013 to 2014, the Total Skin Electron Lab was offered to Physics Residents. THP also offers Annual Radiation Safety Training to its members.
Performance

Since 2011, the program has consistently been the top performer or near the top for key clinical performance metrics measured and published by CCO (referral-to-consult and RTT-to-treatment times) in the face of sustained (4-5% PA) growth in referrals and capped treatment capacity. The first implementation of RapidArc treatments in Ontario also took place during this time period.

Table 24: Annual Treatment at Trillium Health Partners

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<th>Fiscal Year</th>
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<td>2015-2016</td>
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Program Overview

Site Lead: Woodrow Wells

Stronach Regional Cancer Centre is part of the Southlake Regional Health Centre, a community hospital serving the Central LHIN with a population of 1.5 million. The Cancer Centre and the Radiation Medicine Program opened formally in March 2010. Ramp up activities in the program began in 2008. The RMP assesses ~1500 new patients per year in most tumour sites; Southlake does not treat Primary CNS tumours, sarcomas, Gyne, or Head and Neck Cancers. The Program operates 4 Medical Accelerators and has one CT Simulator. There are 6.1 Radiation Oncology FTE’s (7 physicians), 4.8 FTE Medical Physicists (6 persons), and 32 Radiation Therapists (including Manager and Coordinator positions).

Program Leadership

Woodrow Wells, MD: Physician Lead of Program
Ivan Yeung: Head of Medical Physics
James Loudon: Head of Radiation Therapy.
Catherine Cotton: Director of Cancer Centre
David Fell: Regional Vice President for CCO

Innovations

The following is a list of infrastructure innovations in the last 5 years:

2. Upgrade of 3 original Accelerators with Agility Treatment heads
3. Introduction of Radiation Therapy Care plans to automate booking functions and work flow for CT simulation, treatment booking, as well as plan review and booking QA in 2015
4. Active Breath Control for all left-sided breast cancer patients receiving radiation therapy to left breast to minimize cardiac dose, and also for mediastinal lymphoma patients
5. 4D Cone beam CT
6. Consolidated Field Sequencing to shorten treatment times for IMRT patients
7. VMAT for all prostate patients, esophageal patients, and recently for spinal metastases

In addition, the following program innovations have taken place in the last 5 years:

1. Addition of 2 Advanced Practice Therapist roles in Palliative Radiation Therapy and Lung site groups
2. Introduction of lung SBRT in 2015
4. Introduction of Skin Diagnostic Program in 2016 for Interdisciplinary assessment of skin cancer patients.
Collaborations

1. Stronach Radiation Medicine accepts learners in Radiation Oncology (2 to 6 per year), Medical Physics, (one per year), and Radiation Therapy (two per year beginning in 2016).

2. Sim/Slice Education Day in June 2013, an Interdisciplinary Day for learners from Radiation Therapy, Physics, and Radiation Therapy.

3. Southlake RMP has been participating annually in the Collaborative Research Seed Funding Grants for inter-professional, multi-centre research projects since its inception.

Faculty

All faculty participate in teaching learners in their respective fields.

Selected Radiation Oncologists and MedicalPhysicists collaborate with Radiation Therapists in scholarly activities, as outlined in the research reports appended below.

- Southlake RMP faculty participate in CCO Communities of Practice in Lung site group, as well as Therapy, Physics and Radiation Safety Officer Communities of Practice
- Dr. Charles Cho collaborates with Dr. Erin Kennedy at Mount Sinai on GI research projects
- Dr. Zahra Kassam collaborates with Dr. Geoff Liu on Quality of Life and Outcomes projects. She also collaborates with Dr. Rebecca Wong on education projects for learners in Ghana.
- Dr. Wells was co-chair of the Royal College Specialty Committee for 2010 to 2012.

Continuing Education Programs

1. Monthly Cancer Centre inter-disciplinary Grand Rounds
2. Weekly Radiation Medicine Rounds by OTN (Ontario Telemedicine Network) from Princess Margaret Cancer Center
3. Annual Oncology Education Day for Primary Care for Region of Central LHIN. RMP faculty participate in Program planning and deliver significant portions of the content to attendees from Primary Care
4. All tumour sites have bi-monthly MCCs
5. Bi-weekly QA for all patients of the program

Performance

This program meets all of Cancer Care Ontario Wait times, and is consistently amongst the top 3 or 4 programs in the Province for parameters of Referral to Consult, and Ready-to-Treat to Treat. Stronach Cancer Centre has been the number one ranked Regional Cancer Centre in the Province for the last 3 years. The program has seen a 3 to 5% growth year over year since opening.
**Durham Regional Cancer Centre at Lakeridge Health**

**Program Overview**

**Site Lead: Katharina Sixel**

The cancer program at Lakeridge Health sees approximately 2500 new radiation patients per year, and delivers approximately 2700 courses of radiation therapy. Our 9 Radiation Oncologists offer clinic services at the Durham Regional Cancer Centre (DRCC) and at our 5 regional partner sites. Radiation treatment is delivered at DRCC in a 7 bunker facility with 6 clinical linacs. An 8th bunker is deployed at the Peterborough Regional Health Centre (PRHC) and is operated by DRCC as a satellite facility. A multi-year equipment replacement plan has seen us transition from Siemens to Elekta linacs, supported with Elekta/Monaco treatment planning and the Mosaiq Radiation Oncology Information System. Both low dose rate and high dose rate brachytherapy are offered. A team of 8 Medical Physicists and 60 Radiation Therapists help provide treatment planning and delivery. At DRCC, we treat all palliative patients, along with primary breast, prostate, lung, gastrointestinal, gynecological, lymphoma and skin cancers. Head and neck, primary brain and sarcoma patients are referred elsewhere.

**Program Leadership**

Dr. Medhat El-Mallah, Radiation Oncology Lead  
Christine Black, MA, MRT(T), Radiation Therapy Manager  
Katharina Sixel, PhD, FCCPM, Chief of Medical Physics

**Innovations**

During the past 5 years, DRCC has partnered with the Peterborough Regional Health Centre (PRHC) and Cancer Care Ontario to create a satellite radiation treatment facility at PRHC. A single treatment unit is housed in a re-deployable bunker, which has been installed and renovated with a permanent corridor to the main hospital. A service model was developed to ensure the quality of care is consistent with the care delivered at DRCC. The objectives of the project were to provide care closer to home, reduce wait times and improve radiation utilization.

The past 5 years have seen significant quality improvement initiatives to ensure that DRCC continues to offer state of the art radiation services to our patients. We have implemented SBRT for lung, SRS and SRT for brain metastases. We are performing MRI guided cervix brachytherapy, and have an active ultrasound guided prostate HDR program.

**Collaborations**

The main partnership between DRCC and UTDRO revolves around the Medical Physics Residency Program. DRCC is an affiliated site for physics residence teaching. We have graduated 2 residents in the past 5 years, and have a current resident in year one of the two year program.
In addition, Katharina Sixel is currently partnering with a multi-site team under the co-leadership of Marco Corleone and Nicole Harnett to evaluate a simulation tool for linac servicing. The SIMAC project has obtained UTDRO seed money to help assess the teaching value of the tool. DRCC is also participating in a prone breast clinical trial under the leadership of Odette Cancer Centre.

**Faculty**

Katharina Sixel is the only UTDRO faculty member at DRCC/Lakeridge Health. She is the Chief of Physics and as such is involved in all clinical initiatives from an administrative and oversight perspective.

Katharina Sixel is the site coordinator for Lakeridge Health within the Physics Residency program. She is also a participant in the SIMAC evaluation project.

**Continuing Education Programs**

DRCC offers a variety of educational rounds to staff. These include Grand Rounds for the entire Cancer Program, Radiation Oncology Rounds with a target audience of radiation staff, and Quality Assurance Rounds for radiation staff.

In addition, OTN provides access to academic rounds at both the Odette and Princess Margaret Cancer Centres.

**Performance**

DRCC has 7 linacs, 2 CT simulators and one HDR after loader. It also has an MRI scanner shared with the Hospital.

Over the past five years, the following treatments have been offered at DRCC:

- External beam LDR brachytherapy for prostate (permanent implants)
- HDR brachytherapy for gynecology, prostate and skin

New Radiation Consults: 2548  
Treated Courses: 2700  
Treated Cases: 2200

The staff breakdown includes 9 Radiation Oncologists, 8 Medical Physicists and 60 Radiation Therapists at DRCC.

The only UTDRO appointed faculty member has participated in clinical trials and has published 8 abstracts over the last five years.
**Simcoe Muskoka Regional Cancer Program (SMRCP)**

**Program Overview**

**Site Lead: Christiaan Stevens**

The SMRCP is a regional cancer program located at the Simcoe Muskoka Regional Cancer Centre (SMRCC)/Royal Victoria Regional Health Centre (RVH) in Barrie that provides a full spectrum of cancer care to patients from LHIN 12, and additional gynecological oncology care for patients from LHIN 13. The SMRCC serves a population of approximately 500,000 people. The program is community based with a focus on clinical care, along with a small but active clinical trials program. While medical oncology service provision has been on site since the mid-1980s, and while there was access to some on-site radiation therapy as of 2008, the SMRCP was not able to provide comprehensive radiation therapy services until July 2012 when the SMRCP was opened. The radiation therapy program has grown rapidly since then, and is the fastest growing program in the province. In 2012-2013, the first full year the SMRCP was opened, the new patient volume was 1051, whereas in 2015-2016, the new patient volume was 1715; a growth of 63% over 4 years. The program has grown from 3 FTEs in radiation oncology in 2012 to 6 FTEs as of July 2016, with a 7th FTE joining the group in late 2016 or early 2017.

**Program Leadership**

Christiaan Stevens, Medical Director and Head, Radiation Oncology, SRMCC  
Matthew Follwell, Chief, Oncology  
Lindsey Crawford, RVP, CCO  
Tracey Keighley-Clark, Program Director, SMRCC

**Innovations**

The SMRCP is less than 5 years old; as such, the building and opening of the SMRCP was the most significant infrastructure innovation over the last 5 years.

Programmatic innovations include the regional diagnostic and assessment programs (DAP) for thoracic, breast, and gynecological malignancies. In addition, the lung stereotactic program started to treat patients in June 2015. Another significant innovation is the development of a gynecological oncology program in partnership with UTDRO (PM Cancer Center) for brachytherapy services.

**Collaborations**

SMRCP has a partnership with the Odette Cancer Centre to provide brachytherapy service for patients with genitourinary malignancies, stereotactic radiosurgery/radiotherapy for patients with metastatic malignancies/oligometastases, and collaboration is taking place for inter-centre QA rounds for the support and successful development of a lung stereotactic program at the SMRCP.

SMRCC also has a relationship with other UTDRO faculty due to the Collaborative Research Seed grant, which involves Matthew Follwell and Juhu Kamra.
Lastly, SMRCP has been participating in the UTDRO-initiated randomized clinical trial of prone vs. supine radiation therapy for early stage breast cancer with investigators at OCC, SRCC, and DRCC.

**Faculty**

**Table 25: SMRCP Faculty Activities**

<table>
<thead>
<tr>
<th>Faculty Member</th>
<th>Activities</th>
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<tbody>
<tr>
<td><strong>Christiaan Stevens</strong></td>
<td><strong>Internal</strong></td>
</tr>
<tr>
<td></td>
<td>Internal Medical Director, and Head Radiation Oncology of the SMRCP</td>
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<td></td>
<td>UTDRO Collaborative Seed Grant Panel</td>
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<td></td>
<td>LHIN lead for the Breast and GU site groups</td>
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<td></td>
<td><strong>External</strong></td>
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<td></td>
<td>Organizing committee for the 4th and 5th Canadian Organization of Medical Physics Winter School for Quality and Safety in Radiation Therapy</td>
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<td></td>
<td>CCO Person-Centred Care Guideline Development Working Group</td>
</tr>
<tr>
<td></td>
<td>Canadian Partnership for Quality Radiotherapy (CPQR) Patient Engagement Guideline Working Group</td>
</tr>
<tr>
<td><strong>Matthew Follwell</strong></td>
<td><strong>Internal</strong></td>
</tr>
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<td></td>
<td>Internal Chief, Oncology</td>
</tr>
<tr>
<td></td>
<td>Board of Directors of the RVH Foundation</td>
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<tr>
<td></td>
<td>Co-chair, RVH End-of Life and Medical Assistance in Dying Committees</td>
</tr>
<tr>
<td></td>
<td>UTDRO Collaborative Seed Grant Panel</td>
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<td></td>
<td>CCO INTEGRATE Operations Committee</td>
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<td>LHIN lead for GU site group</td>
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<td><strong>External</strong></td>
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<td></td>
<td>Canadian Partnership for Quality Radiotherapy (CPQR) Patient Engagement Guideline Working Group</td>
</tr>
<tr>
<td><strong>Fred Yoon</strong></td>
<td><strong>Lead, Education Program, SMRCP</strong></td>
</tr>
</tbody>
</table>
Continuing Education Programs

The following is a list of the Continuing Education Programs available to faculty at this site.

1. Physician Management Institute (PMI) courses run by the Canadian Medical Association
2. The Centre for Faculty Development - Teaching for Learning in Collaboration (TLC) Program
3. Physician Dinner Series: A regular series of talks/lectures on topical medical or professional practice issues
4. Clinical Oncology Rounds: A monthly rounds for the entire oncology program on relevant topics in oncology
5. Radiation Oncology Academic Rounds: A monthly rounds for the radiation oncology division on relevant topics in radiation oncology
6. RVH Grand Rounds: A monthly rounds for the entire RVH staff on relevant medical topics

Performance

The SMRCP radiation therapy program has grown rapidly over the past 4 years and is predominantly a program constituted of radiation oncologists with <7 (3 RO have been at RVH for >5 years; the other three <5 years) years staff experience. Patient reported outcomes at least with respect to satisfaction with care are consistently >90%. It is too early in the program’s existence to accurately report on objective outcomes measures such as long-term toxicity, disease-free-survival and overall survival, which in part, are most reflective of clinical performance.

The program primarily focuses on cancers with high incidence and prevalence (Breast, Prostate, Lung, Rectum), and does not currently provide routine care for patients with Primary Head and Neck malignancies, Primary Central Nervous System (CNS) malignancies, Sarcoma, or Pediatric malignancies. We have the ability to provide state-of-the-art radiotherapy using Volumetric Arc Therapy and Cone Beam Computed Tomography, and as the program grows and matures, we will be able to increase our capacity to provide more advanced radiation therapy techniques such as stereotactic radiotherapy and radiosurgery; a long term goal is the development of a brachytherapy program. Furthermore, we are developing collaborations both internal to the RVH and LHIN, as well as externally, to increase the scope of radiation clinical practice including a
multidisciplinary skin cancer program, Primary CNS program, and Radioactive Iodine Ablation service.

Given the rapid growth of the program, clinical performance metrics such as referral-to-consult time and RTT-to-treat times have been variable, ranging from being a high performer relative to other regional programs, to being one of the lowest performers more recently. This has been primarily influenced by the availability of manpower resources to accommodate the significant growth in referrals to radiation oncology, and the growth in radiation therapy utilization, which historically was very low in this region. This latter issue can be seen as a positive outcome measure, as our increasing wait times reflect the success of the program in rendering radiation therapy more accessible and better utilized by the patients within LHIN 12.

The systemic therapy program has a well-established clinical trials program, and has multiple industry as well as academic/cooperative group Phase II and III clinical trials. Given the infancy of the radiation therapy program, there is a relative lack of experience with radiation therapy studies compared to the systemic therapy program.

At present, only about 3% of patients who receive radiotherapy at the SMRCP participate in clinical studies. The goal is to significantly increase this activity over the next 2-3 years. We have been successful in accruing to several NCIC and OCOG studies and are in the midst of doubling the number of radiation therapy studies available to patients. We are also exploring becoming an affiliate NRG site. We have also been part of multiple UTDRO collaborative seed grant submissions, and one of our co-submissions was successful (Matthew Follwell) this year. Internally, we have a very effective Quality Assurance Program and multiple internal research projects have been selected as abstracts for presentation at symposia and conferences, including the COMP Winter School, CARO, and RTi3.

The RVH has established the development of a research program as a major pillar of its 5-year strategic plan. It is in the process of consulting with stakeholders throughout the region and the academic community to establish a vision and action plan towards this goal. The SMRCP is a major stakeholder in this process, and the outcome of this process will unquestionably impact on the direction of research in the radiation therapy program.
Future Directions

In accordance to the 2013 Strategic Plan (Roadmap to 2017), UTDRO has the following important roles in radiation medicine:

1. Leadership in Education
2. Catalyzing and facilitating Research, as well as Knowledge Translation and Exchange in concert with partners
3. Influence and add value to the Radiation Medicine community, the cancer network, as well as the broader health and public policy systems

As a result of the Strategic Plan, the following aspirational priorities were identified for the department:

- **Education**: To be known as the educator of choice internationally for Radiation Medicine professionals and researchers
- **Research, Knowledge Translation and Exchange**: To be known for being the home for critical minds and innovators, for leading the exploration of the next frontiers in Radiation Medicine, and for applying findings to clinical practice, education, and policy
- **Systems Influence**: To be known as a global pacesetter for mobilizing and influencing change for Radiation Medicine
- **Operations**: To be nimble and responsive to the Department’s needs and embody a culture of continuous quality improvement in the execution of processes and delivery of services

Over the last five years, UTDRO has experienced significant growth in the successful recruitment of gifted faculty. This has resulted in new initiatives in both the research and education realms. The key directions we plan to pursue over the next few years include:

1. **Collaboration**

UTDRO is already engaged in national and international collaborations. Over the next five years, we will push for an increase in collaboration across the many campuses (Odette, Barrie, Southlake, Credit Valley, Oshawa), and amongst our faculty through the development of databases, collaborative clinical trials, and additional research initiatives.

2. **Alumni Engagement**

Collaborations are not possible without forming relationships, and these relationships have to start at home. Over the next five years, UTDRO will actively work on an alumni engagement strategy to strengthen the department’s relationship with its alumni, and to encourage alumni to form partnerships and collaborations with each other. This will help UTDRO further strengthen its community of ambassadors around the world.
3. Research

UTDRO continues to enhance the scope and size of radiation research, but the impact of research has the potential to reach farther and deeper. A priority for the department is to increase the impact of research, striking the balance between clinical care delivery and innovations with clinical impact.

In addition to these directions, there are specific initiatives already in place at UTDRO which could benefit from enhancement:

4. Faculty Turnover

With the retirement of senior Radiation Oncologists over the recent few years, UTDRO has welcomed a new cohort of young talents, such as Alejandro Berlin, Scott Bratman, Jennifer Croke, Joelle Helou, Irene Karam, Eric Leung, Stan Liu, Sten Meyrhaug, David Shultz and Eric Tseng. This is a very exciting new chapter for UTDRO, and we anticipate that the new faculty recruits will further enhance collaborations across the campuses.

![Figure 13: Number of Faculty Appointments by Site (2012-2016)](image-url)

5. MRS Curriculum Renewal

The MRS curriculum renewal and the UHN-Michener merger holds promise for hybrid training and increased engagement by our Diagnostic Imaging colleagues. This has significant potential to attract international students to our program.
6. Radiation Oncology Residency Training

UTDRO’s Radiation Oncology Residency program is undergoing changes to its curriculum with a competency-based curriculum related to the ‘Competency by Design’ framework from the Royal College of Physicians and Surgeons of Canada. This will continue to improve the learning environment for the residents, and also improve their quality of training.

In addition, UTDRO will focus on some of these additional initiatives to further support its strategic vision.

1. UTDRO Collaborative Seed Grant and Journal Club

The internal seed grant initiative will continue as it is a very important and successful initiative in promoting research collaboration across the campuses. The Evening Journal Club is another mechanism to increase collaboration amongst faculty, and this forum for knowledge exchange will also continue.

2. Promotion of Inter-Disciplinary and Inter-Professional Initiatives

UTDRO will continue to promote inter-professional education, training and practice in order to maintain the highest quality in clinical care delivery while enhancing innovation. One example of this focus is the recent renewal of the MHScMRS program. This program offers a new leadership course which is available to all trainees within UTDRO and Radiation Therapists. It will also help enhance career opportunities for therapists across the country.

3. Enhancing Operational Excellence

UTDRO’s operational activities have undergone significant changes and turnover over the recent five years. To maintain a smooth transition, standard operating procedures (SOPs) will be developed. In addition, staff will be provided improved clarity on their roles and responsibilities. Partnership with registrarial groups at the FoM will be enhanced. In addition, a culture of transparency and accountability will be further promoted. With these goals in mind, the UTDRO operational budget will be closely monitored, as well, a system will be created to declare and monitor COI more efficiently amongst faculty.
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# APPENDIX 1.1 – UTDRO Faculty List

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<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Hospital Affiliation</th>
<th>Discipline</th>
<th>Current Rank</th>
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<tr>
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<tr>
<td>Name</td>
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<td>Institution</td>
<td>Department</td>
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<td>Wiljer</td>
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<tr>
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<td>Asst Professor</td>
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<tr>
<td>Jasper</td>
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<td>Lecturer</td>
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<tr>
<td>Beibei</td>
<td>Zhang</td>
<td>University Health Network - PMH</td>
<td>Physics</td>
<td>Asst Professor</td>
</tr>
</tbody>
</table>
APPENDIX 1.2 – UTDRO Comparative Publication Impact Assessment 2011-16

Prepared by the Research Program Planning & Analysis Office of UHN Research Support Services, October 2016
Approach

Background

This report provides a quantitative analysis of the publication activity and bibliometric impact of investigators affiliated with the University of Toronto Department of Radiation Oncology (UTDRO) as well as Radiation Oncology and Radiation physics peers from MD Anderson (MDA) and Memorial Sloan Kettering (MSK). The report includes publication data drawn October 2016 from Thomson Reuters Web of Science (Science Citation Index Expanded, Social Science Citation Index, and Arts and Humanities Citation Index, Conference Proceedings Citation Index) pertaining to:

- Publication activity occurring in the academic years spanning July 1, 2011- June 30, 2016 (AY2011-16) and related journal and citation metrics

Investigators

Investigators included in the review have been identified by the Head of the UTDRO, as those with an active appointment with the department and contribute to UTDRO research. This is defined as researchers with an active appointment, who have had active protocols or labs, held funding, or published in the most recent full calendar year. All data is based upon research activity attributable to these individuals, with duplication resulting from collaboration removed for group analysis.

Bibliometric Analysis

Knowledge creation and dissemination are key goals for all types of research. Publication of research in scholarly journals is an important indicator of knowledge dissemination while citations (referencing published work) are a key indicator of the impact or uptake of a publication.

The analysis of publications and citations (bibliometrics) is used globally to quantitatively assess the scientific impact of a paper, an author, a journal, or an institution. Publications are often relied upon as a measure of productivity, whereas citations are used to evaluate the impact or influence of scientific publications. These quantitative measures intend to convey the degree of peer use and do not necessarily represent the "quality", rigor or innovativeness of a particular publication.

Though counts are useful for determining the scale of activity and impact, citations rates can vary significantly by field and publication age. To enable more relevant comparison, measures of relative activity and impact are included to help control for bias relating to group size, publication age and variations in citation rate by field.

Bibliometric data was derived from Thomson Reuters resources by identifying July 2011- July 2016 Web of Science Core Collections (WoSCC) indexed papers of investigators included in the analysis. A review of available UTDRO faculty cv’s was performed to verify the UTDRO publication dataset.
Metrics

Evaluating the impact of research is critical to understanding its effectiveness and influence. Impact and citation impact, both relative and normalized for age and subject, provide a more reliable and comprehensive representation. Trended and comparator data help provide context for results. Journal and citation metrics are based upon Thomson Reuters Web of Science. Subject and research fields are allocated by Thomson Reuters (TR). Analysis of citation data for more recent publications is limited to normalized indicators and can fluctuate significantly in the first year post publication.

**Publications** | AY2011-16 articles, reviews and proceeding papers published by UTRIO faculty or identified peers and indexed in Web of Science.

**Citation** | Reference to a prior publication to acknowledge its contribution. Cites per paper conveys relative impact.

**Highly Cited Papers** | Have enough cites, relative to papers from the same year and research field, to be among the top 10% of cited papers. The CIRF denotes papers containing the most cited articles.

**Journal Impact Factor (JIF)** | Scores represent an average cites per paper ratio for journals and used to convey the citation impact of journals.

**Subject Area Median Impact (SAMI)**

**In Top Journals** | The percentage indicates what proportion of all citations for a journal are within the top 10% of cited papers.

<table>
<thead>
<tr>
<th>Relative</th>
<th>Normalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal metrics</td>
<td>• Mean Journal Impact Factor&lt;br&gt;• Proportions in Higher impact or Top journals</td>
</tr>
<tr>
<td>Citation metrics</td>
<td>• Cites per paper&lt;br&gt;• Proportion cited</td>
</tr>
</tbody>
</table>

Data included herein are derived from the Web of Science © prepared by THOMSON REUTERS ©, Inc (Thomson®), Philadelphia, Pennsylvania, USA. © Copyright THOMSON REUTERS © 2016. All rights reserved.
UTDRO Publication Scope | AY 2011-2016

WoS AY2011-16 Publications

1563

112

(JIF ≥ 10)

(Sept 2016)

17242

355

(Top 10% for year and Field)

Top Journal Categories

73

36% Oncology

20% Radiology, Nuclear Med & Med Imaging

4% Health Care Sciences & Services

5% Science & Technology - Other Topics

5% Urology & Nephrology

Unique Journals

396

9.7%

4.6%

4.2%

3.1%

3.1%
## Comparative Publication Activity | AY 2011-2016

<table>
<thead>
<tr>
<th>Metric</th>
<th>UTDRO</th>
<th>MSK</th>
<th>MDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliated Faculty level Investigators</td>
<td>116</td>
<td>75</td>
<td>111</td>
</tr>
<tr>
<td>Published Investigators (AY2011-16)</td>
<td>114</td>
<td>67</td>
<td>105</td>
</tr>
<tr>
<td>Total Publications</td>
<td>1563</td>
<td>943</td>
<td>1709</td>
</tr>
<tr>
<td>Publications per Investigator</td>
<td>13.5</td>
<td>12.6</td>
<td>15.4</td>
</tr>
<tr>
<td>Proportion of Articles</td>
<td>84.9%</td>
<td>92.1%</td>
<td>91.8%</td>
</tr>
<tr>
<td>Principal Author Papers</td>
<td>762 (49%)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Relative Publication Activity

- **% Publishing**: MSK = 89.3%, MDA = 94.6%, UTDRO = 98.3%
- **Papers per Investigator per Year**: MSK = 3.1, MDA = 2.5, UTDRO = 2.7

- The 8 (7%) most prolific UTDRO investigators published nearly 18 papers per year, on average, and were authors on 40% of UTDRO papers.
- UTDRO published more papers than MSK peers but fewer than the MDA group. Papers per investigator followed the same pattern. All had a very high rate of publishing faculty.
- Nearly half of UTDRO AY2011-16 publications were PAP, with 85% of UTDRO investigators publishing at least one PAP.

### UT DRO Faculty Publications (AY2011-16)

- Authored 631 (40%) of UTDRO Papers
  - 60+ Papers 7%
  - 1 to 9 Papers 27%
  - 20 to 39 Papers 26%
  - 10 to 19 Papers 27%

**Principal Author Paper (PAP):** Where the investigator is listed as the first or last author.

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**Comparative Journal Impact | AY 2011-2016**

<table>
<thead>
<tr>
<th>Metric</th>
<th>UTDRO</th>
<th>MSK</th>
<th>MDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Journal Impact Factor (JIF)</td>
<td>4.837</td>
<td>5.474</td>
<td>5.457</td>
</tr>
<tr>
<td>In higher Impact Journals (JIF: 5-10)</td>
<td>20.7%</td>
<td>20.5%</td>
<td>25.3%</td>
</tr>
<tr>
<td>In Top Journals (JIF: ≥10)</td>
<td>7.2%</td>
<td>8.7%</td>
<td>8.5%</td>
</tr>
<tr>
<td>JIF for journal category (SAMI)</td>
<td>2.47</td>
<td>3.12</td>
<td>2.84</td>
</tr>
</tbody>
</table>

**Papers In Top Journals**
- In Higher Impact Journals (JIF=5-10)
- N in High Impact Journals (JIF > 10)

**Mean Journal Impact**

- **UTDRO papers**' mean journal impact as well as journal impact normalized for subject category, was similar to that of peers.
- **MDA** had a higher volume and proportion of papers in journals with a JIF > 5.

**Journal Impact Factor (JIF):** Scores represent a cites-per-paper ratio for journals and are year-specific.

**Top Journal:** Journals that score 5 and 10.

**JIF relative to Subject-category:** Each journal's JIF is compared to the subject area median for its subject category (allocated by Thomson Reuters). Papers tend to appear in journals which have a JIF twice the subject-area median.
Comparative Citation Impact | AY 2011-2016

<table>
<thead>
<tr>
<th>Metric</th>
<th>UTDRO</th>
<th>MSK</th>
<th>MDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total citations (Sept 2016)</td>
<td>17242</td>
<td>17396</td>
<td>24163</td>
</tr>
<tr>
<td>Mean cites</td>
<td>11.0</td>
<td>18.4</td>
<td>14.1</td>
</tr>
<tr>
<td>Proportion Highly-cited</td>
<td>21.0%</td>
<td>33.6%</td>
<td>29.4%</td>
</tr>
<tr>
<td>Citation Impact for Field</td>
<td>2.22</td>
<td>4.49</td>
<td>3.21</td>
</tr>
</tbody>
</table>

**Mean Citation Impact**

<table>
<thead>
<tr>
<th>Cites per Paper</th>
<th>UTDRO</th>
<th>UTDRO PAP</th>
<th>MSK</th>
<th>MDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTDRO PAP</td>
<td>20.1</td>
<td>13.6</td>
<td>1.58</td>
<td>2.58</td>
</tr>
</tbody>
</table>

**Highly-cited Papers**

- UTDRO PAP papers’ mean citation impact as well as citation impact normalized for research field, was lower than peers’.
- MSK and MDA had a higher volume and proportion of highly-cited papers but all groups had a comparable proportions of cited papers.

**Citation** | Bibliographic reference to a prior paper as an acknowledgement to its contribution to the current publication.
**Cites per Paper** | Average cites received as of the specified date of analysis.
**Highly-cited papers** | In the top 10% for citation count compared to papers from the same year and Field of research. Moderately cited papers are cited but not highly-cited.
**Cites Relative to field** | The ratio of paper’s citation count to the median of papers published in the same year and field (allocated by TR using journal).
Non-Indexed Papers as a Proportion of All UTDRO Publications

- **Non-Indexed Journals**: 17%
- **Other Indexed Journals**: 62%
- **Int J Radiat Oncol**: 8%
- **J Pain Manag**: 5%
- **Support Care Cancer**: 3%
- **Radiother Oncol**: 3%
- **Med Phys**: 4%
- **J Clin Oncol**: 3%
- **Ann of Palliative Med**: 1%
- **World J Oncol**: 1%
- **P Radiat Oncol**: 1%
- **J Medi Imag Radiat Sci**: 2%
- **Practical Radiat Oncol (pre-2016)**: 8%
- **Annals of Palliative Med**: 6%
- **World Journal of Oncology**: 5%

In Non-Indexed Journals

- **322**
- **17% of UTDRO Total**

- **J Pain Management**: 31%
- **J Med Imag Radiat Sciences**: 10%
- **Practical Radiat Oncol (pre-2016)**: 8%
- **Annals of Palliative Med**: 6%
- **World Journal of Oncology**: 5%

*Publications in non-indexed journals are not reflected in WoS databases, nor are citations garnered by these papers.*
# APPENDIX 1.3 – UTDRO Annual General Meeting Award Recipients

<table>
<thead>
<tr>
<th>Award</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRS Award for Best Guest Lecture</td>
<td>Hazel Markwell</td>
<td>John Waldron</td>
<td>Sarah Rauth</td>
<td>Kitty Chan</td>
<td>Kathy Mah</td>
</tr>
<tr>
<td></td>
<td>Jerry Roussos</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>MRS Award for Excellence in Clinical Supervision</td>
<td>n/a</td>
<td>Gina Du Christopher Chemets</td>
<td>Jayne Belanger Julie Sit</td>
<td>Carina Feuz / Kiran Patel</td>
<td>Mandy Kohli / Vanessa Barisic</td>
</tr>
<tr>
<td>MRS Award for Excellence in Research Supervision</td>
<td>n/a</td>
<td>Sophie Huang</td>
<td>William Tran</td>
<td>Lisa Di Prospero</td>
<td></td>
</tr>
<tr>
<td>MRS Award for Excellence in Classroom Teaching</td>
<td>Martin Chai</td>
<td>Robert Case</td>
<td>Robert Case</td>
<td>Michael Rauth</td>
<td>Marta Evans</td>
</tr>
<tr>
<td>Excellence in Postgraduate Advocacy &amp; Mentorship</td>
<td>Hany Soliman</td>
<td>Anthony Fyles</td>
<td>Lisa Barbera</td>
<td>Robert Dinniwell</td>
<td>Michael Milosevic</td>
</tr>
<tr>
<td>Postgraduate Medical Education Award</td>
<td>Mike Milosevic / May Tsao</td>
<td>Andrew Hope</td>
<td>Caroline Chung</td>
<td>Caroline Chung</td>
<td>n/a</td>
</tr>
<tr>
<td>Presented for Excellence in Research Supervision</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Continuing Medical Education Award</td>
<td>Stephen Breen / Marco Carlone</td>
<td>David Jaffray</td>
<td>Arjun Sahgal</td>
<td>n/a</td>
<td>Nicole Harnett</td>
</tr>
<tr>
<td>Best Annual Research Performance</td>
<td>Edward Chow</td>
<td>Arjun Sahgal</td>
<td>Gregory Czarnota</td>
<td>Fei-Fei Liu</td>
<td>Lisa Barbera</td>
</tr>
<tr>
<td>Excellence in Research Leadership</td>
<td>Andrew Loblaw</td>
<td>Terry Fox New Frontiers Program Project Grant Teams</td>
<td>Brian O'Sullivan</td>
<td>Gregory Czarnota</td>
<td>Bradley Wouters</td>
</tr>
<tr>
<td>Outstanding Research Potential</td>
<td>Colleen Dickie</td>
<td>Kathy Han</td>
<td>Caroline Chung</td>
<td>Tom Purdie</td>
<td>Stanley Liu</td>
</tr>
<tr>
<td>Sustained Excellence in Research</td>
<td>Jolie Ringash</td>
<td>Laura Dawson</td>
<td>Edward Chow</td>
<td>Mike Milosevic</td>
<td>Padraig Warde</td>
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<tr>
<td>Award Description</td>
<td>Winner 1</td>
<td>Winner 2</td>
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<tr>
<td>--------------------------------------------------------</td>
<td>---------------------------</td>
<td>---------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outstanding Contribution to the Undergraduate Medical Education Program</td>
<td>Ida Ackerman</td>
<td>Robert Dinniwell</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate Best Clinical Teaching</td>
<td>Barbara-Ann Millar</td>
<td>Hany Soliman</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cummings Leadership Award for Excellence in Educational Leadership</td>
<td>Mary Gospodarowicz</td>
<td>Pamela Catton</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>MHSc in MRS Best Guest Lecturer Award</td>
<td>Caroline Chung Padraig Warde</td>
<td>Bradly Wouters</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. What is your age?
   - Under 30
   - 30-45
   - 45-60
   - 60+

2. What is your gender?
   - Male
   - Female

3. Which of the following best describes your primary professional responsibility?
   - Radiation Oncologist
   - Clinical physicist
   - Radiation therapist
   - Educator
   - Research scientist

4. How long have you held a UT DRO faculty appointment?
   - 5 years or less
   - 5-10 years
   - Over 10 years

5. What is your academic rank?
   - Instructor
   - Lecturer
   - Assistant Professor
   - Associate Professor
   - Professor

6. The last review of UT DRO identified several strengths. How do you believe the areas below have changed over the last five years? (Scale: Worse; Unchanged; Better; Don’t Know)
   - Interprofessional expertise and collaboration
   - Diversity of academic interests and goals
   - Leadership in local/national professional organizations
   - Leadership in international professional organizations
   - Leadership in clinical trials and clinical research
   - Leadership in technology development and adoption
   - Translational physics research
   - Translational biology research
   - Peer reviewed grant funding
   - Undergraduate training in radiation medicine
   - Postgraduate training in radiation medicine
   - Continuing Education and professional development
   - Facilities and infrastructure at Odette/PMH
7. What are the 3 most improved aspects of UT DRO over the last 5 years? Please rank these in order (choose from the above list or add your own, 1= most important)?

8. What are currently the top 3 strengths of UT DRO? Please rank these in order (Choose from the above list or add your own, 1= most important)?

9. The last review of UT DRO identified several challenges for future growth and development. How have these changed over the last 5 years? (Scale: Worse; Unchanged; Better; Don’t Know)
   - Communication of departmental processes and procedures e.g. academic promotion, performance review, resources, educational activities
   - Relative lack of junior faculty representation on departmental committees
   - Mentorship of all junior faculty
   - Recognition and support of non-physician faculty
   - High clinical workload for radiation therapists, incompatible with academic productivity
   - Poorly defined academic career path for radiation therapists
   - Collaboration between PMH and Odette
   - Accrual to clinical trials
   - UT DRO profile within broader oncology community
   - Administrative/clerical support for grant funding application/manuscript preparation
   - Biostatistical access
   - Patent and commercialization activities

10. UT DRO has recently completed a strategic plan for 2015 – 2017. (Scale: Not at all; Somewhat; A lot; Don’t know)
    - How familiar are you with its contents?
    - Are you aware of how to obtain access to the plan?
    - How well do you identify with the stated goals?
    - Do you feel engaged by the plan and is it a priority to participate?

11. To what extent do UT DRO activities contribute to the academic goals of the department? (Scale: Not at all; Somewhat; A lot; Don’t know)
    - UT DRO Rounds
    - UT DRO Research Day
    - RTi3
    - Target Insight
    - Evening Journal Club

12. How could the joint UT DRO activities be improved to better realize the academic goals of the department?

13. How do you feel UT DRO ranks overall, in relation to other academic radiation oncology departments? (Scale: Lowest; Below Average; Average; Above Average; Highest; Don’t know)
    - Nationally
    - Internationally
14. If you were appointed to UT DRO within the last 5 years, how would you describe the orientation you received from the department?
   - None received
   - Adequate
   - Very Good
   - Excellent
   - N/A

15. UT DRO is a good place to develop/enhance your career
   - Strongly disagree
   - Somewhat disagree
   - Neither agree nor disagree
   - Somewhat agree
   - Strongly agree

16. Would you recommend an academic appointment with UT DRO to your friends/colleagues?
   - Extremely unlikely
   - Unlikely
   - Not sure
   - Likely
   - Extremely likely

17. Please share any comments you may have.
### APPENDIX 1.5 – Characteristics of UTDRO Faculty

<table>
<thead>
<tr>
<th>Faculty who were employed at UTDRO between 2011 and 2016</th>
<th>Full Faculty Complement Number (% of total)</th>
<th>Survey Respondents Number (% of total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>81 (43%)</td>
<td>48 (60%)</td>
</tr>
<tr>
<td>Male</td>
<td>108 (57%)</td>
<td>30 (38%)</td>
</tr>
<tr>
<td>Other (LGBTQ or non-binary)</td>
<td>0</td>
<td>2 (3%)</td>
</tr>
<tr>
<td>Academic Rank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professor</td>
<td>31 (16%)</td>
<td>17 (19%)</td>
</tr>
<tr>
<td>Associate</td>
<td>26 (14%)</td>
<td>15 (17%)</td>
</tr>
<tr>
<td>Assistant</td>
<td>86 (46%)</td>
<td>42 (48%)</td>
</tr>
<tr>
<td>Lecturer</td>
<td>34 (18%)</td>
<td>8 (9%)</td>
</tr>
<tr>
<td>Instructor</td>
<td>12 (6%)</td>
<td>4 (5%)</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiation Oncologist</td>
<td>95 (50%)</td>
<td>53 (58%)</td>
</tr>
<tr>
<td>Medical Physicist</td>
<td>53 (28%)</td>
<td>18 (20%)</td>
</tr>
<tr>
<td>Radiation Therapist</td>
<td>35 (19%)</td>
<td>10 (11%)</td>
</tr>
<tr>
<td>Other</td>
<td>6 (3%)</td>
<td>5 (5%)</td>
</tr>
<tr>
<td>Institution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Princess Margaret</td>
<td>90 (48%)</td>
<td>N/A*</td>
</tr>
<tr>
<td>Odette</td>
<td>67 (35%)</td>
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</tr>
<tr>
<td>Michener</td>
<td>3 (2%)</td>
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</tr>
<tr>
<td>Southlake</td>
<td>7 (4%)</td>
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</tr>
<tr>
<td>Credit Valley</td>
<td>14 (7%)</td>
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</tr>
<tr>
<td>Simcoe-Muskoka</td>
<td>3 (2%)</td>
<td>N/A*</td>
</tr>
<tr>
<td>Durham Regional</td>
<td>1 (0%)</td>
<td>N/A*</td>
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<tr>
<td>Other</td>
<td>4 (2%)</td>
<td>N/A*</td>
</tr>
<tr>
<td>Duration of Appointment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5 years</td>
<td>43 (23%)</td>
<td>21 (24%)</td>
</tr>
<tr>
<td>5-10 years</td>
<td>38 (20%)</td>
<td>21 (24%)</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>105 (56%)</td>
<td>43 (49%)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (1%)</td>
<td>2 (2%)</td>
</tr>
</tbody>
</table>

*Location identifiers were removed from the survey to ensure anonymity.*
UTDRO Faculty by Appointment and Gender

<table>
<thead>
<tr>
<th>Position</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Professor</td>
<td>23</td>
<td>17</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>51</td>
<td>14</td>
</tr>
<tr>
<td>Lecturer</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Instructor</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
MEDICAL RADIATION SCIENCES

Admissions Report for Joint Management Committee

Prepared by: Cathryne Palmer, Director MRS Program

December 2015
**Admission Requirements**

The MRS program was originally designed to accommodate up to 130 students per cohort year; 40 each in Radiological Technology and Nuclear Medicine and Molecular Imaging Technology and 50 in Radiation Therapy. With the Nuclear Medicine and Molecular Imaging Technology stream curricular redesign, the current job market and being the only education program in Ontario, the number of students per cohort was changed to 24.

**Academic Requirements**

Applicants must have a minimum of one year (5 full-year courses) of university education with a cumulative Grade Point Average (GPA) of B- including one full course in each of the following:

- Biology
- Mathematics
- Physics
- Chemistry (Grade 12U-level or OAC level – for Nuclear Medicine and Molecular Imaging Technology only)

English Language Proficiency as per Enrollments Services, University of Toronto

**Non-Academic Requirements**

Applicants who meet the academic requirement are invited to a Multiple-mini Interview (MMI). Applicants complete a series of timed mini-interview stations, where candidates are presented with a scenario or question.

**Applicant Statistics 2015**

In 2015, the total number of applications showed a slight decrease over the 2014 applicant statistics (See Table 1).

**Table 1: Total Overall Applications for 2015 compared to previous years by discipline.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiological Technology</td>
<td>153</td>
<td>143</td>
<td>170</td>
<td>195</td>
<td>172</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>106</td>
<td>127</td>
<td>2</td>
<td>42</td>
<td>109</td>
</tr>
<tr>
<td>Radiation Therapy</td>
<td>131</td>
<td>128</td>
<td>163</td>
<td>175</td>
<td>158</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>390</strong></td>
<td><strong>398</strong></td>
<td><strong>335</strong></td>
<td><strong>412</strong></td>
<td><strong>437</strong></td>
</tr>
<tr>
<td><strong>Year-over-year % difference</strong></td>
<td><strong>19</strong></td>
<td><strong>-19</strong></td>
<td><strong>-6</strong></td>
<td><strong>-10</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Applicants Invited to MMI**

Of the total 390 applicants to the MRS Program in 2015, 217 met the academic requirements and were invited to the MMI. In radiological technology, radiation therapy and nuclear medicine there were 91, 78 and 48 invites respectively.
Yield

The following graphs show the yield for the last three years for each of the disciplines of radiological technology and radiation therapy. The yield for radiological technology has been holding steady at approximately 75% for the last three years. Radiation therapy fluctuates from year to year with 2015, 2014, and 2013 yielding 70%, 66%, and 64% respectively. The yield for nuclear medicine has increased over 2014, with a rate of 65%. The overall yield for the program for 2015 was 72%, an increase from 67% in 2014.
Admissions Initiatives

In response to declining applicant numbers and a need to maintain enrollment numbers as submitted by the Dean, Faculty of Medicine, the MRS Program embarked on two initiatives with the goal of increasing the acceptance rates (yield) for 2014 and 2015.

Calling Campaign

With the help of the Associate Registrar, Enrolment Management a “Calling Campaign” was initiated for the 2014 applicant cycle. The goals of the Campaign were to:

- provide a personal touch, allowing applicants to connect with current students and find out more about the programs, student life, etc. following the MMI week
- keep applicants engaged and interested in the programs following the MMI
- increase the yield on acceptance of offers and enhance perception of the program portraying the MRS Program as welcoming, supportive and close-knit environment

An email was sent to all applicants who had been invited to the MMI, informing them of the “Calling Campaign”, and notifying them that a student/recent grad would be contacting them to have a "student life" discussion. The email also stressed the call was in no way linked to admissions. Six graduates were identified and recommended by program faculty, as good ambassadors of the Program and provided with a training session beforehand. Confidentiality was stressed throughout.

Held over two evenings the graduates were able to connect with approximately 70% of the applicants that attended the MMI. Reasons for not connecting were primarily no answer at the phone number on file or no phone number on file. Major themes that arose from the phone call discussions included living in Toronto, course workload and clinical placements.

MMI Weighting changes

The admission criteria for the MRS Program are a cumulative GPA of B- (70%) and a pass mark of 60% on the MMI (Michener's pass rate on the MMI is 50%). Traditionally the GPA has been weighted at 60% and the MMI at 40%; this was an established weighting which was in place when
the program conducted personal interviews to “select-out” applicants. For the MMI there are eight stations rated on a Likert scale of 1-7, with 1 being the lowest.

The Admissions Committee, after reviewing all data and seeking input from both U of T and Michener Admissions, reframed the decision making regarding applicants to “selecting in”. Hence the decision was made to alter the MMI pass rate to 50% in line with other Michener programs. For the 2014 Admissions intake (Class 2017), and onwards applicants were required to score 50% in order to pass MMI as compared to 60% for the previous admissions intake.

Demographic Data for the Incoming 2015 Cohort

Table 2 below outlines some of the demographic data for the students admitted in the Fall 2015 compared to the students admitted in the Fall 2014. For 2015 the percentage of students coming from the University of Toronto declined from 2014 whilst the number of students coming from other Ontario Universities increased.

Table 2: Demographic Data of Students Admitted in Fall 2015 compared to 2014

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students Admitted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiological Technology</td>
<td>40</td>
<td>42</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>24</td>
<td>17</td>
</tr>
<tr>
<td>Radiation Therapy</td>
<td>47</td>
<td>36</td>
</tr>
<tr>
<td>TOTAL</td>
<td>111</td>
<td>95</td>
</tr>
<tr>
<td>Permanent Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ontario</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td>Other Canadian Province</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Outside Canada</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Educational Institution*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Toronto</td>
<td>39</td>
<td>28</td>
</tr>
<tr>
<td>Ontario University</td>
<td>48</td>
<td>60</td>
</tr>
<tr>
<td>Non-Ontario University</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Non-Canadian University</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Gender**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>61</td>
<td>64</td>
</tr>
<tr>
<td>Male</td>
<td>33</td>
<td>36</td>
</tr>
</tbody>
</table>
Attrition

For the 2015 cohort the MRS Program has a 0% attrition rate as of November 23rd, 2015; 2014 the attrition rate was 9.5%. The MRS Program however did have seven applicants not show on the first day of classes; two, one and four in radiological technology, nuclear medicine technology and radiation therapy respectively.

*Educational Institution

The University of Toronto continues to be the main educational institution for admitted students for 2015, although there has been a slight decrease from 2014. There continues to be a significant number in admitted students from Ryerson Polytechnic University.

<table>
<thead>
<tr>
<th>Institution</th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIV OF TORONTO</td>
<td>25</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>RYERSON UNIV</td>
<td>10</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>MCMASTER UNIV</td>
<td>9</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>UNIV OF WATERloo</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>UNIV OF GUELPH</td>
<td>7</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>YORK UNIV</td>
<td>6</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>WILFRID LAURIER UNIV</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>UNIV OF ONTARIO INST OF TECH</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>UNIV OF WESTERN ONTARIO</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>MCGILL UNIV</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Applicants to the MRS Program must submit transcripts from all post secondary educational institutes that they have attended. The MRS Office is looking to record this data so that it is more reflective of the applicants academic history.

**Gender

The gender of the MRS population has remained fairly constant over the years fluctuating around 60:40, female: male ratio.

<table>
<thead>
<tr>
<th>Field</th>
<th>Female (%)</th>
<th>Male (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiological Technology</td>
<td>25 (66)</td>
<td>13 (34)</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>14 (61)</td>
<td>9 (39)</td>
</tr>
<tr>
<td>Radiation Therapy</td>
<td>29 (66)</td>
<td>15 (34)</td>
</tr>
</tbody>
</table>
**Student Financial Assistance and Awards**

Students registered in the MRS Program are eligible to receive full OSAP and UTAPS, which is administered through Enrollment Services, University of Toronto. The MRS Program is committed to supporting students for their success including ensuring that no student is economically disadvantaged. In addition to OSAP and UTAPS, students have access to the MRS Bursary. For 2014/2015, 173 students received OSAP funding.

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>OSAP</td>
<td>$2,701,323</td>
<td>$3,060,851</td>
<td>$3,220,477</td>
<td>$3,084,968</td>
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<tr>
<td>UTAPS</td>
<td>$319,457</td>
<td>$258,400</td>
<td>$260,400</td>
<td>$138,100</td>
</tr>
<tr>
<td>BURSARY</td>
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<td>$84,500</td>
<td>$84,300</td>
<td>$87,988</td>
</tr>
<tr>
<td>DISABILITY GRANTS</td>
<td>$4,000</td>
<td>$18,000</td>
<td>$12,000</td>
<td>$14,000</td>
</tr>
<tr>
<td>OTHER GRANTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$3,094,980</td>
<td>$3,421,751</td>
<td>$3,577,177</td>
<td>$3,325,056</td>
</tr>
</tbody>
</table>

**Health Sciences Diversity Survey**

In 2013, the MRS Program collaborated with other health sciences faculties across the University to analyze the diversity of the health sciences programs. The survey is an adaptation of a larger project based out of McGill Medical School involving the Medical School at the University of Toronto, to meet the needs of the health sciences. The survey was modeled after the Canada census and received ethical approval by the University of Toronto Research Ethics Board.

The survey has been administered now to three cohorts of students; 2013, 2014 and 2015 first year cohorts. The data analysis is ongoing with the results pending.

**Website Updates**

The MRS Program landing pages on the University of Toronto Department of Radiation Oncology website have been populated with a “FAQ” section, especially highlighting the admissions requirements and process. This will be reviewed and updated as this next admissions cycle continues. Anecdotally, the MRS Program has heard that MRS applicant calls to the Michener have reduced and applicants appear to be much more informed about the process and the appropriate contact person.

**Admissions Initiatives for 2015/2016**

**Admissions Process**

Over the summer of 2014, an ad-hoc working group, consisting of members of the MRS Office at UT and the Registrar’s Office at Michener, reviewed the whole admissions process for the MRS Program. The review focused on the process and timelines, as well as communications between the
applicants and the Program, and communication between the University and Michener. It was determined that the process itself needed to be streamlined and that communications between the various parties needed to have a more coordinated approach.

To date several alignments have been achieved and/or identified for the 2015/2016 admissions cycle:

- The acknowledgement/receiving phase review is complete. Acknowledgement letters are now in line so there is no conflicting information being provided to the applicants. The language and tone of the acknowledgement letters is consistent between the two offices.
- The long term plan is to continue the ongoing review of the various other phases within the process map, identify and close any gaps and streamlining the communication process. The next phase will be the pre-MMI stage and to review the documents for offers of admission.
- The working group has looked at streamlining the process for communications between the two offices. Scheduled timelines have been set for information flow. For example, rather than the ad hoc transfer of applicant data, there will be only one transfer of data from UT into Michener PowerCampus. The single transfer of data will prevent duplication of applicant data into the system while still allowing sufficient time for Michener to manipulate the data to assist with the MMIs invitations.
- MRS Program Coordinator has participated in the Michener admissions webinars to specifically address MRS inquiries. The webinars were well received and offered an opportunity to go over details for individuals who may be applying to both a Michener and an MRS program, address the differences in the timelines and overlaps in areas such as the supplementary application fee.
- We are already seeing results from the benefits of this combined effort; there is less confusion regarding communications; applicants know where they should be going to obtain information.
- The application deadline for the MRS Program was March 1st and this deadline is the latest of any of the UT programs. The MRS Program moved the MRS application deadline to February 1st. This change would fall in line with Michener’s deadline and would also be consistent with other second entry UT programs. It would also allow for a longer assessment period to process applications.

Admissions and Recruitment Committee

The MRS Program Admissions and Recruitment Committee was formerly reestablished in 2014, with members from both the MRS Office and the Michener. Terms of Reference were drafted and approved by the Joint Management Committee in November 2014. In addition to monitoring the ongoing improvements to the admissions cycle, the Committee also reviews, assesses, and makes recommendations regarding the MRS admission process, including but not limited to the academic and non-academic admission criteria, admission review decision framework and communication to prospective students.

For the review of applicants for the 2015 admission cycle, the Admission Review Decision Framework was instituted along with a more comprehensive individualized worksheet for the applicant that logs more detailed information about previous studies, English language facility and the possibility for advanced standing.
# APPENDIX 2.2 – Major Modification Proposal

## University of Toronto

Major Modification Proposal – Type A: Significant modifications to existing graduate and undergraduate programs

## Section 1

**Program being modified:**
*Please specify exactly what program and which components of that are being modified, Eg. BA... Specialist, Major, and Minor components.*

The Nuclear Medicine Technology stream of the joint Medical Radiation Sciences (MRS) Program of The Michener Institute for Applied Health Sciences /University of Toronto will undergo major modifications as per University of Toronto’s Quality Assurance Process (UTQAP). The Radiation Therapy and Radiological Technology streams within the MRS Program will remain unaffected by this redesign. Graduates of each of the three streams are awarded a Bachelor of Science in Medical Radiation Sciences (BSc(MRS)).

**Nature of the Major Modification:**
*With reference to the UTQAP please characterize the nature of the change being made.*

- Updating of courses
- Revised clinical placement structure
- Creation of a sub-specialization within the stream
- Changes to program content that affect learning outcomes
- Change to the stream name to better reflect advancement in the field: *Nuclear Medicine Technology* to *Nuclear Medicine and Molecular Imaging*

**Department / (Graduate) Unit (if applicable) where the program is resides:** *i.e. site of academic authority. Where a program is housed elsewhere (in physical terms), this should also be indicated.*

- Department of Radiation Oncology (academic authority)
- The Michener Institute for Applied Health Sciences/The University of Toronto (location)

**Faculty / Academic Division:**
Faculty of Medicine

**Faculty / Academic Division contact:**
- Professor Fei Fei Liu, Chair, Department of Radiation Oncology
<table>
<thead>
<tr>
<th>Department / Unit contact:</th>
<th>Professor Jay Rosenfield, Vice Dean, Undergraduate Medical Professions Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sylvia Schippke, Vice President Academic, The Michener Institute for Applied Health Sciences</td>
</tr>
<tr>
<td>Anticipated Effective date:</td>
<td>September, 2014</td>
</tr>
<tr>
<td>Version Date:</td>
<td>March 25, 2013</td>
</tr>
<tr>
<td></td>
<td>Cathryne Palmer, Director, Medical Radiation Sciences Program</td>
</tr>
<tr>
<td></td>
<td>Susan Weltz, Academic Chair, Imaging, The Michener Institute for Applied Health Sciences</td>
</tr>
</tbody>
</table>
Section 2

1. Executive Summary

The practice of nuclear medicine technology has changed significantly over the last five years due to technology, practice and environmental factors (i.e. isotope shortage). The Faculty suspended admissions to the Nuclear Medicine stream of the Medical Radiation Sciences Program, which awards graduates a BSc(MRS), effective fall 2012. The two year suspension has allowed for extensive consultation with key stakeholders and a comprehensive review of the requirements of the stream in order to ensure that it best meets the needs of students. The current revisions to the existing stream are intended to better align the curriculum and learning outcomes with current and emerging practices in nuclear, molecular and hybrid imaging. The changes retain the essential focus and purpose of the stream but ensure that it better reflects changing practice and technology within the field. The academic focus of the stream, the time to completion and admission requirements will not change.

The specific changes include:

• Updating of courses
• Revised clinical placement structure
• Creation of a sub-specialization within the stream
• Changes to program content that affect learning outcomes
• Change to stream name to better reflect advancement in the field

2. Academic Rationale

The Joint Management Committee of The Michener Institute for Applied Health Sciences/University of Toronto, Faculty of Medicine Joint Degree/Diploma Program in Medical Radiation Sciences (Michener/U of T) suspended intake to the approved stream in Nuclear Medicine effective fall 2012. Pending approval of the current proposed revisions to the stream, first year nuclear medicine student intake is scheduled to resume September 2014.

In the past few years, the Nuclear Medicine field has experienced challenges from a global medical isotope shortage with a resultant declining market share for nuclear medicine imaging procedures, competition from alternative types of imaging and reduced employment opportunities in a changing health care climate. This has led to the opportunity to reflect on the contemporary practice needs of
the profession and incorporate the latest advances in technology and curriculum delivery.

Input from a variety of internal and external stakeholders generated an initial high-level needs assessment. These identified needs included:

- Updating curriculum to reflect current technology in nuclear, hybrid and molecular imaging
- Graduating learners who are better able to multi-skill in the evolving healthcare environment
- Increasing student satisfaction by providing hybrid opportunities for curriculum delivery and content integration
- Increased length of clinical placements
- Addressing student performance gaps identified by clinical partners through an integrated and applied approach to curriculum delivery

Key redesign principles were developed based on the above needs assessment, analysis of survey data from clinical partners/students/graduates and a variety of other consultations (please see Consultation Chart under item #5).

The key principles of the Nuclear Medicine & Molecular Imaging stream redesign include:

- Learners will strengthen problem-solving and critical thinking skills through an integrated and applied curriculum
- Curriculum content will be updated to reflect advancing clinical practice needs
- Multiple methods of delivery will be used to better meet the needs of learners
- Mentoring opportunities for students, clinical partners and faculty will be strengthened
- Learners will complete both didactic and clinical Computed Tomography competencies

In the redesigned Nuclear Medicine & Molecular Imaging stream, the new integrated model of curriculum delivery aligns with the following Faculty of Medicine and Department of Radiation Oncology strategic goals:

- Driving innovation through pilot initiatives that encourage experimentation with new modalities to promote the emerging interprofessional, patient-centred learning environment
- Ensuring the availability and utilization of contemporary educational tools and
techniques, including simulation  
• Creating interprofessional and interdisciplinary education opportunities with Health Sciences and other UofT Faculties  
• Engaging new stakeholders/partners in health professional education curriculum development and implementation  
• Developing new frameworks for education scholarship and research to enhance faculty teaching skills based on best practice  
• Engaging learners in developing and evaluating innovative curricula and research methodologies  
• Creating a culture of innovation through dynamic acquisition of knowledge

3. Description of the Proposed Major Modification(s)

• Updating of courses  
  o Additional CT competencies as per pending CAMRT competency profile requirements  
  o Increased comparative imaging content  
  o Integration of nuclear medicine and molecular imaging methodology through a body systems based approach with focus on key threads throughout a longitudinal series of four courses  
  o Nuclear Medicine in Practice course addresses skills-based needs identified in surveys

• Revised clinical placement structure  
  o Clinical integration will begin in second year with the purpose of creating increased opportunities for students to learn, understand and apply the knowledge, skills and judgment in the clinical environment with mentoring and feedback  
  o (Please refer to Proposed Calendar Copy for more detailed information on the clinical courses)

• Creation of a sub-specialization within the stream  
  o Subspecialty courses are designed to provide learners with three options for additional career development or pathways  
  o Learners will complete didactic courses which may be used towards additional certification in a related field of study post-graduation  
  o Courses offered through the subspecialty stream include Magnetic Resonance Imaging, Imaging Informatics and Management in Medical Imaging

• Changes to program content that affect learning outcomes  
  The way in which students achieve program learning outcomes will be strengthened and enhanced through:  
  o The use of laboratory and simulation environments allowing learners to apply
knowledge in a variety of settings and circumstances
- Increased use of simulation in the series of Integrated Nuclear Medicine & Molecular Imaging courses to prepare learners to move gradually along a continuum of theoretical understanding to application of knowledge
- An applied research project in the latter part of their studies to both promote ongoing scholarly activity and contribute to evidence-based professional practice
- Interprofessional competencies embedded across the curriculum and delivered in an applied and integrated fashion.
- In addition, the learners in the MRS Program participate in the longitudinal IPE curriculum that has been designed for all health professional students at the University of Toronto
- Delivery methods including a combination of onsite, online, simulation, laboratory and case-based learning
- Changes in delivery mode which will be most apparent in the series of Integrated Nuclear Medicine & Molecular Imaging courses which run longitudinally through the stream

• **Change to the stream name to better reflect advancement in the field**
  - Changing the stream name from Nuclear Medicine Technology to Nuclear Medicine & Molecular Imaging is proposed in keeping with contemporary practice changes and the recent change of The Society of Nuclear Medicine to The Society of Nuclear Medicine and Molecular Imaging

The entry requirements to the Nuclear Medicine & Molecular Imaging stream of the MRS Program will not change.

The Nuclear Medicine & Molecular Imaging stream will continue to participate in common MRS courses (i.e. Anatomy, Physiology, Patient Care, Clinical Behavioural Sciences, Research Methods). Please refer to *Current and Proposed Calendar copy combined*. The impact on the other two streams: Radiation Therapy and Radiological Technology within the MRS program will be negligible.

The degree level expectations will remain the same. However, the way in which students achieve program learning outcomes will be strengthened and enhanced through an innovative curricular design and a variety of delivery methods. Key changes include a more integrated approach removing subject silos, the creation of a longitudinal system-based course, integration of simulation throughout, a concurrent didactic/clinical component and course content to reflect the current and emerging technology in nuclear, molecular and hybrid imaging. These changes will also align with the new external professional competency profile for nuclear medicine which is currently being revised by the Canadian Association of Medical Radiation Technologists (CAMRT).

Please refer to *Current Learning Outcomes, and Degree Level Expectations* and *Proposed Learning Outcomes, and Degree Level Expectations* for current and revised learning outcomes.
Proposed Learning Outcomes, and Degree Level Expectations

During the redesign process, external imaging experts will consult on course content and assist nuclear medicine faculty in the development of current and clinically relevant course material.

4. Impact of the Change on Students

Students who are already enrolled in the Nuclear Medicine stream will be able to complete their degree requirements under the current curriculum, subject to maintaining the appropriate level of academic standing. Students who entered in Fall 2010 are due to graduate in April 2013, and those that entered in Fall 2011 are due to graduate in April 2014. If, however, situations arise that warrant a modification to a student’s course of study the MRS Program will ensure that the student completes their current model route of course work in the Nuclear Medicine stream with applicable supports and resources in place.

Current Nuclear Medicine students were consulted with regard to the redesign of the Nuclear Medicine & Molecular Imaging stream as part of the larger stakeholder engagement plan. This consultation and feedback was conducted through online surveys and focus groups.

5. Consultation

This major modification will not impact programs outside of the Medical Radiation Sciences (MRS) Program. The impact on the other two streams: Radiation Therapy and Radiological Technology within the MRS program will be negligible.

Please refer to below table for ongoing consultations in this process:

<table>
<thead>
<tr>
<th>Consultation/Task</th>
<th>Purpose</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication with Canadian &amp; International NM Programs</td>
<td>To gather &amp; review different curricular models for consideration</td>
<td>09/4/12 – 01/15/13</td>
</tr>
<tr>
<td>Preliminary consultation with clinical nuclear medicine stakeholders</td>
<td>To review current Nuclear Medicine (NM) stream and assess performance gaps</td>
<td>9/14/12</td>
</tr>
<tr>
<td>Event Description</td>
<td>Description</td>
<td>Dates</td>
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<tr>
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<tr>
<td>Survey Development (including creation, survey piloting, survey distribution to multiple stakeholder groups, data collection, data analysis and generation of final reports)</td>
<td>To gather data to inform changes to the redesign from NM clinical managers, NM clinical coordinators and NM students/graduates</td>
<td>9/17/12 - 1/31/13</td>
</tr>
<tr>
<td>Curriculum Model #1 creation</td>
<td>Creation of different models for consideration in redesigned stream</td>
<td>9/24/12 - 11/16/12</td>
</tr>
<tr>
<td>Biweekly meetings with VP Academic (Michener) and MRS Academic Director (UofT)</td>
<td>To ensure on track with scope, resources and scheduling; assess progress and next steps</td>
<td>10/1/12 – 12/17/12 (presently scheduled on monthly basis)</td>
</tr>
<tr>
<td>MRS Faculty Meeting - Update on Redevelopment</td>
<td>To provide update on NM redevelopment, data collected to date and next steps</td>
<td>10/24/12</td>
</tr>
<tr>
<td>Meeting with nuclear medicine clinical coordinators</td>
<td>To provide update on NM redevelopment, data collected to date, gather input on different curricular models, next steps</td>
<td>11/1/12</td>
</tr>
<tr>
<td>Curriculum Model #2 creation</td>
<td>Creation of different models for consideration in redesigned stream</td>
<td>11/19/12 - 11/30/12</td>
</tr>
<tr>
<td>UHN/Centre for Global eHealth Innovation Meeting</td>
<td>Discussion regarding models and delivery methods of proposed curriculum</td>
<td>11/28/12</td>
</tr>
<tr>
<td>UTQAP/Governing Council Process Meeting</td>
<td>To review UTQAP process requirements and deadlines</td>
<td>11/29/12 + 12/14/12</td>
</tr>
<tr>
<td>Meeting with VP Academic &amp; Directors (Michener)</td>
<td>Support/input in redesign process moving forward</td>
<td>11/22/12</td>
</tr>
<tr>
<td>Curriculum Model #3 creation</td>
<td>Creation of different models for consideration in redesigned stream</td>
<td>12/3/12 – 12/12/12</td>
</tr>
<tr>
<td>NM Physician consult (UHN)</td>
<td>To gather input on curricular model/outcomes that would best address needs of nuclear medicine field</td>
<td>12/5/12</td>
</tr>
<tr>
<td>NM Faculty Meeting</td>
<td>Update on project status, presentation of models 1, 2, 3; collection of feedback on models</td>
<td>12/20/12 – 1/9/13</td>
</tr>
<tr>
<td>Feedback from MRS Faculty on Curricular models 1, 2 &amp; 3</td>
<td>Input from faculty groups to determine feasibility of proposed models; assessment of potential impact to other streams</td>
<td>1/23/13</td>
</tr>
<tr>
<td>Event Description</td>
<td>Description</td>
<td>Dates</td>
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<td>----------------------------------------------------------------------------------</td>
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<tr>
<td>Curriculum Model #4 creation (FINAL MODEL – Taken forward for UTQAP Proposal)</td>
<td>To create a final model taking into account feedback from faculty, students, managers/directors, and clinical stakeholders.</td>
<td>1/23/13 - 2/1/13</td>
</tr>
<tr>
<td>Registrar &amp; Recruitment Meeting (UofT/Michener)</td>
<td>To discuss marketing/recruitment strategies</td>
<td>1/24/13</td>
</tr>
<tr>
<td>Educational Design consult (UofT)</td>
<td>Presentation of goals of redesign and proposed curricular model</td>
<td>1/25/13</td>
</tr>
<tr>
<td>Meeting with MRS Faculty</td>
<td>Communication that scope of redesign to include only Nuclear Medicine stream</td>
<td>1/29/13</td>
</tr>
<tr>
<td>Survey data analysis completed</td>
<td>Reviewed by redevelopment team as part of ongoing refinement of curricular model</td>
<td>1/31/13</td>
</tr>
<tr>
<td>Consultation with Continuous Learning Innovation (Michener) on Curricular Model #4</td>
<td>Consultation/feedback /next steps for model #4</td>
<td>1/31/13</td>
</tr>
<tr>
<td>Meeting with NM Faculty</td>
<td>To gather feedback on model #4 and identify questions/concerns to take forward to clinical partners</td>
<td>2/6/13</td>
</tr>
<tr>
<td>Conference call with NM Clinical Managers</td>
<td>Presentation of goals of redesign, survey data &amp; proposed curricular model (model #4); gather feedback</td>
<td>2/11/13</td>
</tr>
<tr>
<td>Meeting with Program Advisory Committee (PAC)</td>
<td>Presentation of goals of redesign, survey data &amp; proposed curricular model (model #4)</td>
<td>2/12/13</td>
</tr>
<tr>
<td>College of Medical Radiation Technologists of Ontario (CMRTO) Meeting</td>
<td>Presentation of goals of redesign, survey data &amp; proposed curricular model; gather feedback on regulatory/policy implications</td>
<td>2/14/13</td>
</tr>
<tr>
<td>Canadian Association of Medical Radiation Technologists (CAMRT) Teleconference</td>
<td>Presentation of goals of redesign, survey data &amp; proposed curricular model; gather information on new competency profile to ensure redesigned program aligns with external standards.</td>
<td>2/14/13</td>
</tr>
<tr>
<td>Meeting with NM Clinical Coordinators</td>
<td>Presentation of goals of redesign, survey data &amp; proposed curricular model (model #4); gather feedback on multiple components of proposed curriculum</td>
<td>2/25/13</td>
</tr>
<tr>
<td>Joint Curriculum Committee Meeting</td>
<td>Presentation of goals of redesign, survey data &amp; proposed curricular model (model #4); gather feedback</td>
<td>2/26/13</td>
</tr>
</tbody>
</table>
6. **Resources**

During the redesign of the Nuclear Medicine & Molecular Imaging stream, the full time Michener faculty complement has been reduced but the staffing reduction has been managed internally with no loss of jobs. Current University of Toronto teaching faculty commitment will remain the same for all three MRS streams. However, ongoing discussions to engage the medical imaging community (physicians and technologists) in a more meaningful way to influence, direct and deliver the redesigned curriculum are in progress.

The modified Nuclear Medicine & Molecular Imaging stream will not require additional space at The University of Toronto or the Michener Institute.

The current libraries, learning resource centre and online learning support systems in place at both the University of Toronto and the Michener Institute can be maintained for the Nuclear Medicine & Molecular Imaging intake commencing 2014 with no impact.

The enrolment target for the Nuclear Medicine & Molecular Imaging intake of September 2014 will range from 24-32 students per year.
## 7. Governance Process

<table>
<thead>
<tr>
<th>Level of Approval Required</th>
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</thead>
<tbody>
<tr>
<td><strong>Dean’s Office Sign Off</strong></td>
</tr>
<tr>
<td>Unit level approval</td>
</tr>
<tr>
<td><strong>Faculty/Divisional Council</strong></td>
</tr>
<tr>
<td><strong>Submission to Provost’s Office</strong></td>
</tr>
<tr>
<td><strong>AP&amp;P – reported annually</strong></td>
</tr>
<tr>
<td><strong>Ontario Quality Council - reported annually</strong></td>
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*Developed by the Office of the Vice-Provost, Academic Programs*

*October 2012*
## NUCLEAR MEDICINE CURRICULUM (CURRENT)

### Year One

<table>
<thead>
<tr>
<th>Fall Term</th>
<th>Spring Term</th>
<th>Summer Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-Oct-Nov-Dec</td>
<td>Jan-Feb-Mar-Apr</td>
<td>May-Jun-Jul-Aug</td>
</tr>
<tr>
<td>• Anatomy</td>
<td>• Foundations of Interprofessional Collaboration II</td>
<td>• Introduction to Clinical Nuclear Medicine</td>
</tr>
<tr>
<td>• Foundations of Interprofessional Collaboration I</td>
<td>• Fundamentals of Nuclear Medicine Practice</td>
<td>• Selective I*</td>
</tr>
<tr>
<td>• Introduction to Patient Care in MRS</td>
<td>• Nuclear Medicine Instrumentation II</td>
<td></td>
</tr>
<tr>
<td>• Nuclear Medicine Instrumentation I</td>
<td>• Physiology</td>
<td></td>
</tr>
<tr>
<td>• Nuclear Medicine Physics and Radiobiology</td>
<td>• Relational Anatomy</td>
<td></td>
</tr>
<tr>
<td>• Radiopharmacy</td>
<td>• Special Topics in Patient Care I</td>
<td></td>
</tr>
</tbody>
</table>

### Year Two

<table>
<thead>
<tr>
<th>Fall Term</th>
<th>Spring Term</th>
<th>Summer Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-Oct-Nov-Dec</td>
<td>Jan-Feb-Mar-Apr</td>
<td>May-Jun-Jul-Aug</td>
</tr>
<tr>
<td>• Integrated CT Imaging Theory and Practice I</td>
<td>• Clinical Behavioural Sciences</td>
<td>• Health Care Systems</td>
</tr>
<tr>
<td>• Introduction to Research Methods</td>
<td>• Current Topics in Nuclear Medicine and Molecular Imaging</td>
<td>• Quality in Health Care</td>
</tr>
<tr>
<td>• Nuclear Medicine Methodology I</td>
<td>• Interprofessional Collaborative Clinical Simulation</td>
<td>• Selective II*</td>
</tr>
<tr>
<td>• Nuclear Medicine Methodology II</td>
<td>• Nuclear Medicine Methodology III</td>
<td>• Simulated Clinical Experience: Nuclear Medicine</td>
</tr>
<tr>
<td>• Principles of Pharmacology for Radiation Sciences</td>
<td>• Nuclear Medicine Methodology IV</td>
<td></td>
</tr>
<tr>
<td>• Special Topics in Patient Care II</td>
<td>• Special Topics in Patient Care III</td>
<td></td>
</tr>
</tbody>
</table>
Year Three

<table>
<thead>
<tr>
<th>Fall Term</th>
<th>Spring Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-Oct-Nov-Dec</td>
<td>Jan-Feb-Mar-Apr</td>
</tr>
<tr>
<td>• Clinical Nuclear Medicine II</td>
<td>• Clinical Nuclear Medicine III</td>
</tr>
<tr>
<td>• Clinical Project OR Research Methods</td>
<td>• Research Methods (continued) OR Selective III*</td>
</tr>
</tbody>
</table>

*Selective information found below

Nuclear Medicine Technology

YEAR I Semester I (Fall)
MRS161H1/ANRD111 - Anatomy

This is an online course and is designed to serve as a foundation in Human Anatomy for students in the Medical Radiation Sciences (MRS) program. The course is a 0.5 academic credit and will introduce students to the components of the human body, relationships of the surface anatomy and the body's internal components and discuss the basic function of these components. The course will encompass a regional approach to study the human body with correlation to its clinical application. ANRD111 precedes Human Physiology (PSRD120/MRS162H1). It provides the students with an anatomical background prior to learning
the regional and systematic functions addressed in the Physiology course. Anatomy for MRS will also serve to prepare students for ANRD121/ MRS164H1 (Relational Anatomy).

MRS261H1/BAIP111 - Foundations of Interprofessional Collaboration I

Foundations of interprofessional communication and teamwork provides the learner with the context for patient centered collaborative practice and effective team development within this model and will introduce various modes of effective communication and reflective practice to support continuous professional development. In this course the learner will have an opportunity to develop skills for effective verbal and nonverbal communication and feedback and conflict resolution skills. The use of a variety of instructional strategies are intended to help the learners in this course to learn with, from and about each other and others professional roles and to advance our understanding of intra- and interprofessional relationships.

MRS262H1/PCRD110 - Introduction to Patient Care in MRS

This course will introduce learners to some of the basic skills in patient care such as measuring vital signs, how to safely move/transfer patients, etc.

MRS132H1/INNM110 - Nuclear Medicine Instrumentation I

This course is divided into two sections:

Nuclear Medicine Computers
Nuclear medicine computers play an integral role in the acquisition, analysis and data storage of diagnostic images. You will learn to acquire, analyze and manage digital image data, including the most frequently used functions utilized in a nuclear medicine department.

Nuclear Counting Devices and Detectors
The various types of radiation detectors used in a Nuclear Medicine department will be studied including, gas filled detectors, sodium iodide detectors including gamma camera, well detector and probe, solid state detectors and liquid scintillation. Students will demonstrate competency in the use and quality control of all types of detectors, except for gamma camera QC, by the end of the course. Gamma camera QC is covered in Nuclear Medicine Instrumentation II in second semester.

MRS133H1/NMRA110 - Nuclear Medicine Physics and Radiobiology

This course encompasses the study of the nature of radiation and provides a current and thorough overview of the effects of radiation on biologic systems. The physics and biological effects of radiation are introduced. The scope of this course includes studying the fundamentals of Radiation Physics and Radiation Biology, in addition to providing a general knowledge of the different types of radiation and their various interactions with matter. The course examines the biological response to radiation in depth, ranging from the cellular level to whole body response. The pillars of Radiation Protection and Safety are also introduced.
**MRS134H1/RDNM110 - Radiopharmacy**

This course encompasses the two broad domains of radiopharmacy and radiation safety. The course emphasizes the acquisition of the knowledge, skills, and judgment essential for the practice of both of these aspects of nuclear medicine technology. Radiation safety and protection are emphasized throughout this course in both classes and the laboratory setting. Canadian regulations and guidelines governing the safe handling of radionuclides and the preparation of radiopharmaceuticals are studied and applied. The student has the opportunity to perform and evaluate the results of quality control procedures on these imaging agents as well as on pertinent radiopharmacy equipment. The influence of American and International organizations on Canadian regulatory bodies in this area is also considered. Following a discussion of general radiopharmaceutical design, the properties of an ideal radiopharmaceutical are assessed. The principles of co-ordination chemistry, technetium, iodine, and fluorine chemistry are applied to radiolabelling methods. The basic principles of administration, pharmacokinetics/biodistribution, mechanisms of localization, and routes of elimination are covered.

**YEAR I Semester II (Winter)**

**MRS263H1/BAIP121 - Foundations of Interprofessional Collaboration II**

Interprofessional practice has become a preferred mode of team based practice in health care nationally and internationally. This course provides an overview of the ethical, societal and personal factors that influence and impact health. The role of the health care provider and the dynamics of the provider/patient relationship will be examined from a critical perspective. This course will also address the historical perspective of the Canadian healthcare model and the move towards collaborative practice. The first step towards interprofessional practice is a solid foundation of your role and scope of practice, ethics, boundaries, patient advocacy and regulatory guidelines. A variety of instructional strategies are intended to help us learn with, from and about each other to advance our understanding of intra- and interprofessional practice.

**MRS135H1/FNNU120 - Fundamentals of Nuclear Medicine Practice**

This course will introduce learners to the principles of nuclear medicine imaging, the role of nuclear medicine in therapy, and the physiological, biochemical and pathobiological rationale for using radionuclides to evaluate the function of the musculoskeletal system. Through focusing on the technical aspects of bone scanning students will begin to explore the principles of tracer injection techniques, the flow study, blood pool and delayed scanning, and they will also be introduced to bone mineral density determination. Students will perform a weekly quality control program as they would in clinical practice. During the laboratory sessions students acquire the technical and organizational skills necessary to perform these procedures in a safe and efficient manner, helping themselves to prepare for their upcoming clinical practicum.
MRS136H1/INNM120 - Nuclear Medicine Instrumentation II

Main topic areas that will be investigated include: RIS/PACS systems, gamma camera quality control, SPECT imaging and PET imaging. Students will begin the course by exploring the principles and applications of both RIS and PACS networks in a healthcare environment. The principles learned in Nuclear Medicine Instrumentation I are continued in this course through the introduction of gamma camera quality control and its properties such as: uniformity, sensitivity, and spatial resolution on both a single-head and dual-head gamma cameras. Students will also be exposed to single photon emission computed tomography (SPECT) and SPECT quality control procedures. Lastly, the students will be introduced to the topic of positron emission tomography (PET) and PET/CT.

MRS162H1/PSRD120 - Physiology

This course is an introductory ONLINE course designed to serve as the foundation in Human Physiology for students in the Medical Radiation Sciences program. It is intended for students who have an interest in or a need for a basic course in Human Physiology. The course is 0.5 credit course and will introduce students to the function of the organ systems that comprise the human body. The course will follow a systematic structure covering all of the principal functional systems within the body, such as the cardiovascular and respiratory systems. As such students are expected to be familiar with the anatomical structure of these systems. Clinical examples will be used to illustrate key principles and material where possible.

MRS164H1/ANRD121 - Relational Anatomy

For the purposes of diagnosis and optimal treatment of abnormal patient conditions, high quality, detailed images are required in order to obtain information on the anatomical state of an organ or structure within the body. The ability to recognize anatomical structures as demonstrated on CT or MR images in sagittal, coronal and axial sectional planes is essential in the current hospital imaging environment. The Relational Anatomy course investigates gross, cross-sectional and relational anatomy of the head, central nervous system, neck, spine, thorax, abdomen, male / female pelvis, upper / lower extremities. An emphasis is placed upon the organs, the vascular system, the lymphatics system as well as muscular and skeletal structures. This course offers weekly interactive lectures and labs which provide the student with a stimulating environment in which they may actively apply the knowledge learned through the use of a variety of media including anatomical models, preserved human specimens, cadaver cross section images as well as a multitude of hard copy and computer based medical images.

MRS264H1/PCRD120 - Special Topics in Patient Care I

This laboratory-based course is a continuation of Introduction to Patient Care in MRS and will introduce learners to some of the discipline specific patient care skills necessary for clinical practice.

YEAR I Semester III (Summer)

MRS137H1/CLNU130 - Introduction to Clinical Nuclear Medicine
This course is an 8-week intensive hospital-based semester during which students apply the knowledge and skills gained through the previous two semesters. Students will familiarize themselves with their future roles as Nuclear Medicine Technologists as well as gain an enhanced understanding of the significance of collaborative practice in the clinical setting. Some assessment of clinical competence will occur during this course.

Selective 1

Offered in Year I Summer session. Students enroll in one (1) selective course during this term. Please see page 32 of this handbook for more information about Selective courses. Detailed course information can be found on the Selectives Resource Centre Blackboard website.

YEAR II Semester I (Fall)

MRS265H1/CTRD240 - Integrated CT Imaging Theory and Practice I

CTRD240 is a collaborative course for students in Nuclear Medicine, Radiological Technology, and Radiation Therapy. This course provides students with the opportunity to explore the evolution of computed tomography (CT), the basic physical principles of computed tomography, image formation and display. Students will participate in simulating clinical applications of computed tomography as well as examine radiation safety issues as they pertain to computed tomography. The CTRD240 course consists of two hours of lecture and two hours of lab per week.

MRS266H1/RMIP231 - Introduction to Research Methods

This course provides an introduction to research methods and designs relevant to practitioners of the medical radiation sciences. This course will focus on an introduction to various research designs including experimental and non-experimental, and quantitative and qualitative research methods. In addition, the course will focus on providing a practical understanding of several basic statistical tools used in medical and health research.

MRS138H1/NMNU311 and MRS139H1/NMNU411 - Nuclear Medicine Methodology I and II

These courses cover the physiological, biochemical and pathobiological rationale for using radionuclides to evaluate the function of the following systems: gastrointestinal, genitourinary, and cardiovascular. The courses also cover a number of specialized aspects of nuclear medicine methodology, including 12-lead electrocardiography, in vivo non-imaging studies, and applications to oncology, pediatrics, and geriatrics. The laboratory components deal with the practical skills required for these assessments.
MRS267H1/PRRD240 - Principles of Pharmacology for Radiation Sciences

This course is an overview of pharmacology which integrates with physiology. The course is divided into two sections. The first section is common to both Nuclear Medicine Technology and Radiological Technology; the second section is program specific and consists of hands-on learning sessions. The course begins with a presentation of the general principles of pharmacology and is followed by the study of the pharmacology of drug groups related to nuclear medicine and radiology interventional procedures.

MRS268H1/PCRD210 and MRS223H1/PCNM250 - Special Topics in Patient Care II and III

This laboratory-based course is a continuation of Special Topics in Patient Care I and will introduce learners to additional discipline specific patient care skills necessary for clinical practice.

YEAR II Semester II (Winter)

MRS269H1/HBRD241 - Clinical Behavioural Sciences

This course provides an overview of the ethical, societal and personal factors that influence and impact health care services. The role of the health care provider and the dynamics of the provider/patient relationship will be examined from a critical perspective. Through an interprofessional education session students will explore alternate models of healthcare provision. This course will combine theory and practical application, allowing the student to reflect on his or her own values and beliefs through case studies, reading and discussion.

MRS140H1/NMNU250 - Current Topics in Nuclear Medicine and Molecular Imaging

This course will enable students to explore leading-edge topics in nuclear medicine and molecular imaging. Students will participate in a variety of learning activities including online group discussions, research dissemination, and literature reviews.

MRS271H1/IPCL250 - Interprofessional Collaborative Clinical Simulation

This course is designed to provide you with the necessary interpersonal and professional skills required to practice in a clinical environment. You will learn how to model your professional role within a collaborative interprofessional team while planning to optimize patient care and safety. You will have multiple opportunities to use self-reflection, exercise judgment and integrate core professional abilities in a simulated environment. Upon successful completion of this course, you will be able to apply your profession-specific and interprofessional knowledge, skills and judgment from the simulated to the clinical environment.
MRS221H1/NMNU431 and MRS222H1/NMNU451 - Nuclear Medicine Methodology III and IV

These courses cover the physiological, biochemical and pathobiological rational for using radionuclides to evaluate the function of the following systems: respiratory, central nervous, endocrine, haematopoietic, and reticulendothelial. Clinical applications to oncology, pediatrics, and geriatrics for the aforementioned systems will also be explored. The laboratory components deal with the practical skills required for these assessments.

MRS268H1/PCRD210 and MRS223H1/PCNM250 - Special Topics in Patient Care II and III

This laboratory-based course is a continuation of Special Topics in Patient Care I and will introduce learners to additional discipline specific patient care skills necessary for clinical practice.

YEAR II Semester III (Summer)

MRS175H1/ADRD250 – Health Care Systems

This course will build on the existing and developing knowledge of the participants to enhance their understanding of the organization and operations of the health system in Canada. It will discuss the historical conceptualizations of the provider/client relationship which often characterize clients as the objects of care and examine and explore the more recent concept of an integrated client-centred continuum in which individuals participate in defining and addressing their needs in the most appropriate setting. The course will also focus on the existing health care system by describing its major components. The roles of government and the health professionals in shaping the current system are examined, and provincial variations in the organization, funding and provision of health services are identified.

MRS198H1/SLRD110 - Quality in Healthcare

This course examines the relationship between quality in processes and quality in patient care in the healthcare environment. Sources of error, the identification of risk and the processes of minimising risk will be explored. Students will learn of various quality management tools used in the healthcare environment and will use them to solve problems and anticipate patient risk.

Selective II

Offered in Year II Summer session. Students enroll in one (1) selective course during this term. Please see page 32 of this handbook for more information about Selective courses. Detailed course information can be found on the Selectives Resource Centre Blackboard website.
MRS224H1/CLNM261 - Simulated Clinical Experience: Nuclear Medicine

This 13-week course is designed to prepare the learner for entry into the clinical environment of the medicine-imaging department, as part of the clinical component of his/her program. Through simulation of the clinical environment, the learner will have the opportunity to integrate and apply his/her knowledge, skills, and behaviours to clinical case scenarios. Ultimately the learner must demonstrate the requisite level of performance in order to proceed into the clinical environment. Competency will be assessed in some aspects of performance. For students of the Medical Radiation Science Program, this course will also incorporate a large component of the content previously taught in Comparative Imaging Modalities.

YEAR III Semester I (Fall)

MRS225H1/CLNM370 - Clinical Nuclear Medicine II

This is the first in a series of two clinical practical courses; each spanning 15 weeks in length. The student will be able to apply the principles of nuclear medicine technology which they have learned during the didactic portion of the program. Clinical methodologies, instrumentation operation, and professionalism are practiced and tested during the clinical course. Students will interact with patients and are provided with the opportunity to gain problem solving and critical thinking skills. They will function as an important member of the health care team and must adhere to the standards of practice set in place by the College of Medical Radiation Technologists of Ontario (CMRTO).

MRS273H1/CPRD370 - Clinical Project

This course consists of a written and oral presentation of a scholarly study of an aspect of radiation science as it applies to the specific professional stream of the student. The project will be conducted generally within the context of clinical training, utilizing the resources and technical expertise of faculty and professionals in the clinical teaching environment; a faculty mentor will supervise the written and oral presentation components. This course will require creativity, self-directed learning, writing and presentation skills that was developed in the previous years of study.

MRS278Y1/ RMRD370 - Research Methods

This course allows the completion of a research project under supervision. The research question and subsequent project will be pre-determined by the research supervisor as it pertains to the supervisors’ research area of interest. Students will be matched with a research supervisor at their clinical host site. The completion of a research project will require the writing and presentation of the research as a final oral presentation or as a scientific poster. Students will be encouraged to complete work of publishable quality.

YEAR III Semester II (Winter)

MRS226H1/CLNM380 - Clinical Nuclear Medicine III
This is the second in a series of two clinical practical courses; each spanning 15 weeks in length. The student will be able to apply the principles of nuclear medicine technology which they have learned during the didactic portion of the program. Clinical methodologies, instrumentation operation, and professionalism are practiced and tested during the clinical course. Students will interact with patients and are provided with the opportunity to gain problem solving and critical thinking skills. They will function as an important member of the health care team and must adhere to the standards of practice set in place by the College of Medical Radiation Technologists of Ontario (CMRTO).

Selective III

Offered in Year III Summer session. Students enroll in one (1) selective course during this term. Please see page 32 of this handbook for more information about Selective courses. Detailed course information can be found on the Selectives Resource Centre Blackboard website. Students who enroll in the Research Methods course in their final year do not complete Selective III.

SELECTIVES

Description of Selectives:

The Selectives portion of the Medical Radiation Sciences (MRS) Program is designed to give the students some freedom in constructing a curriculum that responds to their own particular interests related to their chosen profession (including dual specialization) and/or academic endeavours post graduation.

Selectives present the student with the opportunity to:

- investigate, in further detail, some particular aspect of the profession that interests them
- begin acquiring course requirements towards additional certification in a related discipline
- begin acquiring course requirements for future studies related to their profession of choice
- begin acquiring course requirements for graduate studies

Selectives include offerings such as:

- Courses offered by the Medical Radiation Sciences Program. Course codes, descriptions and outlines are located on the Selectives Resource Centre (SRC) Blackboard site.
- Courses offered within the Dual Certification pathway. For more information please consult the SRC Blackboard site.
- Courses offered by the University of Toronto* or other North American universities**.
- Note: If this is an option you wish to pursue, please note that courses must fall under one of the following categories:
  - Pure Science
  - Applied Science
Professional Skills

*If you would like to take a University of Toronto course as a Selective, the Registrar of the MRS Program will attempt to register you in this course. Please note that there is a <5% chance of gaining entry into these courses for MRS students. As such, you will be required to choose a Michener didactic course as an alternate. In addition, students will not be given any time out of their clinical training to attend a lecture and/or laboratory; as such, students must ensure that the lecture and/or laboratory is scheduled outside of their clinical hours.

**Note: Students wishing to apply to other North American universities are responsible for all costs; the costs of these courses are not included in the annual tuition fee for the MRS program. A letter of permission from the Registrar of the Medical Radiation Sciences Program is also required.

Pathways to Dual Certification:

Some Selectives courses give students the opportunity to begin course requirements needed for additional certification in a related discipline.

Courses are offered through the Selectives program for credit towards dual certification in:

1. Magnetic Resonance Imaging (MRI) Certification
2. Imaging Informatics Professional Program (non-certificate program)

For more information please consult the Selectives Resource Centre (SRC) Blackboard site.

Selectives Requirements for Degree/Diploma Completion:

The successful completion of all Selective courses is mandatory for graduation from the Medical Radiation Sciences Program.

Each Selective course is assigned 0.5 credits towards the completion of the degree/diploma. The grading system will be on a Pass/Fail basis.

An overall numerical grade of 60% or more will be assigned a Pass mark.

Selectives Resource Centre (SRC) Blackboard website

The Selectives Resource Centre (SRC) is an on-line resource to students, faculty and clinical coordinators. It contains all necessary documents and forms. The site is updated on a regular basis with all current documentation and current announcements. Each Graduating Class will have their own site as a resource for Selectives.

Applications and Critical Dates for Selectives:

Applications and a list of critical dates are available on Blackboard
• Critical dates are firm and no exceptions will be made.
• Late submissions for course enrollment will result in student placement into courses with remaining available space.
Reminders:

- Consult the SRC Blackboard site for information regarding Selectives.
- All information is correct at the time of printing. Any changes will be posted on SRC Blackboard site.
- Courses may have a limited number of available spaces.
- Courses are offered subject to minimum enrollment and instructor availability.
- Not all Selective courses are available to all disciplines.
- All forms and applications are available on the SRC Blackboard site.

Proposed Calendar copy

NUCLEAR MEDICINE CURRICULUM (Intake Sept 2014/ Graduate April 2017)

**Year One**

<table>
<thead>
<tr>
<th>Fall Term</th>
<th>Spring Term</th>
<th>Summer Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-Oct-Nov-Dec</td>
<td>Jan-Feb-Mar-Apr</td>
<td>May-Jun-Jul-Aug</td>
</tr>
<tr>
<td>• Anatomy</td>
<td>• Physiology</td>
<td>• Nuclear Medicine in Practice*</td>
</tr>
<tr>
<td>• Introduction to Patient Care in MRS</td>
<td>• Relational Anatomy</td>
<td>• Subspecialty Course I*</td>
</tr>
<tr>
<td>• Nuclear Medicine Physics and Radiobiology</td>
<td>• Special Topics in Patient Care I</td>
<td></td>
</tr>
<tr>
<td>• Comparative Medical Imaging*</td>
<td>• Integrated Nuclear Medicine &amp; Molecular Imaging II*</td>
<td></td>
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<tr>
<td>• Integrated Nuclear Medicine &amp; Molecular Imaging I*</td>
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**Year Two**

<table>
<thead>
<tr>
<th>Fall Term</th>
<th>Spring Term</th>
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<tbody>
<tr>
<td>Sep-Oct-Nov-Dec</td>
<td>Jan-Feb-Mar-Apr</td>
<td>May-Jun-Jul-Aug</td>
</tr>
<tr>
<td>• Integrated CT Imaging Theory and Practice I</td>
<td>• Clinical Behavioural Sciences</td>
<td>• Quality in Healthcare</td>
</tr>
<tr>
<td>• Introduction to Research Methods</td>
<td>• CT Imaging in Nuclear Medicine*</td>
<td>• Applied Research in the Health Sciences*</td>
</tr>
<tr>
<td>• Integrated Nuclear Medicine &amp; Molecular Imaging III*</td>
<td>• Integrated Nuclear Medicine &amp; Molecular Imaging IV*</td>
<td>• Nuclear Medicine Clinical Practicum I*</td>
</tr>
<tr>
<td>• Subspecialty Course II*</td>
<td>• Subspecialty Course III*</td>
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Year Three

<table>
<thead>
<tr>
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<th>Spring Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-Oct-Nov-Dec</td>
<td>Jan-Feb-Mar-Apr</td>
</tr>
<tr>
<td>• Nuclear Medicine Clinical Practicum II*</td>
<td>• Nuclear Medicine Clinical Practicum III*</td>
</tr>
<tr>
<td>• Applied Research in the Health Sciences * (continued from Summer Yr 2)</td>
<td>• Subspecialty Course IV*</td>
</tr>
</tbody>
</table>

*Indicates NEW course

Nuclear Medicine & Molecular Imaging

(new courses are highlighted)

YEAR I Semester I (Fall)
MRS161H1/ANRD111 - Anatomy

This is an online course and is designed to serve as a foundation in Human Anatomy for students in the Medical Radiation Sciences (MRS) program. It will introduce learners to the components of the human body, relationships of the surface anatomy and the body's internal components and discuss the basic function of these components. The course will encompass a regional approach to study the human body with correlation to its clinical application. ANRD111 precedes Human Physiology (PSRD120/MRS162H1). It provides the learners with an anatomical background prior to learning the regional and systematic functions addressed in the Physiology course. Anatomy for MRS will also serve to prepare students for ANRD121/ MRS164H1 (Relational Anatomy).

MRS262H1/PCRD110 - Introduction to Patient Care in MRS

This course will introduce learners to some of the basic skills in patient care such as measuring vital signs, how to safely move/transfer patients, etc.

MRS133H1/NMRA110 - Nuclear Medicine Physics and Radiobiology

This course encompasses the study of the nature of radiation and provides a current and thorough overview of the effects of radiation on biologic systems. The physics and biological effects of radiation are introduced. The scope of this course includes studying the fundamentals of radiation physics and radiation biology, in addition to providing general knowledge of the different types of radiation and their various interactions with matter. The course examines the biological response to radiation in depth, ranging from the cellular level to whole body response. The pillars of radiation protection and safety are also introduced.
XXXX/XXXX – Comparative Medical Imaging

This course is designed to introduce the learner to imaging modalities in the diagnosis and treatment of a patient’s pathologic condition. Modalities such as X-ray, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound (US), Positron Emission Tomography (PET), Bone Mineral Densitometry (BMD), Mammography, Molecular Imaging and Image Guidance for Radiation Therapy will be studied. The learner will investigate properties of energy used, image acquisition and the clinical application of each modality. Further investigation will focus on the contrasting and complimentary roles of each modality in patient diagnosis and treatment.

XXXX/XXXX - Integrated Nuclear Medicine & Molecular Imaging I

The first in this longitudinal series of courses will use a case-based approach to integrate multiple topic themes as they relate to body systems and imaging methodology. The integrated approach will allow learners to understand the relationship and application of these themes in a practical way. The longitudinal nature of the course will encourage reinforcement of key concepts, tasks and skills throughout the program. A hybrid online/onsite delivery approach will allow students to learn, explore and apply the concepts of nuclear and molecular imaging.

YEAR I  Semester II (Winter)
MRS162H1/PSRD120 - Physiology

This course is an introductory online course designed to serve as the foundation in human physiology for learners in the Medical Radiation Sciences program. It is intended for learners who have an interest in or a need for a basic course in human physiology and will introduce the function of the organ systems that comprise the human body. The course will follow a systematic structure covering all of the principal functional systems within the body, such as the cardiovascular and respiratory systems. As such, learners are expected to be familiar with the anatomical structure of these systems. Clinical examples will be used to illustrate key principles and material where possible.

MRS164H1/ANRD121 - Relational Anatomy

For the purposes of diagnosis and optimal treatment of abnormal patient conditions, high quality, detailed images are required in order to obtain information on the anatomical state of an organ or structure within the body. The ability to recognize anatomical structures as demonstrated on CT or MR images in sagittal, coronal and axial sectional planes is essential in the current hospital imaging environment. The Relational Anatomy course investigates gross, cross-sectional and relational anatomy of the head, central nervous system, neck, spine, thorax, abdomen, male / female pelvis, upper / lower extremities. An emphasis is placed upon the organs, the vascular system, the lymphatics system as well as muscular and skeletal structures. This course offers weekly interactive lectures and labs which provide the learner with a stimulating environment in which they may actively apply the knowledge learned through the use of a variety of media including anatomical models, preserved human specimens, cadaver cross section images as well as a multitude of hard copy and computer based medical images.
**MRS264H1/PCRD120 - Special Topics in Patient Care I**

This laboratory-based course is a continuation of Introduction to Patient Care in MRS and will introduce learners to some of the discipline specific patient care skills necessary for clinical practice.

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**XXXX/XXXXX – Integrated Nuclear Medicine & Molecular Imaging II**

The second in this longitudinal series of courses will use a case-based approach to integrate multiple topic themes as they relate to body systems and imaging methodology. The integrated approach will allow learners to understand the relationship and application of these themes in a practical way. The longitudinal nature of the course will encourage reinforcement of key concepts, tasks and skills throughout the program. A hybrid online/onsite delivery approach will allow students to learn, explore and apply the concepts of nuclear and molecular imaging.

**YEAR I  Semester III (Summer)**

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**XXXX/XXXXX - Nuclear Medicine in Practice**

This course will provide learners with the opportunity to further develop practical skills and knowledge related to specific areas of practice in nuclear medicine and patient care.

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**Subspecialty Course I**

Subspecialty courses in the Nuclear Medicine stream are designed to provide learners with three options for additional career development or pathways. Learners will complete didactic courses which may be used towards additional certification in a related field of study post-graduation... Courses offered through the subspecialty stream include Magnetic Resonance Imaging, Imaging Informatics and Management in Medical Imaging.

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**YEAR II Semester I (Fall)**

**MRS265H1/CTRD240 - Integrated CT Imaging Theory and Practice I**

CTRD240 is a collaborative course for learners in Nuclear Medicine, Radiological Technology, and Radiation Therapy. This course provides learners with the opportunity to explore the evolution of computed tomography (CT), the basic physical principles of computed tomography, image formation and display. Learners will participate in simulation of clinical applications of computed tomography as well as examine radiation safety issues as they pertain to computed tomography.

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**MRS266H1/RMIP231 - Introduction to Research Methods**
This course provides an introduction to research methods and designs relevant to practitioners of the medical radiation sciences. This course will focus on an introduction to various research designs including experimental and non-experimental, and quantitative and qualitative research methods. In addition, the course will focus on providing a practical understanding of several basic statistical tools used in medical and health research.

**XXXX/XXXXX – Integrated Nuclear Medicine & Molecular Imaging III**

The third in this longitudinal series of courses will use a case-based approach to integrate multiple topic themes as they relate to body systems and imaging methodology. The integrated approach will allow learners to understand the relationship and application of these themes in a practical way. The longitudinal nature of the course will encourage reinforcement of key concepts, tasks and skills throughout the program. A hybrid online/onsite delivery approach will allow students to learn, explore and apply the concepts of nuclear and molecular imaging. A concurrent clinical component in year two will provide the opportunity for learners to consolidate knowledge, skills and judgment.

**Subspecialty Course II**

Subspecialty courses in the Nuclear Medicine stream are designed to provide learners with three options for additional career development or pathways. Learners will complete didactic courses which may be used towards additional certification in a related field of study post-graduation. Courses offered through the subspecialty stream include Magnetic Resonance Imaging, Imaging Informatics and Management in Medical Imaging.

**YEAR II Semester II (Winter)**

**MRS269H1/HBRD241 - Clinical Behavioural Sciences**

This course provides an overview of the ethical, societal and personal factors that influence and impact health care services. The role of the health care provider and the dynamics of the provider/patient relationship will be examined from a critical perspective. Through an interprofessional education session learners will explore alternate models of healthcare provision. This course will combine theory and practical application, allowing the learner to reflect on his or her own values and beliefs through case studies, reading and discussion.

**XXXX/XXXXX – Integrated Nuclear Medicine & Molecular Imaging IV**

The fourth in this longitudinal series of courses will use a case-based approach to integrate multiple topic themes as they relate to body systems and imaging methodology. The integrated approach will allow learners to understand the relationship and application of these themes in a practical way. The longitudinal nature of the course will encourage reinforcement of key concepts, tasks and skills throughout the program. A hybrid
online/on-site delivery approach will allow students to learn, explore and apply the concepts of nuclear and molecular imaging. A concurrent clinical component in year two will provide the opportunity for learners to consolidate knowledge, skills and judgment.

**XXXX/XXXX – CT Imaging in Nuclear Medicine**

This course educates learners on the appearance of common pathologic conditions and anomalies seen on CT scans of the head, neck, chest, abdomen, pelvis, extremities and spine. Further, this course will explore routine CT procedures and protocols in both diagnostic and hybrid applications. Learners will have the opportunity to apply knowledge in simulated practical settings.

**Subspecialty Course III**

Subspecialty courses in the Nuclear Medicine stream are designed to provide learners with three options for additional career development or pathways. Learners will complete didactic courses which may be used towards additional certification in a related field of study post-graduation. Courses offered through the subspecialty stream include Magnetic Resonance Imaging, Imaging Informatics and Management in Medical Imaging.

**YEAR II Semester III (Summer)**

**MRS198H1/SLRD110 - Quality in Healthcare**

This course examines the relationship between quality in processes and quality in patient care in the healthcare environment. Sources of error, the identification of risk and the processes of minimising risk will be explored. Students will learn of various quality management tools used in the healthcare environment and will use them to solve problems and anticipate patient risk.

**XXXX/XXXX – Applied Research in the Health Sciences**

This two-semester course allows the completion of a research project under supervision or mentorship. The completion of a research project will require learners to use self-directed learning in the writing and presentation of a final thesis and a scientific poster. Learners will be encouraged to complete work of publishable quality.

**XXXX/XXXX – Nuclear Medicine Clinical Practicum I**

This is the first in a series of three clinical practical courses that are a continuation of the concurrent clinical component in the Integrated Nuclear Medicine and Molecular Imaging courses. Learners will interact with patients and other healthcare providers and have the opportunity to further develop interprofessional, problem solving and critical thinking skills. The attainment of competencies as outlined in the external professional standards is the core requirement of this course.
YEAR III Semester I (Fall)

XXXX/XXXXX – Applied Research in the Health Sciences (continued from Summer Yr 2)

This two-semester course allows the completion of a research project under supervision or mentorship. The completion of a research project will require learners to use self-directed learning in the writing and presentation of a final thesis and a scientific poster. Learners will be encouraged to complete work of publishable quality.

XXXX/XXXXX – Nuclear Medicine Clinical Practicum II

This is the second in a series of three clinical practical courses that are a continuation of the concurrent clinical component in the Integrated Nuclear Medicine and Molecular Imaging courses. Learners will interact with patients and other healthcare providers and have the opportunity to further develop interprofessional, problem solving and critical thinking skills. The attainment of competencies as outlined in the external professional standards is the core requirement of this course.

YEAR III Semester II (Winter)

XXXX/XXXXX – Nuclear Medicine Clinical Practicum III

This is the third and final clinical practical course that is a continuation of the concurrent clinical component in the Integrated Nuclear Medicine and Molecular Imaging courses. Learners will interact with patients and other healthcare providers and have the opportunity to further develop interprofessional, problem solving and critical thinking skills. The attainment of competencies as outlined in the external professional standards is the core requirement of this course.

Subspecialty Course IV

Subspecialty courses in the Nuclear Medicine stream are designed to provide learners with three options for additional career development or pathways. Learners will complete didactic courses which may be used towards additional certification in a related field of study post-graduation. Courses offered through the subspecialty stream include Magnetic Resonance Imaging, Imaging Informatics and Management in Medical Imaging.
# Current Learning Outcomes, and Degree Level Expectations

<table>
<thead>
<tr>
<th>Degree Level Expectations</th>
<th>Program Learning Outcomes</th>
<th>How the program design / structure supports the degree level expectations</th>
</tr>
</thead>
</table>
| • Have the professional knowledge and skills required for the award of a B.Sc. From the University of Toronto | ▪ Possess the range and level of knowledge, skills and professional behaviours required for certification by the Canadian Association of Medical Radiation Technologists (CAMRT) and subsequent inclusion in the College of Medical Radiation Technologists of Ontario (CMRTO), the provincial licensing body;  
▪ Can apply their knowledge, skills and judgment to a variety of health care settings and can adapt to a changing health care environment;  
▪ Have the ability to use their professional knowledge, skills and judgment in the solution of problems and can, through the use of applied research, identify needs and give the appropriate form of professional interaction and care;  
▪ Can operate effectively within a multi-disciplinary or multi-professional team;  
▪ Are able to identify and develop a philosophy of health education and promotion that reflects the diversity of attitudes, values and beliefs of our multi-cultural society;  
▪ Have the skills and ability to assess and recognize the differing needs of patients and will be able to respond to these individualized needs;  
▪ Have experienced, in a structured manner, a variety of professional practices and are able to apply and critically reflect upon these practices. | The integrated three-year curriculum aims to provide students with a breadth and depth of knowledge which develops theoretical, analytical, critical and evaluative skills for their stream-specific professional responsibilities.  
Professional values, responsibility, accountability, sensitivity and ethical attitudes towards both the consumer and health care community are emphasized. Students learn to evaluate and consider the implications of their professional actions.  
University of Toronto teaching faculty is responsible for teaching foundational courses including Anatomy, Physiology, Pharmacology, Clinical Behavioural Science and Research courses. The Michener Institute teaching faculty is responsible for the profession specific and the interprofessional content.  
The external competency profile from the Canadian Association of Medical Radiation Technologists (CAMRT) and the Standards of Practice from the College of Medical Radiation Technologists of Ontario (CMRTO) are used in both curricular design and evaluation of student competence. These documents are also used by the Canadian Medical Association (CMA) Conjoint Accreditation Services (the organization that accredits the current Medical Radiation Sciences program’s Nuclear Medicine stream) in their assessment of the program. |
evaluate theory in a range of discipline-specific professional settings.

In addition, the MRS Program aims to produce graduates in the specialty of Nuclear Medicine who:

- Develop nuclear medicine technology competencies (knowledge, skills, judgment) that are portable across national and international health care and professional environments
- Incorporate interprofessional education to augment professional practice
- Model behaviours consistent with a philosophy of wellness, health education and promotion
- Cultivate a commitment to the enhancement of the Nuclear Medicine Technology profession

Requirements for Accreditation such that graduates of accredited programs can access their national certification examination set by CAMRT for entry into practice.

The use of laboratory and simulation environments allows students to apply knowledge in a variety of settings and circumstances. The deconstruction of complex clinical tasks into a sequence of skill building activities allows traditionally hospital focused tasks to be moved into a controlled education environment that simulates the clinical environment without the accompanying risk to patients and concerns regarding safety.

Students have the opportunity to conduct a clinical/research project in their final year to promote ongoing scholarly activity in their professional practice.

The interprofessional education (IPE) curriculum content assists students in developing the communication and collaboration skills necessary to work in IPE teams in the clinical environment. Interprofessional courses are taught in a collaborative fashion with instructors/facilitators for classes, labs and tutorials coming from a cross-section of the participating programs. In addition, the students in the MRS Program participate in the longitudinal IPE curriculum that has been designed for all health professional students at the University of Toronto.

The clinical practicum components integrate and apply the material taught in lectures, labs and simulation leading to the development of clinical competence. Each student is required to
| | complete 38 weeks of full-time clinical practice to consolidate their knowledge, skills and judgment.

The Selectives courses of the Medical Radiation Sciences (MRS) Program are designed to give the students some freedom in constructing a curriculum that responds to their own particular interests related to their chosen profession (including dual specialization) and/or academic endeavours post graduation.
## Proposed Learning Outcomes, and Degree Level Expectations

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<th>Program Learning Outcomes</th>
<th>How the program design / structure supports the degree level expectations</th>
</tr>
</thead>
</table>
| Please note: Degree level expectations remain the same. The way in which students achieve program learning outcomes will be strengthened and enhanced | • Have the professional knowledge and skills required for the award of a B.Sc. From the University of Toronto  
• Have the knowledge and skills required for the award of an Advanced Diploma of Health Sciences from Michener | • Possess the range and level of knowledge, skills and professional behaviours required for certification by the Canadian Association of Medical Radiation Technologists (CAMRT) and subsequent inclusion in the College of Medical Radiation Technologists of Ontario (CMRTO), the provincial licensing body;  
■ Can apply their knowledge, skills and judgment to a variety of health care settings and can adapt to a changing health care environment;  
■ Have the ability to use their professional knowledge, skills and judgment in the solution of problems and can, through the use of applied research, identify needs and give the appropriate form of professional interaction and care;  
■ Can operate effectively within a multi-disciplinary or multi-professional team;  
■ Are able to identify and develop a philosophy of health education and promotion that reflects the diversity of attitudes, values and beliefs of our multi-cultural society;  
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differing needs of patients and will be able to respond to these individualized needs;

- Have experienced, in a structured manner, a variety of professional practices and are able to apply and critically evaluate theory in a range of discipline-specific professional settings.

In addition, the MRS Program aims to produce graduates in the specialty of Nuclear Medicine & Molecular Imaging who:

- Develop nuclear medicine technology competencies (knowledge, skills, judgment) that are portable across national and international health care and professional environments

- Incorporate interprofessional education to augment professional practice

- Model behaviours consistent with a philosophy of wellness, health education and promotion

- Cultivate a commitment to the enhancement of the nuclear medicine technology profession

- Have experienced, in a structured manner, a variety of professional practices and are able to apply and critically evaluate theory in a range of discipline-specific professional settings.

The use of laboratory and simulation environments allows learners to apply knowledge in a variety of settings and circumstances. Increased use of simulation in the series of Integrated Nuclear Medicine and Molecular Imaging courses will prepare learners to move gradually along a continuum of theoretical understanding to application of knowledge. (Refer to Appendix B for course description of Integrated Nuclear Medicine & Molecular Imaging course).

Learners will undertake an applied research project in the later part of their studies to both promote ongoing scholarly activity and contribute to evidence-based professional practice.

The MRS Program participates in the long-term IPE curriculum that has been designed for all health professional students at the University of Toronto.

the Canadian Medical Association (CMA) Conjoint Accreditation Services (the organization that accredits the current Medical Radiation Sciences program’s Nuclear Medicine stream) in their Requirements for Accreditation such that graduates of accredited programs can access their national certification examination set by CAMRT for entry into practice. A revised competency profile for nuclear medicine technology is expected to be in effect for September 2014 and the curriculum will be mapped to this new profile.
Clinical integration will begin in second year with the purpose of creating increased opportunities for students to learn, understand and apply the knowledge, skills and judgment in the clinical environment with mentoring and feedback.

(Please refer to *Proposed Calendar Copy* for more detailed information on the clinical courses)

The Selectives courses of the Medical Radiation Sciences (MRS) Program have been redesigned for the Nuclear Medicine & Molecular Imaging stream. The new subspecialty courses are designed to provide learners with three options for additional career development or pathways. Acceptance into one of the three subspecialty pathways will be based on application process.
## Current and Proposed Calendar copy combined

### YEAR 1 – FALL TERM

<table>
<thead>
<tr>
<th>CURRENT Courses</th>
<th>PROPOSED Courses</th>
<th>Proposed course part of common course offerings for Medical Radiation Sciences Program</th>
<th>Proposed course part of Nuclear Medicine Stream ONLY</th>
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<td>BAIP113 (MRS261H1)</td>
<td>XXXX (XXXX)</td>
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### YEAR 1 – WINTER TERM

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<th>CURRENT Courses</th>
<th>PROPOSED Courses</th>
<th>Proposed course part of common course offerings for Medical Radiation Sciences Program</th>
<th>Proposed course part of Nuclear Medicine Stream ONLY</th>
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<td>Foundations of</td>
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<td>Course Title</td>
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<td>Year 2 – Fall Term</td>
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**YEAR 1 – SUMMER TERM**

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**YEAR 2 – SUMMER TERM**

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<td>CLNM370 (MRS225H1) Clinical Nuclear Medicine II (15-weeks)</td>
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<td>RMRD370 (MRS278Y1) Research Methods (13-weeks) OR CPRD370 (MRS273H1) Clinical Project (13-weeks)</td>
<td>XXXX (XXXX) Applied Research in the Health Sciences (continued from Summer Year 2)</td>
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| CLNM380 (MRS226H1)  
Clinical Nuclear Medicine III (15-weeks) | XXXX (XXXX)  
Nuclear Medicine  
Clinical Practicum III | | X |
| RMRD370 (MRS278Y1)  
Research Methods (13-weeks)  
OR  
Selective III (13-weeks) | Subspecialty Course IV | | X |
## TOPIC THREADS FOR INTEGRATED NUCLEAR & MOLECULAR IMAGING COURSE

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<th>SUMMER</th>
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<td>Radiation Physics</td>
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<tr>
<td>Pharmacology</td>
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<td>Molecular Imaging</td>
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<td>Imaging Methodology</td>
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<tr>
<td>Anatomy/Physiology</td>
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### Full-Time Didactic (Michener/UofT)

Certificates in:
- ECG Stressing
- Venipuncture
- Contrast Injections

START: Subspecialty
- MRI
- Informatics
- Management in Medical Imaging
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### TOPIC THREADS FOR INTEGRATED NUCLEAR & MOLECULAR IMAGING COURSE

#### FALL

- Renal
- Infection & Inflammation
- Oncology
- Neuro
- Endocrine
- Lung
- Therapy

#### WINTER

- 
- 
- 
- 
- 
- 
- 

#### SUMMER

- 
- 
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- 
- 

#### Proposed Concurrent Didactic (Michener/UofT) & Clinical (Hospital)

#### Full-Time Clinical (Hospital)

#### SYSTEMS

- Instrumentation/QC
- Radiopharmacy
- Patient Care
- Rad Pro/Rad Safety
- Radiation Physics
- Pharmacology
- Molecular Imaging
- Imaging Methodology
- Interprofessionalism
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<td>Anatomy/Physiology</td>
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# APPENDIX 2.3 – MRS Model Routes

## MODEL ROUTE

**Program:** Radiation Therapy

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<th>September 2016 Intake</th>
<th>Revision Date:</th>
<th># of Semesters:</th>
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**THE Michener INSTITUTE**

For Applied Health Sciences
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<td>RBRT310</td>
<td>Radiobiology &amp; Radiation Protection</td>
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<td>ANRD111</td>
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**Semester Hours:** 214.5

**16.5 hrs/wk**

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**Summer 2018**

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<td>36</td>
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Selective II (note: MRI selective is 13 weeks in length) | 3 | 12 | 3 | 36 | 0.5
---|---|---|---|---|---
Aug 6 2018 | Aug 31 2018 | TCRT266 (MRS230H1) | Transition to Clinical Radiation Therapy | 37.5 | 4 | 37.5 | 150 | 0.5

Summer semester includes **Quality Improvement in Healthcare** and **Working with Seniors** modules

| Weeks 1-12 = 24 hrs/wk | Weeks 13-16 = 37.5 hrs/wk | Semester Hours: | 438 |
---|---|---|---

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**Fall 2018**

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CLRT371 (MRS242H1) | Clinical Radiation Therapy II | 34.5 | 13 | 34.5 | 448.5 | 2 |
37.5 | 2 | 37.5 | 75 |

RMRD370 (MRS278Y1) | Research Methods II | 3 | 13 | 3 | 39 | 0.5 |

OR

CPRD370 (MRS273H1) | Clinical Project | 3 | 13 | 3 | 39 | 0.5 |

37.5 hrs/wk

Semester Hours: 562.5
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# MODEL ROUTE

**Program:** Nuclear Medicine & Molecular Imaging Technology

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**Winter 2017**

**Semester Hours:** 286

21.5 hrs/wk
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<td>12 hrs didactic x weeks 1-3, 5-7, 9-11, 13</td>
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<td>weeks 4, 8, 12 = 90 hours clinical time</td>
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| Semester Hours: | 335.5 |

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### Semester Composition: *courses run concurrently*

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## MODEL ROUTE

**Program:** Radiological Technology

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Winter 2017

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<td>MRI option</td>
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<td>3 12 3 36</td>
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<td>40.5 hrs/wk for 8 weeks</td>
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<td>3 hrs per week for the remainder</td>
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<tr>
<td>sm 4</td>
<td>Sept 5 2017</td>
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<td>RMIP240 (MRS266H1)</td>
<td>Introduction to Research Methods</td>
<td>2 13 2 26</td>
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Summer 2017

Fall 2017
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**Semester Hours:** 279.5

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<td></td>
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**22 hrs/wk**
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<td>IPCL2501</td>
<td>Interprofessional Collaborative Clinical Simulation</td>
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### Summer 2018

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<td>SLRD110</td>
<td>Quality in Healthcare</td>
<td>3</td>
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<td>ADRD250</td>
<td>Health Care Systems</td>
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<tr>
<td>TCRA266</td>
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Selective II (note: MRI selective is 13 weeks in length including exam week)

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Selective II (note: MRI selective is 13 weeks in length including exam week)

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<td>TCRA266</td>
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<td>4</td>
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Please note the selective II (MRI) option is 13 weeks in length, including exam week.
Summarized schedule:

**Summer Semester**

- Weeks 1-12: 21 hrs/wk
- Weeks 13-16: 37.5 hrs/wk
- Summer semester includes *Quality Improvement in Healthcare* and *Working with Seniors* modules
- Semester Hours: 402

**Fall 2018**

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**Winter 2019**

- Semester Hours: 562.5

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<td>Fall year 2</td>
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Semester Composition: *courses run concurrently

Total Program Hours: 2883.5

Total Program Credits: 20
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<td>Break/MRI Final Exam</td>
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<td>15</td>
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<td>15</td>
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<td>13</td>
<td>15</td>
<td>Reading Week</td>
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### University of Toronto Quality Assurance Process (UTQAP)
#### Cyclical Review: Final Assessment Report & Implementation Plan

<table>
<thead>
<tr>
<th>Program(s):</th>
<th>Medical Radiation Sciences, B.Sc. (Streams: Nuclear Medicine Technology, Radiological Technology, Radiation Therapy)</th>
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</thead>
<tbody>
<tr>
<td>Division/Unit:</td>
<td>(Review of program only; offered jointly by the University of Toronto Department of Radiation Oncology and The Michener Institute for Applied Health Sciences)</td>
</tr>
<tr>
<td>Commissioning Officer:</td>
<td>Dean, Faculty of Medicine</td>
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<table>
<thead>
<tr>
<th>Reviewers (Name, Affiliation):</th>
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<tbody>
<tr>
<td><strong>UTQAP Reviewer:</strong> Dr. Catherine de Metz, Associate Professor, Department of Oncology, School of Medicine, Queen’s University; Head, Radiation Oncology Department, Cancer Centre of Southeastern Ontario</td>
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<tr>
<td><strong>Canadian Medical Association Accreditation Reviewers:</strong></td>
</tr>
<tr>
<td>Chair, CMA Survey Team</td>
</tr>
<tr>
<td>Louise Gordon, MSW, Dean, School of Health Sciences and Community Services, Red River College, MB</td>
</tr>
<tr>
<td><strong>Nuclear Medicine Technology</strong></td>
</tr>
<tr>
<td>1. Dr. Sandor Demeter, MD, MHSc, FRCPC (NM), Medical Director Diagnostic Imaging, Winnipeg Regional Health Authority, Health Sciences Centre, Department Chair, Radiology, University of Manitoba, MB</td>
</tr>
<tr>
<td>2. Kevin Hudkins, RT(NM), Clinical Coordinator, British Columbia Institute of Technology, BC</td>
</tr>
<tr>
<td>3. Patricia Munro, RT(NM), BHSc, Educator, School of Health Sciences, Queen Elizabeth II Health Sciences Centre, NS</td>
</tr>
<tr>
<td>4. Deborah Scollard, MRT(N), BAppSci(NM), Regulatory Body Representative (College of Medical Radiation Technologists of Ontario)</td>
</tr>
<tr>
<td><strong>Radiation Therapy Technology</strong></td>
</tr>
<tr>
<td>5. Michael Evans, BA, MSc, FCCPM, RTR, Medical Physicist, Department of Medical Physics, McGill University Health Centre, QC</td>
</tr>
<tr>
<td>6. Chris Zeller, MA, BEd, ACT, Manager, Education Services, Radiation Therapy, CancerCare Manitoba, MB</td>
</tr>
<tr>
<td>7. Roseanne Pegler, BSc, MRT(T), ACT, Regulatory Body Representative (College of Medical Radiation Technologists of Ontario)</td>
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</table>
Medical Radiation Technologists of Ontario)

Radiological Technology

8. Dori Kaplun, RTR, Med, Program Head, Medical Radiography, British Columbia Institute of Technology, BC

9. Dr. Wayne Papoff, MD, FRCPC, Radiologist, London Health Sciences, ON

10. Francoise Ternovoy, MRT(R), ACR (Phase I), Practicum Coordinator, Northern Alberta Institute of Technology, AB

11. Janet Scherer, ACR, BA, RTR, MRT (R), Regulatory Body Representative (College of Medical Radiation Technologists of Ontario)

**Date of review visit:** January 14 – 16, 2013

**Date reported to AP&P:** April 1, 2014

**Outcome**
The Committee on Academic Policy and Programs (AP&P) concluded that the Decanal response adequately addressed the review recommendations.

**Significant Program Strengths**
- Early inter-professional opportunities for students
- Graduates highly prepared for clinical practice
- Dedicated, committed, and passionate faculty

**Opportunities for Program Improvement and Enhancement**
- Strengthening students’ identification with the University of Toronto
- Tracking alumni outcomes, specifically those in leadership positions
- Providing students with opportunities to engage in research
- Renewing the Nuclear Medicine curriculum

**Implementation Plan**
The Dean undertook in consultation with the Department to support the following changes:

- **Immediate Term (6 months)**
  - Strengthening students’ identification with the University of Toronto
    - The Department of Radiation Oncology, along with the Faculty of Medicine, will explore potential solutions to this issue, such as realignment of the Registrar’s Office or regular “meet and greet” sessions
  - Tracking alumni outcomes, specifically those in leadership positions
    - The Department of Radiation Oncology, with The Michener, will develop an alumni engagement strategy, part of which will include a systematic capturing of longitudinal data and profiling these leaders in communications with the alumni community
Providing students with opportunities to engage in research
- With the Michener, the Department of Radiation Oncology will develop strategies to enhance the research experience, particularly in the Nuclear Medicine and Radiological Technology streams, by identifying appropriate research champions to promote a research culture

Renewing the Nuclear Medicine Curriculum
- The Department of Radiation Oncology and The Michener are currently redesigning and transforming the Nuclear Medicine curriculum by providing innovative hybrid content and by responding to the current and future practice needs of this group of professionals
- In collaboration with the Department of Medical Imaging, program leadership is undertaking specific actions to manage this change as seamlessly as possible

The Dean’s Office will follow up annually with the unit to assess progress.

Executive Summary
The reviewers identified the program’s strengths as the early inter-professional opportunities for students; graduates’ high level of preparation for clinical practice; and the dedicated, committed, and passionate faculty. The reviewers recommended that the followings issues be addressed: strengthening students’ identification with the University of Toronto; tracking alumni outcomes, specifically those in leadership positions; providing students with opportunities to engage in research; and renewing the Nuclear Medicine curriculum. The Department of Radiation Oncology, along with the Faculty of Medicine, will explore ways to better engage with students. The Department and The Michener will collaborate on tracking and engaging with alumni, including profiling leaders in the alumni community. The Department and The Michener will develop strategies and take steps to promote a culture of research in the program. To redesign and transform the Nuclear Medicine stream, the Department of Radiation Oncology and The Michener are exploring innovative hybrid content and responding to the current and future practice needs of this group of professionals. The Committee on Academic Policy and Programs concluded that the Decanal response adequately addressed the review recommendations.
### APPENDIX 3.1 – Faculty List, Department of Radiation Oncology, University of Toronto

<table>
<thead>
<tr>
<th>Teaching Site</th>
<th>Name</th>
<th>University Rank</th>
<th>Specialty Qualifications</th>
<th>Subspecialty (If any)</th>
<th>Nature of Interaction with Resident (e.g. clinical, teaching, research)</th>
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</thead>
<tbody>
<tr>
<td>PMH</td>
<td>Hamideh Alasti</td>
<td>Assistant Professor</td>
<td>MSc Physics</td>
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<td>Clinical, teaching and research</td>
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<tr>
<td>PMH</td>
<td>Andrew Bayley</td>
<td>Assistant Professor</td>
<td>MD, FRCPC</td>
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<td>Andrea Bezjak</td>
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<td>MD, FRCPC</td>
<td>Medical Biophysics</td>
<td>Clinical, teaching and research</td>
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<td>Anthony Brade</td>
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<td>Drug Development</td>
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<tr>
<td>PMH</td>
<td>Marco Carlone</td>
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<td>BSc</td>
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<tr>
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<td>Clinical, teaching and research</td>
</tr>
<tr>
<td>PMH</td>
<td>Mary Gospodarowicz</td>
<td>Professor</td>
<td>MD, FRCPC</td>
<td>Internal Medicine</td>
<td>Clinical, teaching, and research</td>
</tr>
<tr>
<td>PMH</td>
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<td>MD, FRCPC</td>
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<tr>
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<td>Position</td>
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<tr>
<td></td>
<td>Nicole Harnett</td>
<td>Assistant Professor</td>
<td>MRT(T), ACT, BSc, Med</td>
<td>Education</td>
<td>Teaching, and research</td>
</tr>
<tr>
<td></td>
<td>Robert Heaton</td>
<td>Lecturer</td>
<td>PhD</td>
<td>Medical Physicist</td>
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<tr>
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<td>Medical Physics</td>
<td>Clinical, teaching, and research</td>
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<td>Jane Higgins</td>
<td>Instructor</td>
<td>BSc</td>
<td>Educator</td>
<td>Research</td>
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<td>Richard Hill</td>
<td>Professor</td>
<td>PhD</td>
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<tr>
<td></td>
<td>David Hodgson</td>
<td>Associate Professor</td>
<td>MD, FRCPC</td>
<td>Health services</td>
<td>Clinical, teaching, and research</td>
</tr>
<tr>
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## APPENDIX 3.2 – Academic Half-Day Schedule (Jan 2015-June 2016)

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<td>PMH</td>
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<td>Mohammed Aldehaim</td>
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## APPENDIX 3.3 – Assessment of Resident Learning

<table>
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<tr>
<th>Competency</th>
<th>Assessment Method</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical Expert</strong></td>
<td><strong>Knowledge</strong>&lt;br&gt;OSCE&lt;br&gt;Competency to Practice Examination (CPEE)&lt;br&gt;Physics written examination&lt;br&gt;Radiobiology written examination&lt;br&gt;Applied Physics oral examination&lt;br&gt;Written examination in Core Specialties&lt;br&gt;ITER&lt;br&gt;Oral case based drill, academic half day&lt;br&gt;Academic half day presentations</td>
<td>Once in PGY2/3&lt;br&gt;Once a year in PGY4 and 5&lt;br&gt;PGY2&lt;br&gt;PGY2&lt;br&gt;PGY3&lt;br&gt;PGY3 (PGY2 optional)&lt;br&gt;Each rotation&lt;br&gt;10-12 x year PGY3-5&lt;br&gt;1-2 x year PGY2-5</td>
</tr>
<tr>
<td><strong>Skills</strong></td>
<td>Case based drill, academic half day&lt;br&gt;ITER&lt;br&gt;CPEE</td>
<td>PGY3-5 10-12 x year&lt;br&gt;Each rotation&lt;br&gt;PGY4 and 5</td>
</tr>
<tr>
<td><strong>Communicator</strong></td>
<td><strong>Knowledge</strong>&lt;br&gt;OSCE&lt;br&gt;ITER&lt;br&gt;Evaluated in the following PGCorEd Online Modules:&lt;br&gt;Communication Basics&lt;br&gt;Communication Essentials&lt;br&gt;Patient Safety&lt;br&gt;End of Life Care</td>
<td>PGY2/3&lt;br&gt;Each rotation&lt;br&gt;Residents must achieve a score of 70% on the post-test for each PGCorEd module once prior to the end of their PGY2 training year.</td>
</tr>
<tr>
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<td><strong>Verbal skills</strong>&lt;br&gt;OSCE&lt;br&gt;CPEE&lt;br&gt;ITER&lt;br&gt;Case based drill, academic half day&lt;br&gt;Academic half day presentations&lt;br&gt;360 degree feedback</td>
<td>PGY2/3&lt;br&gt;PGY4+5&lt;br&gt;Each rotation&lt;br&gt;10-12 x year PGY3-5&lt;br&gt;1-2 x year PGY2-5&lt;br&gt;PGY 2-5 1 x year</td>
</tr>
<tr>
<td></td>
<td><strong>Written skills</strong>&lt;br&gt;360 degree feedback&lt;br&gt;ITER</td>
<td>PGY 2-5 1 x year&lt;br&gt;Each rotation</td>
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<tr>
<td><strong>Collaborator</strong></td>
<td><strong>Knowledge</strong>&lt;br&gt;ITER&lt;br&gt;Evaluated in the following PGCorEd Online Modules:&lt;br&gt;Resident as Professional Collaborator</td>
<td>Each rotation&lt;br&gt;Residents must achieve a score of 70% on the post-test for each PGCorEd module once prior to the end of their PGY2 training year.</td>
</tr>
<tr>
<td></td>
<td><strong>Skills</strong>&lt;br&gt;360 degree feedback&lt;br&gt;ITER</td>
<td>PGY2-5, 1 x year&lt;br&gt;Each rotation</td>
</tr>
<tr>
<td>Competency</td>
<td>Assessment Method</td>
<td>Frequency</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Relationships with health care professionals</td>
<td>360 degree feedback</td>
<td>PGY2-5, 1 x year</td>
</tr>
<tr>
<td><strong>Manager</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>ITER, OSCE, 360 degree feedback</td>
<td>Each rotation PGY2/3, PGY2-5, 1 x year</td>
</tr>
<tr>
<td></td>
<td>Evaluated in the following PGCorEd Online Modules:</td>
<td>Residents must achieve a score of 70% on the post-test for each PGCorEd module once prior to the end of their PGY2 training year.</td>
</tr>
<tr>
<td></td>
<td>• Resident as Manager</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Resident as Professional</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Resident as Learner &amp; Teacher</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Patient Safety</td>
<td></td>
</tr>
<tr>
<td>Management skills</td>
<td>ITER, OSCE, Transition to Practice Rotation ITER</td>
<td>Each rotation PGY2/3, PGY4/5</td>
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<tr>
<td><strong>Health Advocate</strong></td>
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<tr>
<td>Knowledge</td>
<td>ITER, OSCE</td>
<td>Each rotation PGY2/3, PGY2-5, 1 x year</td>
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<tr>
<td></td>
<td>Evaluated in the following PGCorEd Online Modules:</td>
<td>Residents must achieve a score of 70% on the post-test for each PGCorEd module once prior to the end of their PGY2 training year.</td>
</tr>
<tr>
<td></td>
<td>• Communication Basics</td>
<td></td>
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<tr>
<td></td>
<td>• Communication Essentials</td>
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</tr>
<tr>
<td></td>
<td>• End of Life Care</td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>OSCE</td>
<td>PGY2/3</td>
</tr>
<tr>
<td><strong>Scholar</strong></td>
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<tr>
<td>Knowledge</td>
<td>ITER, Research presentation with formative feedback</td>
<td>Each rotation PGY1</td>
</tr>
<tr>
<td></td>
<td>Evaluated in the following PGCorEd Online Modules:</td>
<td>Residents must achieve a score of 70% on the post-test for each PGCorEd module once prior to the end of their PGY2 training year.</td>
</tr>
<tr>
<td></td>
<td>• Resident as Learner &amp; Teacher</td>
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</tr>
<tr>
<td>Skills</td>
<td>Research presentation with formative feedback Iter</td>
<td>PGY2-4</td>
</tr>
<tr>
<td>Teaching abilities</td>
<td>Teaching skills with formative feedback</td>
<td>PGY1</td>
</tr>
<tr>
<td></td>
<td>Academic half day presentations with written evaluation from peers and supervising faculty</td>
<td>Twice a year PGY2-5</td>
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<tr>
<td>Professional</td>
<td></td>
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<tr>
<td>Knowledge</td>
<td>Case based drill, academic half day with written feedback</td>
<td>10-12 x year PGY3-5</td>
</tr>
<tr>
<td>Competency</td>
<td>Assessment Method</td>
<td>Frequency</td>
</tr>
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<td>--------------------------------</td>
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<tr>
<td>ITER</td>
<td>Evaluated in the following PGCorEd Online Modules:</td>
<td>Each rotation</td>
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<td>Resident as Professional</td>
<td>Residents must achieve a score of 70% on the post-test for each PGCorEd</td>
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<td>Resident as Manager</td>
<td>module once prior to the end of their PGY2 training year.</td>
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<td>Patient Safety</td>
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<tr>
<td>Skills</td>
<td>360 degree feedback</td>
<td>PGY2-5, 1 x year</td>
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<tr>
<td></td>
<td>ITER</td>
<td>Each rotation</td>
</tr>
<tr>
<td></td>
<td>Transition to Practice ITER</td>
<td>PGY4/5</td>
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<tr>
<td>Behaviours/Attitudes</td>
<td>OSCE : written evaluation with formative feedback</td>
<td>PGY2/3</td>
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<tr>
<td></td>
<td>ITER</td>
<td>Each rotation</td>
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<tr>
<td></td>
<td>Transition to practice ITER</td>
<td>PGY4/5</td>
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The PGME office has detailed outlines of the CanMEDS topics taught and assessed in PGCorEd (i.e. which is mandatory for all PGY1 & 2 residents).

8 modules are currently required

- Communication Basics©,
- Communication Essentials©,
- End of Life Care©,
- Patient Safety©.
- Resident as Collaborator©
- Resident as Learner and Teacher©
- Resident as Manager©,
- Resident as Professional ©

Participation on the online modules is mandatory for all PGY1+2 residents in radiation oncology and their progress monitored by PGME and by the Program Director at the six monthly reviews. Residents at PGY2 level must successfully complete (minimum score of 70% on post-test) all modules to be allowed to proceed to PGY3 level. This is tracked electronically in the resident’s online evaluation profile.
APPENDIX 3.4 – Resident Research Productivity

Adleman, Jenna (2014-current)


Aldehaim, Mohammed (2013-current)


Al Duhaiby, Eman (2007-2012)


Caissie, Amanda (2007-2012)


Chiang, Andrew (2008-2013)


Salman Faruqi (2012-2017)


Ghiam, Alireza Fotouhi (2010-2015)


Giuliani, Meredith (2007-2012)


**Gladwish, Adam (2011-2016)**


**Hahn, Ezra (2013-2018)**


**Han, Kathy (2007-2012)**


**Hasan, Mohammad (2014-current)**


**Ishkanian, Adrian (2006-2011)**


**Khan, Luluel (2008-2013)**


Klein, Jonathan (2010-2015)


Kurtz, Goldie (2009-2014)


Lalani, Nafisha (2011-2016)


Lee, Sangjune (Laurence) (2014-current)


Leung, Eric (2007-2012)


Livergant, Jonathan (2010-2015)


Mohammed, Fazilat (2007-2012)

Myrehaug, Sten (2005-2010)


Ng, Sylvia (2014-current)


Raman, Srinivas (2013-current)


Raziee, Hamid (2012-current)


**Rodin, Danielle (2012-current)**


Skliarenko, Julia (2009-2014)


Jonathan So (2013-current)


Soliman, Hany (2005-2010)


Thompson, Robert (2011-2016)


Tsang, Derek (2011-2016)


**Tseng, Chia-Lin (Eric) (2010-2015)**


**Vulpe, Horia (2012-current)**


**Yoon, Frederick (2005-2010)**


### APPENDIX 3.5 – Mean Teaching Evaluation Scores (TES) for Princess Margaret Cancer Centre and Odette Cancer Centre

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<tr>
<td>University Health Network-Princess Margaret Cancer Centre [UHN-PMCC]</td>
<td>4.66 (23)</td>
<td>4.57 (28)</td>
<td>4.63 (24)</td>
<td>4.20 (15)</td>
<td>4.64 (19)</td>
<td>4.56 (50)</td>
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<tr>
<td>Sunnybrook Health Sciences Centre-Odette Cancer Centre [SHSC-OCC]</td>
<td>4.76 (13)</td>
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<td>0 (0)</td>
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<td><strong>Total</strong></td>
<td>4.68 (26)</td>
<td>4.57 (28)</td>
<td>4.63 (24)</td>
<td>4.20 (15)</td>
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## APPENDIX 3.6 – Teaching Evaluations: Mean Values by Hospital

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<td>Mean Value</td>
<td># Raters</td>
<td>Mean Value</td>
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<td>Royal Victoria Regional Health Centre [RVH]</td>
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<td>Southlake Regional Health Centre</td>
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<td>University Health Network [UHN]</td>
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<tr>
<td>Sunnybrook Health Sciences Centre [SHSC]</td>
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<td>Mount Sinai Hospital [MSH]</td>
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<tr>
<td>North York General Hospital [NYGH]</td>
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<td>Total</td>
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## APPENDIX 4.1 – MHScMRS Faculty

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<tr>
<th>NAME</th>
<th>PROFESSION</th>
<th>INSTITUTION</th>
<th>COURSE</th>
<th>ROLE</th>
<th>COHORT(S)</th>
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<tbody>
<tr>
<td>Ruth Barker</td>
<td>Radiation Therapist</td>
<td>Odette Cancer Centre/ Canadian Partnership Against Cancer</td>
<td>MSC1507</td>
<td>Course Director</td>
<td>2011, 2013, 2015</td>
</tr>
<tr>
<td>Lori Bernstein</td>
<td>Clinical Psychologist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1512</td>
<td>Course Director</td>
<td>2015</td>
</tr>
<tr>
<td>Robert Bristow</td>
<td>Radiation Oncologist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1502</td>
<td>Course Director</td>
<td>2011, 2013</td>
</tr>
<tr>
<td>Pamela Catton</td>
<td>Radiation Oncologist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1503-5</td>
<td>Course Director</td>
<td>2011, 2013, 2015</td>
</tr>
<tr>
<td>Kitty Chan*</td>
<td>Radiation Therapist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1512</td>
<td>Stream Coordinator</td>
<td>2015</td>
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<tr>
<td>Colleen Dickie</td>
<td>Radiation Therapist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1502</td>
<td>Stream Coordinator</td>
<td>2015</td>
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<tr>
<td>Name</td>
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<td>Organization</td>
<td>Code</td>
<td>Role</td>
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<tr>
<td>Lisa DiProspero</td>
<td>Radiation Therapist</td>
<td>Odette Cancer Centre</td>
<td>MSC1507</td>
<td>Course Director</td>
<td>2011, 2013, 2015</td>
</tr>
<tr>
<td>Anthony Fyles</td>
<td>Radiation Oncologist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1501</td>
<td>Course Director</td>
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<tr>
<td>Caitlin Gillan</td>
<td>Radiation Therapist</td>
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<td>MSC1508-9</td>
<td>Course Director</td>
<td>2015</td>
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<tr>
<td>Meredith Giuliani</td>
<td>Radiation Oncologist</td>
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<td>MSC1509</td>
<td>Course Director</td>
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<tr>
<td>Nicole Harnett</td>
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<td>MSC1503-5</td>
<td>Course Director</td>
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<td>MSC1510-11</td>
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<tr>
<td>Harry Keller</td>
<td>Medical Physicist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1500</td>
<td>Course Director</td>
<td>2011, 2013, 2015</td>
</tr>
<tr>
<td>Anne Koch</td>
<td>Radiation Oncologist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1501</td>
<td>Course Director</td>
<td>2011, 2013, 2015</td>
</tr>
<tr>
<td>Grace Lee*</td>
<td>Radiation Therapist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1503-4</td>
<td>Stream Coordinator</td>
<td>2015</td>
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<tr>
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<td>Position</td>
<td>Years</td>
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<tr>
<td>Patricia Lindsay</td>
<td>Medical Physicist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1501</td>
<td>Course Director</td>
<td>2011, 2013, 2015</td>
</tr>
<tr>
<td>Cate Palmer</td>
<td>Radiation Therapist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1506</td>
<td>Course Director</td>
<td>2011, 2013, 2015</td>
</tr>
<tr>
<td>Jean-Phillipe Pignol</td>
<td>Radiation Oncologist</td>
<td>Odette Cancer Centre</td>
<td>MSC1500</td>
<td>Course Director</td>
<td>2011, 2013</td>
</tr>
<tr>
<td>Tara Rosewall</td>
<td>Radiation Therapist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1508-9</td>
<td>Course Director</td>
<td>2011, 2013</td>
</tr>
<tr>
<td>Michael Velec</td>
<td>Radiation Therapist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1509</td>
<td>Stream Coordinator</td>
<td>2015</td>
</tr>
<tr>
<td>Bradly Wouters</td>
<td>Scientist</td>
<td>Princess Margaret Cancer Centre</td>
<td>MSC1502</td>
<td>Course Director</td>
<td>2011, 2013, 2015</td>
</tr>
</tbody>
</table>

*Graduate of the MHScMRS Program*
APPENDIX 4.2 – MHScMRS Program Advisory Committee
Terms of Reference

MASTER’S of HEALTH SCIENCE MEDICAL RADIATION SCIENCE (Radiation Therapy)

PROGRAM ADVISORY COMMITTEE

TERMS OF REFERENCE

ROLE

The role of the program committee is to advise the Chair of the Department on all administrative and academic matters pertaining to the development and operation of the program.

RESPONSIBILITIES

1. Develop and apply program policy in support of overall program objectives
2. Create and implement programming that supports program outcomes.
3. Monitor student progress and advise on action plans where required.
4. Conduct routine program evaluation and recommend modifications where necessary.
5. Create and implement student application and selection process to maximize program success.

MEMBERSHIP

Committee members are appointed by the Chair of the Department with the exception of the elected student/recent graduate members who is elected by his/her peers.

- Director, Graduate Program
- MHSc Faculty representatives – 1 Radiation Therapist, 1 Radiation Oncologist, 1 Medical Physicist
- Radiation Therapy representative, Princess Margaret Hospital
- Radiation Therapy representative, Toronto-Sunnybrook Regional Cancer Centre
- Academic Coordinator, MRS, Department of Radiation Oncology/UT
- One representative from student body or recent graduate
- Vice-Chair, Academic Affairs, Department of Radiation Oncology/UT

MEETINGS:

Meetings will be held monthly during the development phase. Thereafter, meetings will be held a minimum of 4 times per year, and more frequently as required.

MEMBERS:

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director, Graduate Program</td>
<td>Nicole Harnett</td>
</tr>
<tr>
<td>Associate Director, Curriculum</td>
<td>Caitlin Gillan</td>
</tr>
<tr>
<td>Role</td>
<td>Name</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>MHSc Faculty representatives</td>
<td></td>
</tr>
<tr>
<td>Radiation Therapy representative, Princess Margaret Hospital</td>
<td>Winnie Li</td>
</tr>
<tr>
<td>Radiation Therapy representative, Toronto-Sunnybrook Regional Cancer Centre</td>
<td>Lisa DiProspero</td>
</tr>
<tr>
<td>Academic Coordinator, MRS, Department of Radiation Oncology/UT</td>
<td>Cate Palmer</td>
</tr>
<tr>
<td>One representative from student body or recent graduate</td>
<td>Darby Erler, Grace Lee</td>
</tr>
<tr>
<td>Director of Education, Department of Radiation Oncology/UT</td>
<td>Rebecca Wong</td>
</tr>
<tr>
<td>Chair, Department of Radiation Oncology/UT (ex-officio)</td>
<td>Fei-Fei Liu</td>
</tr>
</tbody>
</table>
APPENDIX 4.3 – Curriculum Maps by Pathway

PROFESSIONAL LEADERSHIP PATHWAY (2 YR FT)

**Year 1**
- **Fall**
  - MSC1501: Clinical Reasoning & Decision-Making in Radiotherapy Pt 1 (0.5)
  - MSC1506: Professional & Clinical Leadership I (0.5)
  - MSC1508: Principles of Radiation Medicine Research (0.5)
  - MSC1513: Professional & Clinical Leadership II (0.5)
  - MSC1514: Leadership Seminar Series (0.5)
- **Winter**
  - MSC1504: Clinical Reasoning & Decision-Making in Radiotherapy Pt 2 (0.5)
  - MSC1501: Frontiers of Radiation Medicine Research (0.5)
- **Summer**
  - MSC1507: Clinical Competence & Continuous Learning (0.5)
  - Elective (0.5)

**Year 2**
- **Fall**
  - MSC1512: Improving Cancer Outcomes with Survivorship Research (0.3)
  - MSC1510: Leadership Practicum 1 (1.0)
- **Winter**
  - MSC1511: Leadership Practicum 1 (1.0)
  - MSC1509: Master's Research Project (0.6)
- **Summer**
  - Elective (0.5)

**TOTAL:** 8.0 credits (1.0 elective, 2.0 practicum)
RESEARCH PATHWAY (2 YR FT)

**Year 1**

**FALL**
- MSC1503: Clinical Reasoning & Decision-Making in Radiotherapy Pt 1 (0.5)
- MSC1500: Professional & Clinical Leadership 1 (0.5)

**WINTER**
- MSC1504: Clinical Reasoning & Decision-Making in Radiotherapy Pt 2 (0.5)
- MSC1501: Frontiers of Radiation Medicine Research (0.5)
- MSC1508: Principles of Radiation Medicine Research (0.5)

**SUMMER**
- MSC1502: Translational Radiobiology applied to Radiation Science (0.5)
- Elective (0.5)

**Year 2**

**FALL**
- MSC1512: Improving cancer Outcomes with Survivorship Research (0.5)
- MSC1507: Clinical Competence & Continuous Learning (0.5)
- MSC1510: Research practicum 1 (1.0)

**WINTER**
- MSC1511: Research practicum 2 (1.0)

**SUMMER**
- MSC1509: Master’s Research Project (0.5)
- Independent Study (0.5)

**TOTAL:** 8.0 credits (1.0 elective, 2.0 practicum)
CLINICAL PATHWAY (2 YR FT)

Year 1

FALL
- MSC1503: Clinical Reasoning & Decision-Making in Radiotherapy Pt1 (0.5)
- MSC1504: Clinical Reasoning & Decision-Making in Radiotherapy Pt2 (0.5)
- MSC1506: Professional & Clinical Leadership I (0.5)
- MSC1508: Principles of Radiation Medicine Research (0.5)
- MSC1509: Advanced Radiotherapy and Medical Physics (0.5)
- MSC1502: Translational Radiobiology applied to Radiation Science (0.5)

WINTER
- MSC1501: Frontiers of Radiation Medicine Research (0.5)

SUMMER
- Elective (0.5)

FALL
- MSC1512: Improving Cancer Outcomes with Survivorship Research (0.5)

WINTER
- MSC1507: Clinical Competence & Continuous Learning (0.5)

SUMMER
- Elective (0.5)

Year 2

FALL

WINTER

SUMMER
- MSC1510: Clinical practicum 1 (1.0)
- MSC1511: Clinical practicum 2 (1.0)
- MSC1500: Master’s Research Project (0.5)

TOTAL: 8.0 credits (1.0 elective, 2.0 practicum)
APPENDIX 4.4 – MHScMRS Course Descriptions

**MSC1500: Advanced Radiotherapy & Medical Physics**

*Info:* 0.5 credits (Fall Y1)

*Pathways:* all

This course will provide learners with a conceptual framework with which to evaluate current advances in the design, delivery, and assessment of modern radiation treatment. Fundamental principles driving development and research in: the optimization of dose delivery; the constantly evolving role of imaging for radiotherapy; the recent advances in radiobiology; and the implications of these advances for radioprotection, will be addressed. This course will offer a multidisciplinary approach at the intersection of clinical, physics, biological, and technical expertise. The course is organized as a seminar series, where groups of experts will focus on gaps in knowledge as well as on the present and future directions in various aspects of radiation medicine. Basic physics will be taught in a pragmatic way, with equations and fundamental principles described alongside practical radiation medicine application. By its conclusion, this course will have provided the learner a vision of where radiation medicine is going, as well as a strong physics foundation allowing them to play an active role in optimizing the application of radiation therapy and in innovating for the future use of radiation in treating disease.

**MSC1501: Frontiers of Radiation Medicine Research**

*Info:* 0.5 credits (Winter/Summer Y1)

*Pathways:* all

This course introduces the learner to the principles and conduct of radiation medicine research in the clinical environment, through exposure to current research projects being carried out within the University of Toronto and the radiation medicine community at large. Application of fundamental research methods, including the value of knowledge translation and research dissemination, will be highlighted and encouraged across the complete spectrum of radiation medicine research including: basic biologic research and experimental therapeutics, basic and applied medical physics research, translational biological and clinical research including quality of life studies, and health outcomes epidemiological research. Relating closely to the concurrently offered MSC1508 (Principles of Radiation Medicine Research), concepts in this course will be put into action through development of a research grant proposal in a topic of interest to the student.

**MSC1502: Translational Radiobiology Applied to Radiation Science**

*Info:* 0.5 credits (Winter/Summer Y1)

*Pathways:* Clinical & Research
In an era where dramatic improvements in the quality and sophistication of radiotherapy are being achieved, the course is designed to highlight state-of-the-art knowledge regarding biological responses to ionizing radiation at the molecular, cellular and clinical level. Special emphasis will be placed on the learner’s ability to synthesize information from different pre-clinical and clinical studies to explain tumour response, acute and late effects of radiotherapy and second malignancies following treatment. Learners will identify a gap in current knowledge and through independent enquiry and group work, devise a testable hypothesis addressing this gap. After establishing realistic goals and aims, the learner will build upon knowledge gleaned from the 1-week didactic course and work with a mentor to refine the overall plan, finally developing the framework for a project to be presented as a final course assignment.

**MSC1503/4: Clinical Reasoning & Decision-Making I & II**

*Info:* 0.5 credits each (Fall/Winter Y1)

*Pathways:* all

In this course, systematic approaches to clinical decision-making will be explored, as they apply to radiation therapy for cancer, from the perspective of the complex interplay of factors in three key domains: tumour biology, technical radiotherapy, and the individual patient. Each course will highlight gaps in current clinical science literature relating to a variety of primary cancer sites. Learners will engage in decision-making exercises based on these issues. Learners will integrate existing clinical, theoretical, and scientific knowledge to debate, justify and deconstruct the rationale for current clinical practice.

**MSC1506: Professional & Clinical Leadership I: Making the Leader**

*Info:* 0.5 credits (Fall Y1)

*Pathways:* all

This course will introduce the principles of leadership in healthcare, and the characteristics that contribute to a strong clinical and professional radiation therapy leader in the 21st century. Individual leadership styles and characteristics will be highlighted and contrasted, and learners will be engaged in reflective exercises to appreciate and build their own attributes and cognitive styles as leaders. The concepts of communication, team dynamics, and mentorship will be explored as they relate to strong leadership, using the National Health Service’s Healthcare Leadership Model as a framework. This interdisciplinary course will draw on guest lecturers in the various content areas to expose learners to the multiple facets of leadership in the health care environment.

**MSC1507: Clinical Competence & Continuous Learning**

*Info:* 0.5 credits (Summer Y1)

*Pathways:* all
Attaining and maintaining clinical competence is a life-long undertaking for health care professionals. Assessing needs and gaps and establishing professional goals is fundamental to developing appropriate strategies for achieving competence. Proving and attesting to competence is also critical in education and in practice for regulated health professionals. In this course, learners will be introduced to the concepts and theories that form the cornerstone of teaching, learning and evaluation in the workplace. It will include exposure to the tools that can be used to monitor and evaluate their own competence, as well as for mentoring and guiding others in the world of competency-based education. Course activities will allow learners to apply the theories and tools to the educational and practice environments.

**MSC1508: Principles of Radiation Medicine Research**

*Info:* 0.5 credits (Winter/Summer Y1)

*Pathways:* all

This course will provide the learner with the knowledge and support to prepare for the conduct of practice-related research. It focuses on the theoretical underpinnings and practical issues involved in the design of novel research as a principal investigator, from framing a research question based on comprehensive literature review to the intricacies of quantitative and qualitative methodological approaches, data collection, and analysis. This will help the learner to conceive, design and operationalize a research proposal for a master level project in radiation medicine practice. This course will be delivered via regular seminars, which will identify and explore the skills and topics relevant to critical stages of the research process. Students will receive reading material for each step of the research process and then apply that knowledge through the development of their own research proposal.

**MSC1509: Master’s Research Project**

*Info:* 0.5 credit (Winter/Summer Y2)

*Pathways:* All

In this course, learners will conduct the major research project proposed during MSC1508H, likely (but not necessarily) within the environment and practice-related context selected for the Internship. Following approval from all relevant research ethics bodies, the learner will complete all the activities necessary to implement a live research project. Learners will collect and analyze data to answer the research question then effectively present findings to their peer group, and prepare them appropriately for broader dissemination.

**MSC1510: Internship I**

*Info:* 1.0 credit (Winter Y2)

*Pathways:* All

This is the first of two, 1.0 credit internship courses designed as the competency development segment of
the program. The goal of this first experience-based immersive practicum is to allow the student to consolidate the theory and principles of the didactic portion of their program with the chosen professional environment, according to their individual pathway (clinical, leadership, or research). They will have an approved plan outlining their individual learning goals as well as for the portfolio of evidence they will compile based on those learning needs, established with the guidance of the Faculty Supervisory Committee. During this course, the learner will address the identified basic competencies for the area of specialization under direct supervision of the Local Practicum Supervisor at the local site. The Local Practicum Supervisor will be responsible for supervising the student and assisting him/her in the achievement of their course goals.

**MSC1511: Internship II**

*Info:* 1.0 credit (Summer Y2)

*Pathways:* All

This second internship course is designed to allow the student to build on basic competency in the area of specialization by progressing to the higher order activities pertinent to becoming a leader in their chosen pathway. Students will use their existing Learning Plan and revise if necessary in consultation with the Course Director and Local Practicum Supervisor, under the guidance of the Faculty Supervisory Committee. Basic competency activity will be undertaken with minimal or indirect supervision while higher-level activities will continue to be supervised directly by the Local Practicum Supervisor.

**MSC1512: Improving Cancer Outcomes with Survivorship Research**

*Info:* 0.5 credits (Summer Y1)

*Pathways:* all

Cancer Survivorship has been a neglected field of study in cancer research, and in keeping with national recommendations, health professionals should be equipped to address the health care and quality of life issues facing cancer survivors. The Canadian Institute for Health Research has endorsed five areas of study: evaluating models of care, identifying mechanisms underlying long term effects, describing the needs and characteristics of unique populations, measurement and effective tool development and development of effective interventions. These areas will frame the content of this course, which will run as a seminar series delivered by guest survivorship researchers (scientists, clinicians and educators). Each will be invited to present current research issues they are addressing in their research programs, discuss the methodological challenges, and present the findings of the studies they have chosen to highlight.

**MSC1513H: Seminars in Cancer Care Leadership (to be introduced September 2016)**

*Info:* 0.5 credits (Fall/Winter Y1)

*Pathways:* Leadership
The course will be offered across two semesters and will complement Professional and Clinical Leadership I&II (MSC1506 and 1514). Key thought leaders in the cancer care system will be selected to engage students in discussion on current and pressing challenges in health care, specifically in cancer care in Ontario (ie access to care, the role of industry in healthcare, health economics, privatization of healthcare etc). Topics addressed in MSC1506 and MSC1514 will be considered from the perspective of leaders at various relevant clinical cancer care institutions, professional and government organizations, and advocacy groups.

MSC1514: Professional & Clinical Leadership II: Influencing the System (to be introduced September 2016)

Info: 0.5 credits (Fall Y1)

Pathways: Leadership

This course will follow Professional & Clinical Leadership I, and continue to use the National Health Service Healthcare Leadership Model to introduce the learner to systems considerations in healthcare leadership. Radiation therapy, as an integral element of cancer care, will serve as a context to explore such theoretical principles as professionalization, self-regulation, strategic leadership, organizational governance and accountability, and advocacy - taking into account local, national and international health care trends. Other allied health perspectives may also be considered throughout the course, as applicable. This interdisciplinary course will draw on guest lecturers in the various content areas to expose learners to the multiple facets of leadership in the healthcare environment.
## APPENDIX 4.5 – Degree Learning Expectations

<table>
<thead>
<tr>
<th>MASTER’S DEGREE LEVEL EXPECTATIONS (based on the Ontario Council of Academic Vice Presidents (OCAV) DLEs)</th>
<th>MASTER’S PROGRAM LEARNING OBJECTIVES AND OUTCOMES</th>
<th>HOW THE PROGRAM DESIGN AND REQUIREMENT ELEMENTS SUPPORT THE ATTAINMENT OF STUDENT LEARNING OUTCOMES</th>
</tr>
</thead>
</table>

### EXPECTATIONS:

This Master of Health Science in Medical Radiation Sciences is awarded to students who have demonstrated:

#### 1. Depth and Breadth of Knowledge

A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of the academic discipline, field of study, or area of professional practice.

Graduates will demonstrate a deep and tacit understanding of the current state of knowledge in radiation medicine through the study of:
- Frontiers of radiation oncology
- Applied contemporary medical physics
- Advanced radiation biology

They will be able to make clinical decisions based on the key factors influencing decision making in radiation medicine including:
- Patient factors
- Disease factors
- Biological factors
- Technological factors

They will use their knowledge to:
- identify and describe areas for investigation for improving patient care
- conduct research that will uncover answers to those questions
- apply advanced knowledge to clinical decision making and judgment in the clinical setting
- accelerate the pace of innovation in radiation therapy
- serve as leaders and role models within the discipline

The program design and requirements that ensure these student outcomes for depth and breadth of knowledge are the series of foundational, core courses that emphasize emerging considerations and frontiers in key aspects of radiation medicine (MSC1501, MSC1503, MSC1504, MSC1512), introduction to related concepts aligning with the pathways (MSC1506, MSC1507, MSC1508), as well as opportunities for in-depth analysis within each of the highlighted pathways.

Tailored courses in each of the three pathways (MSC1500, MSC1502/MSC1513, MSC1514), as well as opportunities to explore individual areas of interest (through directed reading courses, electives, a research project (MSC1509) and a clinical practicum (MSC1510/11) will require application to the professional domain. The practicum will support development of practical skills through direct exposure, application and consolidation of knowledge.

Engagement of a faculty advisory committee will further ensure that overall curriculum is appropriate for attaining the desired outcomes.
2. Research and Scholarship

A conceptual understanding and methodological competence that i) Enables a working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline; ii) Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence; and iii) Enables a treatment of complex issues and judgments based on established principles and techniques; and, on the basis of that competence, has shown at least one of the following: i) The development and support of a sustained argument in written form; or ii) Originality in the application of knowledge.

The development of competence in research and scholarship is a key goal of the Master of Health Science in Medical Radiation Sciences. Graduates of the program will be expected to:

- Interpret, implement, and apply evidence-based practice based on evaluation of current and emerging research
- Design and conduct research studies that advance clinical practice in areas where a question or knowledge gap is identified
- Employ ethical and methodologically-sound approaches to development and implementation of new knowledge
- Articulate a sound argument and business case, based on evidence, to create opportunities for advancement of radiation therapy practice and care
- Develop and lead informed quality improvement and needs assessment activities

The program design and requirements that ensure these student outcomes are the broad integration of the value and principles of knowledge translation and dissemination of research across all courses.

Grant writing, business case development, and the building and implementation of a research proposal will comprise the major assessments in several core and pathway-specific curriculum courses (MSC1501, MSC1502, MSC1514), honing skills in the argument for and design of research. All pathways will also engage in a research methodology course (MSC1508) and undertake a formal research project over the final two semesters (MSC1509 for all pathways, and MSC1510/11 in greater depth for the Research pathway), immersing them in the nuances of producing original research. The scope of the research project and emphasis on dissemination and implementation of results is present in all pathways, but will be augmented in the Research pathway.

Emphasis on literature review, critical appraisal, and academic writing and presentation skills will be consistent throughout all program courses.

3. Level of Application of Knowledge

Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.

Application of Knowledge is a constant expectation of students in the Master of Health Science in Medical Radiation Sciences. Graduates of the program will be able to:

- Engage in informed decision-making by analyzing all aspects of the situation or problem
- Translate new knowledge into local practice using implementation science
- Interpret, implement, and

The program design and requirements that ensure these student outcomes for level and application of knowledge are the overall focus on practical applicability of new knowledge in the real world setting.

The importance of evidence-based practice will be a focus of the foundational clinical decision-making courses (MSC1503, MSC1504, MSC1512), and basic
apply evidence-based practice based on evaluation of current and emerging research

- Engage in change management activities to generate evidence-informed efficiencies and improvements in quality of operations, practice, and care
- Apply knowledge of proven leadership strategies and models to the local professional culture

change management principles will be addressed in the introductory leadership course (MSC1506). Course assignments and exercises will focus on application of knowledge in the clinical context, with opportunities for students to explore relevance to their own area of interest.

Application of knowledge will culminate in a tailored practicum experience (MSC1510/11). Guidance in development of individual learning objectives will prioritize active learning and engagement as a change agent to implement evidence-based practice.

4. Professional Capacity/Autonomy

a. The qualities and transferable skills necessary for employment requiring i) The exercise of initiative and of personal responsibility and accountability; and ii) Decision-making in complex situations; b. The intellectual independence required for continuing professional development; c. The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and d. The ability to appreciate the broader implications of applying knowledge to particular contexts.

Students in the Master of Health Science in Medical Radiation Sciences program are certified health care professionals with experience in professional practice before entering the program. As such, they have already acquired the qualities and skills necessary for employment and use those same qualities to address and complete the practical assignments required of this program.

Graduates of this program will

- Engage in and be accountable for clinical decision-making that prioritizes safe, ethical, and high quality care
- Appreciate population-level considerations in care while offering personalized approaches where feasible and appropriate
- Engage in and be accountable for the ethical conduct of research
- Appreciate broader contexts in considering the applicability of research findings or implications
- Engage in and be accountable for systems level decisions

The program design and requirements that ensure these existing qualities of professional capacity/autonomy are augmented through both the foundational courses in leadership (MSC1506) and decision-making (MSC1503, MSC1504, MSC1512) and the requirement of the student to define their own learning experience through specialization within their chosen pathway.

Engagement in the research project (MSC1509) and selection of practicum experiences (MSC1510/11) will further support development of the student’s abilities in these areas.
while appreciating the impact at an individual level and in unique contexts

- Identify areas for practice improvement and lead the identification and implementation of new ways of working/thinking
- Contribute to the evolution of radiation therapy practice through strategic thinking, planning and action
- Reflect on personal and professional abilities and seek out opportunities for professional development to improve knowledge, skills and judgment in radiation therapy practice.

5. Level of Communications Skills

Communications Skills is defined in Master of Health Science in Medical Radiation Sciences as the ability to engage in effective written and oral communication with patients, academic and clinical peers, and with people of various professional groups at various levels of the organization.

Graduates of this program will

- Communicate in a patient-centred manner with patients and family members
- Work and communicate effectively as a member of an interprofessional clinical team
- Engage in effective dissemination of research findings in written and oral formats
- Work and communicate effectively as a member of an interprofessional research team
- Engage in effective written and oral business case presentation and reporting
- Work and communicate effectively and collaboratively as a leader

The program design and requirement elements that ensure these student outcomes for level of communication skills are the inclusion of written and oral presentation requirements in all relevant core curriculum courses, emphasizing the value of effective and organized communication. Formal attention to these concepts will be given in foundational research methods and leadership courses (MSC1506, MSC1508). Nuances of different types of writing and presentation, such as business cases, grant applications, and resource proposals, will be addressed in relevant courses within the core curriculum (1501) and pathway specific courses (MSC1502, MSC1514).
• Conduct meetings and other decision-making activities in a fair, transparent and equitable manner
## APPENDIX 4.6 – MHScMRS Evaluation Rubrics

### MHScMRS Program Paper/Report Evaluation Rubric

<table>
<thead>
<tr>
<th>Component</th>
<th>Poor</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Distinction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration of Knowledge</td>
<td>It is not evident that concepts are understood and they are not incorporated into discussion.</td>
<td>Inconsistently demonstrates understanding of concepts and sometimes incorporates them in discussion.</td>
<td>Understands concepts and incorporates them in discussion.</td>
<td>Clearly understands concepts and incorporates them in discussion.</td>
</tr>
<tr>
<td>Score</td>
<td>0-8</td>
<td>9-12</td>
<td>13-16</td>
<td>17-20</td>
</tr>
<tr>
<td>Critical Thinking &amp; Insight</td>
<td>Poorly developed critical thinking.</td>
<td>Beginnings of critical thinking.</td>
<td>Some evidence of critical thinking.</td>
<td>Clear evidence of critical thinking (i.e. application, analysis, insight, synthesis and evaluation).</td>
</tr>
<tr>
<td>Score</td>
<td>0-4</td>
<td>5-6</td>
<td>7-8</td>
<td>9-10</td>
</tr>
<tr>
<td>Organization</td>
<td>No evidence of clear thought process or organized thinking. Poor use of headings and structure.</td>
<td>Some evidence of organization of content, though not always easy to follow.</td>
<td>Content is organized and well laid out.</td>
<td>Strong evidence of organization of thoughts and content. Headings and linking statements provide structure.</td>
</tr>
<tr>
<td>Score</td>
<td>0-2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Style</td>
<td>Writing style and flow are inconsistent writing style.</td>
<td>Writing style is clear with</td>
<td>Clear and effective writing</td>
<td></td>
</tr>
</tbody>
</table>
weak. Grammar, tone, and sentence structure are distracting.

appropriate grammar and sentence structure. Flow is good.

style, tone, and grammar, with consistent and natural flow.

<table>
<thead>
<tr>
<th>Score</th>
<th>0-2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

TOTAL SCORE: \(/ 40\) marks

MHScMRS Program Participation Evaluation Rubric

<table>
<thead>
<tr>
<th>Component</th>
<th>Poor</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Distinction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration of Knowledge</td>
<td>It is not evident that concepts are understood and they are not incorporated into discussion. Examples and real life applications are not included.</td>
<td>Inconsistently demonstrates understanding of concepts and sometimes incorporates them in discussion or includes examples and real life applications.</td>
<td>Understands concepts and incorporates them in discussion. Often includes examples and real life applications.</td>
<td>Clearly understands concepts and incorporates them in discussion. Always includes examples and real life applications.</td>
</tr>
</tbody>
</table>

Score

| 0-2 | 3   | 4   | 5   |

Critical Thinking & Insight


Score

| 0-2 | 3   | 4   | 5   |

Quantity &

| No contributions or minimal | Contributions not | Some contributions, | Good number of |

159
<table>
<thead>
<tr>
<th>Component</th>
<th>Performance</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeliness</td>
<td>answers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>distributed throughout the allotted time period.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reasonably distributed throughout the allotted time period.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>contributions, well-distributed throughout the allotted time period.</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>No evidence of clear thought process or organized thinking. Poorly-prepared.</td>
<td>0-2</td>
</tr>
<tr>
<td></td>
<td>Some evidence of organization of thoughts. Minimal preparation and pre-work are evident.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Thoughts are organized. Some preparation through pre-work is evident.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Strong evidence of organization of thoughts. Good preparation through pre-work.</td>
<td>5</td>
</tr>
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</table>

**TOTAL SCORE:** / 20 marks

**MHScMRS Program Presentation (Oral & Poster) Evaluation Rubric**

<table>
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<tr>
<th>Component</th>
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<th>Meets Expectations</th>
<th>Distinction</th>
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<tbody>
<tr>
<td>Demonstration of Knowledge</td>
<td>It is not evident that concepts are understood and they are not incorporated into discussion.</td>
<td>Inconsistently demonstrates understanding of concepts and sometimes incorporates them in discussion</td>
<td>Understands concepts and incorporates them in discussion</td>
<td>Clearly understands concepts and incorporates them in discussion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Poor</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Distinction</th>
</tr>
</thead>
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<td>0-8</td>
<td>9-12</td>
<td>13-16</td>
<td>17-20</td>
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### Critical Thinking & Insight

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<th>5-6</th>
<th>7-8</th>
<th>9-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorly developed critical thinking.</td>
<td>Beginnings of critical thinking.</td>
<td>Some evidence of critical thinking.</td>
<td>Clear evidence of critical thinking (i.e., application, analysis, insight, synthesis and evaluation).</td>
<td></td>
</tr>
</tbody>
</table>

### Organization

<table>
<thead>
<tr>
<th>Score</th>
<th>0-4</th>
<th>5-6</th>
<th>7-8</th>
<th>9-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>No evidence of clear thought process or organized thinking. Poorly-prepared and laid out.</td>
<td>Some evidence of organization of content, though not always easy to follow.</td>
<td>Content is organized and well laid out.</td>
<td>Strong evidence of organization of thoughts and content. Presentation is easy to follow.</td>
<td></td>
</tr>
</tbody>
</table>

### Style

<table>
<thead>
<tr>
<th>Score</th>
<th>0-4</th>
<th>5-6</th>
<th>7-8</th>
<th>9-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation style is weak. Poor use of visual aids.</td>
<td>Inconsistent presentation style. Visual aids do not add to the value of the presentation.</td>
<td>Presentation style is clear and visual aids are appropriately-used.</td>
<td>Good preparation and clear and confident presentation style and use of visual aids.</td>
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**TOTAL SCORE:** / 50 marks
## APPENDIX 4.7 – Course Evaluations (2012-2014)

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<td>Course objectives were clear</td>
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<td>Course objectives were fulfilled</td>
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<td>Assumption of prior knowledge was appropriate</td>
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<tr>
<td>The complexity of the material was appropriate to my level of training</td>
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<td>The lectures were useful and contributed to the overall content of the course</td>
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<td>4.67</td>
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<td>Supplementary material was appropriate to the material presented</td>
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<td>Course materials were presented in an engaging manner</td>
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<td>The course provided adequate time for discussion</td>
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<td>Quantity of material was appropriate</td>
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<td>Course instructor explained ideas and concepts clearly</td>
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<td>Course instructor was approachable</td>
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<td>Course instructor stimulated my critical thinking</td>
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<td>Course instructor was approachable</td>
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<tr>
<td>Course instructor explained ideas and concepts clearly</td>
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<tr>
<td>Course instructor was approachable</td>
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<td></td>
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</tr>
<tr>
<td>Course instructor stimulated my critical thinking</td>
<td>4.33</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>The coursework changed the way you think about the concepts presented</td>
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<td>4</td>
<td>4.67</td>
<td>3.5</td>
</tr>
<tr>
<td>The course stimulated you to discuss the ideas presented with others</td>
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<td>3.33</td>
<td>4</td>
<td>3.67</td>
<td>4.33</td>
<td>4</td>
<td>4.67</td>
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</tr>
<tr>
<td>The course promoted new student-faculty interactions</td>
<td>3.67</td>
<td>3.33</td>
<td>4</td>
<td>3.67</td>
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</tr>
<tr>
<td>This course led to new connections with labs and professors</td>
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<tr>
<td>This course expanded your research network</td>
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<td>3</td>
<td>3.75</td>
<td>3.5</td>
</tr>
<tr>
<td>I would recommend this course to fellow students</td>
<td>3.67</td>
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<td>MSC1500</td>
<td>Least Beneficial Aspect of Course</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The variety of lectures - they were all experts in their field</td>
<td>The assignments - did not require enough critical thinking</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Valuable insights from some of the guest lecturers</td>
<td>Repetition of some of the ideas and concepts by different guest lecturers</td>
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<td></td>
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<tr>
<td>Lectures on each of the main imaging modalities</td>
<td>The Monte Carlo and other initial lectures</td>
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<table>
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<tr>
<th>MSC1501</th>
<th>Least Beneficial Aspect of Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
</tr>
<tr>
<td>Wide range of experience presented</td>
<td>stats - hard to follow and very little take home</td>
</tr>
<tr>
<td>Small animal research - great translational insight</td>
<td>I joined the course while new to PMH and didn't have a project so it was harder to pull things together towards the middle and end of the course. It was probably more useful to join after a project has been decided upon</td>
</tr>
<tr>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>Discussion on writing and reviewing abstracts, manuscripts, and grant proposals</td>
<td>webinars</td>
</tr>
<tr>
<td>The thorough step-by-step process</td>
<td>I had expectations to learn more about researching and emerging ideas in radiation medicine. I did not feel the material was at a graduate level</td>
</tr>
<tr>
<td>The delivery of content was excellent</td>
<td>Increase the degree of difficulty of the content. Assignments should not be simulated but actually done</td>
</tr>
<tr>
<td>Course</td>
<td>Year</td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
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<td>MSC1504</td>
<td>2012</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Patient education and writing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MSC1505</th>
<th>2012</th>
<th>The midterms and final assessments were well organized to stimulate learning</th>
<th>online lectures - there were no objectives attached to self-directed sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lots of lectures were online and available 24/7</td>
<td>though of good quality, the online lectures were from RMP rounds, which makes it feel like the material was not tailored directly to the course</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Target Insight</td>
<td>palliative session - the presentation was overloading. But the post-lecture discussion was good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>paraspinal SBRT - XX took time to do 2 lectures and used all media possible to engage students</td>
<td>automated breast - had lecture multiple times in other courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>There was less face-to-face contact than I thought there'd be</td>
</tr>
<tr>
<td>Year</td>
<td>Course</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>-------</td>
<td></td>
</tr>
</tbody>
</table>
| 2012 | MSC1506 | *most lectures in the course were helpful in building clinical and professional leadership*  
lectures that overlapped with materials that were also presented in MSC1507  
regulation - XX was a great lecturer, content was tailored to us and relevant  
difficult conversations (least useful lecture) |
| 2013 | Institution week | Very little interaction with instructor - need to moderate discussion on blog. There wasn't much to this course and I question how it is a Master's level course. I was very disappointed with the course upon completion. It could be so much better. Leadership is an exceptionally important component in the advancement of radiation therapy |
|      | The tools shared with XX during Institution, that was very relevant and could be used throughout the entire semester and beyond | Limited interactions with the instructor |
|      | The Myers Briggs report and encouragement to reflect on a regular basis | |
|      | **MSC1507** | |
| 2012 | | learning teaching principles and being able to apply them clinically  
in-depth face-to-face discussions in class  
IPE/IPC lecture which was covered already in another course |
| XX lecture on knowledge etc - it made me think | practical teaching session - being able to apply learned skills to teach the class |
| all lectures were useful and relevant to our practice | exceeded expectations - XX and XX were very organized and course structure was well thought out |

| **MSC1508** |  |
| 2012 | The course helps to apply knowledge learned in my own project | I have already taken courses related to some content |
| | specific development of a relevant, specific project | would have liked to have had more discussion amongst students to facilitate knowledge |
| 2014 | working through an actual research proposal | more class interactions |
| | the instructors' feedback as we developed our research project as well as the online presentations | the way the presentations were set up |
### APPENDIX 4.8 – Guest Faculty Evaluations (2012-2014)

<table>
<thead>
<tr>
<th>Faculty ID No.</th>
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<tr>
<td><strong>Did the instructor explain ideas and concepts clearly?</strong></td>
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| 4.5 | 4.8 | 4.7 | 4.5 | 4.5 | 4.1 | 4.8 | 4.4 | 4.5 | 4.5 | 5.0 | 5.0 | 4.4 | 5.0 | 4.2 | 4.4 | 4.5 | 4.5 | 4.7 | 5.0 | 4.5 | 4.5 | 4.2 | 4.0 | 4.4 | 4.4 | 3.5 | 4.5 | 4.4 |
| 4.7 | 4.0 | 4.7 | 4.5 | 4.5 | 4.6 | 4.5 | 4.7 | 4.5 | 4.5 | 4.0 | 4.0 | 4.4 | 4.0 | 4.7 | 4.0 | 4.5 | 4.5 | 4.5 | 4.0 | 4.0 | 4.3 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| 4.7 | 4.8 | 4.7 | 5.0 | 4.5 | 4.6 | 4.0 | 4.4 | 4.0 | 4.5 | 5.0 | 5.0 | 4.6 | 4.0 | 4.7 | 4.7 | 4.5 | 4.5 | 4.7 | 4.2 | 4.2 | 4.3 | 4.0 | 4.1 | 4.4 | 4.0 | 3.5 | 3.7 |
| 4.7 | 4.8 | 4.7 | 4.5 | 5.0 | 4.8 | 4.8 | 4.7 | 5.0 | 4.5 | 5.0 | 5.0 | 4.5 | 5.0 | 4.7 | 4.7 | 4.5 | 4.7 | 4.2 | 4.3 | 4.3 | 4.8 | 5.0 | 4.3 | 4.4 | 5.0 | 5.0 | 4.4 |
| 4.7 | 5.0 | 4.7 | 5.0 | 5.0 | 4.8 | 4.8 | 4.7 | 5.0 | 5.0 | 4.0 | 4.0 | 4.0 | 4.7 | 4.5 | 4.3 | 4.7 | 4.3 | 4.5 | 4.4 | 4.4 | 4.6 | 4.8 | 5.0 | 4.5 | 4.4 | 5.0 | 4.5 | 4.4 |
| 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.3 | 4.3 | 4.3 | 4.3 | 4.2 |</p>
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## APPENDIX 4.9 – Program Faculty Evaluations (2011-2015)

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<td>Combined from all Graduating Years</td>
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<td>n=6</td>
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<tr>
<td>The program met my needs</td>
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<tr>
<td>The program met its stated objectives</td>
<td>3.7</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>I felt that I was supported throughout my program</td>
<td>3.5</td>
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<td></td>
<td></td>
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<tr>
<td>I was able to maintain an acceptable work/life balance throughout my program</td>
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<tr>
<td>The program was responsive to situations that challenged my performance in the Program</td>
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<tr>
<td></td>
<td>score</td>
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<td></td>
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</tr>
<tr>
<td>The program presented me with opportunities to engage, network, and build new professional relationships</td>
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<tr>
<td>The program stimulated critical thinking in such a way that I look at things differently now in terms of CLINICAL SITUATIONS</td>
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<tr>
<td>The program stimulated critical thinking in such a way that I look at things differently now in terms of RESEARCH</td>
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<tr>
<td>The program stimulated critical thinking in such a way that I look at things differently now in terms of PROFESSIONAL PRACTICE</td>
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<tr>
<td>The competencies acquired will help me advance my professional practice and advance my professional vision</td>
<td>4.5</td>
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<tr>
<td>I feel prepared to serve as a leader and mentor amongst my radiation therapy community</td>
<td>4.5</td>
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<tr>
<td>I feel equipped to contribute to positive change in my area of specialization</td>
<td>4.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel prepared to contribute to the growth of my profession</td>
<td>4.5</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>4.5</td>
<td></td>
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<tr>
<td>What is the Program doing that IS NOT working (something we should STOP)?</td>
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</table>
The class schedules for clinical oncology class were highly dependent on the availability of the radiation oncologists, changes to lectures were too frequent for the clinical oncology class. As a student, we would receive class change notice 1 or 2 days prior to the class, it was very hard to plan our day.

For a number of courses, the assignments were not known in advance, despite students requesting this. Assignments should be created before the commencement of the course so that students have the option to work on in advance instead of a couple weeks. Also having a number of course instructors or guest lecturers that are our peers from within radiation therapy who are not necessarily experts or have any additional training that makes them appropriate to teach the courses. This at times was very disappointing and uncomfortable.

<table>
<thead>
<tr>
<th>Face to face institutions for each semester in year 1</th>
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<table>
<thead>
<tr>
<th>What should the Program put in place to improve (something we should START)?</th>
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</thead>
<tbody>
<tr>
<td>Invite external speakers/lecturers to enrich learning.</td>
</tr>
<tr>
<td>The program needs to provide admin support to students.</td>
</tr>
<tr>
<td>Assign a designate or go to person that students can contact in times of need (instead of generic U of T grad office or program director).</td>
</tr>
<tr>
<td>Expand faculty to include more outside of PMH</td>
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<table>
<thead>
<tr>
<th>What is working well (something we should CONTINUE)?</th>
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<tbody>
<tr>
<td>Interdisciplinary lectures with contributions from different disciplines.</td>
</tr>
<tr>
<td>The program presented me with opportunities to network and build new</td>
</tr>
<tr>
<td><strong>professional relationships.</strong></td>
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<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>Online forum works well for those working full time or have a busy personal life (children etc).</td>
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<tr>
<td>Exceptional calibre of faculty.</td>
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## APPENDIX 5.1 – Undergraduate Medical Education
### Teaching Faculty

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<tr>
<td>2012–2013</td>
<td>62</td>
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<td>2013–2014</td>
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<tr>
<td>2014–2015</td>
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<tr>
<td>2015–2016</td>
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</table>

<table>
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<th>Year</th>
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<td>2015–2016</td>
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### Aggregated Rotation Evaluation scores

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<tr>
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## Aggregated Teaching Effectiveness Scores

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<td>2012 – 2013</td>
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<td>2013 – 2014</td>
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<td>2014 – 2015</td>
<td>4.3/5</td>
</tr>
<tr>
<td>2015 - 2016</td>
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## APPENDIX 6.1 – Scientific Advisory Board (SAB)

<table>
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<tbody>
<tr>
<td>Dr. Jim Woodgett (Chair)</td>
<td>Director of the SLRI, Toronto</td>
</tr>
<tr>
<td>Dr. Paul DeLuca</td>
<td>Provost and Vice Chancellor for Academic Affairs, University of Wisconsin–Madison</td>
</tr>
<tr>
<td>Dr. Quynh-Thu Le</td>
<td>Professor &amp; Chair DRO, Stanford University</td>
</tr>
</tbody>
</table>
Note: Each year the EIRR21 program has between 13-15 speakers present to the scholars.

<table>
<thead>
<tr>
<th>NAME</th>
<th>APPOINTMENT</th>
<th>EXPERTISE</th>
<th>PAC Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Andrea Bezjak</td>
<td>UT-DRO, Clinical Epidemiology &amp; Health Care Research Program, UT-Department of Health Administration.</td>
<td>Radiation oncology/clinical epidemiology</td>
<td>PAC</td>
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<tr>
<td>Dr. Paul Boutros</td>
<td>OICR, UT-Medical Biophysics, UT-Pharmacology &amp; Toxicology</td>
<td>Computational biology</td>
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<tr>
<td>Dr. Scott Bratman</td>
<td>UT-DRO UT-Medical Biophysics</td>
<td>Radiation oncology / biomarkers</td>
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<tr>
<td>Dr. Rob Bristow</td>
<td>UT-DRO, UT-Medical Biophysics</td>
<td>Radiation oncology/molecular biology</td>
<td>PAC</td>
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<tr>
<td>Dr. Peter Cheung</td>
<td>York University, Biology</td>
<td>Biology</td>
<td></td>
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<tr>
<td>Dr. Caroline Chung</td>
<td>MD Anderson</td>
<td>Radiation oncology</td>
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<tr>
<td>Dr. Greg Czarnota</td>
<td>UT-DRO, UT-Medical Biophysics</td>
<td>Radiation oncology/physics</td>
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<tr>
<td>Dr. Laura Dawson</td>
<td>UT-DRO, UT-Institute of Medical Science (IMS)</td>
<td>Radiation oncology/physics</td>
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<tr>
<td>Dr. Brent Derry</td>
<td>UT-Molecular Genetics</td>
<td>Molecular biology</td>
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<tr>
<td>Dr. Dan Durocher</td>
<td>UT-Molecular Genetics</td>
<td>Molecular biology</td>
<td></td>
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<tr>
<td>Dr. Craig Earle</td>
<td>UT-Medicine/ICES</td>
<td>Health policy researcher</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Department</td>
<td>Research Interest</td>
<td>Position</td>
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<tr>
<td>Dr. Anthony Fyles</td>
<td>UT-DRO, UT-Obstetrics and Gynecology, associate member of IMS</td>
<td>Radiation oncology/translation al medicine</td>
<td>PAC</td>
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<tr>
<td>Dr. Mary Gospodarowicz</td>
<td>UT-DRO</td>
<td>Radiation oncology/clinical trials</td>
<td>PAC</td>
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<td>Dr. Richard Hill</td>
<td>UT-DRO, UT-Medical Biophysics</td>
<td>Radiobiologist</td>
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<tr>
<td>Dr. David Hodgson</td>
<td>UT-DRO</td>
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<tr>
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<td>Chapman</td>
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<td>Han</td>
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<td>Dr. M Milosevic/Dr A Fyles</td>
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<tr>
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## APPENDIX 6.4 – Scholar Funding

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*Funding Sources include:

- UofT Gifford Fund
- CIHR STIR Grant
APPENDIX 6.5 – Pre/Post Course Evaluations (2015 only)

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<tr>
<th>Rate <strong>your proficiency</strong> in the following areas (1-5, not at all - extremely)</th>
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<th>Post- EIRR21 Curriculum Average</th>
<th>Change in Perceived Proficiency</th>
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<td>4</td>
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<td>3.10</td>
<td>3.8</td>
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<td>Translational Cancer Research</td>
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<th>Post- EIRR21 Curriculum Average</th>
<th>Change in Perceived Importance</th>
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## APPENDIX 6.6 – Brainstorming Session Evaluations

### EIRR21 PROGRAM BRAINSTORMING SESSION EVALUATIONS

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<th>SESSION</th>
<th>AVERAGE SCORE</th>
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<td>The speaker came across as an expert on the subject(s) taught</td>
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<td>The speaker made the content of the session relevant to my research</td>
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<tr>
<td>career/professional development</td>
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<tr>
<td>The speaker held my attention</td>
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<tr>
<td>The slides used in the brainstorming session were clear and illustrated</td>
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<tr>
<td>the topic(s) well.</td>
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<tr>
<td>My questions were answered to my satisfaction.</td>
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<tr>
<td>The brainstorming sessions enhanced my understanding of the topic(s).</td>
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<tr>
<td>The mix of didactic lecture and interactivity was appropriate</td>
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**OVERALL SPEAKER AVERAGE:** 4.63

The breadth and depth of the session content was appropriate

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<th>Level</th>
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<td>Too Advanced</td>
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<td>At the Right Level</td>
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Would you recommend this session for future scholars?

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Nehad Alajez


Andrew Alexander


Abdallah Al-Hakim

Barbara Bachtiary

1. **Bachtiary B.** [With proton scanning multiple exposures are safe]. MMW Fortschr Med. 2013 Apr 18;155(7):30. German.

Christian Bassi


Alejandro Berlin

Paul Boutros


Jeff Bruce


Eva Christensen


Jamie Clendening


PATENT FILING


Danny Costantini


Mei Ding


Amanda Fenton


Kevin Franks

5. Speight R, Sykes J, Lindsay R, Franks K, Thwaites D. The evaluation of a deformable image registration segmentation technique for semi-automating internal target volume (ITV) production from 4DCT images of


Adam Gladwish


BOOK CHAPTER (in preparation)

Carolyn Goard


Olena Gorbenko

BOOK CHAPTER


PUBLICATIONS


Kathy Han


RESEARCH GRANT

Nasir Haider

No publications.

Shane Harding


BOOK CHAPTER


Christine How


Kellie Jacks


Harald Keller


Sunggeon Ko


Iwa Kong


Minalini Lakshman


Benjamin Lant


Priscilla Lau


Justin Lee


Mark Lee


Michelle Lenarduzzi


Fiana Levitin


Michelle Li


Karen Lim


Naomi Matsuura


Michelle Mayer


Kristin McLarty


Gunita Mitera


BOOK CHAPTER


Joseph Mocanu


Larissa Moniz


Rida Mourtada


Mark Niglas


Sylvie Noordermeer


Lara O'Donnell

3. O'Donnell L, Durocher D. DNA repair has a new FAN1 club. Mol Cell. 39:167-9, 2010

Mark Pereira


PATENT FILING


Emily Poon


**Simona Principe**

7. **Principe S**. Exosomal Cargo to Identify Targets within the Tumor Microenvironment. International Society for Extracellular Vesicles, 25th April 2015, Washington DC, USA.
8. **Principe S**. Exosomal Cargo to Identify Targets within the Tumor Microenvironment. 17th Annual Wharton/Elia Day, May 15th 2015, Toronto, ON.

**Mohammad Rezaee**


Lusia Sepiashvili


Zahra Shire

No Publications

Julie Shi


Purnata Shirodkar

Paul Sobol


BOOK CHAPTER


Shawn Stapleton


Erin Stewart

growth factor receptor (EGFR) mutations. The Canadian Society for Epidemiology and Biostatistics Annual conference, 2015, Toronto, Canada.


Kelly Stewart


Gabriela Stroian


Anand Swaminath


GRANT

1. A Swaminath - $1.2 million Impact Grant from CCS to lead a Canadian clinical trial comparing two different types of radiation therapy for lung cancer (February 2013)

Farhad Taghibakhsh


PATENT FILING

David Tulumello


Masataka Umitsu


Roxanna Vlad


Mattea Welch


Simon Wisnovsky


Philip Wong


RESEARCH GRANT


Rui Yan


Simmyung Yook


5. Simmyung Yook, Jeeny Jooyoung Jeong, Zhongli Cai, Yijie Lu, Jean-Philippe Pignol, Mitchell A. Winnik, Raymond M. Reilly “177Lu-labeled and dual-receptor targeted radiation nanomedicine for simultaneous targeting of HER2 and EGFR on breast cancer cells” in preparation for a journal to be selected.


Wei Zhang


Tansy Zhao


Jinzi Zheng


APPENDIX 7.1 – Clinical and Experimental Radiobiology, Individual Instructors’ Learning Objectives

Anthony Brade

Combined radiotherapy and chemotherapy
1. Explain the rationale and application of combined radio- and chemotherapy in clinical practice.
2. Learn the mechanisms of action for various chemotherapeutics with radiotherapy.
3. Assess the impact of scheduling and dose of chemotherapeutics on efficacy and toxicity.

Biological response modifiers in tumors – clinical implementation
1. Understand the molecular mechanism of action of commonly used 'targeted' therapies.
2. Describe clinical data from combinations of molecularly targeted therapies and radiotherapy.
3. Distinguish key differences in trial design for testing combinations of targeted therapies with radiotherapy compared to traditional combined modality studies.

Scott Bratman

Novel markers of therapy response - ctDNA and others
1. Recognize the challenges to assessing response during and after radiotherapy
2. Identify emerging classes of biomarkers for assessing response to radiotherapy
3. Critically evaluate the clinical utility of novel response biomarkers

Rob Bristow

Importance of Radiobiology in the Clinic
1. Recognize the role of single dose and fractionated radiotherapy in cancer treatment.
2. Identify the 5 R’s of radiotherapy: radiosensitivity, repopulation, re-oxygenation, repair, redistribution.
3. Understand the basic concepts relating to acute and late radiotherapy toxicity.

Radiation Induced DNA Repair and DNA Damage Response
1. Learn how DNA damage is sensed initially by different DNA repair pathways following radiotherapy and chemotherapy.
2. Describe how identification of DNA lesions is transduced to DNA repair and cell cycle checkpoints.
3. Identify the major pathways involved in the repair in DNA DSBs and the assays that measure DNA DSBs in cells and tissues.

**Patient Predictive Biomarkers and Individualization**

1. Distinguish prediction versus prognostic assays in radiotherapy.
2. Explain tissue-based biomarkers used in radiation oncology to assess response.
3. Describe the concept of personalized medicine based on genomics and proteomics

**Laura Dawson**

*Stereotactic and high dose radiotherapy*

1. Explain the rationale of stereotactic body radiation therapy (SBRT) and other high dose fractionation schedules
2. Demonstrate the present cautions of SBRT
3. Describe examples of selected clinical outcomes

**Richard Hill**

*LET and RBE*

1. Understand different types of ionizing radiation and their different energy deposition patterns (LET).
2. Describe the effects of the different energy deposition patterns on cell and tissue response to irradiation (RBE).

*Tumour growth, stem cells and response to irradiation.*

1. Describe cell kinetic factors affecting the growth of tumours.
2. Know the different approaches for assessing response of tumours to irradiation and understand their differences.
3. Recognize the concept of cancer stem cells and their potential role in tumour response to irradiation.

**David Hodgson**

*Radiation-induced malignancies*

1. Explain the relationship between radiation dose to normal tissues and second cancer risk.
2. Understand the host biologic factors that affect second cancer risk after radiation therapy.
3. Describe the interaction of chemotherapy and RT on second cancer risk.
Marianne Koritzinsky

*Hallmarks of cancer*
1. Define “driver” and “passenger” mutations in cancer.
2. Estimate the number of “driver” and “passenger” mutations in a tumor.
3. Identify processes commonly altered in cancer by genetic alterations.

*The oxygen effect*
1. Analyze how oxygen availability influences clonogenic radiation survival.
2. Describe why oxygen availability influences clonogenic radiation survival.
3. Understand how tumor cells at different oxygen tensions contribute to tumor radiation response at high and low single doses.
4. Explain why fractionating radiotherapy is beneficial from the perspective of tumor oxygenation.

*Biological response modifiers in tumors*
1. Identify different classes of biological response modifiers and how they work.
2. Describe rationales to obtain a therapeutic index using biological response modifiers in cancer.
3. Identify rationales to obtain a therapeutic index using biological response modifiers in radiotherapy.

Stanley Liu

*Examples of tumor and stromal targets to modify radiation response*
1. Understand the importance of stromal factors that regulate the tumor microenvironment.
2. Appreciate therapeutic strategies that modulate the tumor microenvironment and influence tumor radiation response.

Michael Milosevic

*Clinical efforts to modify tumor hypoxia*
1. Identify ways of measuring hypoxia and other aspects of the abnormal microenvironment in human tumors.
2. Describe the relationship between abnormalities of the microenvironment in human tumors and clinical outcome following conventional cancer treatments.
3. Understand ways of targeting hypoxia and other manifestation of the abnormal microenvironment in human tumors and opportunities for future research and clinical development.

Gerard Morton

*Clinical radiobiology of brachytherapy*
1. Distinguish how the radiobiology of brachytherapy may differ from that of fractionated external beam
2. Learn how to compare the effect of different brachytherapy protocols.
3. Identify biological advantages and disadvantages of brachytherapy.

**Bert Van der Kogel**

*Cell survival – in vitro and in vivo*
1. Describe the concept of clonogenic survival.
2. Understand the heterogeneity in morphological features of cell death depending and the relation with specific mutations.
3. Identify various in vivo assays used to measure clonogenic survival in tumors and normal tissues.

*Dose rate effects – intro to RB concepts*
1. Learn that low dose rate is the ultimate form of fractionation allowing maximal recovery in the shortest amount of time.
2. Identify the key components of the dose-rate effect, primarily sublethal damage repair but also repopulation for treatment times longer than 1-2 days.
3. Explain the relationship between repair half-time and alpha/beta ratio for the outcome of low dose rate or pulse dose rate treatments.
4. Recognize the potential importance of longer delivery times for IMRT, or extreme high dose rates for some new delivery systems.

*The volume effect in radiotherapy*
1. Distinguish the difference between structural and functional tissue tolerance.
2. Describe the theoretical concept of serial and parallel tissue organization, and the practical application in the clinic.
3. Understand the importance of cell migration from the edge of irradiated fields and their contribution to the tolerance of specific tissues.

**Shun Wong**

*Pathogenesis of normal tissue side effects*
1. Understand of normal tissue responses to ionizing radiation in terms of:
   - Pathogenesis of early effects.
   - Pathogenesis of late effects.
   - Other concepts and controversies.
2. Apply the radiobiologic concepts to the clinical practice of radiation oncology

*Retreatment tolerance of normal tissues*
1. Understand the normal tissue responses following retreatment.
2. Apply the radiobiologic concepts to retreatment in clinical practice
Brad Wouters

Molecular basis of cell death
1. Identify the main cell pathways of cell death that lead to loss of clonogenic survival in tumor cells.
2. Understand the main morphological features with different forms of cell death.
3. Describe the relative importance of different forms of cell death caused by ionizing radiation.
4. Distinguish between early cell death and mitotically linked cell death.

Hypoxia and the tumor microenvironment
1. Identify the main causes of hypoxia in tumors.
2. Describe the spatial and temporal heterogeneities of oxygenation.
3. Explain the biological importance of tumor hypoxia.
## APPENDIX 7.2 – Radiobiology Course Schedule

### MONDAY, APRIL 11, 2016

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<tr>
<td>8:45-9:00</td>
<td>Introduction to course</td>
<td>Marianne Koritzinsky</td>
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<tr>
<td>9:00-9:45</td>
<td>1 Importance of radiobiology in the clinic</td>
<td>Rob Bristow</td>
</tr>
<tr>
<td>9:45-10:30</td>
<td>2 Hallmarks of cancer</td>
<td>Marianne Koritzinsky</td>
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<tr>
<td>10:30-10:45</td>
<td><em>Break</em></td>
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<tr>
<td>10:45-11:30</td>
<td>3 Radiation induced damage and the DNA damage response</td>
<td>Rob Bristow</td>
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<tr>
<td>11:30-12:00</td>
<td>T1 Tutorial and Question period (L2,3)</td>
<td>Rob, Marianne</td>
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<tr>
<td>12:00-1:00</td>
<td><em>Lunch</em></td>
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<tr>
<td>1:00-1:45</td>
<td>4 Molecular basis of cell death</td>
<td>Brad Wouters</td>
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<tr>
<td>1:45-2:30</td>
<td>5 Cell survival - in vitro and in vivo</td>
<td>Albert van der Kogel</td>
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<tr>
<td>2:30-2:45</td>
<td><em>Break</em></td>
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<tr>
<td>2:45-3:30</td>
<td>6 Quantifying cell kill and cell survival</td>
<td>Mike Joiner</td>
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<tr>
<td>3:30-4:00</td>
<td>T2 Tutorial and Question period(L4,5,6)</td>
<td>Brad, Bert, Mike</td>
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### TUESDAY, APRIL 12, 2016

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<td>9:00-9:45</td>
<td>7 LET and RBE</td>
<td>Richard Hill</td>
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<tr>
<td>9:45-10:30</td>
<td>8 Particles in radiotherapy</td>
<td>Mike Joiner</td>
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<td>10:30-10:45</td>
<td><em>Break</em></td>
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<tr>
<td>10:45-11:30</td>
<td>9 Dose response relationships in radiotherapy - TCP, NTCP, therapeutic ratio</td>
<td>Soren Bentzen</td>
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<td>Time</td>
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<td>11:30-12:00</td>
<td>T3 Tutorial and Question period (L7,8,9)</td>
<td>Richard, Mike, Soren</td>
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<td>12:00-1:00</td>
<td>Lunch</td>
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<td>1:00-1:45</td>
<td>10 The linear-quadratic approach to fractionation</td>
<td>Mike Joiner</td>
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<tr>
<td>1:45-2:30</td>
<td>T4 The LQ-model workshop – examples of calculations</td>
<td>Mike, Soren</td>
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<td>2:30-2:45</td>
<td>Break</td>
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<td>2:45-3:45</td>
<td>11 Modified fractionation schedules (and limits)</td>
<td>Soren Bentzen</td>
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<td>3:45-4:30</td>
<td>T5 Tutorial and Question period (L11)</td>
<td>Soren Bentzen</td>
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<td>4:30-5:00</td>
<td>12 Dose rate effect - intro to RB concepts</td>
<td>Albert van der Kogel</td>
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**WEDNESDAY, APRIL 13, 2016**

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<tr>
<td>9:00-9:45</td>
<td>13 Clinical radiobiology of brachytherapy</td>
<td>Gerard Morton</td>
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<tr>
<td>9:45-10:30</td>
<td>T6 Tutorial and Question period (L12,13)</td>
<td>Albert, Gerard</td>
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<td>10:30-10:45</td>
<td>Break</td>
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<tr>
<td>10:45-11:15</td>
<td>14 The volume effect in radiotherapy</td>
<td>Albert van der Kogel</td>
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<tr>
<td>11:15-12:00</td>
<td>15 Pathogenesis of normal tissue side effects</td>
<td>Shun Wong</td>
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<tr>
<td>12:00-1:00</td>
<td>Lunch</td>
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<tr>
<td>1:00-1:45</td>
<td>16 Retreatment tolerance of normal tissues</td>
<td>Shun Wong</td>
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<tr>
<td>1:45-2:30</td>
<td>T7 Tutorial and Question period (L14, 15, 16)</td>
<td>Shun Wong</td>
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<td>2:30-2:45</td>
<td>Break</td>
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<td>2:45-3:15</td>
<td>17 Stereotactic and high dose radiotherapy</td>
<td>Laura Dawson</td>
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<td>3:30-4:15</td>
<td>18 Tumor growth, stem cells, and response to irradiation</td>
<td>Richard Hill</td>
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<tr>
<td>4:15-5:00</td>
<td>T8 Tutorial and Question period (L17, 18)</td>
<td>Richard, Laura</td>
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### Thursday, April 14, 2016

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<td>9:00-9:45</td>
<td>Oxygen Effect</td>
<td>Marianne Koritzinsky</td>
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<td>9:45-10:30</td>
<td>Hypoxia and tumor microenvironment</td>
<td>Brad Wouters</td>
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<td>10:30-10:45</td>
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<tr>
<td>10:45-11:30</td>
<td>Clinical approaches to target hypoxia</td>
<td>Mike Milosevic</td>
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<tr>
<td>11:30-12:00</td>
<td>Tutorial and Question period (L19,20,21)</td>
<td>Marianne, Brad, Mike</td>
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<td>12:00-1:00</td>
<td>Lunch</td>
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<td>1:00-1:45</td>
<td>Combined radiotherapy and chemotherapy</td>
<td>Anthony Brade</td>
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<td>1:45-2:30</td>
<td>Biological response modifiers in tumors – approaches and concepts</td>
<td>Marianne Koritzinsky</td>
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<tr>
<td>2:30-2:45</td>
<td>Break</td>
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<td>2:45-3:45</td>
<td>Predictive biomarkers and patient individualization</td>
<td>Scott Bratman</td>
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<tr>
<td>3:45-4:30</td>
<td>Tutorial and Question period (L22,23, 24)</td>
<td>Anthony, Marianne, Scott</td>
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### Friday, April 15, 2016

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<td>9:00-9:45</td>
<td>Tumour and stromal targets to modify radiation response</td>
<td>Stan Liu</td>
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<td>9:45-10:30</td>
<td>Radiation-induced malignancies</td>
<td>David Hodgson</td>
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<td>10:45-11:30</td>
<td>Biological response modifiers in tumors – clinical implementation</td>
<td>Anthony Brade</td>
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<td>11:15-12:00</td>
<td>Tutorial and Question period (L25, 26, 27)</td>
<td>Stan, David, Anthony</td>
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APPENDIX 8.1 – UTDRO Committees
(Membership to June 30, 2016)

Academic Communications
Claire McCann (Chair)  Nicole Harnett
Sarah Khan  Danny Vesprini
Evan Donohue  Tanya Webb
Chief Resident  Chief Physics Resident
Chief Fellow

Postgraduate Curriculum
Barbara-Ann Millar  Meredith Giuliani
Jean-Pierre Bissonnette  Hany Soliman
Chief Resident  Andrew Hope
James Brierley  Eric Leung
Danny Vesprini  Derek Tsang
Fred Yoon  Moji Taremi

Executive
Fei-Fei Liu, Chair  Greg Czarnota
Rebecca Wong  David Jaffray
Shun Wong  Brad Wouters
Barbara Ann Millar  Andrea McNiven
Peter Chung  Meredith Giuliani
Cathryne Palmer  Nicole Harnett
Charles Catton  Doug Moseley
Claire McCann  William Song
Evan Donohue  Steve Babic
David Shultz  Catherine Ladhani
Fred Yoon

Fellowship
Peter Chung (Chair)  Chief Fellow
Catherine Wong (ex officio)  Marcia Bowen
Fellow Representative  Evan Donohue

Joint MRS Strategic Executive
Patricia Houston  Fei-Fei Liu
Cathryne Palmer  Catherine Wang
Brian Hodges  Fiona Cherryman
Ann Russell  Larry White
Narinder Paul  Paul Cornacchione
Joint Management
Catherine Ladhani  Susan Weltz
Sylvia Schippke  Ronika Srdic
Fei-Fei Liu  Jay Rosenfield
Rebecca Wong  Kieng Tan
Cathryne Palmer  Evan Donohue
Sydney Redpath  Brett Snyder

Promotions
Shun Wong (Chair)  Rebecca Wong
Fei-Fei Liu  Mike Milosevic
Jolie Ringash  Charles Catton
Andrew Loblaw

Physics Residency Program
Andrea McNiven (Chair)  Dominique Fortin
Evan Donohue  Nicole Harnett
Brian Keller  Young Lee
Raxa Sankreacha  Katharina Sixel
Rebecca Wong  Rebecca Wong (recorder)
Ivan Yeung  Barbara-Ann Millar

Residency Program
Barbara-Ann Millar (Chair)  Ida Ackerman
Andrew Hope  Danny Vesprini
Andrea McNiven  Meredith Giuliani
Brian Keller  David Hodgson
Chief Resident  Fred Yoon
Jason Wong  James Brierley
Evan Donohue (non-voting)  Mojgan Taremi
Resident Representative  Chief Fellow
Eric Leung  Rebecca Wong
Catherine Wong (non-voting)  Hany Soliman

Research Day
David Jaffray (Chair)  Barbara Ann Millar
Peter Chung  Jean-Pierre Bissonnette
Anne Koch  Marianne Koritzinsky
Bradley Wouters  Evan Donohue
Chief Resident

Teaching Effectiveness
Normand Laperriere (Chair)  Lisa DiProspero
Gerard Morton  Tara Rosewall
BeiBei Zhang  Rebecca Wong (ex-officio)
Three Year Review
Shun Wong (Chair) Andrea Bezjak
Jean-Pierre Bissonette James Brierley
Andrew Loblaw Tara Rosewall
Michael Sharpe

Appointments
Shun Wong (Chair)
Lisa Barbera
Charles Catton
Tara Rosewall
Douglas Moseley
# APPENDIX 9.1a – CVs: UTDRO Radiation Oncologists

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<td>Karam, Irene</td>
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<td>Kim, John</td>
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<td>Leung, Eric</td>
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<td>Levin, Wilfred</td>
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<td>Lian, Jidong</td>
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<td>Liu, Fei-Fei</td>
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<td>Liu, Stanley</td>
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<td>Loblaw, Andrew</td>
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<td>Manchul, Lee</td>
<td>1995</td>
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<td>Mcgowan, Thomas</td>
<td>2010</td>
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<td>McLean, Michael</td>
<td>2025</td>
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<td>Menard, Cynthia</td>
<td>2041</td>
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<td>Millar, Barbara-Ann</td>
<td>2082</td>
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<td>Milosevic, Michael</td>
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## APPENDIX 9.1a – CVs: UTDRO Radiation Oncologists

<table>
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<tr>
<td>Morton, Gerard</td>
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<td>O'Sullivan, Brian</td>
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<td>Paszat, Lawrence</td>
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<td>Payne, David</td>
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<td>Poon, Ian</td>
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<td>Radwan, John</td>
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<td>Rakovich, Eileen</td>
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<td>Sun, Alexander</td>
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<td>Tsao, May</td>
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<td>Waldron, John</td>
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<td>Wang, Yongjin</td>
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</table>
### APPENDIX 9.1a – CVs: UTDRO Radiation Oncologists

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Warde, Padraig</td>
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<td>Wong, Rebecca</td>
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<td>Yoon, Frederick</td>
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<td>Yuen, Jasper</td>
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</tr>
</tbody>
</table>
Curriculum Vitae

Ida Ackerman
MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-6165
Email ida.ackerman@sunnybrook.ca

1. EDUCATION

Degrees
1971 - 1975 MD, University of Toronto, Toronto, Ontario, Canada
1969 - 1970 BA, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1976 - 1978 Resident, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1975 - 1976 Internship, University of Toronto, Toronto, Ontario, Canada
1975 - 1976 Resident, General Internal Medicine, University of Toronto, Toronto, Ontario, Canada
1983 Fellow, Radiation Oncology, Hamilton Regional Cancer Centre, McMaster University, Hamilton, Ontario, Canada

Qualifications, Certifications and Licenses
1983 Fellowship in Radiation Oncology, Royal College of Physicians and Surgeons of Canada, United States
1982 Diploma, American College in Therapeutic Radiology, United States
1978 General License, Ontario College of Physicians and Surgeons, Canada
1975 License, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2005 - present Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1993 - present Assistant Professor, Obstetrics and Gynaecology, University of Toronto, Toronto, Ontario,
Ida ACKERMAN

Canada

1984 - present Staff, Radiation Oncologist, Sunnybrook Health Sciences Centre, Odette Cancer Centre, Toronto, Ontario, Canada

Previous Appointments

CLINICAL
1978 - 1979 Clinical Associate, Princess Margaret Hospital, Toronto, Ontario, Canada

UNIVERSITY - RANK
1995 - 2005 Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1984 - 1995 Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

OTHER
2014 Oct - 2015 Mar Consulting staff, Department of Surgery, North York General Hospital, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
1984 Blair Fellowship, Canadian Cancer Society, Canada.

LOCAL
Received
1969 Ontario Scholar, Canada. (Distinction)

Teaching and Education Awards

LOCAL
Received
2008 Medical Radiation Sciences, Program, Guest Lecturer Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2005 Postgraduate Research Supervisor Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2004 Postgraduate Advocacy and Mentorship Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2002 Radiation Oncology Residents Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada Excellence in Clinical Teaching.
1997 Radiation Oncology Residents Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada Excellence in Clinical Teaching.
1992 Radiation Oncology Residents Award, Dept of Radiation Oncology, Faculty of Medicine,
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1991  Member, American Society of Clinical Oncology
1987  Member, International Gynecological Cancer Society
1986  Member, Canadian Association of Radiation Oncology (CARO)
1984  Member, American Society of Therapeutic Radiation Oncology
1982 - 1986 Member, Canadian Association of Radiologists

Administrative Activities

INTERNATIONAL

American Society of Therapeutic Radiation Oncology
1997 - 2004 Member, International Committee, United States.

International Gyne Cancer Society Biennial Meeting
2002 - 2004 Member, International Scientific committee

International Gynecologic Cancer Society
2006 Member, Education Committee, Postgraduate MD
2005 Coordinator, Tumor Board
2004 Member, Scientific Committee, 10th Biennial Meeting, Toronto, Ontario, Canada.
2004 Member, Nominating Committee
1999 - 2004 Council Member, Canada.
1999 - 2004 Member, Treatment Practice Guidelines Committee, Canada.

NATIONAL

Canadian Association of Radiation Oncology
2006 - 2012 Member, Foundation Board of Directors, Canada.
2006 - 2011 Ex-officio board member, Canada.
2005 - 2008 Member, Manpower Committee, Canada.
2002 - 2004 Member, Education Committee, Canada.
2001 Member, Committee for Annual Scientific Meeting. Toronto, Ontario, Canada.
2000 - 2002 Member, Annual Scientific Meeting Committee, Canada.
1999 - 2001 Past President, Canada.
1997 - 1999 President, Canada.
1995 - 1997 President Elect, Canada.
1994 - 1995 Ontario Director, Canada.

Canadian Association of Radiation Oncology Foundation
Ida ACKERMAN

2006 - 2007 **Member**, Board of Director

**Canadian Coalition on Cancer Surveillance**
1997 - 2000 **Member**, Canada.

**CARO-CROF**
2006 - 2011 **President**, Foundation Board of Director Member, Canada.

**Gynecology Oncology Society of Canada**
1998 - 2000 **Member**, Executive Committee Member, Canada.

**Health Canada - Cancer Control Strategy**
1999 - 2001 **Member**, Surveillance Working Group, Canada.

**Royal College of Physicians and Surgeons of Canada**
1992 - 2000 **Member**, Examination Board in Radiation Oncology, Canada.

**PROVINCIAL / REGIONAL**

**Cancer Care Ontario**
2008 - 2009 **Member**, Expert Panel
*Delivery of Brachytherapy for Cervical Cancer: Organizational and Technique advice.*

**Toronto Sunnybrook Regional Cancer Centre**
2005 - 2006 **Coordinator**, Postgrad Radiation Oncology Program, Postgraduate MD, Toronto, Ontario, Canada.
*Organization of Treatment Planning Exams for PGY4 &5: 60 hrs, Internal review of postgraduate program: 1 hr
Internal review of department: 1 hr.*
2004 - 2005 **Coordinator**, Radiation Oncology Program, Postgraduate MD, Toronto, Ontario, Canada.

**LOCAL**

**Princess Margaret Hospital/University of Toronto**
2015 Dec 4 **Examiner**, CPEE, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

**University of Toronto**
1995 - present **Member**, Gyne Oncology Fellowship Committee, Faculty of Medicine, Division of Gynecologic Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2009 - 2014 Member of Postgrad Medical Oncology Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2009 - 2011 **Member**, Target Insight Organizing Committee, Postgraduate MD, Toronto, Ontario, Canada.
2008 - 2014  **Associate Director**, Postgraduate Medical Education Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

2008 - 2009  **Member**, Clinical Trials Award and Advisory Committee (CTAAC), Toronto, Ontario, Canada.

2008 - 2009  **Member**, Translational Research in Clinical Trials Committee (TRICC), Toronto, Ontario, Canada.

2008 - 2009  **Interim Director**, Department of Radiation Oncology, Toronto, Ontario, Canada.

2008  **Member**, Education Awards Review Committee, Postgraduate MD, Toronto, Ontario, Canada.

2007 - 2011  **Member**, UTDRO Education Awards Review Committee, Postgraduate MD, Toronto, Ontario, Canada.


2007 - 2009  **Member**, Teaching Effectiveness Committee, Toronto, Ontario, Canada.

2006 - 2012  **Board Examiners Member**, Medical Radiation Sciences Program, Toronto, Ontario, Canada.

2001  **Member**, Organizing Committee – Biennial, Toronto, Ontario, Canada.

1999 - 2001  **Co-Chair**, Breast Site Group, Toronto, Ontario, Canada.

1996 - 2010  **Member**, CE Committee, Toronto, Ontario, Canada.


1996 - 2000  **Member**, Academic Promotions Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

1995 - 2003  **Member**, TSRCC Selection Committee, Toronto, Ontario, Canada.


1994  **Member**, Organizing and Scientific Committee, Toronto, Ontario, Canada.

1992 - 1993  **Member**, Undergraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

1991 - 2001  **Chair**, TSRCC Gynecology Group, Toronto, Ontario, Canada.

**OTHER**

**Other Organizations**

2008 - 2012  Target Insight Organizing Committee and Speaker, Ontario, Canada.

2008 - 2010  Research Day Organizing Committee, Ontario, Canada.

2006 - 2014  CARMS, Ontario, Canada.

1995 - 2014  Gyne Oncology Fellowship Committee, Canada.

**Peer Review Activities**

**EDITORIAL BOARDS**

**Other**

2001 - 2006  International Journal Gynecological Cancer

1995 - 2006  Gynecologic Oncology
GRANT REVIEWS
External Grant Reviewer

MANUSCRIPT REVIEWS
Reviewer
2011 - present European Journal Cancer
2009 - present International Journal Radiation Oncology, Biology, Physics
2001 - present International Journal of Gynecologic Cancer
2010 European Journal of Cancer
2010 Gynecologic Oncology
2001 - 2011 International Journal Gynecologic Cancer

OTHER
Reviewer

Other Research and Professional Activities
2005 International Gynecologic Cancer Society, Santa Monica, California, United States. Organized poster judging for over 800 poster abstracts, Biennial Scientific Meeting.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

Collaborator. QA of RT films. NCIC – OCOG Hypofractionated Breast Trial. National Cancer Institute of Canada (NCIC). [Clinical Trials]

QA - RT films - NCIC MA 20 Study. National Cancer Institute of Canada (NCIC). [Clinical Trials]
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Letters to Editor


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2014 Nov Invited Speaker. Serous Cancer Uterus - Does adjuvant therapy work? Liverpool Cancer Center, South Western Sydney, Local Health District. Sydney, Australian Capital Territory, Australia.


2005 International Gynecologic Cancer Tumor Board. 11th Biennial Scientific Meeting, International Gynecologic Cancer Society. Santa Monica, California, United States. (Continuing Education).

2004 Jul “Surgical Staging is Unnecessary in Endometrial Cancer”. Gynecologic Oncology Group Symposium. Irvine, California, United States. (Continuing Education).

2004 Surgical Staging is Unnecessary in Endometrial Cancer. Gynecologic Oncology Group Symposium. Irvine, California, United States.


1996 Treatment of Uterine Papillary Serous Carcinoma. 3rd Biennial Alon Dembo Workshop, International
Ida ACKERMAN

Gyne. Tumour Board. Bermuda. (Continuing Education).

1996  
**Visiting Professor.** Visiting Professor. Henry Ford Hospital and Medical Centres. Detroit, Michigan, United States.

1991  

1991  

1985  
Combined modality treatment by chemotherapy (CT) and squamous cell lung cancer. IV World Conference on Lung Cancer. Toronto, Ontario, Canada. Presenter(s): Osoba D, Rusthoven J, Shephard F, Evans W, Berry M, Catton P, **Ackerman I**, Turnbull D.

**Workshops**

1998 Oct  

1996 Nov  

1994 Sep  
NON-Surgical Staging in Cervix Cance. 2nd Biennial Alon Dembo Workshop. Toronto, Ontario, Canada.

### 2. NATIONAL

**Invited Lectures and Presentations**

2006  
Moving from LDR to HDR for Cervix Cancer, the Do’s and Don’ts. Canadian Association of Brachytherapy. Calgary, Alberta, Canada.

2005  
Poster Discussant. Canadian Association of Radiation Oncology. Canada. (Continuing Education).

2004  
**Lecturer.** Toxicity of Adjuvant Pelvic Radiotherapy following Radical Hysterectomy and Pelvic Lymph Node Dissection. Gyne Oncology Society of Canada. Edmonton, Alberta, Canada. Presenter(s): Steed H, **Ackerman I**.

2002  
**Lecturer.** “Cosmetic Results of Radiation Therapy for Non-Melanoma Skin Cancer”. Canadian Association of Radiation Oncology. Toronto, Ontario, Canada. Presenter(s): Breen D, **Ackerman I**.

2001  
CARO Refresher Course – Cervix Cancer. Annual meeting of Canadian Association of Radiation Oncologists. Canada. (Continuing Education).

1997  

1993  

1993  
**Lecturer.** Post mastectomy adjuvant treatment. The role of radiotherapy. Royal College of Physicians and Surgeons of Canada. Vancouver, British Columbia, Canada. Presenter(s): Ege GN, Franssen E, MacKenzie RG, **Ackerman I**, Doherty MA.


Presentations at Scientific Meetings


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2005 Role of Radiation in gynecologic and breast cancer:. Royal Victoria Hospital of Barrie Cancer Care Program. Barrie, Ontario, Canada. (Continuing Education).


1987 Diagnosis and Management of difficult skin tumours. Postgraduate Dermatology Seminar. Toronto, Ontario, Canada. (Continuing Education).


4. LOCAL

**Invited Lectures and Presentations**


1992  Symposium on skin cancer; Specific Indications for Radiation Therapy as a Treatment of choice. Mount Sinai Hospital. Toronto, Ontario, Canada. (Continuing Education).


5. OTHER

**Invited Lectures and Presentations**


**Presented Abstracts**


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

**Postgraduate MD**


2003 - 2004  **Primary Supervisor**. Helen Steed. Toxicity of adjuvant pelvic radiotherapy following radical hysterectomy and pelvic lymph node dissection.


2003 - 2004  **Primary Supervisor**. Arjun Sahgal. Phase II study to evaluate the efficacy of iron infusion to improve hemoglobin levels prior to therapy in iron deficient cervix cancer patients.

2002 - 2003  **Primary Supervisor**. Jackie Spayne. Abstract - A Screen History of Patients with Cervix
Curriculum Vitae

Judith Balogh

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-4974
Fax 416-480-6002
Email judith.balogh@sunnybrook.ca

1. EDUCATION

Degrees
1981 MD, Medicine, University of Toronto, Toronto, Ontario, Canada
1977 MSc, Biophysics, Western University, London, Ontario, Canada
1975 BSc, Honours, Biology, McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training
1982 - 1985 Resident, Radiation Oncology, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada
1981 - 1982 Intern, Straight Medicine, Wellesley Hospital, Toronto, Ontario, Canada
1986 Clinical Fellow, Brachytherapy, Hôpital Henri Mondor, Créteil, France, Supervisor(s): B. Pierquin, J-J. Mazeron
1986 Clinical Fellow, Brachytherapy, Institut Gustave Roussy, Paris, France, Supervisor(s): F. Eschwege, A. Gerbaulet
1985 Clinical Fellow, Radiation Oncology, Toronto-Bayview Regional Cancer Centre, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
1985 Fellowship, Royal College of Physicians and Surgeons of Canada (RCPSC)
1981 Licentiate (LMCC), Medical Council of Canada
1981 Licensure, College of Physicians and Surgeons of Ontario (CPSO)
2. EMPLOYMENT

Current Appointments

1995 - present  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1985 - present  Staff, Radiation Oncologist, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada
1985 - present  Staff, Department of Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
1986 - 1993  Courtesy Staff, Department of Otolaryngology, Mount Sinai Hospital, Toronto, Ontario, Canada

UNIVERSITY - CROSS APPOINTMENT
1986 - 1991  Lecturer, Radiology, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK
1991 - 1994  Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

PROVINCIAL / REGIONAL
Received

1986  Gordon Richards Fellowship, OCTR. (Credential)
1971  Ontario Scholar. (Distinction)

LOCAL
Received

2005  Department of Radiation Oncology, Educational Award, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
2003  Department of Radiation Oncology, Educational Award, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
1981  Sophie Harnick Memorial Award, University of Toronto. (Distinction)
1977  Travel Award, Radiation Research Society. (Research Award)
1976  Morris Kroll Memorial Scholarship, Western University. (Distinction)
1973  Deans List, McMaster University. (Distinction)

Teaching and Education Awards

LOCAL
Received
2006 **Radiation Oncology Residents Award for Excellence in Clinical Teaching**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD, Core Program)

2000 **Radiation Oncology Residents Award for Excellence in Clinical Teaching**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto

1998 **Radiation Oncology Residents Award for Excellence in Clinical Teaching**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto

1994 **Radiation Oncology Residents Award for Excellence in Clinical Teaching**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

**Professional Associations**

1994 - present Member, European Society for Therapeutic Radiology and Oncology
1992 - present Member, American Society of Therapeutic Radiation Oncology
1988 - present Member, Canadian Association of Radiation Oncologists
1985 - present Member, Royal College of Physicians and Surgeons
1981 - present Member, Ontario Medical Association
1994 - 1996 Member, American Association for Cancer Education
1992 - 2005 Member, American Society of Clinical Oncology
1983 - 1989 Member, Canadian Association of Radiologists

**Administrative Activities**

**NATIONAL**

**Canadian Association of Radiation Oncologists**

1997 - 2003 Coordinator, Maintenance of Competence (MOCOMP), Canada.
1997 - 2001 Member, Continuing Education Committee, Continuing Education

**Canadian Medical Association**

2000 - 2006 Member, PAC Committee, Canada.
**Canadian Medical Association.**
1993 - 1999 Member, Conjoint Committee on Accreditation, Canada.

**Dawson College**

2003 May Accreditation Surveyor, Montreal, Quebec, Canada.
**Canadian Medical Association.**

**Royal College of Physicians and Surgeons of Canada (RCPSC)**

1997 - 2003 Coordinator, Maintenance of Competence (MOCOMP), Canada.
PROVINCIAL / REGIONAL

Cancer Care Ontario
1997  **Chair**, Subcommittee on Informed Consent, Ontario, Canada.
1990  **Member**, Oncology Associates Council, Ontario, Canada.

Ministry of Health and Long Term Care
1995  **Member**, Curriculum Development Committee, Schools of Radiation Therapy, Ontario, Canada.

Odette Cancer Centre
1994 - 2001  **Coordinator**, Undergraduate Education Program, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.
  *Responsible for educational participation of Department of Radiation Oncology at TSRCC in U. of T. undergraduate program in new curriculum.*

Ontario Medical Association
1996 - 2004  **Vice Chair**, Radiation Oncology Division, Ontario, Canada.
1993 - 1996  **Past Chair**, Radiation Oncology Division, Ontario, Canada.
1993 - 1996  **Member Executive**, Radiation Oncology Division, Ontario, Canada.
1992 - 1995  **Member**, Committee on Care of Dying, Radiation Oncology Division, Ontario, Canada.
1991 - 1993  **Chair**, Radiation Oncology Division, Ontario, Canada.
1989 - 1991  **Secretary-Treasurer**, Radiation Oncology Division, Ontario, Canada.

Toronto-Sunnybrook Regional Cancer Centre
2001 - 2002  **Chair**, Radiation Oncology Associates Group, Toronto, Ontario, Canada.
1997 - 2000  **Chair**, FTMS Associates Committee, Toronto, Ontario, Canada.
1997  **Member**, Ward Care Delivery Committee, Toronto, Ontario, Canada.
1996 - 2001  **Member**, EPR Committee, Toronto, Ontario, Canada.
1996  **Member**, Process Review/Coding Committee, Toronto, Ontario, Canada.
1995  **Member**, Accreditation/Information Services Committee, Toronto, Ontario, Canada.
1994 - 1996  **Chair**, Medical Staff Association, Toronto, Ontario, Canada.
1991 - 2001  **Chair**, School of Radiation Therapy (RTT), Educational Advisory Committee, Toronto, Ontario, Canada.
1991 - 2001  **Member**, Faculty Liaison Committee, School of Radiation Therapy, Toronto, Ontario, Canada.
1991 - 2000  **Medical Director**, School of Radiation Therapy, Toronto, Ontario, Canada.
1990 - 2002  **Chair**, Health Records Committee, Toronto, Ontario, Canada.
1990 - 1993  **Site Group Leader**, Head & Neck, Toronto, Ontario, Canada.
LOCAL
St. Joseph’s Hospital Health Center
Weekly meetings.
Weekly meetings.

Sunnybrook and Women’s College Hospital
2000 - 2004 Member, Continuing Medical Education Committee, Continuing Education, Toronto, Ontario, Canada.

University of Toronto
1996 - present Course Co-ordinator, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
Applied Physics Course.
2009 Course Co-ordinator, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
Applied Physics Course-revised course.
2004 Course Co-ordinator, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
Applied Physics Course-revised course.
1996 Course Co-ordinator, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
Applied Physics Course-revised course.
1994 - 2003 Member, Undergraduate Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.
1994 - 2002 Member, Faculty Council, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
1994 - 2000 Member, Continuing Education Program Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Toronto, Ontario, Canada.
1994 - 2000 Member, Continuing Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Toronto, Ontario, Canada.
1994 - 1999 Member, Committee of Undergraduate Medical Education in Oncology (CUMEO), Department of Oncology, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD, Toronto, Ontario, Canada.
1993 - 1994 Member, Education and Staff Development Committee, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development, Toronto, Ontario, Canada.

University of Toronto/Michener Institute of Technology
1998 - 2000 Member, Curriculum Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

Peer Review Activities
MANUSCRIPT REVIEWS
External Reviewer
1988 - 1990 Journal of Otolaryngology
Other Research and Professional Activities

THESIS PROJECT


C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDING


2006 - present  Collaborator. “A Phase II Study of Accelerated Hypofractionated 3-Dimensional Conformal Radiotherapy (3DCRT) for Inoperable Stage I/II on-Small Cell Lung Cancer”. REB# 207-2006. PI: Cheung, Patrick. [Clinical Trials]


2007 - 2009  Collaborator. A Phase II Trial of Erlotinib (Tarceva) and Concurrent Palliative Thoracic Radiation Therapy for Patients with Non-Small Cell Carcinoma of the Lung”. REB# 309-2006. PI: Ung, Yee. [Clinical Trials]

PEARL Trial.


Advanced Head and Neck Cancer”. REB#142-2005. [Clinical Trials]

2004 - 2007 Collaborator. "Imiquimod for Patients with Positive Surgical Margins Following Surgical Excision of Basal Cell Carcinoma or Squamous Cell carcinoma In-Situ of the Skin”. REB# 291-2004. [Clinical Trials]

2004 - 2005 Collaborator. "A Phase 2 Study Examining the Role of PET/CT Fusion Scan in the Management of Patients with Advanced Locoregional Head and Neck Cancer”. REB# 195-2004. [Clinical Trials]


1993 - 1994 Principal Investigator. “Phase 111 Comparative Study Of The Safety & Efficacy Of Xrt Plus Photodynamic Therapy(Pdt) Utilizing Photofrin Vs Xrt For Obstructing Or Partially Obstructing Bronchogenic Carcinoma”. REB# 006-1993. [Clinical Trials]

1989 - 2008 Collaborator. Treatment of selected patients with stage 1B carcinoma of the cervix after radical hysterectomy and pelvic lymphanectomy: a randomized comparison of pelvic radiation therapy vs no further treatment. Gynecologic Oncology Group. REB# 001-1989. PI: Covens A, Thomas G. [Clinical Trials]

1989 - 1990 Collaborator. A randomized controlled trial to assess the effectiveness of medroxyprogesterone and wide field radiation adjuvant therapy in patients with high risk Stage I or Stage II or Stage III Endometrial Cancer (OCOG). The Ontario Clinical Oncology Group. PI: Dembo A. [Clinical Trials]


1988 - 1990 Collaborator. A protocol of postoperative therapy of invasive epithelial carcinoma of ovary in patients with small or no residuum (Protocol 1). PI: Dembo A. [Clinical Trials]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Lung Cancer Canada Public Education Pamphlet


Lung Cancer Canada Publication Pamphlet 2005


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts

2009 Post-Radiotherapy neuromyotonia, bilateral hypoglossal nerve palsies and progressive dysphagia in


Presented and Published Abstracts


2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


2000 Inter-Observable variation in contouring gross tumour volume in carcinoma of the lung: The Impact of 18FDG-Hybrid PET Fusion. The 69th Annual Meeting of the Canadian Association of Radiation Oncology


Presented and Published Abstracts

2007 18F-FDG PET/CT imaging for suspected recurrent papillary thyroid cancer: early experience at Sunnybrook Health Sciences Centre. The Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario, Canada.

Publication Details:


Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2007 Management of Head and Neck Cancer. OAMRT Central Section Education Day, Odette Cancer Centre, Sunnybrook Hospital. Toronto, Ontario, Canada.


4. LOCAL

Invited Lectures and Presentations


1990 An Introduction to Brachytherapy. Sunnybrook Health Science Centre, Department of Dentistry. Toronto, Ontario, Canada.

5. OTHER

Presented and Published Abstracts

2009 A pilot study to assess intra-treatment FDG-PET parameters that predict for locoregional control in advanced head and neck cancer treated with chemoradiation.


2008 Hypofractionated radiotherapy offers effective palliation for nonmelanoma skin cancer.


2008 Treating Recurrent Cases of Squamous Cell Carcinoma with Radiotherapy.


2008 Observer variability in radiotherapy targeting of head and neck tumors: can PET-CT reduce the variability?


2007 Variability in identification of positive nodes for head and neck cancers: Comparison of CT Alone with PET/CT.

Publication Details:

2003
The effect of PET CT co-registration on observer variation in the 3D-intersection of radiation therapy treatment volumes.

Publication Details:

2002
Tumor size and necrosis on FDG PET potentially adverse features in non-small cell lung cancer.

Publication Details:

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

1995 - 1999
Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Co-design and running of biennial oncology course.

1994 - 1995
Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Workshop development.

1993
Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Applied Physics Course, responsible for developing objectives and case scenarios for 5 weeks of a 5 month course.

1991 - 1999
Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Oncology Management Course - responsible for development of approximately 1/3 of cases in 6 month course.

1988 - 1989
Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Radiation Pathology Course, developed course on effects of radiation in: fetus/embryo, normal tissues, tumors.
Curriculum Vitae

Lisa Barbera

A. Date Curriculum Vitae is Prepared: 2016 August 8

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-4806
Fax 416-480-6002
Email lisa.barbera@sunnybrook.ca

1. EDUCATION

Degrees
2000 - 2002 MPA, School of Policy Studies, Queen’s University at Kingston, Kingston, Ontario, Canada
1991 - 1995 MD, University of Ottawa, Ottawa, Ontario, Canada
1988 - 1991 BSc, Major in Zoology, Minor in Philosophy, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1995 - 2000 Residency, Radiation Oncology, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada
1995 - 2000 Residency, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1995 - 2000 Residency, Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2000 Fellow, Royal College of Physicians, Canada
1999 - 2009 Certification, American Board of Radiology, United States
1996 MCCQE Part I, Medical Council of Canada, Canada
1996 MCCQE Part II, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2016 Feb 1 - present ARCC Program Co-Lead, Health Systems, Services, & Policy, Applied Research in Cancer Control (ARCC)
2015 - present Senior Adjunct Scientist, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada
Lisa BARBERA

2013 - present Senior Scientist, Clinical Epidemiology, Sunnybrook Research Institute, Toronto, Ontario, Canada
2011 - present Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2002 - present Active Staff, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2015 - 2018 CCO Clinical Lead, Patient Reported Outcomes, Cancer Care Ontario

**Previous Appointments**

**HOSPITAL**

2006 - 2011 Courtesy Staff, Radiation Oncologist, Toronto East General Hospital, Toronto, Ontario, Canada
2005 - 2014 Adjunct Scientist, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada
2004 - 2013 Scientist, Clinical Epidemiology, Sunnybrook Research Institute, Toronto, Ontario, Canada
2003 - 2004 Associate Scientist, Clinical Epidemiology, Sunnybrook & Women’s Research Institute, Toronto, Ontario, Canada

**UNIVERSITY**

2000 - 2002 Lecturer (Adjunct I), Oncology, Queen’s University at Kingston, Kingston, Ontario, Canada
2000 - 2002 Health Policy Research Fellow, Radiation Oncology Research Unit, Kingston Regional Cancer Centre, Kingston, Ontario, Canada

**UNIVERSITY - CROSS APPOINTMENT**

2007 - 2015 Cross Appointment, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

**UNIVERSITY - RANK**

2003 - 2011 Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2002 - 2003 Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

**3. HONOURS AND CAREER AWARDS**

**Distinctions and Research Awards**

**NATIONAL**

Received

2001 **Research Fellow**, National Cancer Institute of Canada (NCIC). (Research Award)
*Estimating the Need for Radiotherapy in Ontario: An Evidence Based Epidemiological Approach*. Total Amount: 47,500

**PROVINCIAL / REGIONAL**

Received

2004 - 2009 **Career Scientist Award**, Ontario Ministry of Health and Long Term Care. (Research Award)
*The Quality of Palliative and End of Life Care in Cancer Patients*. Total Amount: 301,875
2000 **Clinical Research Fellowship**, Cancer Care Ontario. (Research Award)
*Total Amount: 56,000*

**LOCAL**

Received
2015 Academic Performance Award, Odette Cancer Centre. (Research Award)
2011 Best Annual Research Performance Award, University of Toronto, Toronto, Ontario, Canada. (Research Award)
2011 Outstanding Performance Award, Odette Cancer Centre, Toronto, Ontario, Canada. (Research Award)
2010 Academic Performance Award, Odette Cancer Centre, Toronto, Ontario, Canada. (Research Award)
2009 Academic Performance Award, Odette Cancer Centre, Toronto, Ontario, Canada. (Research Award)
2006 Outstanding Research Potential, University of Toronto, Toronto, Ontario, Canada. (Research Award)
2005 Academic Performance Award, Sunnybrook and Women’s College Health Sciences Centre. (Research Award)
1999 W.J. Simpson Award, University of Toronto, Toronto, Ontario, Canada. (Research Award) Residents’ Research Day.

Teaching and Education Awards
LOCAL
Received

2013 Postgraduate Advocacy and Mentorship Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Department of Radiation Oncology

Student/Trainee Awards
LOCAL
Received

2015 Chair's Award for Academic Excellence in Research, Awardee Name: Hamid-Reza Raziee. University of Toronto, Department of Radiation Oncology

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

- 2012 - present Member, International Gynecologic Cancer Society
- 2011 - present Member, European Society of Gynecologic Oncology (ESGO)
- 2009 - present Member, American Society of Clinical Oncology (ASCO)
- 2004 - present Member, Canadian Association of Health Services and Policy Research (CAHSPR)
- 2003 - present Member, Academy Health
- 1998 - present Member, American Society of Therapeutic Radiation Oncology (ASTRO)
- 1997 - present Member, Canadian Association of Radiation Oncologists (CARO)
- 1993 - present Member, Canadian Medical Association
- 1993 - present Member, Canadian Medical Protective Association (CMPA)
- 1993 - present Member, Ontario Medical Association
Administrative Activities

INTERNATIONAL

American Society of Clinical Oncology

2016 Symposium Faculty, Quality of Care Symposium
2015 May - 2018 Apr Member, Quality of Care Committee, United States.
2015 May - 2018 Apr Member, Patient Reported Outcomes Sub-Committee, United States.

NATIONAL

Canadian Association of Radiation Oncology (CARO)

2000 - 2002 Observer, Manpower Committee, Canada.
1998 - 2000 Chair, Residents and Fellows Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Canada.

Canadian Partnership Against Cancer (CPAC)

2014 - present Member, Person Centred Perspective Measurement Steering Committee, Toronto, Ontario, Canada.
2016 Member, PEO LC Research Framework Working Group
2013 - 2014 Member, Measurement Methodology Working Group, Toronto, Ontario, Canada.

Canadian Partnership for Quality Radiotherapy (CPQR)

2013 Jan 31 Participant, Consensus Delphi meeting, Mont Tremblant, Quebec, Canada.

PROVINCIAL / REGIONAL

Cancer Care Ontario

2015 - present Chair, Patient Reported Outcomes Steering Committee, Toronto, Ontario, Canada.
2014 - present Chair, Gyne Community of Practice "Models of Care" Working Group, Toronto, Ontario, Canada.
2013 - present Member, Sexual Health in Cancer Community of Practice, Toronto, Ontario, Canada.
2012 - present Member, Gyne Community of Practice, Toronto, Ontario, Canada.
2014 - 2016 Chair, Program in Evidence Based Medicine (PEBC) “Sexual Health in Cancer Survivors” Working Group, Toronto, Ontario, Canada.
2014 - 2015 Member, Patient Reported Outcomes Steering Committee, Toronto, Ontario, Canada.
2011 - 2012 Member, Multidisciplinary Cancer Conference, Measurement Committee, Ontario, Canada.
2006 - 2008 Member, Provincial Palliative Care Integration, Performance Measurement and Evaluation Team, Ontario, Canada.
2006 - 2007 Member, Program in Evidence Based Care; Nursing, Palliative Care and Supportive Care Guideline Group Steering Committee, Ontario, Canada.

Cancer Quality Council of Ontario (CQCO)

2006 - present Contributor, Cancer System Quality Index, Toronto, Ontario, Canada.
2012 Jul 23 Panel Member, Programmatic Review of Palliative Care, Toronto, Ontario, Canada.
2006 Member, Signature Event on Palliative Care Steering Committee, Ontario, Canada.

Ministry of Health and Long Term Care (MOHLTC)

2013 - 2015 Member, Provincial Hospice Palliative Care Data and Performance Subcommittee, Toronto, Ontario, Canada.
Ontario Institute for Cancer Research
2009 - present  Member, Health Services Research Program Management Committee, Ontario, Canada.

LOCAL
Odette Cancer Centre
2011 - present  Lead, Gyne Radiation Site Group, Toronto, Ontario, Canada.
2002 - present  Member, Radiation Oncology Associates, Toronto, Ontario, Canada.
2014 - 2016  Chair, Radiation Oncology Associates, Toronto, Ontario, Canada.
2007 - 2015  Director, SHARE: Sexual Health Rehabilitation Clinic, Toronto, Ontario, Canada.
2004 - 2006  Member at Large, Radiation Oncology Associates, Executive Committee, Toronto, Ontario, Canada.

University of Ottawa
1991 - 1993  Student Representative, Student Advisory Group, Ottawa, Ontario, Canada.
1991 - 1992  Secretary, Student Advisory Group, Ottawa, Ontario, Canada.

University of Toronto
2012 - present  Member, Department of Radiation Oncology, Appointments Committee, Toronto, Ontario, Canada.
2015  Member, Department of Radiation Oncology, Target Insight Scientific Program Committee, Toronto, Ontario, Canada.
2006  Member, Preparation of University of Toronto, Faculty Statement for external departmental review, Toronto, Ontario, Canada.
2003 - 2005  Member, Department of Radiation Oncology, Ethics Review Committee, Toronto, Ontario, Canada.
1997 - 1998  Junior Resident Representative, Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

Peer Review Activities

GRANT REVIEWS
External Grant Reviewer
2012  Cancer Research, United Kingdom
2008  Alberta Heritage Foundation for Medical Research, Investigator Award Competition, declined due to conflict of interest
2007  Canadian Institutes of Health Research, ’International Opportunities Program - Collaborative Research Project Grant’ RFA

Reviewer
2015  Canadian Cancer Society Research Institute (CCSRI), Knowledge to Action Grants - Review Panel
2013 May 8  Canadian Cancer Society Research Institute (CCSRI), Innovation 13-2 Panel I5, Prevention and Cancer Outcomes
2011 - 2012  Canadian Institutes of Health Research (CIHR), Doctoral Research Awards and Canada Graduate Scholarships Master’s Award
2009 - 2010  Ontario Institute for Cancer Research, Health Services Research
MANUSCRIPT REVIEWS
Reviewer

BMC Cancer
BMC Palliative Care
Canadian Medical Association Journal
Cancer
Clinical Oncology
Gynecologic Oncology
Healthcare Policy
International Journal of Gynecological Cancer
International Journal of Radiation Oncology Biology and Physics
Journal of Clinical Oncology
Journal of Oncology Practice
Journal of Pain and Symptom Management
Journal of Palliative Care
Journal of Palliative Medicine
Journal Thoracic Oncology
Lung Cancer
Pain Research and Management
Palliative Medicine
Psychooncology
Radiotherapy and Oncology

PRESENTATION REVIEWS
Reviewer

2013 Nov 4
Canadian Institute of Health Research (CIHR) & Canadian Cancer Society Research Institute (CCSRI), New PI poster judging, Canadian Cancer Research Conference, Number of Reviews: 11

Abstract Reviewer

2012
Canadian Association of Radiation Oncologists (CARO)

2006
Ontario Provincial Conference on Palliative and End-of-Life Care: Judge of Oral Presentations

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2016 Aug - 2019 Jul

Lisa BARBERA

[Grants]


2010 - 2014


2010 - 2013


2009 - 2013


2009 - 2011


2008 - 2010


2008 - 2009

**Co-Investigator.** Health care utilization and location of death of patients in Ontario with end-stage chronic non-malignant conditions. Physician Services Incorporated Foundation. Collaborator(s): Del Guidice L, Amin P, Syed S, Barbera L. 8,500. [Grants]

2008 - 2009

**Co-Investigator.** Development of an internet-based support group for sexual problems due to gynaecologic cancer. National Cancer Institute of Canada (NCIC). Collaborator(s): Classen C, Ferguson S, Barbera L, Wiljer D. 42,000 CAD. [Grants]

2008 - 2009


2007 - 2011


2007 - 2010


2007

**Co-Investigator.** Improving access to quality palliative care for cancer patients. Canadian Institute of Health Research (CIHR). Collaborator(s): Brazil K, Howell D, Williams A, Husain A, Sussman J, Barbera L. 10,000 CAD. [Grants]

2006 - 2009

**Principal Investigator.** Improving the delivery of palliative care in Ontario. Cancer Care
Lisa BARBERA


2006 - 2007

2004 - 2006

2003 - 2004

NON-PEER-REVIEWED GRANTS

FUNDDED

2014 Jan
Principal Investigator. Impact of ESAS Screening on emergency department visits in metastatic colorectal cancer patients receiving chemotherapy. Cancer Care Ontario (CCO). Collaborator(s): Krzyzanowska M, Sutradhar R. 15,000 CAD. [Grants]

2008

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


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### 2. NON-PEER-REVIEWED PUBLICATIONS

#### Journal Articles

1. **Barbera L**. Effects of pelvic radiation therapy on fertility. CME J Gynecol Oncol. 2003;8(2):101-106. **Principal Author**.

#### Book Chapters


#### Monographs

1. **Barbera L**. Explicit rationing of health care. A project submitted to the school of policy studies in partial fulfillment of the requirements for the degree of Master of Public Administration at Queen’s University. Radiation Oncology Research Unit, Kingston, Ontario. **Principal Author**.

#### Internet Publications


#### Reports


3. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts


Lisa BARBERA


2010 The development and pilot testing of a web-based support group for women with sexual problems due to gynaecologic cancer. 12th World Congress of Psycho-Oncology (IPOS) Annual Scientific Meeting. Quebec City, Quebec, Canada. Classen CC, Ferguson S, Chivers M, Urowitz S, Barbera L, and Wiljer D. #0340, 2010.


Presented and Published Abstracts


Publication Details:

2015 Mar 30 Co-Author. Use of sexual function measures in intervention studies with female cancer patients: Results from a systematic review. World Congress of Psycho-Oncology Meeting (IPOS).

Publication Details:

**Publication Details:**

2015 **Co-Author.** Study of Sexuality among Gynecologic Cancer Patients: Systematic Review Details Assessments Used. World Congress of Psycho-Oncology Meeting (IPOS).

**Publication Details:**

2014 Nov 10 **Presenter.** Does a groin node dissection in vulvar cancer decrease the risk of groin recurrence? International Gynecologic Cancer Society Meeting (IGCS).

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2014 **Presenter.** Does routine symptom screening with the Edmonton Symptom Assessment Symptom (ESAS) decrease emergency department visits in breast cancer patients undergoing adjuvant chemotherapy? American Society of Clinical Oncology.

**Publication Details:**
Krzyzanowska M. Does routine symptom screening with the Edmonton Symptom Assessment Symptom (ESAS) decrease emergency department visits in breast cancer patients undergoing adjuvant chemotherapy? J Clin Oncol. 2014;32(5s):(suppl;abstr 6514). **Principal Author.**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2012 **Co-Author.** Trajectory of performance status and symptom scores in the last six months of life in gynecologic cancer patients. International Gynecologic Cancer Society Meeting (IGCS).

**Publication Details:**
Spoozak L, Seow H, Wright JD, **Barbera L**. Trajectory of performance status and symptom scores in the last six months of life in gynecologic cancer patients. Int J Gynecol Cancer. 2012;22(8):Suppl 3. **Coauthor or Collaborator.**

2012 **Co-Author.** Risk of recurrence in stage III, high-grade endometrial cancer (HEC), by primary tumor factors (PFT) and treatment received. International Gynecologic Cancer Society Meeting (IGCS).

**Publication Details:**
Eiriksson LR, Kaur Kh, Ismiil N, Covens A, **Barbera L**. Risk of recurrence in stage III, high-grade endometrial cancer (HEC), by primary tumor factors (PFT) and treatment received. Int J Gynecol Cancer. 2012;22(8):Suppl 3. **Coauthor or Collaborator.**

Publication Details:

2011

Publication Details:

2010

Publication Details:

2010

Publication Details:

2010

Publication Details:

2009
Co-Author. Importance of stratification when measuring quality of care: Results from the project for an Ontario Women’s Health Evidence-Based Report Card (POWER) study. American Society of Clinical Oncology (ASCO) Scientific Meeting. Orlando, Florida, United States.

Publication Details:

2009

Publication Details:
6556. Principal Author.


2008 Co-Author. Utilization of preoperative imaging among uterine cancer patients.


2006 Co-Author or Collaborator. Involvement of family physicians in the care of patients seen in the Rapid Response Radiotherapy Program. Multinational Association of Supportive Care in Cancer (MASCC) Scientific Meeting. Toronto, Ontario, Canada.


Publication Details:  

2. NATIONAL

Invited Lectures and Presentations

2016 May 9  Session Chair. Concurrent Sessions B - Patient-Oriented Research in Cancer Care. Canadian Centre for Applied Research in Cancer Control (ARCC).

2015 Jan 15  Visiting Professor. Quality of End of Life Care in Cancer: Results of of a Four Provincial Study. Tom Baker Cancer Centre.

2015 Jan 14  Visiting Professor. University of Calgary, Community Health Sciences Department, Clinician Investigators Program. Calgary, Alberta, Canada.

2011  "Gyne Gals: a web-based support group for women sexually distressed due to gynaecologic cancer". The Canadian Association of Psychosocial Oncology Symposium. Toronto, Ontario, Canada.


Presented Abstracts


Presented and Published Abstracts

2016 Sep Co-Author or Collaborator. Models of Care for Cervical Cancer Brachytherapy In Ontario. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Chan K, Barbera L, Ang M, Schnider A; Benwell Q, DSouza D; Milosevic M. Poster Presentation

Publication Details:

Publication Details:

2015 Sep
Abstract 100.

Publication Details:

2015 Sep
Abstract 114.

Publication Details:

2014

Publication Details:

2013 Sep

Publication Details:

2013 Mar
The significance of primary tumor factors and treatment received in risk of recurrence in clinical stage I high-grade endometrial adenocarcinoma. Society of Obstetricians and Gynaecologists of Canada Meeting.

Publication Details:

2013

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2004 Presenter. Lung cancer patient’s visits to the emergency room in the last two weeks of life. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Halifax, Nova Scotia, Canada.

Publication Details:
Barbera L, Paszat L, Chartier C. Lung cancer patient’s visits to the emergency room in the last two weeks of life. Radiother Oncol. 2004;72(Suppl 1):#141. Principal Author.


Publication Details:
Barnes E, Ackerman I, Barbera L, Lee D, Makhani N, Sankreacha R. Prospective comparison of clinical
and CT assessment in selectron placement for LDR cervix brachytherapy. Radiother Oncol. 2004;72(Suppl 1):#160. **Coauthor or Collaborator.**

2003 **Presenter.** A population-based study of the processes of care in lung cancer in Ontario. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*  

2003 **Co-Author.** Uterine perforation detection during selectron insertion with routine pelvic CT. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*  
Barnes E, Ackerman I, **Barbera L**, Makhani N, Sankreacha R, Morton G. Uterine perforation detection during selectron insertion with routine pelvic CT. Radiother Oncol. 2003;69(Suppl 1):#95. **Coauthor or Collaborator.**


*Publication Details:*  
**Barbera L**, Foroudi F, Walker H, Mackillop WJ. Estimating the cost and benefit of radiotherapy for lung cancer. Radiother Oncol. 2002;65(Suppl1):#152. **Principal Author.**

2002 **Presenter.** An evidence based estimate (EBEST) of the appropriate radiotherapy utilization rate for prostate cancer. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

*Publication Details:*  

2002 **CoAuthor.** A comparison of an evidence based prediction for breast cancer radiotherapy rates with benchmark and actual radiotherapy rates in Ontario. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

*Publication Details:*  


*Publication Details:*  


*Publication Details:*  
versus predicted rates. Radiother Oncol. 2001:#49. **Principal Author.**


**Publication Details:**


**Publication Details:**

**2000 Presenter.** The role of CT in the assignment of T category in laryngeal cancer. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Edmonton, Alberta, Canada.

**Publication Details:**

**2000 Co-Author.** Two decades of waiting for radiotherapy in Ontario. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Edmonton, Alberta, Canada.

**Publication Details:**

**1999 Presenter.** Daily treatment time with four field breast radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

**Media Appearances**


**Other Presentations**

**2015 Jul 29** **Moderator - Webinar.** Healthcare Provider Perspectives on Symptom Management Guideline Use. The Canadian Centre of Excellence in Oncology Advanced Practice Nursing (OAPN).

**3. PROVINCIAL / REGIONAL**

**Invited Lectures and Presentations**

**2016 Jun 2** **Invited Speaker.** Patient Reported Outcomes in Cancer. Royal Victoria Hospital.

**2016 Apr 7** **Invited Speaker.** Quality of End of Life Care Results of Four Province Study. Juravinski Cancer Centre.
2015 Sep 22 **Invited Speaker.** Using Patient Reported Outcomes to Improve the Quality of Care. London Health Sciences Centre, Oncology Grand Rounds. London, Ontario, Canada.

2014 Jun 12 **Presenter.** Does routine screening with the Edmonton Symptom Assessment System (ESAS) decrease emergency department visits in breast cancer patients undergoing adjuvant chemotherapy? Cancer Care Ontario Symptom Management Summit. Toronto, Ontario, Canada.


2013 Jun 18 Updates in Oncology 2013: Sex! Now that I have your attention...the importance in addressing sexuality in female cancer patients. Simcoe Muskoka Regional Cancer Program. Barrie, Ontario, Canada.


2013 May 3 **Target Insight VII: Rethinking Radiation Therapy for Metastatic Cancer: Where are we with ESAS in Ontario?** From screening to action. CEPD Faculty of Medicine, University of Toronto. Toronto, Canada.

2013 **Patient reported symptom data and performance status at a provincial level.** Ontario Symptom Management Collaborative; Face to Face Meeting. Toronto, Ontario, Canada.

2012 **Symptom assessment and management using Cancer Care Ontario data.** The Ottawa Hospital. Ottawa, Ontario, Canada. The Ottawa Hospital Cancer Centre, Special Oncology Grand Rounds.


2011 **“Cure at what cost: managing survivorship issues following radical abdominal pelvic treatments”.** Toronto Cancer Education Conference & Medical Exposition. Toronto, Ontario, Canada.


2009 **“Palliative Care Health Services Research Network”.** The Ontario Institute for Cancer Research, Health Services Consultative Workshop. Toronto, Ontario, Canada.


2006 **“Improving Palliative and End of Life Care in Ontario”.** Princess Margaret Hospital, Radiation Medicine Program Rounds. Toronto, Ontario, Canada. (with video link to Northeastern Ontario Regional Cancer Centre).


**Presented Abstracts**

2013 Apr Who doesn’t receive homecare in the last months of life? Factors associated with use and earlier referral

2013

2010

2006

2006

Continuing Medical Education

2013

4. LOCAL

Invited Lectures and Presentations


2016 Mar 30 Invited Speaker. Sexual Health Guideline KTE. Sexual Health in Cancer CoP.


2013
Patient reported symptom data and performance status at a provincial level updated results. University of Toronto, Department of Radiation Oncology Rounds. Toronto, Ontario, Canada.

2012
Cancer patients visiting the emergency department. The Odette Cancer Centre. Toronto, Ontario, Canada. Oncology Grand Rounds.

2011
“What’s functioning got to do with it? What we are learning from routine collection of PPS scores”. Princess Margaret Hospital. Toronto, Ontario, Canada. Innovation Rounds, 2011.

2007
“Patterns of End-of-Life Care in Elderly Cancer Patients in Ontario”. The University of Toronto, Institute for Life Course and Aging. Toronto, Ontario, Canada.

2007

2006
“Improving Palliative and End of Life Care in Ontario”. Princess Margaret Hospital, Radiation Medicine Program Rounds and Video Conference. Toronto, Ontario, Canada.

2005
“Management of Side Effects from Chemotherapy and Radiation”. University of Toronto, Continuing

2005

“Quality Indicators in End of Life Care in Cancer Patients”. CEU/Institute for Clinical Evaluative Sciences, Conjoint Evaluative Sciences Rounds. Toronto, Ontario, Canada.

2005


Presented Abstracts

2016 May


2016


2016


2016


2015 Jun 23


2015 May 9


2015 Apr 20


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

2007 - 2008

Primary Supervisor. MSc. L. Gien. Utilization of diagnostic imaging among uterine cancer patients in Ontario.

Postgraduate MD

2015 May

Clinical Research Fellow (MD)

2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member
2011 - 2013  PhD. A. Gill. Identifying factors that influence emergency room department use in home palliative care patients.

ICES Supervisor

Mentor
2013 - 2014  MSc. Kate Pulman.
2011 - 2012  MSc. L. Eiriksson. Patterns of treatment and failure for grade II endometrial cancer.

Postgraduate MD

External reviewer for internal PhD thesis defense
2014 Oct  PhD. Sarah Hales, Medical Science. The quality of dying and death in advanced cancer from the perspective of bereaved caregivers.
A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone (416) 480-4951
Cellphone (416) 471-8433
Fax (416) 480-6002
Email toni.barnes@sunnybrook.ca

1. EDUCATION

Degrees
1993 - 1996 MD, The University of Calgary, Calgary, Alberta
1989 - 1993 BSc, Biochemistry, Queen’s University, Kingston, Ontario

Postgraduate, Research and Specialty Training
2001 - 2002 Symptom Control and Palliative Care Fellowship, Radiation Oncology, MD Anderson Cancer Center, Houston, Texas, United States
1997 - 2001 Radiation Oncology Residency, Radiation Oncology, Cross Cancer Institute, Edmonton, Alberta, Canada
1996 - 1997 Internship, University of Alberta, Edmonton, Alberta

Qualifications, Certifications and Licenses
2003 American Board of Hospice and Palliative Medicine (ABHPM), License / Membership #: 2260
2002 Fellow FRCP(C), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, License / Membership #: 522948
1999 United States Medical Licensing Examination
1998 Licentiate (LMCC), Medical Council of Canada
2. EMPLOYMENT

Current Appointments
2002 Dec - present  Assistant Professor, Department of Radiation Oncology, Sunnybrook Health Sciences Centre
2002 - present  Medical Staff, Department of Radiation Oncology, Sunnybrook Health Sciences Centre

Previous Appointments
UNIVERSITY - RANK
2002 Sep - 2002 Dec  Lecturer, Department of Radiation Oncology, Sunnybrook Health Sciences Centre

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received

2000  MDS Nordion Award, Canadian Association of Radiation Oncologists, Edmonton, Alberta. (Distinction)
For resident podium presentation at Annual Scientific Meeting.

PROVINCIAL / REGIONAL
Received

1989 - 1993  Provincial Scholarship, Queen’s University. (Distinction)

LOCAL
Received

1993  Summer Electives Award, The University of Calgary. (Distinction)
1992  Dean’s Honor Roll, Queen’s University. (Distinction)

OTHER
Received

2013 Mar  A Sunnybrook Moment of Service Excellence, Sunnybrook Health Sciences Centre, Ontario, Canada. (Outstanding Service and Dedication to Patients)
In honour of outstanding service and dedication to patients - Office of The Patient Experience Certificate of Recognition.
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

INTERNATIONAL

ASTRO Health Services
2003 - 2005  Member, Research Committee, United States.

Evidence-based Practice Center at Brown University
Technical Expert, Treatments for Non-Melanoma Skin Cancers, Agency for Healthcare Research and Quality (AHRQ), Providence, Rhode Island, United States.

Society for Palliative Radiation Oncology
2014 - present

NATIONAL

National Cancer Institute of Canada/Clinical Trials Group
2008 - present  Symptom Control Chair, NCIC Symptom Control Group, Ontario, Canada.
2003 - present  Department Representative, NCIC Symptom Control Group, Ontario, Canada.

LOCAL

Odette Cancer Centre
2005 - present  Chair, Skin Site Group, Ontario, Canada.
2005 - present  Radiation Oncology Site Group Lead Skin Site Group, Ontario, Canada.

Sunnybrook Health Sciences Centre
2014 Feb - present  Hand Hygiene - Physician Champion Committee, Toronto, Ontario, Canada.

University of Toronto
2015 Dec 4  Examiner, CPEE Planning Exams, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

OTHER

Michener Institute for Applied Health Sciences
2014 Oct 30  OSCE, Toronto, Ontario, Canada.

Peer Review Activities

EDITORIAL BOARDS

Member
2001 - present  Odette Cancer Centre, Hotspot, Educational Newsletter for the community oncologists and palliative care physicians from Rapid Response Radiotherapy Program
MANUSCRIPT REVIEWS

Reviewer
2014  BJR
2014  International Journal of Radiation Oncology Biology Physics
2014  Supportive Care in Cancer
2013  BMJ
2013  Int J Rad Onc Biol Phys
2013  J Support Care Cancer
2012  Clinical Oncology
2012  Journal of Supportive Care in Cancer
2012  Palliative Medicine
2011  Clinical Oncology
2011  European Journal of Surgical Oncology
2011  International Journal of Radiation Oncology, Biology, Physics
2010 - 2011  Journal of Cutaneous Medicine & Surgery
2010  Radiation Oncology
2009  Current Oncology
2008 - 2009  International Journal of Radiation Oncology, Biology, Physics
2008  Expert Opinion on Pharmacotherapy
2008  Expert Review of Pharmacoconomics and Outcomes Research
2008  Journal of Supportive Care in Cancer
2006  Clinical Oncology
2006  International Journal of Radiation Oncology, Biology and Physics
2006  Journal of Pain and Symptom Management
2006  Radiotherapy and Oncology

Other Research and Professional Activities

RESEARCH PROJECT
2011  3 year review of outcomes following RT for NMSC.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED
Collaborator(s): Chin, L; Babic S. 40,000 CAD. [Grants]

2006


2005 Jul - 2007 Jun


2003


**D. Publications**

1. **1. MOST SIGNIFICANT PUBLICATIONS**


2. **2. PEER-REVIEWED PUBLICATIONS**

   **Journal Articles**


Elizabeth Antonia BARNES


Elizabeth Antonia BARNES


Elizabeth Antonia BARNES


Elizabeth Antonia BARNES


Elizabeth Antonia BARNES


106. Barnes EA and Thomas G. Integrating radiation into the management of vulvar cancer. Semin Radiat Oncol. 2006;16(3):168-76. **Principal Author.**


**Case Reports**


**Book Chapters**


Letters to Editor


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


**Book Chapters**


**Letters to Editor**


**Multimedia**

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2009

Publication Details:

2008
Referring physicians expectations of palliative radiotherapy for brain metastases. American Society for Therapeutic Radiology and Oncology (ASTRO), 50th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2008

Publication Details:

2006
Involvement of family physicians in the care of patients receiving palliative radiotherapy. Multinational Association of Supportive Care in Cancer (MASCC) 18th Annual Meeting. Toronto, Ontario.

Publication Details:

2004
Referring physician expectations of palliative whole brain radiotherapy. Multinational Association of Supportive Care in Cancer (MASCC) Annual Meeting. Miami Beach, Florida, United States.

Publication Details:

2003
Symptom control and palliative care. Canadian Association of Radiation Oncologists Annual Meetings. Meeting of the Association of Supportive Care in Cancer, 15th Annual Meeting. Berlin, Germany.

Publication Details:

2000
Dosimetric evaluation of lung tumor immobilization at deep inspiration breath hold. American Society for Therapeutic Radiology and Oncology (ASTRO), 42nd Annual Meeting. Boston, Massachusetts, United States.
Publication Details:  

1999  
Communication between primary care physicians and radiation oncologists regarding palliative care cancer patients. American Society for Therapeutic Radiology and Oncology (ASTRO), 41st Annual Meeting. San Antonio, Texas, United States.

Publication Details:  

2. NATIONAL

Invited Lectures and Presentations

2012 Sep 12 Invited Speaker. Palliative RT for Merkel cell cancer. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada. Presenter(s): Barnes, E.


2007 Apr 22 Exploring Interprofessional and Collaborative Roles for Patient-Centered Care. 4th Annual Toronto Radiation Medicine Conference. King City, Ontario, Canada.

Presented Abstracts

2006  
The role of family physicians in the care of patients receiving palliative radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta, Canada.

2004  
Symptom control and palliative care. Canadian Association of Radiation Oncology (CARO) Annual Meeting.

2001  
Palliative radiotherapy for patients with painful bone metastasis: Survey of PCPs regarding factors influencing patient referral. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec, Canada.

2000  
Dosimetric evaluation of lung tumor immobilization at deep inspiration breath hold. Canadian Association of Radiation Oncology Annual Scientific Meeting. Edmonton, Alberta, Canada.

Presented and Published Abstracts


Publication Details:  

Presenter(s): **Barnes E.**

**Publication Details:**


2014 Aug 27


**Publication Details:**


2014 Aug 25

Palliative radiotherapy for merkel cell carcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**


2012

Clinical implementation of post-operative gynecologic IMRT with single CT simulation: Dosimetric advantages compared to 3D-conformal. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada.

**Publication Details:**

Wiebe E., Presutti J., Davidson M., Yip K., Ackerman I., Barnes T., Thomas G., Barbera L. Clinical implementation of post-operative gynecologic IMRT with single CT simulation: Dosimetric advantages compared to 3D-conformal. Radiother Oncol. 2012;104(Suppl 2):S12, 30. **Coauthor or Collaborator.**

2012

Predictors of radiotherapy failure in non melanoma skin cancer. Canadian Association of Radiation Oncology. Ottawa, Ontario, Canada.

**Publication Details:**


2011

Recommendations for CTV margins in radiotherapy planning for nonmelanoma skin cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba, Canada.

**Publication Details:**


2011

Radiotherapy for nonmelanoma skin cancer of the nose. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba, Canada.

**Publication Details:**


2011

Dexamethasone toxicity and quality of life in patients with brain metastases treated with whole brain radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba,

Publication Details:


Publication Details:

2011 Functional interference due to pain following palliative radiotherapy for bone metastases among patients in their last three months of life. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011 Palliative radiotherapy for bone metastases in the last three months of life: worthwhile or futile? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2009 Symptom control and quality of life. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

2009 Five year review of the non melanoma skin cancer clinic at the Odette Cancer Centre. Canadian Association for Radiation Oncology (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada.

Publication Details:

2009 Current practice for the prophylaxis and management of radiation induced skin reactions. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec, Canada.
**Publication Details:**

**2009**
Impact of RTT initiated booking guidelines on wait times for non melanoma skin cancer patients. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec, Canada.

**Publication Details:**

**2008**
Symptom cluster in patients with brain metastases treated with whole brain radiotherapy. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**

**2008**
Palliative radiation for nonmelanoma skin cancer. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**

**2006**
The role of family physicians in the care of patients receiving palliative radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta, Canada.

**Publication Details:**

**2004**

**Publication Details:**

**2003**
Uterine perforation detection during selectron insertion with routine pelvic CT. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

### 3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**

**2007 Apr 24**

4. LOCAL

Invited Lectures and Presentations


5. OTHER

Presented and Published Abstracts


Publication Details:

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2009 Jul - 2010 Jun  **Primary Supervisor.** B. Sc. Rosie Presutti, University of Waterloo.


2008 Grant of 800 pounds from the Cancer and Bone Society for VII International mtg on cancer induced bone disease

2008 Co-Op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo

2008 Canadian Association for Co-operative Education Co-Op Student of the Year-Honorable Mention

2008 Michael and Karyn Goldstein Travelling Award

2008 Education at Work O.

2008 Jul - 2009 Jul  **Primary Supervisor.** B. Sc. Nadia Salvo, University of Waterloo. *Skin prophylaxis.* Awards: 2008 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo.


2008 Co-Op Student of the Year for Faculty of Science, University of Waterloo, Honourable Mention.

2007 Jul - 2009 Jun  **Primary Supervisor.** B. Sc. Candi Flynn, University of Waterloo. *Testicular cancer module development.* Awards: Scholarship for MSc degree in Clinical Epidemiology, U of Western Ontario

2008 Ontario Graduate Scholarship

2009 Ontario Graduate Scholarship.

2007 Jul - 2009 Jun  **Primary Supervisor.** B. Sc. Jennifer Wong, Queen’s University. *Quality of life in brain metastases.*


2007 Jul - 2008 Jun  **Primary Supervisor.** B. Sc. Amanda Hird, University of Waterloo. *Dexamethasone pain flare project.* Awards: 2007 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo

2007 Co-Op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo

2007 Canadian Association for Co-operative Education Co-Op Student of the Year-Honorable Mention

2007 Michael and Karyn Goldstein Travelling Award

2007 Education at Work Ontario Co-Op Student of the Year Nominee.

2006 Jul - 2009 Jun  **Primary Supervisor.** B. Sc. Andrea Kirou-Mauro, McMaster University. *Patient/proxy correlation of ESAS.*


Awards: 2008 Seymour Schulich Award in Nursing, U of T

2008 Hal Rogers endowment Award

2008 National Education & Research Award, Canadian Nursing Student’s Association


Primary Supervisor. B. Sc. Grace Fan, University of Waterloo. Symptom cluster.

Primary Supervisor. B. Sc. Gabriella Mallia, University of Waterloo. QOL in brain metastases.

Primary Supervisor. B. Sc. Sukirtha Tharmalingam, University of Waterloo. Bone metastases module. Patients and health care professionals perspectives on the most important quality of life issues in bone metastases. Awards: Young Investigators Award. MASCC/ISOO 18th International Symposium Supportive Care in Cancer, Toronto, June 2006 Scholarship for MSc Degree in Epidemiology, U of T Ontario Graduate Scholarship.


Primary Supervisor. B. Sc. Hannah Chiu, University of Waterloo. Gender difference in bone metastases.

Primary Supervisor. B. Sc. Kristin Harris, University of Waterloo. Supervisee Position: Medical Student, Supervisee Institution: U of T. Gender difference in brain metastases and bone metastases module development.


Primary Supervisor. B. Sc. Megan Doyle, University of Waterloo. Involvement of family physicians in the care of patients seen in the RRRP, referring physicians expectations of whole brain radiotherapy. Symptom profile of patients treated with radiotherapy for gynecologic cancers. Awards: Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, U of Waterloo City of Thunder Bay Medical Student Award.

Primary Supervisor. 2nd year, BSc. Nicole Bradley, University of Waterloo. Follow up on patients receiving palliative radiotherapy. Symptom profile of patients treated with radiotherapy for gynecological cancers.

Primary Supervisor. 3rd year, BSc. Leila Makhani, McMaster University. Hormone replacement therapy use after pelvic radiotherapy in premenopausal cervix cancer patients.


Primary Supervisor. B. Sc. Megan Doyle, University of Waterloo. Symptom profile of patients treated with radiotherapy for gynecologic cancers. Involvement of family physicians in the care of patients seen in the RRRP, referring physicians expectations of whole brain radiotherapy.

Graduate Education

Primary Supervisor. Meera Patel. Palliative care projects.
Postdoctoral Research Fellow (PhD)

2006 Jul - 2008 Jun

**Primary Supervisor.** Dr. Alysa Fairchild. *International patterns of practice of painful bone metastases.* Awards: The Best Poster Award. 11th Annual International Symposium on Palliative Medicine, Floriday, March 2007

Has the pattern of practice in the prescription of palliative thoracic radiotherapy for lung cancer changed between 1999 and 2006 at the RRRP? Young Investigator’s Award, MASCC 19th International Symposium Supportive Care In Cancer, St. Gallen, Switzerland, June 2007

Curriculum Vitae

Andrew John Bayley

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
610 University Avenue
Toronto, Ontario, Canada

Telephone 416-946-2121
Fax 416-946-4586
Email andrew.bayley@rmp.uhn.on.ca

1. EDUCATION

Degrees
1988 - 1992 MD, Faculty of Medicine, Queen’s University, Kingston, Ontario
1984 - 1988 BSc, Chemical Engineering, Department of Applied Science, Queen’s University, Kingston, Ontario

Postgraduate, Research and Specialty Training
1999 - 2000 Clinical Fellow, Radiation Oncology, University of Toronto, Princess Margaret Hospital
1995 - 1999 Resident, Radiation Oncology, University of Toronto, Princess Margaret Hospital & Toronto Sunnybrook Regional Cancer Centre
1992 - 1993 Comprehensive Internship, Internal Medicine, University of Toronto

Qualifications, Certifications and Licenses
2000 Board Certified, Therapeutic, American Board of Radiology
1999 FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2004 - present Assistant Professor, Radiation Oncology, University of Toronto
2000 - present Staff Radiation Oncologist, Princess Margaret Hospital/ University Health Network

Previous Appointments
HOSPITAL
2008 - 2009 Staff Radiation Oncologist Courtesy, Radiation Medicine Program, Southlake Regional Health Centre
1994 - 1995 Assistant Physician, Cardiology, Sunnybrook Health Sciences Centre
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2014 2014 Best of ASTRO Award, American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, United States. (Distinction) Refining UICC TNM Stage and Prognostic Groups for HPV-Related Oropharyngeal Carcinomas.

2014 2014 Best of ASTRO Award, American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, United States. (Distinction) Potential Cure in Oropharyngeal Cancer with Oligo-Metastasis.

Nominated

2014 Apr Best Poster Award in Physics, Rosewall et al. ESTRO 33, Vienna, Austria. (Distinction) How many fractions are necessary for an accurate accumulation of bladder wall dose?

NATIONAL

Received

1987 Summer Research Award, Natural Sciences and Engineering Research Council of Canada (NSERC). (Distinction)

LOCAL

Received

1999 R.S. Bush Award, University of Toronto Department of Radiation Oncology. (Distinction)
1995 Patient Care Award, Sunnybrook Health Sciences Centre. (Distinction)
1988 Bronze Medallist Chemical Engineering, Queen’s University. (Distinction)
1987 Limited Scholarship, Dow Chemical of Canada. (Distinction)
1986 Dean’s Award, Queen’s University. (Distinction)
1985 - 1988 Dean’s Scholar, Queen’s University. (Distinction)

OTHER

Received

1984 Honour Matriculation Scholarship. (Distinction)

Teaching and Education Awards

PROVINCIAL / REGIONAL

Received
2002 **Excellence in Clinical Teaching Award**, Professional Association of Interns and Residents of Ontario. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

INTERNATIONAL

Elekta Medical Systems
2002 - 2004 Synergy Research Consortium, X-ray Volume Imaging - Online Image Guided Therapy

NATIONAL

Royal College of Physicians and Surgeons of Canada
2009 - 2010 **Representative from Radiation Oncology**, Specialty Committee in General Surgical Oncology
2008 - 2012 **Committee Member**, Examination Board for Radiation Oncology Specialty

LOCAL

Princess Margaret Hospital
2011 - present **Member**, Radiation Medicine Program Quality Committee
2011 - present **Member**, Radiation Medicine Program External Beam Process Committee
2002 - present **Coordinator**, Radiation Medicine Program Genitourinary Site Group Quality Assurance: Treatment Planning and Check Film Rounds
2003 - 2007 **Member**, Radiation Medicine Program External Beam Process Committee
2003 - 2006 **Member**, Radiation Medicine Program Pinnacle Radiation Treatment Planning Program Implementation and QA group
2003 **Member**, Radiation Medicine Program Magnetic Resonance Imaging Simulator Committee
2001 **Member**, Radiation Medicine Program CT Simulator Selection Committee
1999 - 2000 **Chief Fellow**, Department of Radiation Oncology

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer

International Journal of Radiation Oncology Biology Physics
Radiotherapy and Oncology

C. Academic Profile

1. RESEARCH STATEMENTS

Clinical Trials in Prostate Cancer.
The main focus of my scholarly activity has been research into precision radiotherapy, specifically the use of intensity modulated radiation therapy in the management of high risk prostate cancer. Initial studies have resolved around the definition of CTV for high risk
prostate cancer, the use of MRI-CT co-registration, on line guidance and the acute and long term toxicity of dose escalated radiotherapy to the pelvic lymph nodes and prostate/seminal vesicles for high risk prostate cancer.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


NON-PEER-REVIEWED GRANTS

FUNDDED

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Andrew John BAYLEY


39. Rosewall T, Yan J, **Bayley A**, Kelly V, Pellizzari A, Chung P, Catton C. Inter-Professional Variability In The Assignment And Recording Of Acute Toxicity Grade Using The RTOG System During Prostate Radiotherapy. Radiother Oncol. 2009;90(3):396-399. **Coauthor or Collaborator.**


Andrew John BAYLEY


Letters to Editor

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

Book Chapters

Letters to Editor

Conference Publications


3. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts

2014 Sep Treatment Dilemmas for Synchronous and Metachronous Prostate and Rectal Cancers. 56th ASTRO Annual Meeting. San Francisco, California.

2014 Sep Refining UICC TNM Stage and Prognostic Groups for HPV-related Oropharyngeal Carcinomas. 56th ASTRO Annual Meeting. San Francisco, California.


2014 Apr How many fractions are necessary for an accurate accumulation of bladder wall dose? ESTRO 33. Vienna, Austria.


2013 Feb Temporal Regression and Regional Control Following Primary Radiotherapy for HPV(+) vs. HPV(-) Head & Neck Cancers. ICHNO Fourth Meeting. Barcelona, Spain.


2007 A Randomized Trial of Cone Beam CT Evaluating Inter- and Intra-fraction Setup Error of Head and Neck Cancer Patients Treated with a Skin-Sparing Mask Compared to a Standard S-frame Mask. ASTRO Annual Meeting. Los Angeles, California.

2007 Changes In Position And Size Of Parotid Glands Assessed With Daily Cone-beam CT During Image-guided Imrt For Head And Neck Cancer: Implications For Dose Received. ASTRO Annual Meeting. Los Angeles, California.


2007  Changes In Position And Size Of Parotid Glands Assessed With Daily Cone-beam CT During Image-guided Imrt For Head And Neck Cancer: Implications For Dose Received. ASTRO Annual Meeting. Los Angeles, California.


2005  Patient-Assessed Late Toxicity Following High-Dose Image-Guided Radiation Therapy for Prostate Cancer and Correlation with Dose-Volume Histograms. ASTRO Annual Meeting. Denver, Colorado.


2002  Using Digitally Composited Radiographs As Reference Images During Conformal Prostate Treatment at the Princess Margaret Hospital, Toronto, Ontario. Association of Medical Radiation Therapist Meeting. Giovinazzo J, Swanson LA, Haycocks T, Kelly V, Alasti H, Bayley A, Catton C.


Other Lectures and Presentations


2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts

2013 Aug Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy Compared to Primary Laryngectomy. (CARO) COMP Annual Meeting. Montreal, Quebec.

2006 Sites of Neck Failure in Relation to Midline Cord Shielding in Nasopharyngeal Carcinoma: Analysis in IMRT Era. CARO.

2006 The Effect of Abdominal Compression on Prostate Inter and Intrafraction Motion During Conformal Radiotherapy of The Prostate. CARO Annual Scientific Meeting.


2002 A Dose Volume Histogram Analysis Of The Seminal Vesicles In Men Treated With Conformal Radiotherapy To The Prostate Alone. Canadian Association of Radiation Oncologist Annual Meeting.


Presented and Published Abstracts


Publication Details:


Publication Details:

2014 Aug Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.
Publication Details:

2014 Aug
Role of radiotherapy in management of nasal and sinonasal squamous cell carcinoma. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

Publication Details:

2014 Aug

Publication Details:

2014
The prognostic value of pre-treatment circulating neutrophils in oropharyngeal cancer by HPV status. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

Publication Details:

Other Lectures and Presentations

2004 Sep

2002 Sep

2001 Sep

1997 Sep
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2010 What is new in hormone therapy for prostate cancer. US TOO men’s support group. Brampton.

4. LOCAL

Invited Lectures and Presentations

2006 Radiation strategies to preserve salivary function. The 8th Annual Wharton Day at the Princess Margaret Hospital. Toronto.
2003 Prostate Cancer Radiation Therapy Treatment Selection. Princess Margaret Hospital, Radiation Therapy Continuing Education, Genitourinary Site Group Meeting. Toronto. (Continuing Education).
2002 Hormonal Therapy in Prostate Cancer. Princess Margaret Hospital, Radiation Therapy Continuing Education, Genitourinary Site Group Meeting. Toronto. (Continuing Education).

Presented Abstracts

5. OTHER

Presented and Published Abstracts

2015 Feb  Refining UICC TNM stage and prognostic groups for non-metastatic HPV-related oropharyngeal carcinomas.


2015 Feb  Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status.


2015 Feb  ‘Cure’ is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis.


2013 Aug  Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy Compared to Primary Laryngectomy.


2013 Apr  Altered Fractionation Radiotherapy for Elderly Patients with Locally Advanced Head and Neck Cancer.


2013 Feb  Temporal Regression and Regional Control Following Primary Radiotherapy for HPV(+) vs. HPV(-) Head & Neck Cancers.

2012 Nov  
Neck-Specific Outcome of N2-N3 Head and Neck Cancer Treated with Radiation +/- Chemotherapy.

*Publication Details:*  

2012 Sep  
Outcome of IMRT for hypophrangiectal cancer compared to conventional radiotherapy.

*Publication Details:*  

2012 Sep  
The Characteristics of Cervical Lymph Node Resolution following Primary Radiotherapy +/- Chemotherapy for N2-N3 Head and Neck Cancer.

*Publication Details:*  

2012 Sep  
Dose Conformality and Acute Toxicity in Patients with Prostate Adenocarcinoma Treated with Volumetric Modulated ARC therapy vs Conventional Intensity Modulated Radiation Therapy.

*Publication Details:*  
Cuthbert D, Catton C, Lindsay P, Jiang H, Bristow R, Saibishkumar KP, Menard C, Lu L, Bayley A. Dose Conformality and Acute Toxicity in Patients with Prostate Adenocarcinoma Treated with Volumetric Modulated ARC therapy vs Conventional Intensity Modulated Radiation Therapy. Radiother Oncol. 2012 Sep;104(2):S13, 32. **Coauthor or Collaborator.**

2012 Sep  
Hyperfractionated and Conventionally Fractionated Radiotherapy Schedules for Localized Prostate Cancer.

*Publication Details:*  

2012 Sep  
Delineation Variability on Planning CT and Cone-Beam CT when Contouring the Bladder as an Organ-at-Risk.

*Publication Details:*  

2012 Sep  
A Randomized Phase III Study of Short Term Hormonal Therapy and Dose Escalated Radiation Therapy for Localized Prostate Cancer.

*Publication Details:*  

2012 Jun  
Inverse Relationship between Biochemical Outcome and Acute Toxicity after Image-Guided Radiotherapy
for Prostate Cancer.

**Publication Details:**

2012 Mar

Pathological Predications for Site of Local Recurrence After Radiotherapy for Prostate Cancer.

**Publication Details:**

2006

Dose Escalated Radiotherapy for Localized Prostate Cancer: An Initial Canadian Experience.

**Publication Details:**

2006

Prospectively Recording Outcome at Point-of-Care for Head and Neck Cancer: Integrating Quality Assurance and Clinical Practice.

**Publication Details:**

2006

The Effect of Abdominal Compression on Prostate Inter and Intrafraction Motion During Conformal Radiotherapy of The Prostate.

**Publication Details:**

2006

IMRT For Prostate Cancer – An Investigation into Dose Escalation and Therapeutic Ratio.

**Publication Details:**

2006

Correlation between radiation induced acute toxicity and biochemical failure free survival in men with prostate cancer treated with external beam radiotherapy.

**Publication Details:**

2006

Sites of Neck Failure in Relation to Midline Cord Shielding in Nasopharyngeal Carcinoma:Analysis in IMRT Era.
Publication Details:

2005
A Prospective Study of Localised Prostate Cancer Treated to 75.6Gy Using 3D Conformal Therapy.

Publication Details:

2005
Patient-reported late toxicity following high dose radiation therapy for prostate cancer: The Princess Margaret Hospital Experience, Toronto, Ontario.

Publication Details:

2005
Patient-reported late toxicity following high dose radiation therapy for prostate cancer: The Princess Margaret Hospital Experience.

Publication Details:

2005
Limits and Limitations of MRI and Ct Lymphatic Target Volume Delineation: Analysis of the Visible Human High Resolution Anatomic Data Sets.

Publication Details:

2005
Accurate and Non-invasive localization of the urethral anastomosis after radical prostatectomy using MRI.

Publication Details:

2005
Examining the dosimetric impact of systemic set-up uncertainty in patients treated with IMRT for nasopharyngeal carcinoma.

Publication Details:

2005
Dose escalated intensity modulated radiation therapy to pelvic lymph nodes and prostate/seminal vesicles for high risk prostate cancer.

Publication Details:

2005 A Randomised Study to Investigate the Role of Abdominal Compression in Prostate Intrafraction Motion.

Publication Details:


Publication Details:


Publication Details:

2002 Results of a phase II trial of escalated dose 3D-conformal radiotherapy (3D-CRT) for localized prostate cancer.

Publication Details:

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD


Curriculum Vitae

Alejandro Berlin
MD, MSc

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
610 University Avenue
Department of Radiation Oncology
5th Floor
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946 2126
Fax (416) 946 6561
Email alejandro.berlin@rmp.uhn.ca

1. EDUCATION

Degrees

2013 Jan - 2014 Dec MSc, Institute of Medical Science, University of Toronto, Toronto, Canada
2000 - 2007 MD, MD, graduated with high honors, GPA 6.7 (1-7 scale), Medical School, Pontificia Universidad Católica de Chile, Santiago, Chile

Postgraduate, Research and Specialty Training

2013 Jan - 2014 Dec Clinical Research Fellow (GU Radiation Oncology, Department of Radiation Oncology, Princess Margaret Cancer Centre, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Robert Bristow
2009 Nov - 2011 May Resident, Radiation Oncology, Clinica Alemana de Santiago – Universidad del Desarrollo, Santiago, Región Metropolitana de Santiago, Chile, Supervisor(s): Dr. Andres Cordova
2008 Jun - 2009 Nov Clinical-Research Fellow, Radiation Oncology, Chaim Sheba Medical Centre, Ramat Gan, Israel, Supervisor(s): Drs. Zvi Symon, Raphael Pfeffer and Raphael Catane
2007 Jan - 2008 Jun Resident, Radiation Oncology, Clinica Alemana de Santiago – Universidad del Desarrollo, Santiago, Región Metropolitana de Santiago, Chile, Supervisor(s): Dr. Andres Cordova

Qualifications, Certifications and Licenses

2011 Nov - present ECFMG Certificate, Educational Commission for Foreign Medical Graduates, United States, License / Membership #: 0-815-071-6
2007 Nov - present Medical License, MD, Colegio Médico de Chile, Chile, License / Membership #: 26016-9
2015 Sep - 2018 Aug Academic Restricted License, Radiation Oncology, CPSO, Ontario, Canada, License / Membership #: 99728
2012 Dec - 2022 Dec Radiation Oncologist, Radiation Oncology, CONACEM, Chile, License / Membership #: 14400
2. EMPLOYMENT

Current Appointments

2015 Sep - present  Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2015 Sep - present  Radiation Oncologist (Staff), Radiation Medicine Program, Princess Margaret Cancer Centre - University Health Network, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL

2011 Jun - 2015 Aug  Radiation Oncologist (Staff), Clinica Alemana de Santiago, Santiago, Región Metropolitana de Santiago, Chile

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2014 Oct 21st Scientific Retreat attendee (invitation-only), Prostate Cancer Foundation. (Distinction)
Travel, accommodation, and retreat attendance award. Invitation-only).

2014 Jun Awardee attendant (peer-reviewed), 16th ECCO-AACR-EORTC-ESMO Workshop on Methods in Clinical Cancer Research (June 21st-27th), Flims, Switzerland. (Distinction)
Travel, accommodation and course attendance award (Peer-reviewed).

2014 Apr Young Scientists Poster Award, ESTRO 33 annual meeting, Vienna, Austria. (Distinction)

2014 Jan - 2014 Feb Merit Award, The Conquer Cancer Foundation of ASCO, United States. (Distinction)
Total Amount: 1,000 USD

2013 Jul Awardee attendant (peer-reviewed), AACR Molecular Biology in Clinical Oncology Workshop (July 21st-28th), Snowmass, Colorado. (Distinction)
Travel, accommodation, and course attendance award (peer-reviewed).

NATIONAL

Received

2007 Best National of all Medical School Graduates of Chile, National Council of Medicine, Chile. (Distinction)

2006 Dec Best score of the country in the National Medical Exam, EUNACOM, Chile. (Distinction)

2004 Best scientific work, XXVII Chilean Congress of Urology, Pucón, Chile. (Research Award)
Title: Allele typification in germ cell tumors. Authors: Velasco Alfredo, Riquelme Erick, Zúñiga Alvaro, Berlin Alejandro, Javier Pizarro.

2003 Best scientific work, XXVI Chilean Congress of Urology, Viña del Mar, Chile. (Research Award)
LOCAL
Received

2014 R.S. Bush award, University of Toronto. (Research Award)
For academic excellence in research by a radiation oncology fellow, Department of Radiation Oncology.

2006 Mar - 2006 Dec Honor Roll, Medical School, Pontificia Universidad Católica de Chile, Santiago, Chile. (Distinction)
2006 Valedictorian Prize, Medical School, Pontificia Universidad Católica de Chile, Chile.
Prize for best class student.

2004 Mar - 2004 Dec Honor Roll, Medical School, Pontificia Universidad Católica de Chile, Santiago, Chile. (Distinction)
2002 Mar - 2002 Dec Honor Roll, Medical School, Pontificia Universidad Católica de Chile, Santiago, Chile. (Distinction)
2000 Mar - 2006 Dec Ranked first place of Medical School class, Pontificia Universidad Católica de Chile, Santiago, Chile. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

LOCAL
Radiation Medicine Program

2016 Apr - present Research Committee
2016 Jan - present Data and Information Technology Committee

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2016 Jun - present Cancer Nanotechnology, Number of Reviews: 1
2016 May 25 - present International Journal of Radiation Oncology Biology Physics, Number of Reviews: 1
2016 May 15 - present Radiotherapy and Oncology, Number of Reviews: 1
2016 May 11 - present The Journal of Urology, Number of Reviews: 2
2016 Mar 1 - present Frontiers in Oncology, Number of Reviews: 1
2015 Dec - present The British Journal of Radiology, Number of Reviews: 1
2014 Dec - present European Journal of Cancer, Number of Reviews: 2
2014 Feb 28 - present Urologic Oncology: Seminars and Original Investigations, Number of Reviews: 4
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2013 Sep - 2014 Dec  
**Student/Trainee Awards.** Excellence in Radiation Research for the 21st Century (EIRR21) Scholarship Award. The Terry Fox Research Institutes and Canadian Institutes of Health Research. [Grants]

2013 Jul - 2014 Jun  
**Educational Grant.** Educational Grant. Clinica Alemana de Santiago. [Grants] Scholarship for pursuing MSc Degree University of Toronto.

2013 Jul - 2014 Jun  
**Research Award Fellow Grant.** Research Award Fellow Grant. Canadian Urological Oncology Group (CUOG). [Grants]

2002 Jan - 2005 Dec  
**Research Assistant.** Expression of mismatch repair genes in testicular cancer. FONDECYT/DIPUC. 1020695/3811-011. [Grants]

NON-PEER-REVIEWED GRANTS

FUNDED

2016 May - 2017 May  

2016 May - 2017 May  

2016 Apr - 2018 Apr  
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Comment, Letters to Editor


Journal Articles, Review


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

1. Raziee H, Berlin A. Gaps between Evidence and Practice in Postoperative Radiotherapy for Prostate Cancer: Focus on Toxicities and the Effects on Health-Related Quality of Life. Front Oncol. 2016 Jan 1;6:70. Senior Responsible Author.

Book Chapters


In Preparation


E. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


2014 NBN Gain is Predictive for Adverse Outcome Following Image-Guided Radiotherapy (IGRT) for Localized Prostate Cancer. ESTRO 33. Vienna, Austria. **Alejandro Berlin**, Emilie Lalonde, Gaetano Zafarana, Jenna Sykes, Varune Rohan Ramnarine, Wan L. Lam, Alice Meng, Michael Milosevic, Theodorus van der Kwast, Paul C. Boutros, and Robert G. Bristow.


2014 Testosterone Replacement Therapy Following Androgen Deprivation Therapy Among Men with High Risk Prostate Cancer. 20th Annual Fall Scientific Meeting of SMSNA. Miami, United States. Krakowsky Y, Hollingsworth J, Bristow RG, **Berlin A**, Grober ED.


2007 Early Radiotherapy Salvage Following Post-prostatectomy PSA Rising Improves Biochemical Outcome. ASTRO. P. Besa, M. Bustos, Y. Borhguero, **A. Berlin**, L. Martinez, C. Trucco.

Presented and Published Abstracts


*Coauthor or Collaborator.*


2003 Mar  

*Publication Details:* 

2. NATIONAL

**Presented Abstracts**

2011  

2009  

2006  

2006  

2006  

2006  

2006  
Sensitivity of OCT for glaucoma diagnosis and correlation with campimetric defects. XX Chilean Congress of Ophthalmology. Eugenio Maul D., Pablo Altschwager, **Alejandro Berlin**, Eugenio Maul F.

2005  

2005  

2004  

2004  

2003  
Molecular analysis of the mismatch repair genes in germ cell tumors. XXVI Chilean Congress of Urology.


3. OTHER

Invited Lectures and Presentations


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD


G. Creative Professional Activities

1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2014 Jul 1 - 2015 Jun 30 Co-Chair Target Insights Annual Meeting. Target Insight a world recognized multidisciplinary conference for the Radiation Medicine Community offered by the Department of Radiation Oncology at the University of Toronto. Target Insight’s mandate is to introduce and educate radiation oncology practitioners and trainees on current and evolving developments in practice, research, and technologies in our discipline. In recent past, topics have included the best practice use of advanced technologies such as IMRT, VMAT, IGRT and brachytherapy, and larger topics such as Big Data, Proton Therapy, and Palliative Care in Radiation Medicine. This is a tailored and targeted conference with the focus placed on providing participants every opportunity to take these developments back to their clinics. Main RMP-organized conference.
Curriculum Vitae

Andrea Bezjak

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Hospital/ University Health Network
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946-2132
Fax (416) 946-6561
Email andrea.bezjak@rpm.uhn.on.ca

1. EDUCATION

Degrees
1991 - 1995 MSc, Clinical Epidemiology, Clinical Epidemiology and Biostatistics, McMaster University, Hamilton
1985 Medicinae Doctor Chirurgiae Magister, McGill University, Montreal
1982 Bachelor of Medical Sciences, Kuwait University, Kuwait

Postgraduate, Research and Specialty Training
1988 - 1991 Residency, Radiation Oncology, Princess Margaret Hospital/University of Toronto, Ontario
1985 - 1988 Residency, Internal Medicine, Royal Victoria Hospital, Montreal, Quebec

Qualifications, Certifications and Licenses
1993 Fellow (FACR), Radiation Oncology, American College of Radiology, United States
1991 Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1989 Fellow (FRCPC), Internal Medicine, Royal College of Physicians and Surgeons of Canada
1988 Diplomate, American Board of Internal Medicine, United States
1986 Certificate (NBME), National Board of Medical Examiners, United States
1985 Licenciate (LMCC), Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2009 - present Professor, Radiation Oncology, University of Toronto
2009 - present Professor, Clinical Epidemiology & Health Care Research Program, Health Policy, Management and Evaluation, University of Toronto
1998 - present Associate Member, Graduate Studies, University of Toronto
1991 - present  Staff Radiation Oncologist, Department of Radiation Oncology, Radiation Medicine Program, Princess Margaret Hospital/ University Health Network, Toronto

2016 Sep 1  Program Director, Postgraduate Medical Education, Radiation Oncology, University of Toronto, Ontario, Canada

2016 Jun 1 - 2021 May 31  Associate Member, Institute of Medical Science, University of Toronto, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
1997 - 1998  Associate Staff, Division of Radiation Oncology, Department of Medical Imaging, The Toronto Hospital, Toronto

UNIVERSITY - CROSS APPOINTMENT
2002 - 2009  Associate Professor, Clinical Epidemiology & Health Care Research Program, Health Policy, Management and Evaluation, University of Toronto
1998 - 2001  Assistant Professor, Clinical Epidemiology & Health Care Research Program, Health Administration, University of Toronto

UNIVERSITY - RANK
2002 - 2009  Associate Professor, Radiation Oncology, University of Toronto
1995 - 2001  Assistant Professor, Radiation Oncology, University of Toronto
1991 - 1994  Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2006  Research Article of the Year, 12th International Society of Quality of Life, San Francisco, United States. (Research Award) (Brundage M et al. JCO 23(28) 2005 – AB co-author).

2005  Best Poster, 11th World Conference on Lung Cancer, Barcelona, Spain. (Research Award)

1978 - 1982  Honour's list, Kuwait University, Kuwait. (Distinction) Semesters 2, 3, 4.

NATIONAL
Received

1985  University Scholar, McGill University, Montreal. (Distinction) (top 10% for entire program duration).

1983 - 1985  Faculty Scholar, McGill University, Montreal. (Distinction) (top 10% for the year).

1982  Joseph Morley Drake Prize for Pathology, McGill University, Montreal. (Distinction)

LOCAL
Received

2013 Oct  RMP Staff Recognition Award, Princess Margaret Hospital - Radiation Medicine Program, Toronto. (Distinction)
Most Inspiring Team Member - Radiation Oncology.

2010
Research Leadership Award, Radiation Medicine Program Research Awards, Princess Margaret Hospital, Toronto. (Research Award)

2010
Research Productivity Award, Radiation Medicine Program Research Awards, Princess Margaret Hospital, Toronto. (Research Award)

2006
Research Leadership Award, Department of Radiation Oncology, University of Toronto. (Research Award)

2006
Research Productivity Award, Radiation Medicine Program Research Awards, Princess Margaret Hospital, Toronto. (Research Award)

2004
The Addie MacNaughton Chair in Thoracic Radiation Oncology, Princess Margaret Hospital/University of Toronto, Toronto. (Distinction)

Nominated

2004
Gerald Hirsh Humanitarian Award, Princess Margaret Hospital, Toronto. (Distinction)

Teaching and Education Awards

LOCAL

Received

2014
UTDRO Residents Award for Excellence in Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto

2008
Best Clinical Teacher Award, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto

2004
Award for Excellence in Research Supervision, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto

Student/Trainee Awards

INTERNATIONAL

Received

2007
2nd prize for Best Poster, Supervisor, Awardee Name: Dr Max Dahele (Fellow, Department of Radiation Oncology). Joint meeting of the 4th International Conference on Cancer Therapeutics and the 7th Princess Margaret Hospital conference: New Developments in Cancer Management, Toronto

2000
Young Investigator Award for Best Oral paper, Supervisor, Awardee Name: Dr. George Rodrigues (Radiation Oncology Resident). 7th Annual Conference of the International Society for Quality of Life Research, Vancouver

1998
Travel Award, Supervisor, Awardee Name: Dr. D. Andrew Loblaw (Graduate Student and Radiation Oncology Resident). American Society of Clinical Oncology, United States

NATIONAL

Received

2006
Strategic Training Fellowship in the Excellence in Radiation Research for the 21st Century Program, Co-Supervisor, Awardee Name: Dr. Kevin Franks (Fellow, Department of Radiation Oncology). Canadian Institutes of Health Research, Toronto

1999
K.J.R. Wightman Award for Research in Biomedical Ethics, Co-Supervisor, Awardee Name: Dr. David D’Souza (Radiation Oncology Resident). Royal College of Physicians and
PROVINCIAL / REGIONAL
Received

2008

**Prize for Top 2 Best Abstracts by Trainees.** Supervisor, Awardee Name: Dr Gerald Lim (Fellow, Department of Radiation Oncology). 3rd Annual Ontario Thoracic Cancer Conference, Niagara-on-the-Lake

LOCAL
Received

2007

**Department of Radiation Oncology Award for Academic Excellence in Research by a Fellow.** Co-Supervisor, Awardee Name: Dr. Kevin Franks (Fellow, Department of Radiation Oncology, Graduate student, MSc Program in the Institute of Medical Sciences). University of Toronto

2006

**Department of Radiation Oncology University of Toronto Chair’s Award for Academic Excellence in Research by a Postgraduate Trainee.** Co-Supervisor, Awardee Name: Dr. Kevin Franks (Fellow, Department of Radiation Oncology, Graduate student, MSc Program in IMS). University of Toronto

2002

**First prize for best research presentation by a radiation oncology fellow.** Supervisor, Awardee Name: Dr. Paula Wilson (Fellow, Department of Radiation Oncology). 2002 Department of Radiation Oncology Fellows and Residents Research Day, Toronto

2002

**Thomas and Edna Naylor Memorial Award for the best MSc/PhD thesis in health services research.** MSc Thesis Committee Member, Awardee Name: Dr. Louise Bordeleau (Graduate student, MSc Program in Clinical Epidemiology). 2002 Clinical Epidemiology Research Day, Toronto

2001

**First prize for best research presentation by a radiation oncology resident.** Supervisor, Awardee Name: Dr. Michael Lock (Radiation Oncology Resident). 2001 Department of Radiation Oncology Fellows and Residents Research Day, Toronto

2001

**Second prize for best poster.** MSc Thesis Committee Member, Awardee Name: Dr. Edward Chow (Graduate student, MSc Program in Clinical Epidemiology). 2001 Clinical Epidemiology Research Day, Toronto

2000

**Open Fellowship.** Supervisor, Awardee Name: Dr. Derek Wilke (Graduate student, MSc Program in Clinical Epidemiology). University of Toronto for top 5% academic record as graduate student in the Department of Health Administration. Total Amount: 3,600 CAD

1999

**1st prize in Graduate Medical Research Day.** Co-Supervisor, Awardee Name: Hillary Chen (Medical Student). University of Toronto

1998

**2nd prize, Resident Research Day, Department of Radiation Oncology.** Supervisor, Awardee Name: Dr. Lisa Barbera (Radiation Oncology Resident). University of Toronto

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

**Professional Associations**

- American Society for Clinical Oncology (ASCO)
- American Society of Therapeutic Radiation Oncology (ASTRO)
- Canadian Association of Radiation Oncologists (CARO)
- European Society of Therapeutic Radiation Oncology (ESTRO)
Administrative Activities

INTERNATIONAL
American Society of Therapeutic Radiation Oncology
2010 - present Member, Lung Cancer Resource Panel of the Clinical Affairs and Quality Committee
2009 - present Panel Member, Practice Guideline on Palliative Radiotherapy

European Organization for Research and Treatment of Cancer Quality of Life Study Group
1998 - 2000 Member, Executive
1996 - 2007 Member

International Association for Study of Lung Cancer
2009 - present Member, Bylaws Committee

International Association for Study of Lung Cancer/Advanced Radiation Technology Committee
2013 Jul - present IASLC/ART Committee, Texas, United States.

International Society for Quality of Life Research
2007 Member, Conference Organizing Committee Toronto.
2005 Member, Conference Organizing Committee San Francisco.
2003 - 2006 Member, Board of Directors
2001 Member, Conference Organizing Committee Prague, Czech Republic.
1997 Member, Conference Organizing Committee Orlando.

JCO Editorial Board

Multinational Association of Supportive Care in Cancer
2005 Member, Conference Organizing Committee, Toronto.
2003 - 2006 Vice Chair, Quality of Life Study Section
1999 Member, Conference Organizing Committee, Nice, France.
1997 - 2004 Member, Board of Directors
1996 Member, Conference Organizing Committee, Toronto.

National Cancer Institute
2004 - 2009 National Cancer Institute of Canada Clinical Trials Group Representative, Lung Cancer Intergroup Committee
2001 - 2007 Member, Health Related Quality of Life Intergroup Committee, United States.
National Lung Cancer Partnership (now known as "Free to Breathe")
2009 - present Member, Scientific Executive Committee, United States.

Radiation Therapy Oncology Group
2006 - present Member, Lung Cancer Steering Committee

NATIONAL
Canadian Association of Radiation Oncology
2013 - present Past President
2011 - 2013 President

Canadian Institutes of Health Research
2003 - 2009 Member, Clinical Trials Panel

National Cancer Institute of Canada/Clinical Trials Group
1993 - present Member, Quality of Life Committee
2002 - 2004 Center Representative for Princess Margaret Hospital
1996 - 2006 Chair, Quality of Life Committee

Sociobehavioural Cancer Research Network
1999 - 2000 Member, Ad-hoc group on collaborative research
1998 - 2005 Member, Executive of the Clinical Group
1998 - 2005 Liason of National Cancer Institute of Canada Clinical Trials Group

PROVINCIAL / REGIONAL
Cancer Care Ontario
2009 - 2010 Lead, Management and Surveillance working group, Lung Disease Pathway Management
2005 - 2013 Member, Lung Cancer Disease Site Group Committee, Program in Evidence-based Care
1999 - 2008 Member, Supportive Care Guidelines Committee, Program in Evidence-based Care

Gilda’s Club
1998 - present Member, Medical Advisory Board, Greater Toronto

Wellspring
2003 - 2010 Member, Evaluation and Research Committee

LOCAL
Princess Margaret Cancer Centre
2009 - present Lung Site Group Leader, Cancer Program
2004 - present Physician Leader, Radiation Medicine Program Team 2
1997 - present Member, Palliative Radiation Oncology Program, Department of Radiation Oncology
1994 - present Member, Organizing committee, Philippa Harris Annual Lecture on Bioethical Issues in Cancer
2011 - 2012 Chair, Cancer Committee
Andrea BEZJAK

2005 - 2010  **Member**, Annual Princess Margaret Hospital Conference
2005 - 2010  **Chair**, Annual Princess Margaret Hospital Conference
2003 - 2012  **Leader**, Department of Radiation Oncology Lung Group
2002 - 2004  **Member**, Supportive Care Quality Team
2001 - 2002  **Department of Radiation Oncology Representative**, Palliative Care Unit Steering Committee and the Palliative Care Unit Clinical Advisory Committee
2001 - 2002  **Member**, Executive of the Radiation Oncology Partnership
1999 - 2003  **Leader**, Palliative Radiation Oncology Program, Department of Radiation Oncology
1998 - 2006  **Member**, Department of Radiation Oncology Clinical Research Committee
1998        **Member**, Department of Radiation Oncology Committee on Workload Issues
1993 - 1998  **Department of Radiation Oncology Representative**, Clinical Trials Subcommittee of the Medical Advisory Committee

**University of Toronto**

2009 - 2010  **Member**, Executive Committee
2008 - 2013  **Member**, Fellowship Selection Committee
2000 - 2002  **Member**, Fellowship Selection Committee
1999        **Member**, Workshop on Palliative Radiation Oncology Research Methods, Conference Organizing Committee, Toronto.
1996 - 1997  **Member**, Admissions Committee, Clinical Epidemiology & Health Care Research Program

**Peer Review Activities**

**EDITORIAL BOARDS**

**Associate Editor**

2011 - present  Journal of Thoracic Oncology
Member
2010 - 2015  Journal of Clinical Oncology

**GRANT REVIEWS**

**External Grant Reviewer**

2005 - present  Clinical Trial Concepts, Cancer Therapy Evaluation Program
2001        Radiation Therapy Oncology Group, 5 yr NCI Grant Application
2000        North Central Clinical Trials Group, 5 yr NCI Grant Application
1998        National Cancer Institute, Cancer and Leukemia Group B (CALGB) (declined due to time conflict)
1994        University of California San Francisco, NCI Program Project Grant

**Ad Hoc Reviewer**

Alberta Cancer Board
Ministry of Health, Ontario
National Cancer Institute of Canada, Health Research Personnel Development Program
Sociobehavioural Cancer Research Network
United Kingdom, Australian and New Zealand Granting agencies

**Member**

1997 - 1999  National Cancer Institute of Canada, Grant Review Panel I (Clinical Trials Panel)
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


2009 - 2015  **Co-Investigator.** Research excellence in radiation medicine for the 21st century. Canadian


Wong SC. 1,800,000 CAD. [Grants]

**2003 - 2006**  
**Co-Principal Investigator.** A clinical trial to reduce acute toxicity for breast radiation using intensity modulated radiation therapy (IMRT). Canadian Institutes of Health Research (CIHR). Collaborator(s): Pignol JP, Benk V, Rakovich E, Paszat L, Bezjak A. 340,000 CAD. [Grants]

**2003 - 2004**  

**2002 - 2003**  

**2001 - 2006**  

**2000 - 2002**  

**2000 - 2002**  

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

**2005 - 2008**  

**2002 - 2003**  
**Co-Principal Investigator.** Prevention of neurologic sequelae from malignant spinal cord compression. Aventis Pharma. Collaborator(s): Loblaw A, Bezjak A. 10,000 CAD. [Grants]

**2000 - 2003**  
**Principal Investigator.** Palliative Radiation Oncology Program (PROP). Princess Margaret Hospital Foundation (The). The Allan Kerbel Trust Fund. Collaborator(s): McLean M, Levin W, Wong R. 450,000 CAD. [Grants]
D. Publications

1. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


6. Hosni A, **Bezjak A**, Rink A, Czamecka K, McPartlin A, Patterson S, Saibishkumar E. High Dose Rate Brachytherapy as a Treatment Option in Endobronchial Tumors. Lung Cancer Int. 2016 Jan 1;2016:3086148. **Coauthor or Collaborator.**


Andrea BEZJAK


**Book Chapters**


**Letters to Editor**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**


**Editorials**

1. Barbera L, **Bezjak A**. Have we forgotten that radiation is an effective therapy lung cancer? J Thorac Oncol. 2013 Jan;8(1):4-5.


Letters to Editor


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Jan 21 Presenter. Primary study endpoint analysis for NRG Oncology/RTOG 0813 trial of stereotactic body radiotherapy (SBRT) for centrally located non-small cell lung cancer (NSCLC). NRG Oncology Semi-Annual meeting. Atlanta, Georgia, United States.


2014 Apr Invited Speaker. Central Lesions: Enough Knowledge for Safe Treatment. ESTRO. Vienna, Austria.

2014 Invited Discussant of Poster session. Discussant of RTOG 0617 QOL analysis: The rest of the story. ASTRO. Atlanta.


2013 May Brain Metastases – Steroids and Other Best Supportive Care Strategies. Target Insight Conference. Toronto.


2013 Invited Plenary Discussant. The Rest of the Story. ASCO. Chicago.


Sydney, Australia.

2012  

2011  

2011  

2010  

2009  

2009  
Management of Oligometastases: Should Patients with Limited Sites of Metastases be Treated Aggressively? *Meet the Professor* session, International Association for the Study of Lung Cancer (IASLC) Annual Conference. San Francisco.

2008  
Princess Margaret Hospital Experience with Image Guidance in Conventional Lung Radiotherapy. Princess Margaret Hospital Experience with Image Guidance in Lung Stereotactic Body Radiotherapy (SBRT). Annual Elekta/Synergy meeting. Crawley, United Kingdom.

2008  

2007  

2007  
Case Study – Locally Advanced Lung Cancer. The Joint meeting of the 4th International Conference on Cancer Therapeutics and the Princess Margaret Hospital Annual Conference: New Developments in Cancer Management. Toronto.

2006  
The Princess Margaret Hospital Experience with Lung Stereotactic Body Radiotherapy and the Radiation Therapy Oncology Group study RTOG 0236. 10th Meeting of the Elekta Synergy Research Group. Miami.

2006  

2006  

Presented Abstracts

2016 Sep 25  

2016 Apr 29  

2015 Sep  
**Presenter.** Primary Study Endpoint Analysis for NRG Oncology/RTOG 0813 Trial of Stereotactic Body Radiotherapy for centrally located non-small cell lung cancer. American Society for Radiation Oncology (ASTRO) Annual Meeting. San Antonio, Texas, United States. Presenter(s): Dr. **Andrea Bezjak**.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:

2011 Is SBRT alone appropriate for early-stage non-small cell lung cancer with primary tumours larger than 4cm? 14th World Conference on Lung Cancer. Amsterdam.

Publication Details:


Publication Details:


Publication Details:

2011 Impact of breathing motion and uncertainties on the accumulated dose in lung SBRT. American Society for Radiation Oncology (ASTRO) Annual Meeting. Miami Beach.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2010 Experience of an advanced practice nurse - led bone metastases follow-up clinic. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Vancouver.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009 Can positive health changes be considered part of posttraumatic growth in cancer patients? International Psycho Oncology Society (IPOS) World Congress Meeting. Vienna, Austria.

Publication Details:


Publication Details:


Publication Details:

2009 Supportive care needs in advanced cancer patients: experience in a hospital-based palliative radiotherapy clinic. Multinational Association for Supportive Care in Cancer (MASCC) Annual Symposium. Rome, Italy.
Publication Details:

2009
Management of oligometasases: should patients with limited sites of metastases be treated aggressively? International Association for the Study of Lung Cancer (IASLC) World Conference on Lung Cancer. San Francisco.

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*

Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2016 Feb 11 Speaker. Excellence in Care - How to be the Best Oncologist (and Oncology Team) One Can Be. CORE: Canadian Oncology Resident Education. Canadian Lung Cancer Conference 2016. Vancouver, British Columbia, Canada. Presenter(s): Speakers: Drs. Yom, Juergens, Bezjak, Palma, Shyr Chairs: Dr. D. Schellenberg, Dr. Randeep Sangha.


2009 Brain Metastases - from Fiction to Facts. 2009 Gordon Richards Lecturer, Canadian Association of Radiation Oncology (CARO) Meeting. Quebec City.


2008 Case Study – National Cancer Institute of Canada Clinical Trials Group MA.8 Quality of Life Educational Workshop on Value Added of Quality of Life Analysis in National Cancer Institute of Canada (NCIC) Clinical Trials Group (CTG) Clinical Trials. NCIC CTG Spring meeting. Toronto.


Presented Abstracts


2015 Sep Presenter. Outcomes in patients with Stage III non-small cell lung cancer treated with Neoadjuvant


2007 Moderators of the psychosocial impact of stigma in head and neck cancer. Canadian Association of Psychosocial Oncology Conference. Winnipeg. Lebel S, Irish J, **Bezjak A**, Devins GM.

**Presented and Published Abstracts**

2014 Sep 1 Long-term Results of RTOG 0236: A Phase II Trial of Stereotactic Body Radiation Therapy (SBRT) in the Treatment of Patients with Medically Inoperable Stage I Non-Small Cell Lung Cancer.

*Publication Details:*


*Publication Details:*

2011 Is SBRT alone appropriate for early stage non-small cell lung cancer with primary tumours larger than 4cm? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg.

*Publication Details:*


*Publication Details:*
Mitera G, Swaminath A, Rudoler D, Seereeram C, Giuliani M, Leighl N, Warde P, Gutierrez E, Dobrow M,


Publication Details:

2011 The role of a mature dedicated palliative radiotherapy (RT) program. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2010 Four year outcomes of patients with stage I lung cancer treated with stereotactic body radiation therapy (SBRT). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Vancouver.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2010 Assessing conformity between the clinical specialist radiation therapist (CSRT) and radiation oncologists for target volume delineation and field placement in palliative patients. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Vancouver.

Publication Details:

2010 Does 3D versus 2D planning techniques make a difference in palliative radiotherapy? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Vancouver.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2015 Feb 10  **Invited Speaker.** Current State of PROMs Use in the Lung Disease Site: Barriers and Enablers for Successful Uptake. CPAC, Rossy Cancer Network, Cancer Care Ontario. Toronto, Ontario, Canada.


2011  Advances in Lung Cancer. GP’s and MDs in Midland & Penetanguishene. Penetanguishene.


Presented Abstracts


Presented and Published Abstracts

Publication Details:

2009

Publication Details:

Lectures and Other Presentations

2011

4. LOCAL

Invited Lectures and Presentations


2015 Nov  **Invited Speaker.** Moving from Technology to Evidence Base to Clinical Practice & Back. Stereotactic RT & Mets - Oligometastases & Beyond. IGRT Radiation Medicine Program, Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Dr. **Andrea Bezjak.**

2013  Radiotherapy for Lung Cancer. General Internal Medicine Rounds, MSH/UHN. Presenter(s): **Bezjak A**, Liu FF, Tsang R.

2013  Lung Site Group Report to the Cancer Committee. Princess Margaret Cancer Centre.

2011  The PMH Lung SBRT Program – Progress and Challenges. Radiation Medicine Program Rounds, Princess Margaret Hospital.

2011  Lung Cancer 101 – Setting the Stage. The Lung Image-Guided Radiation Therapy Education Course, Princess Margaret Hospital.

2011  Issues in Radical Radiotherapy for Lung Cancer. The Lung Image-Guided Radiation Therapy Education Course, Princess Margaret Hospital.

2011  Application of IGRT to Palliative Lung RT. The Lung Image-Guided Radiation Therapy Education Course, Princess Margaret Hospital.


2009  The Princess Margaret Hospital Experience with Lung Stereotactic Body Radiation Therapy. Juravinski Cancer Center Research Rounds, Department of Radiation Oncology. Hamilton.


2008  Intensity-Modulated Radiotherapy in Lung Cancer. Continuing Medical Education course on Intensity-Modulated Radiotherapy, Princess Margaret Hospital. (Continuing Education).


2008  Improving the Cure Rate of Lung Cancer with Radiotherapy. Princess Margaret Hospital Annual Conference on Developments in Cancer Management.

2007  Palliative Radiation for Brain Metastases – What Have We Learnt From Our Patients. Palliative Care Rounds, Princess Margaret Hospital.


2007  Assessing Quality of Life – From Research to Applying the Findings in Clinical Practice. Radiation Oncology Palliative Care Rounds, Sunnybrook.


2006  Re-treatment with Palliative Radiation. Palliative Radiation Oncology Program Open House, Princess Margaret Hospital.

2006  Palliative Radiation Therapy. Medical Oncology Resident Lecture, Princess Margaret Hospital.

2006  Combined Modality Treatment of Lung Cancer. Medical Oncology Resident Lecture, Princess Margaret Hospital.


2006  Role of Post-Operative Radiation for Positive Margin in Lung Cancer. Thoracic Refresher Course, University of Toronto.


Presented Abstracts


2013  Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body


**Lectures and Other Presentations**


2005 High Precision Radiation for Lung Cancer. Princess Margaret Hospital Presentation to Foundation Donors, Princess Margaret Hospital. (Presentation to Patients/Public).

**5. OTHER**

**Presented and Published Abstracts**

2014 Sep 1 Predicting Esophagitis During Radical Lung Radiation Therapy Using 18-FDG-PET.

*Publication Details:*


*Publication Details:*

2014 Sep 1 Adaptive Dose-Escalation Using Serial 4D-PET/CT Scans During Radiation Therapy for Locally Advanced Non-Small Cell Lung Cancer.

*Publication Details:*

**2014 Sep 1** Genetic Polymorphisms Associated with Toxicity are Associated with Overall Survival Following Curative Radiation for Non-Small Cell Lung Cancer.


**2014 Aug** Predicting Esophagitis During Radical Lung Radiation Therapy Using 18-FDG-PET.


**2014 Aug** Genetic Polymorphisms Associated with Radiation-Related Esophagitis and Pneumonitis Following Definitive Treatment for Non-Small Cell Lung Cancer (NSCLC).


**2014 Aug** A Risk-Adapted Approach to Post-Operative Radiotherapy for Thymoma: Long-Term Outcomes and Predictors of Recurrence.


**2014 Aug** Investigation the Use of Electronic Technologies (ECT) as a Means to Evaluate Treatment Outcome for Patients Completing Palliative Radiotherapy.

Prognostic Factors Predicting Necessity for Surgery in Patients with Malignant Epidural Spinal Cord Compression.

Publication Details:

The Choosing Wisely Canada Cancer Initiative.

Publication Details:

Incidental prophylactic nodal irradiation and patterns of nodal relapse in inoperable early stage NSCLC patients treated with SBRT: A case-matched analysis.

Publication Details:

Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT).

Publication Details:


Publication Details:

Late radiographic changes after lung stereotactic body radiotherapy: Piloting a recurrence scale and synoptic reporting scale.

Publication Details:

Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT).

Publication Details:

Late radiographic changes after lung stereotactic body radiotherapy: Piloting a synoptic reporting and recurrence predication scale.

Publication Details:
Ra

2013

Stereotactic lung radiotherapy in patients with previous pneumonectomy: Safety and efficacy.

Publication Details:

2012

Comparison of 3D conformal radiotherapy (3DCRT) and intensity modulated radiotherapy (IMRT) in stage III non small cell lung cancer (NSCLC).

Publication Details:

2012

Can FDG PET during the course of radiation therapy for lung cancer predict for esophagitis and pneumonitis.

Publication Details:

2012

Lung, liver and spine stereotactic body radiotherapy (SBRT): Canadian Association of Radiation Oncology (CARO) scope of practice guidelines.

Publication Details:

2012

Palliative Radiotherapy (RT) in patients with poor performance status – should we tailor our treatment?

Publication Details:

2012

The impact of Radiotherapy (RT) on Quality Of Life (QOL) when given in combination with Androgen Deprivation Therapy (ADT) for locally advanced prostate cancer: QOL results from NCIC CTG PR3 / Medical Research Council MRC PR07 randomized trial.

Publication Details:

2012

Outcome of stage 1 non-small cell lung cancer after stereotactic body radiation therapy, does growth rate matter?

Publication Details:
2012 Comparison of 3D conformal radiotherapy (3DCRT) and intensity modulated radiotherapy (IMRT) in stage III non small cell lung cancer (NSCLC).

Publication Details:

2012 Subclinical malignant spinal cord compressions – A more favorable entity?

Publication Details:

2012 Analysis of serial FDG 4DPET images acquired during radiation therapy in advanced lung cancer patients.

Publication Details:

2012 No clinically significant changes in pulmonary function following stereotactic body radiation therapy (SBRT) among medically inoperable patients with early stage peripheral non-small cell lung cancer: An analysis of RTOG 0236.

Publication Details:

2012 Comparison of 3D conformal radiotherapy (3DCRT) and intensity modulated radiotherapy (IMRT) in stage III non small cell lung cancer (NSCLC).

Publication Details:

2012 Tailoring palliative radiation therapy (RT) towards the end of life – the importance of ECOG performance status.

Publication Details:

2012 Outcome of stage 1 non-small cell lung cancer after stereotactic body radiation therapy, does growth rate matter?

Publication Details:
Outcomes of salvage therapy in patients with limited-stage small cell lung carcinoma with isolated locoregional failure.

Publication Details:

Automated tools to facilitate lung cancer outcomes data-mining.

Publication Details:

Prophylactic cranial irradiation rates in limited-stage small cell lung cancer.

Publication Details:

The psychosocial impact of stigma in lung cancer patients.

Publication Details:

Interim toxicity analysis of RTOG 0236 using stereotactic body radiation therapy to treat medically inoperable early stage lung cancer patients.

Publication Details:

A Q-TwiST analysis of adjuvant chemotherapy in non-small cell lung cancer (NSCLC) in the NCIC CTG JBR.10 trial.

Publication Details:

Stereotactic body radiation therapy (SBRT) for early-stage non-small cell lung cancer (NSCLC).

Publication Details:

A phase I study of concurrent pemetrexed (P)/cisplatin (C)/radiation (RT) for unresectable stage IIIA/B non-small cell lung cancer (NSCLC).

Publication Details:

A pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during and after radiotherapy in lung cancer.
Publication Details:

2008
Malignant spinal cord compression: identifying patients suitable for surgery.

Publication Details:

2008
Construction and testing of a symptom checklist for patients with brain metastases.

Publication Details:

2008
A comprehensive team-based approach to lung SBRT treatment planning and delivery.

Publication Details:

2008
Pain and rib fracture after SBRT for peripheral non-small cell lung cancer.

Publication Details:

2008
Clinical impact of clinical specialist radiation therapist (CSRT) for patients requiring palliative radiotherapy.

Publication Details:

2008
Palliative radiotherapy – how to cope with multiple previous treatment volumes in the electronic age.

Publication Details:

2008
Frequency of setup errors based on daily cone-beam CT imaging for lung patients undergoing conventionally-fractionated radiotherapy.

Publication Details:

2008
Respiratory correlated cone beam CT in the assessment of volumetric and geometric tumour changes in non-small cell lung cancer during radiotherapy.

Publication Details:

**2008**

Dosimetric evaluation of IMRT technique for hemithoracic radiation therapy after extrapleural pneumonectomy for malignant pleural mesothelioma.

**Publication Details:**

**2008**

Pain and rib fracture after stereotactic radiotherapy for peripheral non-small cell lung cancer.

**Publication Details:**

**2008**

Online palliative radiotherapy planning and treatment using cone-beam computerized tomography (CBCT).

**Publication Details:**

**2008**

Respiratory correlated cone beam CT in the assessment of non-small cell lung cancer during radiotherapy.

**Publication Details:**

**2008**

Is daily cone-beam CT image guidance required to correct setup error in conventionally fractionated lung radiotherapy?

**Publication Details:**

**2008**

Quantifying the benefits of adaptive radiotherapy on lung sparing for thoracic tumors.

**Publication Details:**

**2008**

A pilot prospective study of metabolic and anatomic response using FDG PET CT before, during and after radiotherapy in lung cancer.

**Publication Details:**

**2007**

Early results of image-guided radiation therapy in lung stereotactic body radiotherapy (SBRT).
2007 Early phase in the development of a bone metastases quality of life module.

Publication Details:

2007 Motexafin gadolinium (MGd) combined with whole brain radiation therapy prolongs time to neurologic progression in non-small cell lung cancer (NSCLC) patients with brain metastases: Pooled analysis of two randomized phase III trials.

Publication Details:

2007 Impact of induction chemotherapy and adjuvant radiation therapy on outcome after extrapleural pneumonectomy for malignant pleural mesothelioma.

Publication Details:

2007 Image-guided lung radiotherapy: Bringing technology into routine clinical practice.

Publication Details:

2007 18Fluorodeoxyglucose Positron Emission Tomography and co-registered computed tomography for radiation treatment planning in lung cancer: a systematic review.

Publication Details:

2007 The dosimetric effects of changes in thoracic cavity fluid levels during adjuvant hemithoracic intensity modulated radiotherapy following extrapleural pneumonectomy for mesotheliomas.

Publication Details:


Publication Details:
2007 An audit of elective mediastinal lymph node irradiation in stage III non-small cell lung cancer patients entered onto a prospective randomized phase III study.

Publication Details:


Publication Details:

2007 A retrospective comparison of carina and bone as registration landmarks for volumetric image-guided lung radiotherapy (RT).

Publication Details:


Publication Details:

2007 Can we standardize steroid dose in patients with brain metastases? A prospective study?

Publication Details:

2007 Expert opinion in treatment approaches for illustrative cases of thymomas.

Publication Details:

2007 Adjuvant hemithoracic radiotherapy following extra-pleural pneumonectomy for malignant pleural mesothelioma improves local control.

Publication Details:

2007 What we should say and how: evaluating a combined story and fact-based educational booklet for patients with brain metastases and their caregivers.

Publication Details:

2007 Patterns of reporting HRQL outcomes in randomized clinical trials of cancer therapies; implications for clinicians.

Publication Details:

2007 Added value of health-related quality of life (QoL) outcomes in NCIC CTG clinical trials: results from QoL committee workshop.

Publication Details:

2007 NCIC CTG experience in collecting quality of life data in phase I and phase II clinical trials.

Publication Details:

2007 Quantifying inter and intra-fraction tumor motion using respiration-correlated cone beam CT in lung stereotactic body radiotherapy (SBRT).

Publication Details:


Publication Details:

2007 Evaluation of lung IMRT plan using NTCP and gEUD based on internal target volume delineated from four-dimensional computed tomography.

Publication Details:

2007 Retrospective evaluation of setup reproducibility for thoracic and upper gastrointestinal radiotherapy through volumetric imaging: stability and dependence on immobilization.

Publication Details:
2007 Feasibility and reproducibility of cone-beam CT guided lung radiotherapy using registration to bone, carina, and tumor.

*Publication Details:*

2007 Inter and intra-fraction target localization using volumetric imaging in stereotactic body radiation therapy (SBRT) in the lung.

*Publication Details:*


*Publication Details:*

2007 Toxicity analysis of RTOG 0236 using stereotactic body radiation therapy to treat medically inoperable early stage lung cancer patients.

*Publication Details:*

2006 Stereotactic body radiotherapy (SBRT) and medical inoperability of early stage non-small cell lung cancer.

*Publication Details:*

2006 The prognostic effects of performance status (PS) and quality of life (QoL) scores on progression-free survival (PFS) and overall survival (OS) in advanced ovarian cancer.

*Publication Details:*
Carey MS, Bacon M, Tu D, Bezjak A, Stuart GC. The prognostic effects of performance status (PS) and quality of life (QoL) scores on progression-free survival (PFS) and overall survival (OS) in advanced ovarian cancer. J Clin Oncol. 2006;24(18S):A5066.

2006 Pattern of practice in anti-emetic use in palliative radiotherapy for spinal metastases.

*Publication Details:*

2006 Patients’ and health care professionals’ perspectives on the most important quality of life issues in bone metastases.

*Publication Details:*

2006 Video/phone-conference as a tool to facilitate research and development in palliative radiotherapy-the Canadian model.

Publication Details:


Publication Details:

2006 A pilot study on reducing radiation therapy planning timelines.

Publication Details:

2006 Yet another test?! Does repeat imaging help in the management of lung cancer?

Publication Details:

2006 Selection of patients for stereotactic lung radiotherapy (SBRT) for early stage non-small cell lung cancer (NSCLC).

Publication Details:

2006 Patients’ and health care professionals’ perspectives on the most important quality of life issues in bone metastases.

Publication Details:

2006 Research and professional development: video/phone conference as a format for advancements in palliative radiotherapy.

Publication Details:

2006 Methods to reduce intestinal morbidity from radiation therapy to unilateral pelvic bone metastases: an investigation to assess feasibility.

Publication Details:

2006 Patients’ judgments about the value of quality of life information when considering lung cancer (NSCLC) treatment options.

Publication Details:

2006 Tu-be or not tu-be? The QOL-EF tool for measuring the impact of enteral feeding on QOL.

Publication Details:

2006 Deformable registration of 4DCT in lung stereotactic radiotherapy planning.

Publication Details:

2006 Stigma and the psychosocial impact of head and neck cancer.

Publication Details:

Publication Details:
[Abstracts prior to 2006 not included].

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

1999 - 2005 Co-Supervisor. MSc. Derek Wilke.

Postgraduate MD

2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office  
Trillium Health Partners  
Mississauga Halton Central West Regional Cancer Program  
Department of Radiation Oncology  
2200 Eglington Ave West  
Mississauga, Ontario, Canada  
L5M 2N1

Telephone  
905-813-1100 x4803

Fax  
905-813-3962

Email  
anthony.brade@trilliumhealthpartners.ca

1. EDUCATION

Degrees

1998 - 2001  PhD, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1992 - 1996  M.D., C.M. McGill University, Montreal, Quebec, Canada
1990 - 1992  MSc, Biochemistry, McMaster University, Hamilton, Ontario, Canada
1986 - 1990  BSc, McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training

2005 - 2006  Research Fellow, Medical Oncology, Drug Development Fellowship Program, University of Toronto, Toronto, Ontario, Canada
2002 - 2005  Resident PGY1-5, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1996 - 1997  Resident PGY1-5, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

2005 - present  Fellow, Radiation Oncology, Royal College of Physicians
1996 - present  Licensure, Ontario College of Physicians and Surgeons

2. EMPLOYMENT

Current Appointments

2016 May - present  Division Head, Trillium Health Partners-Mississauga Halton Central West Regional Cancer Program, Mississauga, Ontario, Canada
2016 May - present  Regional Lead, Trillium Health Partners-Mississauga Halton Central West Regional Cancer Program, Mississauga, Ontario, Canada
2013 Sep - present  Chair- Board of Examiners, Medical Radiation Sciences, Faculty of Medicine, University of
Anthony Matthew Braide

Toronto, Toronto, Ontario, Canada

2013 Jun - present  Privileges, St. Joseph’s Health Centre, Toronto, Ontario, Canada
2013 - present  Executive Board Member, Royal College of Physicians Radiation Oncology, Ontario, Canada
                Examining Board
2012 - present  Examiner, Royal College of Physicians Radiation Oncology, Ontario, Canada
                Examining Board
2008 May - present  Member- Board of Examiners, Medical Radiation Sciences Program, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2005 - present  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2011 Sep - 2016 Apr  Vice Chair, Research Ethics Board, Princess Margaret Cancer Centre, Toronto, Canada
2008 - 2011  Courtesy Medical Staff, Southlake Hospital Regional Cancer Centre, Newmarket, Ontario, Canada
2008 - 2011 Sep  Lung Site Group Leader, Southlake Hospital Regional Cancer Centre, Newmarket, Ontario, Canada
2008 - 2011 Sep  Inpatient Consult Leader, Southlake Hospital Regional Cancer Centre, Newmarket, Ontario, Canada
2005 - 2016 Apr  Clinician Scientist, Princess Margaret Cancer Center, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2011  Certificate of Appreciation, Lilly Oncology Clinical Trials, PROCLAIM. (Distinction) for achieving the highest enrolment for PROCLAIM study during the 3rd Quarter of 2011.
2006  Hans Wyder Fellowship, European Society of Oncology Travel Award. (Credential)
2005  Young Investigator award, American Society of Clinical Oncology. (Distinction) Total Amount: 35,000
2003  Scholarship. (Distinction) To attend the American Society for Clinical Oncology/American Association for Cancer Research Clinical Trials Workshop in Vail, Colorado.
2003  Scholarship. (Distinction) to attend the American Association for Cancer Research workshop for Molecular Biology in Clinical Oncology in Aspen, Colorado.

NATIONAL

Received

2001  Elekta Award, Canadian Association of Radiation Oncology Annual Meeting. (Distinction) Best Basic Science Presentation by a Resident.
1998 - 2001  Jesse Davidson Post-doctoral Fellowship, Joint MRC (Canada)/Foundation for Cell and Gene Therapy. (Credential)
1998  Elekta Award, Canadian Association of Radiation Oncology Annual Meeting. (Distinction) Best Presentation by a Resident.
1993  Summer Research Scholarship, Canadian Down’s Syndrome Association. (Distinction)
PROVINCIAL / REGIONAL

Received

2005  Fellowship, Canadian Cancer Society Ontario Division. (Credential, Specialty: Oncology)

Total Amount: 61,000

LOCAL

Received

2000  W.J. Simpson Award, Department of Radiation Oncology, University of Toronto. (Distinction)
1999  W.J. Simpson Award, Department of Radiation Oncology, University of Toronto. (Distinction)
1998  W.J. Simpson Award, Department of Radiation Oncology, University of Toronto. (Distinction)
1994  Carlo Bos Prize, McGill University. (Distinction)
1986  Dundas Scholarship, McMaster University, Hamilton, Ontario, Canada. (Distinction)

Teaching and Education Awards

LOCAL

Nominated

2014  Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre, Toronto, Ontario, Canada. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2014 - present  Advisor, Centre for Education of Health Professionals Educated Abroad (CEHPEA) (recently re-branded as Touchstone Institute)
2008 - present  Examiner, Centre for the Evaluation of Health Professionals Educated Abroad (CEHPEA) (recently re-branded as Touchstone Institute)
2007  Item Writer, Centre for the Evaluation of Health Professionals Educated Abroad (CEHPEA)
Associate Member, American Association for Cancer Research
Member, American Association for Cancer Research
Member, American Society for Clinical Oncology
Member, American Society for Therapeutic Radiology and Oncology
Member, Canadian Association of Radiation Oncologists
Member, Canadian Medical Association
European Society for Radiotherapy & Oncology
Member, International Association for the Study of Lung Cancer
Member, Ontario Medical Association

Administrative Activities

NATIONAL

Canadian Association of Radiation Oncologists
Anthony Matthew BRADE

2004 - 2014  
**Chair**, Website Committee, Canada.

**Ontario Thoracic Oncology Conference**

2013 - present  
**Member**, Steering Committee, Ontario, Canada.

**Royal College of Physicians**

2014 - present  
**Member**, Specialty Committee Executive Board, Ontario, Canada.

2012 - present  
**Examiner**, Specialty Committee, Ontario, Canada.

**PROVINCIAL / REGIONAL**

**Trillium Health Partners-Mississauga Halton Central West Regional Cancer Program**

2016 May - present  
**Member**, Radiation Oncology Provincial Advisory Committee (Cancer Care Ontario), Mississauga, Ontario, Canada.

2016 May - present  
**Member**, Provincial Radiation Treatment Program Committee (Cancer Care Ontario), Mississauga, Ontario, Canada.

**LOCAL**

**McGill University**

1992 - 1996  
**Member**, Admissions Committee, Montreal, Quebec, Canada.

**Princess Margaret Hospital**

2011  
**Chair**, Radiation Oncology Partnership Executive Committee, Toronto, Ontario, Canada.

2010  
**Vice Chair**, Radiation Oncology Partnership Executive Committee, Toronto, Ontario, Canada.

2009  
**Treasurer**, Radiation Oncology Partnership Executive Committee, Toronto, Ontario, Canada.

2007 - 2008  
**Member**, PMH Cancer Program Strategic Plan – Novel Therapeutics Working Group, Toronto, Ontario, Canada.

2006 - 2016 Apr  
**Member**, Research Ethics Board, Toronto, Ontario, Canada.

2001 - 2005  
**Reviewer**, Toronto, Ontario, Canada.  
*for the Oncology Interactive Educational CD-ROM Series, Jack digital Productions.*

1997  
**Member**, Library Task Force Committee, Toronto, Ontario, Canada.

**Trillium Health Partners-Mississauga Halton Central West Regional Cancer Program**

2016 May - present  
**Member**, Integrated Cancer Program Committee, Mississauga, Ontario, Canada.

2016 May - present  
**Member**, Oncology Scientific Review and Oversight Committee, Mississauga, Ontario, Canada.

2016 May - present  
**Member**, Radiation Safety Committee, Mississauga, Ontario, Canada.

2016 May - present  
**Member**, Radiation Clinical Operations Committee, Mississauga, Ontario, Canada.

2016 May - present  
**Member**, Treatment Delivery Review Committee, Mississauga, Ontario, Canada.

2016 May - present  
**Member**, Outpatient Oncology Clinic Redesign Team, Mississauga, Ontario, Canada.

2016 May - present  
**Member**, Grand Rounds Planning Committee, Mississauga, Ontario, Canada.

**University Health Network**

2007 - 2016 Apr  
**Member**, Electronic Health Record Advisory Committee, Toronto, Ontario, Canada.

1997  
**Member**, Library Task Force Committee, Toronto, Ontario, Canada.
Anthony Matthew BRADE

University of Toronto
2011 - present  Interviewer, MD Admissions, Faculty of Medicine, Dept of Medicine, Graduate Education, Toronto, Ontario, Canada.
2011 - 2012  Chair, UTDRO Strategic Plan Implementation, Operations: Alumni and Stakeholder Engagement, Toronto, Ontario, Canada.
2010 - 2014  Member, Alumni Council, Faculty of Medicine, Toronto, Ontario, Canada.
2006 - 2014  Chair, Department of Radiation Oncology Academic Communications Committee, Toronto, Ontario, Canada.
2004 - 2006  Member, Ad Hoc Committee for Implementation of Content Management System, Toronto, Ontario, Canada. 
              Radiation Medicine Program Web Site.
2003 - 2006  Member, Radiation Medicine Program, System Support Group, Toronto, Ontario, Canada.
2002 - 2004  CARMS/IMG Interviewer, Toronto, Ontario, Canada.
              Department of Radiation Oncology.

Peer Review Activities

EDITORIAL BOARDS

Member
2010 - present  “ConneXions” the Princess Margaret Hospital, Radiation Medicine Program Newsletter.
2011  Princess Margaret Cancer Program Website Editorial Board

ADVISORY BOARD

Advisor
2010 Jan  YM Biosciences Advisory Board
2009 Jul  Eli Lilly Advisory Meeting
2008 Jul  Eli Lilly Advisory Meeting
2007 Nov 23  AstraZeneca Canada Oncology Scientific Advisory Board

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2010 - present  Site Principal Investigator. A Phase 3 Study of Pemetrexed, Cisplatin and Radiotherapy Followed by Consolidation Pemetrexed versus Etoposide, Cisplatin and Radiotherapy Followed by Consolidation Cytotoxic Chemotherapy of Choice in Patients with Unresectable, Locally Advanced, Stage III Non-Small Cell Lung Cancer Other than Predominantly Squamous Cell Histology (H3E-MC-JMIG/PROCLAIM). Eli Lilly Canada Inc. REB #: 08-041 OCREB. Collaborator(s): Senan S, Vokes E. 110,000. [Clinical Trials] 
              Trial Steering committee member.
2009 - present  **Co-Principal Investigator.** A Phase I Study of Stereotactic Radiosurgery Concurrent with Sunitinib in Patients with Brain Metastases. Pfizer Canada Inc. REB#: 09-0115-C. PI: Chung C, **Brade A.** Collaborator(s): Mason W, Zadeh G, Menard C (Co-Investigators). 140,250. [Clinical Trials]


2012 - 2014 **Site Principal Investigator.** A Randomized, Double-Blind, Phase 2, Dose-Ranging Study to Evaluate the Safety and Efficacy of Veliparib and Whole Brain Radiation Therapy Versus Placebo and Whole Brain Radiation Therapy in Subjects with Brain Metastases from Non-Small Cell Lung Cancer (M10-897). Abbott Laboratories. [Clinical Trials]

2009 - 2012 **Co-Investigator.** Radiation Therapy and Sorafenib for Primary and Metastatic Liver Cancer. Canadian Institutes of Health Research (CIHR). Collaborator(s): Dawson L, Yeung I, Ringash J, Coolens C, Knox J, Kim TY. 929,495. [Clinical Trials]

2009 - 2011 **Site Principal Investigator.** Phase I-II Clinical Study of Nimotuzumab (TheraCIM h-R3) in Combination with External Radiotherapy in Stage IIB, III and IV NSCLC. YM BioSciences Inc. REB #: 05-955-CA. [Clinical Trials] $18,671/patient for 10-20 patients.


2008 - 2016 **Co-Investigator.** A phase I/II study of sorafenib and radiation in patients with liver metastases. Bayer Canada Inc. REB 08-0598. PI: Dawson L. 255,000. [Clinical Trials]


2008 - 2013 **Site Principal Investigator.** A Phase 1 study evaluating the Safety, Tolerability and Pharmacokinetics of ABT-888 in combination with whole brain radiation therapy in subjects with brain metastasis (M10-128). Abbott Laboratories. REB#: 09-0348-C. [Clinical Trials]


2008 - 2011 **Co-Principal Investigator.** A Phase I/II Study of Sorafenib and Palliative Radiotherapy in
Patients with Advanced Renal Cell Carcinoma and Symptomatic bony Metastases. Bayer Canada Inc. REB#: 07-0357-C. Collaborator(s): Milosevic M, Oza A (Co-Principal Investigators). [Clinical Trials]

2008 - 2010 Co-Investigator. Identification of Lung Cancer Mutations that Contribute to Treatment Response: A Pilot Study. Princess Margaret Hospital Foundation (The). Invest in Research Program. Collaborator(s): Wouters B. 100,000. [Clinical Trials]

2008 - 2010 Co-Investigator. A phase II study of AZD0530 as first line treatment in patients with metastatic or locally advanced gastric carcinoma. National Cancer Institute of Canada (NCIC). Cancer Therapy Evaluation Program. PI: McKay H. Collaborator(s): Au HJ. 175,000. [Clinical Trials]


2007 - 2012 Principal Investigator. A Phase I Dose Escalation Study of Concurrent Low Dose Radiation with Sorafenib in Three Anatomically-based, Independent Cohorts (Thorax, Abdomen, Pelvis) the TAP Study. Bayer Canada Inc. REB#: 07-0097. [Clinical Trials]

2007 - 2012 Principal Investigator. A phase I dose escalation study of concurrent low dose radiation with sorafenib in three anatomically based, independent cohorts (thorax, abdomen, pelvis) – the TAP study. Bayer Canada Inc. REB#: 07-0097. Collaborator(s): Oza A, Siu L, Chen E, Milosevic M. 225,000. [Clinical Trials]


2006 - 2007 Co-Investigator. A phase II study of neoadjuvant radiation followed by concomitant bevacizumab/paclitaxel/carboplatin is a stage IV NSCLC patient at high risk of hemoptysis. National Cancer Institute of Canada (NCIC). Cancer Therapy Evaluation Program. Collaborator(s): Goldberg Z, Leighl N. 360,000. [Clinical Trials]

2. SALARY SUPPORT AND OTHER FUNDING

Personal Salary Support

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


42. Wan J, Milosevic M, **Brade AM**. Use of Palliative Radiotherapy Trials for Clinical Biomarker Development, Cancer and Metastasis. Cancer Metastasis Rev. 2008 Sep;27(3):435-43. **Principal Author.**


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


In Preparation


Comment, Editorials


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Anthony Matthew BRADE

Presentation.


Presented Abstracts


2013 Sep  Phase I safety and pharmacokinetic (PK) study of veliparib in combination with whole brain radiation therapy (WBRT) in patients (pts) with brain metastases. European Society for Medical Oncology. Vienna, Austria. Poster presentation.

2012 Sep  Phase I safety and pharmacokinetic (PK) study of veliparib in combination with whole brain radiation therapy (WBRT) in patients (pts) with brain metastases. European Society for Medical Oncology. Vienna, Austria. Poster presentation.

2012 Jul  Phase I safety and pharmacokinetic (PK) study of veliparib in combination with whole brain radiation therapy (WBRT) in patients (pts) with brain metastases. 5th Latin America Conference.


Presented and Published Abstracts


Publication Details:
Benjamin Loveday, Jennifer J. Knox, Laura A. Dawson, Gary May, Ur Metser, Anthony M. Brade, Anne M. Horgan, Bernard Cummings, David Grant, Steven Gallinger, Paul David Greig, Carol-anne Moulton. Intention to treat analysis of neoadjuvant chemoradiation and liver transplantation for perihilar cholangiocarcinoma. J Clin Oncol. 2016 Jan 21;34. suppl 4S; abstr 394. Coauthor or Collaborator.


Publication Details:


Publication Details:


Publication Details:
Final overall survival (OS) results of the phase III PROCLAIM trial: Pemetrexed (Pem), cisplatin (Cis) or etoposide (Eto), Cis plus thoracic radiation therapy (TRT) followed by consolidation cytotoxic chemotherapy (CTX) in locally advanced nonsquamous non-small cell lung cancer (nsNSCLC). Sociedad Española de Oncología Médica (SEOM). Madrid, Spain.

Publication Details:


Publication Details:

2015 Apr Evaluating the toxicity of new targeted drugs in combination with radiotherapy. European Society for Therapeutic Radiotherapy and Oncology (ESTRO) annual meeting. Barcelona, Spain.

Publication Details:
Evaluating the toxicity of new targeted drugs in combination with radiotherapy.


Publication Details:

2014 Sep Treatment Dilemmas for Synchronous and Metachronous Prostate and Rectal Cancers. ASTRO 56th Annual Meeting. San Francisco, California, United States.

Publication Details:


Publication Details:

2014 Jun
A targeted intervention to improve awareness to molecular testing in NSCLC. ASCO 2014 Annual Meeting. Chicago, Illinois, United States.

Publication Details:

2013 Oct

Publication Details:

2013 Oct

Publication Details:

2013 Oct
Late Radiographic Changes After Lung Stereotactic Body Radiotherapy: Piloting a Recurrence Scale and a Synoptic Reporting Scale. IASLC: 15th World Conference on Lung Cancer. Sydney, Australia.

Publication Details:

2013 Oct
Incidental Prophylactic Nodal Irradiation and Patterns of Nodal Relapse in Inoperable Early Stage NSCLC Patients Treated with SBRT: A Case-Matched Analysis. IASLC: 15th World Conference on Lung Cancer. Sydney, Australia.

Publication Details:

Publication Details:

2013 Oct
Outcomes and Predictors of Recurrence in Patients Treated with Risk-Adapted, Post-Operative Radiotherapy (RT) for Thymoma- A Single Institution, 30 Year Retrospective Study. IASLC: 15th World Conference on Lung Cancer. Sydney, Australia.

Publication Details:

2013 Oct
Impact of Medical Co-Morbidities on Survival in Patients Treated with Stereotactic Body Radiotherapy for Early Stage Non-Small Cell Lung Cancer. IASLC: 15th World Conference on Lung Cancer. Sydney, Australia.

Publication Details:

2013 Sep
A Randomized Controlled Trial of Lorazepam to Reduce Liver Motion in Patients Receiving Upper Abdominal Radiation Therapy. ASTRO 55th Annual Meeting. Atlanta, Georgia, United States.

Publication Details:

2013 Jan

Publication Details:

2012 Nov
Comparison of 3D Conformal Radiation Therapy (3DCRT) and Intensity Modulated Radiation Therapy (IMRT) in Stage III Non-small Cell Lung Cancer (NSCLC). ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov
Outcome of Stage I Non-Small Cell Lung Cancer After Stereotactic Body Radiation Therapy, Does Growth
Rate Matter? ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov Phase I Study of Sorafenib and SBRT for Advanced Hepatocellular Carcinoma. ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov Phase I Study of Sorafenib and Whole-liver Radiation Therapy (WLRT) or Stereotactic Body Radiation Therapy (SBRT) for Liver Metastases. ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

**Publication Details:**


**Publication Details:**

2010 Nov Patterns of Failure in Patients with Limited-Stage Small Cell Lung Carcinoma. ASTRO 52nd Annual Meeting. San Diego, California, United States.

**Publication Details:**

2010 Nov Stereotactic Body Radiotherapy (SBRT) for Non-small Cell Lung Cancer (NSCLC) -is FDG-PET a Predictor of Outcome? ASTRO 52nd Annual Meeting. San Diego, California, United States.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2009 Nov  
*Publication Details:*  

2009 Nov  
*Publication Details:*  

2009 Nov  
*Publication Details:*  

2009 Aug  
Dosimetric and Clinical Parameters Contributing to Esophagitis and Radiation Pneumonitis following Treatment for Small-cell Lung Carcinoma. ASTRO 51st Annual Meeting. Chicago, Illinois, United States.  
*Publication Details:*  

2009 Aug  
Comparison of tumor coverage in radical lung radiotherapy: impact of cone-beam CT image guidance using spine or carina matching. IASLC: 13th World Conference on Lung Cancer. San Francisco, California, United States.  
*Publication Details:*  

2009 Aug  
*Publication Details:*  
Anthony Matthew BRADE


2009 Aug

Publication Details:

2008 Sep

Publication Details:

2008 Sep

Publication Details:

2008 Sep
Quantifying the benefits of adaptive radiotherapy on lung sparing for thoracic tumors. ASTRO 50th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2008 Sep
A pilot prospective study of metabolic and anatomic response using FDG PET CT before, during and after radiotherapy in lung cancer. ASTRO 50th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2008 Sep

Publication Details:

2008 Jun
Publication Details:

2008 Jun

Publication Details:

2008 Jun
Preliminary results of an escalating dose phase I clinical trial of the anti-EGFR monoclonal antibody nimotuzumab in combination with external radiotherapy in patients diagnosed with stage IIb, III or IV nonsmall cell lung cancer unsuitable for radical therapy. ASCO 2008 Annual Meeting. Chicago, Illinois, United States.

Publication Details:

2007 Oct

Publication Details:

2007 Oct
Concurrent and Adjuvant Nimotuzumab Combined with Palliative Thoracic Radiation for Patients with Stage II/III/IV Non-small Cell Lung Cancer: A Phase I Study. ASTRO 49th Annual Meeting. Los Angeles, California, United States.

Publication Details:

2007 Oct

Publication Details:

2007 Sep
The dosimetric effects of changes in thoracic cavity fluid levels during adjuvant hemithoracic intensity modulated radiotherapy following extrapleural pneumonectomy for mesotheliomas. IASLC: 12th World Conference on Lung Cancer. Seoul, Korea, Republic Of.

Publication Details:

**Publication Details:**

2007 Sep Preliminary Results of an escalating dose phase I/II clinical trial of the anti EGFR monoclonal antibody nimotuzumab in combination with external radiotherapy in patients diagnosed with stage IIB, III, or IV NSCLC unsuitable for radical therapy. IASLC: 12th World Conference on Lung Cancer. Seoul, Korea, Republic Of.

**Publication Details:**
Bebb G, Smith C, O'Rourke K, **Brade A**, Sherman I. Preliminary Results of an escalating dose phase I/II clinical trial of the anti EGFR monoclonal antibody nimotuzumab in combination with external radiotherapy in patients diagnosed with stage IIB, III, or IV NSCLC unsuitable for radical therapy. J Thorac Oncol. 2007;2(Suppl 8):S617, P3-023. **Coauthor or Collaborator.**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2006 Jun A phase I study of the humanized anti-epidermal growth factor receptor (EGFR) monoclonal antibody (mAb) TheraCIM-h-R3 (Nimotuzumab) in patients with advanced solid tumors. ASCO 2006 Annual
Meeting. Atlanta, Georgia, United States.

Publication Details:

2006 Jun
Long term results of concurrent gemcitabine and radiotherapy (GRT) for locally advanced (LA) or resected (R) pancreatic cancer. ASCO 2006 Annual Meeting. Atlanta, Georgia, United States.

Publication Details:

2001 Nov

Publication Details:

1993
PAY2, a Yarrowia lipolytica gene encoding a protein essential for import into peroxisomes.

Publication Details:

1993
Peroxisomal protein targeting and peroxisome biogenesis.

Publication Details:

1992
Peroxisomal assembly mutants in the yeast Yarrowia lipolyticaA.

Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2013 Sep

2013 Sep
Phase I/II Study of Palliative Radiation and Sorafenib for Patients With Metastatic Renal Cell Carcinoma and Painful Bone Metastases. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada. Poster Presentation.

2013 Sep
Presenter. Finding the Target — Molecular Testing and Personalized Medicine within NSCLC. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada.
Late Radiographic Changes after Lung Stereotactic Body Radiotherapy: Piloting a Synoptic Reporting and Recurrence Predication Scale. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada. Poster Presentation.

Stereotactic Lung Radiotherapy in Patients with Previous Pneumonectomy: Safety and Efficacy. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada. Poster Presentation.


Invited Lecturer. YMB1000-010 Phase 1 Results. Clinical Trials Workshop. Vancouver, British Columbia, Canada.


Invited Speaker. A phase I study of the Anti-EGFR antibody nimotuzumab combined with palliative thoracic radiation for patients with advanced non-small cell lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

Invited Speaker. Palm Power: Using Your Handheld to Enhance Your Practice. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada.

Invited Speaker. A Phase I trial of Radical Chemoradiation + ZD6126 in Inoperable Stage III NSCLC. National Cancer Institute of Canada Clinical Trials Group semi-annual meeting: Lung Section.

Invited Speaker. Assessing potential therapeutic applications of heat-targeted cancer gene therapy. CARO COMP Joint Scientific Meeting. Quebec City, Quebec, Canada.


Presented Abstracts


Patterns of failure in patients with limited stage small cell lung carcinoma. CARO COMP Scientific

2009  

2009  

### Presented and Published Abstracts

**2014 Aug**  
Genetic Polymorphisms Associated with Radiation-Related Esophagitis and Pneumonitis Following Definitive Treatment for Non-small Cell Lung Cancer (NSCLC). CARO COMP Scientific Meeting. Newfoundland and Labrador, Canada. (Trainee Presentation)

*Publication Details:*

**2014 Aug**  

*Publication Details:*

**2014 Aug**  
A Risk-Adapted Approach to Post-Operative Radiotherapy for Thymoma: Long-Term Outcomes and Predictors of Recurrence. CARO COMP Scientific Meeting. Newfoundland and Labrador, Canada. (Trainee Presentation).

*Publication Details:*

**2012 Sep**  
Outcome of stage I non-small cell lung cancer after stereotactic body radiotherapy, does growth rate matter? CARO COMP Scientific Meeting. Ottawa, Ontario, Canada.

*Publication Details:*

**2012 Sep**  
Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. CARO COMP Scientific Meeting. Ottawa, Ontario, Canada.

*Publication Details:*
Chung C, Menard C, Stevens C, Laperriere N, Millar BA, Bernstein M, Zadeh G, Mason W, **Brade A**. Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. Radiother Oncol. 2012 Sep;104(S2):S71. **Coauthor or Collaborator**.

**2012 Sep**  
Comparison of 3D Conformal Radiation Therapy (3DCRT) and Intensity Modulated Radiation Therapy (IMRT) in Stage III Non-small Cell Lung Cancer (NSCLC). CARO COMP Scientific Meeting. Ottawa, Ontario, Canada.
Publication Details:


Publication Details:

2011 Sep   Correlation of Dosimetric Factors In The Development Of Esophagitis And Radiation Pneumonitis In Patients With Limited Stage Small Cell Lung Carcinoma. CARO COMP Scientific Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011 Sep   Is SBRT Alone Appropriate For Early Stage Non-Small-Cell Lung Cancer With Primary Tumours Larger Than 4cm? CARO COMP Scientific Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011 Sep   Clinical Outcomes In Stage I Non-Small Cell Lung Cancer Patients managed With Accelerated Hypofractionated Radiotherapy. CARO COMP Scientific Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011 Sep   A Completed Phase I Study Of Sorafenib And Palliative Radiation In Patients With Malignancy In The Thorax, Abdomen Or Pelvis. CARO COMP Scientific Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2009 Sep   Invited Lecturer. Assessment of Intra-fraction Target Position Accuracy for Lung Stereotactic Body Radiotherapy (SBRT) using Cone-beam CT (CBCT). CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

Publication Details:
2009 Sep Factors Influencing Prophylactic Cranial Irradiation Utilization in Limited Stage Small Cell Lung Cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

2009 Sep Improvement of Target Coverage in Radical Lung Radiotherapy Using Image Guidance Cone-Beam (CBCT). CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

2009 Sep Impact of Daily Volumetric Imaging in Reducing Set-Up Margins for Lung Cancer Patients Treated with Conventionally Fractionated Radiotherapy. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

2009 Sep Princess Margaret Hospital experience with Lung Stereotactic Body Radiotherapy for early stage non-small cell lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

2009 Sep Pre-Radiation Treatment PET/CT Scan can Predict the Localization of Residual Disease Post-Treatment in Lung Cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

2009 Sep The TAP study: A Phase I study design to screen for unexpected and/or severe interaction between radiation and systemic agents. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

2008 Sep A phase I study of the Anti-EGFR antibody nimotuzumab combined with palliative thoracic radiation for patients with advanced non-small cell lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*
Brade A, Bebb G, Smith C, Rorke S, Sherman I. A phase I study of the Anti-EGFR antibody nimotuzumab
combined with palliative thoracic radiation for patients with advanced non-small cell lung cancer.
Radiother Oncol. 2008;88(Suppl 1):S6, 17. **Principal Author.**

2008 Sep

Respiratory correlated cone beam CT in the assessment of volumetric and geometric tumour changes in non-small cell lung cancer during radiotherapy. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2008 Sep

Dosimetric evaluation of IMRT technique for hemithoracic radiation therapy after extrapleural pneumonectomy for malignant pleural mesothelioma. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2008 Sep

A comprehensive team-based approach to lung SBRT treatment planning and delivery. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2008 Sep

Stereotactic body radiation therapy (SBRT) for non-small cell lung cancer (NSCLC): patient characteristics and acute toxicity. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2008 Sep

A Pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during, and after radiotherapy in lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2008 Sep

Pain and rib fracture after SBRT for peripheral non small cell lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2007 Oct

**Publication Details:**


2007 Oct


**Publication Details:**


2007 Oct

Preliminary Results of an Escalating Dose Phase I/II Clinical Trial of the Anti-EGFR Monoclonal Antibody Nimotuzumab in Combination with External Radiotherapy in Patients Diagnosed with Stage IIB, III or IV NSCLC Unsuitable For Radical Therapy. CARO COMP Scientific Meeting. Toronto, Ontario, Canada.

**Publication Details:**

Brade A, Smith C, Sherman I, Bebb G. Preliminary Results of an Escalating Dose Phase I/II Clinical Trial of the Anti-EGFR Monoclonal Antibody Nimotuzumab in Combination with External Radiotherapy in Patients Diagnosed with Stage IIB, III or IV NSCLC Unsuitable For Radical Therapy. Radiother Oncol. 2007;84(Suppl 2):S61. **Principal Author.**

2007 Oct

Invited Lecturer. Adjuvant Hemithoracic Radiotherapy Following Extrapleural Pneumonectomy for Malignant Pleural Mesothelioma Improves Local Control. CARO COMP Scientific Meeting. Toronto, Ontario, Canada.

**Publication Details:**


2004 Sep


**Publication Details:**


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**3. PROVINCIAL / REGIONAL**

Invited Lectures and Presentations

2015


2014 Jun

**Invited Speaker.** GI Cases. Canadian Conference On Community Oncology. Collingwood, Ontario, Canada.

2014 Jun


2014 Apr 27

**Chair.** Stage III NSCLC. 9th Ontario Thoracic Cancer Conference. Niagara-on-the-Lake, Ontario, Canada.

2014

**Invited Speaker.** Combined Modality Therapy for Stage 3 NSCLC. Ontario Thoracic Oncology Conference.
2013 Jan  **Invited Lecturer.** Grand Rounds in Oncology on hepatic SABR – Liver SBRT. Kingston Regional Cancer Centre. Kingston, Ontario, Canada.

2011 Apr  **Invited Lecturer.** What is the future of personalized medicine: what do we know and where are we going? 6th Ontario Thoracic Cancer Conference, McMaster University. Niagara-on-the-Lake, Ontario, Canada.


**Presented Abstracts**


**4. LOCAL**

**Invited Lectures and Presentations**


2016 Apr 14  **Presenter.** Combined radiotherapy and chemotherapy. Radiobiology Course. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): **Brade A**.

2016 Apr 9  **Presenter.** Trials and Case Examples. Liver Case-based Discussion. Liver RT Education Course. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): **Brade A**.

2015 Jun  **Invited Speaker.** Radiation Oncology – PRCCLAIM Study and SRS vs WBRT for 1-3 Brain Metastases. 4th Annual Best of ASCO Meeting. Toronto, Ontario, Canada.

2015 May  **Invited Speaker.** Randomized Study in locally advanced NSCL. NCIC clinical trials group - Lung Section. Toronto, Ontario, Canada.

2015 May  **Invited Lecturer.** The Role of Radiotherapy in Hepatobiliary Cancer. COMET Meeting. Toronto, Ontario, Canada.


2015 Apr  **Invited Lecturer.** Biological response modifiers in tumors--clinical implementation. University of Toronto.
Toronto, Ontario, Canada. Radiobiology Course.


2015  **Invited Lecturer.** Radiotherapy for Hepatocellular Carcinoma. Liver SBRT IGRT Education Course. Toronto, Ontario, Canada.

2015  **Invited Lecturer.** Interactions of Biological Agents and Radiotherapy. COMRADS. Toronto, Ontario, Canada.


2013 Apr  **Invited Lecturer.** Combined radiotherapy and chemotherapy. University of Toronto. Toronto, Ontario, Canada. Radiobiology Course.


2013 Apr  **Invited Lecturer.** Stereotactic Radiotherapy for Primary and Metastatic Liver Tumours. COMET, Hepatobiliary Tumor Board Meeting. Toronto, Ontario, Canada.


2011 Mar  **Invited Lecturer.** IMRT coaching-CCO sponsored education and presentation. Cancer Care Ontario. Ontario, Canada. Grand River Cancer Centre (on site – 8 hours); Sudbury Regional Cancer Centre.

2011 Feb  **Invited Lecturer.** Tumor Growth and Response Combining Radiation with drugs. University of Toronto. Toronto, Ontario, Canada. Radiobiology Course.


2007 **Invited Lecturer.** Challenges in the design of early phase clinical trials evaluating combinations of radiotherapy and molecularly targeted therapies. Princess Margaret Hospital Conference New Developments in Cancer Management. Toronto, Ontario, Canada.

2007 **Invited Lecturer.** Getting on target: A programatic approach to developing targeted therapies with DRO. Joint UT DRO Rounds. Toronto, Ontario, Canada.

2007 **Invited Lecturer.** Basics of Radiation Oncology. Drug Development Program (DDP), Princess Margaret Hospital. Toronto, Ontario, Canada.

2006 **Invited Lecturer.** A Phase I Dose Escalation Study of Concurrent Low Dose Radiation with KU-0059436in Four Anatomically-based, Independent Cohorts (Brain, Thorax, Abdomen, Pelvis). NSCLC. National Cancer Institute of Canada Clinical Trials Group fall meeting: IND Section. Toronto, Ontario, Canada.

2006 **Invited Lecturer.** Research Proposal: A Phase I Dose Escalation Study of Concurrent Low Dose Radiation with Sorafenib in Three Anatomically-based, Independent Cohorts (Thorax, Abdomen, Pelvis) the TAP Study. Drug Development Program (DDP), Retreat, Princess Margaret Hospital. Toronto, Ontario, Canada.

2006 **Invited Lecturer.** Getting on target: A programmatic approach to developing targeted therapies with DRO. Joint UT DRO Rounds. Toronto, Ontario, Canada.


**Presented Abstracts**


**Workshop**

2009 Jun **Visiting Professor.** Workshop on legal and jurisdictional matters for BOEs, Appeals Committee and the BMA. University of Toronto. Toronto, Ontario, Canada.

**F. Teaching and Design**

1. **INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION**

2014 - present Enriching Educational Experience Program, Undergraduate MD, Faculty of Medicine,
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Postdoctoral Research Fellow (PhD)

2008 - 2010  Primary Supervisor: C. Chung. Supervisee Institution: University of Toronto, Department of Radiation Oncology. *MRI and measuring response to radiotherapy and angiogenesis inhibitors for brain tumors.* Awards: UBC Award and RAZCER Grant Award.


H. Creative Professional Activities

1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2010  Research Hospital of the Future.
Invited Participant: UHN strategic planning process – Clinical Database/Informatics.
Curriculum Vitae

Scott V. Bratman
M.D., Ph.D.

A. Date Curriculum Vitae is Prepared: 2016 August 8

B. Biographical Information

Primary Office
Princess Margaret Cancer Center
610 University Ave
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2126
Fax 416-946-6561
Email scott.bratman@rmp.uhn.ca

1. EDUCATION

Degrees
2002 - 2009 MD/PhD Medical Scientist Training Program, College of Physicians and Surgeons, Columbia University, New York, New York, United States
1998 - 2002 A.B. Magna cum laude, Molecular Biology, Princeton University, Princeton, New Jersey, United States

Postgraduate, Research and Specialty Training
2011 Jul 1 - 2014 Jun 30 Postdoctoral Fellow, Radiation Oncology, Stanford Cancer Institute, Stanford, California, United States
2011 Jul 1 - 2014 Jun 30 Holman Research Pathway, American Board of Radiology
2010 Jul 1 - 2014 Jun 30 Resident (PGY II-V), Radiation Oncology, Stanford Cancer Institute, Stanford, California, United States
2009 Jun 24 - 2010 Jun 23 Intern (PGY I), Internal Medicine, California Pacific Medical Center, San Francisco, California, United States

Qualifications, Certifications and Licenses
2015 Jun - present Board Qualified (Radiation Oncology), Radiation Oncology, American Board of Radiology
2015 Jun - present Board Qualified (Radiation Oncology), Royal College of Physicians and Surgeons of Canada
2014 - present Licentiate, College of Physicians and Surgeons of Ontario, License / Membership #: 104768
2010 - present Board Certified Diplomate, National Board of Medical Examiners
2010 - 2016 Licentiate, Medical Board of California, License / Membership #: A113507
2010 - 2016 Registration, U.S. Department of Justice Drug Enforcement Administration, License / Membership #: FB2164616
2. EMPLOYMENT

Current Appointments

2014 - present  
Assistant Professor, Radiation Oncology, University of Toronto

2014 - present  
Staff Radiation Oncologist – Clinician Scientist, Princess Margaret Cancer Centre  
*University Health Network.*

2014 - present  
Scientist, Princess Margaret Cancer Centre Research Institute  
*University Health Network.*

2014 - present  
Assistant Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada

Previous Appointments

UNIVERSITY

2013 Jul 1 - 2014 Jun 30  
Chief Resident, Department of Radiation Oncology, Stanford University

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2013  
Annual Meeting Scientific Abstract Award, American Society for Radiation Oncology (ASTRO). (Research Award)

NATIONAL

Received

2014  
Top Reviewer, Annals of Internal Medicine, United States.

2012 - 2013  
Translational Cancer Research Fellowship, Association of American Cancer Institutes (AACI), United States. (Research Award)  
Total Amount: 50,000 USD

LOCAL

Received

2014  
Henry S. Kaplan Research Award, Stanford University. (Research Award)

2014  
Malcolm A. Bagshaw Award, Stanford University. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 - present  
Moderator of Oral Session 2- Head and Neck, Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting, 2015

2015 - present  
Attended, National Cancer Institute Workshop

2014 - present  
American Association for Cancer Research (AACR)

2014 - present  
Canadian Medical Association

2014 - present  
Ontario Medical Association
2010 - present American College of Radiology (ACR)
2010 - present American Society for Therapeutic Radiation Oncology (ASTRO)
2010 - present American Society of Clinical Oncology (ASCO)
2010 - present Radiological Society of North America (RSNA)
2015 **Attended**, NCIC Clinical Trials Group, Spring Meeting 2015

**Administrative Activities**

**NATIONAL**

**Other Organizations**

2016 - present **Member**, Canadian Cancer Trials Network (CCTG) Investigational New Drugs (IND) Executive Committee
2016 - present **Member**, Canadian Cancer Trials Network (CCTG) Correlative Sciences/Tumour Biology (SCTB) Executive Committee

**LOCAL**

**Princess Margaret Cancer Centre / University of Toronto**

2015 - present **Co-Chair**, Head and Neck Oncology Program Future Directions Committee, Toronto, Ontario, Canada.
2014 - present **Member**, Head and Neck Cancer Executive Committee
2014 - present **Member**, Head and Neck Cancer Translational Research Tissue Committee
2014 - present **Member**, Circulating Tumour Biomarker Technology Subcommittee, Cancer Genomics Program
2014 - present **Member**, Advisory Board, Princess Margaret Genomics Centre
2014 - present **Member**, Protocol Review Committee, RMP Clinical Research Program
2015 Dec 5 **Organizer and Co-Chair**, Joe Finley Head and Neck Cancer Research Center Retreat, Ontario, Canada.

**Stanford University**

2012 - 2013 **Member**, Search Committee, Radiation Oncology Statistician, Department of Radiation Oncology
2010 - 2011 **Member**, Committee on CyberKnife Clinical Service Workflow, Department of Radiation Oncology

**Peer Review Activities**

**GRANT REVIEWS**

**Reviewer**

2016 Strategic Training in Transdisciplinary Radiation Science for the 21st Century (STARS21)

**MANUSCRIPT REVIEWS**

**Ad Hoc Reviewer**

2016 - present Journal of Clinical Oncology
2015 - present Head & Neck
2015 - present JAMA Oncology
2015 - present Oncotarget
Scott V. BRATMAN

2014 - present Annals of Internal Medicine
2014 - present Clinical Cancer Research
2014 - present International Journal of Radiation Oncology Biology Physics
2014 - present Journal of the National Cancer Institute
2014 - present PLOS ONE

Review
2015 - present Canadian Cancer Society, Canadian Cancer Encyclopedia
2015 - present Ontario Cancer Research Ethics Board (OCREB)

PRESENTATION REVIEWS
2016 Regenerative Medicine Seed Grant, Princess Margaret Cancer Center- Radiation Medicine Program.
2015 Jun 10 The Terry Fox Foundation Strategic Initiative for Excellence in Radiation Research for the 21st Century (EIRR21) Annual Research Day

NATIONAL CONFERENCE ABSTRACT PEER REVIEW COMMITTEES
2016 Canadian Association of Radiation Oncology (CARO), Annual Scientific Meeting

PEER REVIEW
2015 Princess Margaret RMP Summer Studentship

Other Research and Professional Activities

RESEARCH PROJECT


THESIS PROJECT


C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


The objective of this project is to evaluate the prognostic significance of detectable ctDNA at mid-treatment in OPC patients treated with definitive RT/CRT. We hypothesize that detectable ctDNA at mid-treatment of RT/CRT provides equivalent prognostic information to post-treatment detectable ctDNA. We expect that this ctDNA test can be utilized in future studies to identify patients who could be treated with reduced doses (or escalated doses) of RT/CRT.


The objective of this project is to demonstrate the feasibility of detecting ctDNA spikes within the 1st week of initiating RT. We hypothesize that a spike in ctDNA levels occurs in a subset of OPC patients within the 1st week of initiating RT as a result of rapid tumour cell death, signifying radiosensitivity.


2015 Nov - 2016 Oct Principal Investigator. Invest in Research Grant - Impact of distinct HPV subtypes on survival in oropharyngeal cancer. Princess Margaret Cancer Foundation. 100,000 CAD. [Grants]

The purpose of this study is to demonstrate the importance of determining HPV subtype to facilitate personalized treatment of oropharynx cancer. We furthermore aim to evaluate the performance of a novel test that, compared with the standard HPV subtyping test, has the distinct advantages of reduced cost and tissue requirements. Altogether, this proposal will lead to more precise treatments for oropharynx cancer that are tailored to each individual, leading to high cure rates with fewer side effects.
Co-Investigator. MYELSTONE: Replacing Bone Marrow Aspirates with Circulating Tumour DNA Analysis of Multiple Myeloma. Princess Margaret Cancer Centre. Collaborator(s): Trudel, Tracy; Pugh Trevor and Bratman, Scott. 300,000 CAD. [Grants]
The purpose of this project is to develop and deploy a clinical laboratory platform for non-invasive monitoring of ctDNA in multiple myeloma patients. The aims of the project include: (1) extending the sensitivity of ctDNA sequencing protocols; (2) translating ctDNA sequencing protocols from research labs to a clinical setting; (3) comparing the sensitivity and specificity of clinical testing of ctDNA and matched bone marrow biopsies; (4) evaluation of clinical impact, including turnaround time, increased frequency of myeloma patients undergoing monitoring, increased recruitment to clinical trials, and cost of ctDNA versus bone marrow profiling.

Principal Investigator. Selection Pressure and Evolution Induced by Immune Checkpoint Inhibitors and other Immunologic Therapies (SPECIAL). Princess Margaret Hospital Foundation (The). Collaborative Personalized Cancer Medicine Team Grant. Collaborator(s): Siu, Lillian. 300,000 CAD. [Clinical Trials]
This proposal is a prospective study with dedicated blood and fresh tumor tissue acquired for the purpose of identifying circulating biomarkers of response to immune checkpoint inhibitors (ICIs) in head/neck cancer and metastatic melanoma. We will be assessing the utility of ctDNA quantification and enumeration of circulating myeloid-derived suppressor cells and regulatory T-cells for the purpose of predicting response to ICIs.

Co-Principal Investigator. Circulating HPV DNA in Patients with Locally Advanced Cervical Cancer Treated with Definitive Chemoradiation. University of Toronto. Collaborative Seed Grant. Collaborator(s): Han, Kathy and Leung, Eric. 50,000 CAD. [Grants]
This project aims to investigate the clinical utility of plasma HPV DNA detection and FDG-PET/CT scanning for determining response to treatment in locally advanced cervical cancer.

The objective of this project was to apply methods for detecting circulating tumor DNA to breast and colorectal adenocarcinomas and to non-Hodgkin lymphoma.

The objective of this project was to develop methods for detecting cancer-specific mutations in plasma before and after radiotherapy.

This project explored how the tumor microenvironment impacts cancer stem cell function and treatment resistance.

NON-PEER-REVIEWED GRANTS
FUNDED
2014 Sep - 2019 Aug Principal Investigator. Circulating nucleic acid biomarkers for head/neck and related cancers. Princess Margaret Cancer Centre. Lab Start-up Funds. 1,250,000 CAD. [Grants]
These unrestricted funds are intended to provide continuous lab research funding for 5 years. My lab is investigating novel analysis approaches and applications of circulating tumour-derived DNA (ctDNA) and other circulating nucleic acid biomarkers. Analysis of ctDNA has
the potential to revolutionize the management of head/neck cancer and other cancer types. Through innovative clinical trials, the use of model systems, and in vitro studies, my lab is working to turn ctDNA and other biomarkers into clinically useful tools in order to improve outcomes and limit side effects from invasive procedures or unnecessary treatment.

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Journal Articles, Review


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Letters to Editor


E. Intellectual Property

1. PATENTS


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Feb 28 Presenter. Circulating biomarkers for personalized treatment of lung and head and neck cancers. 4th

2013 Sep 24 **Presenter.** Noninvasive and ultrasensitive quantitation of circulating tumor DNA by hybrid capture and deep sequencing. American Society for Radiation Oncology (ASTRO), 55th Annual Meeting. Atlanta, Georgia. (Annual Meeting Scientific Abstract Travel Award).


**Presented Abstracts**


**Presented and Published Abstracts**


*Publication Details:* Clinical relevance of lymph node ratio in resected oral cavity squamous cell carcinoma in patients with N2 disease. **Coauthor or Collaborator.**


*Publication Details:* The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. Poster (PO-0631). Radiother Oncol. 119(S1):S295.


2015 Oct Impact of Surgical Margins on Outcomes in Oral Cavity Squamous Cell Carcinoma Following Postoperative Intensity Modulated Radiation Therapy. American Society for Therapeutic Radiation
Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Abstract # 2777.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Coauthor or Collaborator.

2015 Oct  

Publication Details:

2014  

Publication Details:

2014  
Noninvasive and ultrasensitive quantitation of circulating tumor DNA by hybrid capture and deep sequencing. American Society of Clinical Oncology (ASCO) 50th Annual Meeting.

Publication Details:

2014  
Non-invasive monitoring of cellular vs. acellular tumor DNA from immunoglobulin genes for DLBCL. American Society of Clinical Oncology (ASCO) 50th Annual Meeting.

Publication Details:

2014  
Circulating tumor DNA concentrations reflect metabolic tumor volume in NSCLC. American Society for Therapeutic Radiation Oncology (ASTRO) 56th Annual Meeting.

Publication Details:

2014  
Circulating tumor DNA as a biomarker for pancreatic adenocarcinoma. American Society for Therapeutic Radiation Oncology (ASTRO) 56th Annual Meeting.

Publication Details:

2014  

Publication Details:

2013 Noninvasive and ultrasensitive quantitation of circulating tumor DNA by hybrid capture and deep sequencing. American Society for Therapeutic Radiation Oncology (ASTRO) 55th Annual Meeting.

Publication Details: 


Publication Details: 


Publication Details: 

2012 Cell-free DNA as a biomarker of residual Disease following Radiotherapy for Non-Small Cell Lung Cancer. American Society for Therapeutic Radiation Oncology (ASTRO) 54th Annual Meeting.

Publication Details: 

2011 Local radiotherapy for early stage low grade follicular lymphoma in the post-PET era. American Society for Therapeutic Radiation Oncology (ASTRO) 53rd Annual Meeting. Presenter(s): Bratman, S.V., and Hoppe, R.T.

Publication Details: 

2. NATIONAL

Invited Lectures and Presentations


2015 May 3 Presenter. Correlative sciences for symptom control trials. NCIC Clinical Trials Group, Spring Meeting.
Presented and Published Abstracts

2015 Sep

Post-Radiotherapy Cervical Lymph Node Calcification on its Own is Not Predictive for Neck Recurrence in Oropharyngeal Carcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: Claims that post-radiotherapy (Post-RT) lymph node calcification (calLN+) is a putative adverse feature for residual neck disease in head and neck cancer are not readily supported with evidence. This study evaluates the frequency and prognostic significance of post-RT calLN+ in lymph node-positive (LN+) oropharyngeal cancer (OPC) following definitive radiotherapy ± chemotherapy (RT/CRT).

Materials and Methods: A retrospective review of a prospectively assembled cohort of LN+ OPC treated with RT/CRT from 2003 to 2012 was conducted. Tumour HPV status was ascertained by p16 staining. calLN+ was identified by review of all patients with contrast enhanced CT undertaken within six months following RT. Radiological details of calLN+ and "adverse radiologic features" [defined as extra capsular extension (ECE), necrosis, or conglomerate nodal mass(es)] were recorded. Each calLN+ patient was matched to two controls without lymph node calcification (calLN–) treated during the same study period (1:2 matched for T-, N-category, and p16 status). Regional control (RC) was calculated using Kaplan-Meier method and log-rank test for comparison between study (calLN+) and control (calLN–) cohorts. Multivariable analysis (MVA) identified predictors for RC.

Results: calLN+ were present in 52 (5%) of 966 consecutive LN+ OPC patients, of whom 31 (60%), 10 (19%), three (6%) and eight (15%) had 1, 2, 3 or ≥4 calLN+, respectively. Median calLN+ size was 1.3 cm (range: 0.5-4.1 cm). The frequency of calLN+ did not differ between p16-positive [p16(+)] and p16-negative [p16(–)] patients [37/615 (6%) versus 12/192 (6%), p=0.90]. The matched control cohort of 104 calLN– patients had similar demographic and clinical features compared to the study population. Post-RT neck dissection was performed in 9/52 (17%) calLN+ versus 13/104 (13%) calLN– patients (p=0.41). “Adverse radiological features” were present in 8/52 (15%) calLN+ versus 12/104 (12%) calLN– patients (p=0.41). Regional failure manifested in 7/52 (13%) calLN+ patients, five with residual nodal disease (all had “adverse radiological features”) while two failed subsequently. The remaining 42 calLN+ cases without “adverse radiological features” did not experience regional failure. At the median follow-up of four years, RC at three years was similar for calLN+ versus calLN– (86% versus 91%; p=0.26). MVA confirmed that “adverse radiological features” was the only prognostic factor for regional failure [HR=5.7, p=0.002], while calLN+ (p=0.34) and p16 status (p=0.49) were not predictive.

Conclusions: Presence of calLN+ in the post-RT setting is not associated with inferior regional control. Our study confirms that nodes with “adverse radiological features” (ECE, necrosis, or conglomerate nodal mass(es)) had poorer outcomes. calLN+ alone in the absence of “adverse radiological features” should not be considered an indicator for post-RT neck dissection.

Publication Details:

Shrinivas Rathod, Shao Hui Huang, John Waldron, John Kim, Eugene Yu, Li Tong, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, Jolie Ringash, Brian O’Sullivan. Post-Radiotherapy Cervical Lymph Node Calcification on its Own is Not Predictive for Neck Recurrence in Oropharyngeal Carcinoma. Radiother Oncol. Coauthor or Collaborator.

2015 Sep

Metastatic Risk Groups in Human Papillomavirus-related Oropharyngeal Cancer Treated with Definitive Radiotherapy with or without Chemotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: A previously publication from our group identified a profile of patients with differing risk of distant metastasis (DM), the main form of failure for HPV-related [HPV(+)] oropharyngeal cancer (OPC). The aim of this study is to confirm DM risk groups following definitive radiotherapy (RT) +/- chemotherapy (CTx) in an expanded HPV(+) OPC cohort.
Materials and Methods: All p16-confirmed newly diagnosed HPV(+) OPC treated with RT +/- CTx between 2000 to 2012 were included. Overall survival (OS), locoregional control (LRC), distant control (DC), and Grade 3-4 late toxicity (LT) were estimated. Multivariable analysis (MVA) identified predictors for DC and OS. Recursive partitioning analysis (RPA) derived low- and high-DM risk groups. Within the low- and high-DM risk subgroup identified by RPA, we compared DC between RT with or without CTx to identify potential candidates for omission of CTx.

Results: A total of 757 HPV(+) (Stage I/II/III/IV: 8, 34, 93, 622) patients were identified, including 605 (80%) males and 389 (51%) >10 pack-year (PY) smokers. Median age was 58 years. Tonsil or tongue base primary tumours were detected in 718 (95%) patients. Concurrent CTx (cisplatin 100mg/m² every three weeks) with RT was given in 382 (50%) cases. Median follow-up was 5.1 years. A total of 40 local, 35 regional, and 98 DM were identified. Five-year OS, LRC, DC and LT were 76%, 92%, 87%, and 20%, respectively. MVA identified T4 [Hazard ratio (HR) 1.95, p<0.01] or N2c-3 (HR 3.5, p<0.01], and absence of CTx (1.7, p=0.03) as DM predictors; neither smoking PYs (HR 0.99, p=0.41) nor age (HR 1.01, p=0.43) were predictive for DM, but predictive for OS (age: HR 1.02; smoking: 1.01, both p<0.01). RPA divided entire cohort into low-risk (T1-3N0-2b, n=441) and high-risk (T4 or N2c-3, n=316) subgroups with five-year DC of 94 versus 76% and OS of 84 versus 66%, respectively (both p<0.01). In the low-risk subgroup, DC was similar between RT (n=247) versus RT+CTx (n=194) (95% versus 93%, p=0.67). Five-year DC rates by smoking <=10 (n=47) versus >10 (n=52) pack-years were also similar in T1-3N2b (93% versus 90%, p=0.53) subset. In the high-risk subgroup, DC was lower in the RT (n=128) versus CRT (n=188) (65% versus 83%, p<0.01).

Conclusions: This expanded cohort study (sample size doubled from 382 to 757) confirms that DM is the main form of treatment failure for HPV(+) OPC patients. T1-T3N0-N2b subgroup has low-DM risk, which is not influenced by smoking PY although smoking adversely affects survival for all groups. While these findings should be confirmed prospectively, the low-DM risk subgroup represents a candidate for deintensification approaches.

Publication Details:
Brian O’Sullivan, Shao Hui Huang, John Waldron, Susie Su, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Aaron Hansen, David Goldstein, Li Tong, Bayardo Perez-Ordonez, Ilan Weinreb, Wei Xu. Metastatic Risk Groups in Human Papillomavirus-related Oropharyngeal Cancer Treated with Definitive Radiotherapy with or without Chemotherapy. Radiother Oncol. Coauthor or Collaborator.

2015 Sep

Risk of Relapse Profile in Human Papillomavirus-unrelated Oropharyngeal Carcinoma Treated with Definitive Radiotherapy with or without Chemotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: To determine the risk of disease relapse profile following definitive radiotherapy/chemotherapy (RT/CRT) in Human papillomavirus-unrelated [HPV(-)] oropharyngeal cancer (OPC) patients.

Materials and Methods: All newly diagnosed p16-confirmed HPV(-) OPC patients treated with RT/CRT from 2000 to 2012 were included. Overall survival (OS), recurrence-free survival (RFS), locoregional control (LRC), distant control (DC), and grade 3-4 late toxicity (LT) were estimated using Kaplan-Meier method. Multivariable analysis (MVA) identified predictors for RFS. Recursive partitioning analysis (RPA) derived low- and high-RFS risk groups.

Results: A total of 314 HPV(-) (Stage I/II/III/IV: 13, 39, 51, 211) patients were identified, including 231 (74%) males with median age of 65 years (range 33-89). Primary tumours originated from tonsil or tongue base in 230 (73%) cases. Two hundred and ten (67%) cases were treated with RT alone, 87 (28%) with concurrent cisplatin (100 mg/m² x 3 on days 1, 22, and 43) and 17 (5%) with cetuximab. Median follow-up was 3.9 years. Relapse occurred in 112 cases (79 locoregional, 55 distant failures). At five years, OS, RFS, LRC, DC, and LT were 45%, 64%, 74%, 83%, and 25%, respectively. MVA identified N2b-3 category as a predictor for disease relapse [Hazard Ratio (HR) 2.6 (95% CI: 1.7-4.1, p<0.01); age (HR 1.03, p=0.06) and T3-4 (HR 1.4, p=0.09)] were marginally predictive; smoking pack-years (p=0.94) and concurrent chemotherapy (p=0.29) were non-predictive. RPA stratified the entire cohort into low- (T1-2N0-
2a, n=77) and high- (T3-4 or N2b-3, n=237) relapse risk subgroups with five-year RFS of 86% and 56%, respectively. In the low-risk group, 74/77 (96%) patients received RT alone and their five-year RFS was 86% (95% CI 74-92). For the high-risk group, RT alone (n=136) subgroup had a lower RFS compared to CRT (n=84) or RT with cetuximab (n=17) (51% versus 63%, p=0.03).

Conclusions: Locoregional failure is the main form of treatment failure for the HPV(-) OPC population. A low-relapse risk subgroup, defined as T1-T2N0-N2a, may be appropriately treated with RT alone. High-relapse risk HPV(-) OPC patients have a poor prognosis, even with intensified treatment schedules (i.e. high dose cisplatin) and warrants further research on novel treatment strategies.

Publication Details:
Shao Hui Huang, John Waldron, Susie Su, Li Tong, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Aaron Hansen, David Goldstein, Bayardo Perez-Ordonez, Ilan Weinreb, Wei Xu, Brian O’Sullivan. Risk of Relapse Profile in Human Papillomavirus-unrelated Oropharyngeal Carcinoma Treated with Definitive Radiotherapy with or without Chemotherapy. Radiother Oncol. Coauthor or Collaborator. 2015 Sep

Natural Course Following Failure After Definitive (Chemo-) Radiotherapy in HPV-Related and HPV-Unrelated Oropharyngeal Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: To report patterns of first site of failure, outcomes after failure and to identity predictors of survival following failure in HPV-related [HPV(+)] and HPV-unrelated [HPV(-)] oropharyngeal cancer treated with definitive radiotherapy or chemoradiotherapy (RT/CRT).

Materials and Methods: A prospectively assembled cohort of p16-confirmed OPC patients with documented disease relapse at local, regional or distant sites following RT/CRT (RT dose ≥50 Gy) from 2000 to 2012 were included. Tempo and pattern of site of first failure and outcome following failure were compared between HPV(+) and HPV(-) cohorts. Overall survival (OS) after failure was estimated by Kaplan-Meier method and multivariate analysis (MVA) was performed to identify survival predictors.

Results: A total of 249 OPC patients [136 HPV(+) and 113 HPV(-)] with disease relapse following primary RT/CRT were identified. The most common site of first failure was locoregional (LRF) in the HPV(-) patients [70 (62%)], while distant metastases (DM) was most common in the HPV(+) patients [84 (62%)]. The interval from RT/CRT to DM was longer in HPV(+) versus HPV(-) [16.7 versus 8.9 months, p<0.01] but interval to LRF was similar (8.4 versus 6.8 months, p=0.80). First failure occurred within the first two years following RT/CRT in 90% HPV(-) versus 78% HPV(+) cases. Median follow-up was 1.8 years. HPV(+) patients had longer OS compared to the HPV(-) (OS at two years: 32% versus 15%, p<0.01). For the LRF alone subset, more HPV(+) patients underwent salvage surgery (Sx) [30/52 (58%) versus 22/70 (31%), p<0.01]. Salvage Sx recipients had higher OS (two years rates: 43% versus 19%; p<0.001) compared to those without salvage Sx. HPV(+) patients had higher OS at two years compared to the HPV(-) patients (26% versus 11%, p<0.01) for those without salvage Sx and marginally higher in those with salvage Sx (52% versus 30%, p=0.08). For the DM subset, HPV(+) also had higher two-year OS compared to the HPV(-) (31% versus 19%, p<0.01). On MVA, HPV(+) status [Hazard ratio (HR) 0.7, p=0.03], >20 smoking pack-years (HR 1.9, p<0.01) and salvage Sx intervention (HR 0.4, p<0.01) were the survival predictors.

Conclusions: This study confirms a differing natural course following disease failure in HPV(+) and HPV(-) OPC. A longer survival in HPV(+) patients is observed in almost all subsets compared to their HPV(-) counterparts. In HPV(+) patients, delayed distant failures are a feature with 22% DM presenting after two years of follow-up. This study has implications on surveillance strategies and highlights the importance of long-term surveillance in HPV(+) patients. HPV status, smoking pack-years and surgical salvage intervention are independent predictors of survival after progression.

Publication Details:
Shrinivas Rathod, Shao Hui Huang, John Kim, Susie Su, Wei Wu, John Waldron, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, Jolie Ringash, Aaron Hansen, David Goldstein, Li Tong, Bayardo Perez-Ordonez, Ilan Weinreb, Brian O’Sullivan. Natural Course Following Failure After Definitive (Chemo-) Radiotherapy in HPV-Related and HPV-Unrelated Oropharyngeal Cancer. Radiother
Outcome Following Definitive Radiotherapy for Squamous Cell Carcinoma of the Nasal Vestibule.
Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: Nasal vestibule squamous cell carcinoma (NV-SCC) is a rare disease entity. No staging system exists within the UICC/AJCC classification for this tumour, although the Wang staging system is often applied. Radiotherapy (RT) is known to be effective at early presentation but its role in more advanced disease is controversial. We report our experience of managing this disease with definitive RT.

Materials and Methods: A retrospective review of all patients diagnosed with NV-SCC treated in our institution from 1980 to 2013 was performed. Staging was based on Wang classification (T1, superficial and localized to the vestibule, T2, extends beyond the vestibule and T3, with fixation to underlying structure). Overall survival (OS), cause specific survival (CSS), local control (LC), regional control (RC) and distant control (DC) were estimated using Kaplan-Meier method. Multivariable analysis (MVA) with Cox regression was performed to identify factors associated with LC. Long-term sequelae, including function and cosmesis, were assessed.

Results: A total of 108 eligible patients were included. Primary tumour size was <2 cm in 53 patients (49%), 2-4 cm in 45 patients (42%) and >4 cm in 10 patients (9%). According to Wang Classification, T1: 42 (39%), T2: 36 (33%) and T3: 30 (28%) patients. Bone involvement occurred in 19 (18%) patients. Sixteen patients (15%) had clinical nodal involvement at presentation. All patients were treated with curative RT (BED2: 50-70Gy). Median follow-up was 6.6 years. Twenty-eight patients (25.9%) had local failure (initial tumour size: ≤4 cm: 22 patients; >4 cm: 6); of whom 21 (75%) were successfully salvaged by surgery; including 5/6 of >4 cm initial tumour size. Seven patients (6%) had isolated regional failure (five of whom were salvaged successfully) and seven patients (6.4%) had distant failure. Grade 3-4 toxicity was only present in two cases (one deformity of nose and one hard palate perforation). The five-year LC, RC and DC rates were 74%, 90%, and 93% respectively. The five-year OS and CSS rates were 66% and 89%, respectively. Tumours >4 cm in size had worse LC compared to <4 cm tumours (40% versus 77%, respectively, p=0.01). Presence of bone involvement also trended to a lower LC (58% versus 77%, p=0.07). Non-significant reduction in LC was observed with higher Wang stage (78% for T1/T2 versus 63% for T3, p=0.1). MVA confirmed that tumour size >4 cm was adversely affecting the LC (Hazard Ratio 2.7, p=0.036), while T classification (p=0.96) and bone invasion (p=0.43) were not predictive.

Conclusions: This single institution series shows that definitive RT is an effective treatment for nasal vestibule SCC with high local control and excellent cosmetic outcome. Tumours size >4 cm have poor LC, but RT can still be offered since it can potentially preserve the organ and if not, salvage surgery is highly successful. Nodal failure is uncommon and elective regional nodal irradiation is not recommended.

Publication Details:
Ibrahim Atean, Shao Hui Huang, John Waldron, Yuyao Song, Wei Xu, Andrew Bayley, Scott Bratman, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Jonathan Irish, Brian O’Sullivan. Outcome Following Definitive Radiotherapy for Squamous Cell Carcinoma of the Nasal Vestibule. Radiother Oncol. Coauthor or Collaborator.

Impact of Surgical Margins on Outcomes in Oral Cavity Squamous Cell Carcinoma Managed with Surgery and Post-Operative Radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: To report the outcome of post-operative radiotherapy (PORT) for oral cavity squamous cell carcinoma (OCSCC) and identify predictors of treatment failure.

Materials and Methods: A retrospective review was conducted using a prospectively collected database from a comprehensive cancer centre. Patients with OCSCC treated between 2005 and 2012 with curative intent surgical resection followed by PORT were identified. Surgical procedure, histopathology, post-operative treatment, outcomes and late toxicity data was extracted. Local (LC), regional (RC), distant control (DC); and overall survival (OS) were analyzed. Multivariate analysis (MVA) was used to evaluate predictors for local (LF), regional failure (RF), distant metastasis (DM).

Results: A total of 300 patients were identified: median age - 61 years (21-87); median follow-up - 41
months (4–115); T3/4 category - 121 (41%); N2/3 category - 141 (47%); and G2/3 - 285 (96%). The most
common primary site was tongue (n=135; 45%). Margin status was: involved (n=64, 21%); ≤1 mm (n=75,
25%); <5mm (n=99, 33%); and ≥5 mm (n=62, 21%). Neck dissection (ND) was performed in 281 (94%)
patients (104 bilateral and 177 unilateral), with nodal extracapsular extension (ECE) present in 89 ND
(32%). Concomitant chemotherapy was used in 73 patients (24%). The median time between surgery and
PORT (S-RT interval) was six weeks (range 4-10). All patients were treated with IMRT: median dose of 66
Gy; 130 (43%) received 60 Gy; and 128 (43%) received 66 Gy. The five-year LC, RC and OS were
85%, 82% and 69%; respectively. Of 39 pts with LF, only 8 (21%) had positive invasive margin(s). RF was the most frequent treatment failure (n=49). DM occurred in 39 patients, mainly in lung (n=28,
72%). On MVA, no factors correlated with LF. N2/3 (p<0.001) and longer S-RT interval (p=0.004)
correlated with RF; while N2/3 and G2/3 (p<0.001, for both) correlated with DM. Of 90 deaths, 58 were
cancer-related. No grade 4 or 5 RTOG late toxicity was reported; 27 patients had grade 3, including
osteoradionecrosis (n=16), neck fibrosis (n=6), trismus (n=3) and dysphagia (n=2).

Conclusions: Surgery and PORT achieved excellent outcomes and low rates of late toxicity in OCSCC.
Local failures were infrequent and not correlated with margin status. Longer S-RT interval, N2/3 and G2/3
disease were all correlated with worse outcomes.

Publication Details:
Ali Hosni, Shao Hui Huang, Wei Xu, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, John
Kim, Jolie Ringash, John Waldron, David Goldstein, Eric Chen, Brian O’Sullivan, Andrew Hope. Impact of
Surgical Margins on Outcomes in Oral Cavity Squamous Cell Carcinoma Managed with Surgery and
Post-Operative Radiotherapy. Radiother Oncol. Coauthor or Collaborator.

2015 Sep

Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia,
Canada. Purpose: To report the outcome of post-operative radiotherapy (PORT) for salivary gland
carcinoma (SGC) and identify patients at high risk of distant metastases (DM) who might benefit from
systemic therapy.

Materials and Methods: Patients with major SGC treated between 2000-2012 were reviewed
retrospectively. All patients underwent initial primary maximal resection with preservation of major nerves
unless encased by tumour. Neck dissection (ND) was performed therapeutically in N+ or electively (N0, if
high grade and/or T3/4). PORT was delivered using 3D-CRT or IMRT for risk features: T3/4, N+,
positive/close margin, high-risk pathology, nerve involvement. Local (LC), regional (RC), distant control
(DC); cause-specific (CSS) and overall survival (OS) were analyzed. Multivariate analysis (MVA)
assessed predictors for DM, CSS and OS.

Results: A total of 304 patients were identified: 48% were Stage III/IV and 22% had lymphovascular
invasion (LVI). The most common primary site was parotid gland (n=237; 78%). High-risk pathology was
found in 190 patients (62.5%) as follows: salivary duct carcinoma (n=40), SCC (n=11), G2/3
adenocarcinoma (n=15), G2/3 mucoepidermoid (n=35), G2/3 carcinoma ex-pleomorphic adenoma (n=22),
G3 adenoid cystic carcinoma (n=55) and rare histologies (n=12). Margin status was as follows: involved
(n=152, 50%), very close ≤1 mm (n=98, 32%) and close <5mm (n=22, 7%). ND was performed in 154
patients (51%), with nodal extracapsular extension (ECE) in 32. Adjuvant chemotherapy was used in 10
patients (3%), all of them with positive/close margin and/or nodal ECE. IMRT (median dose 66 Gy)
was used in 171 patients (56%), and 3D-CRT in 133 (44%; median dose 60 Gy). The five- and (ten-) year
LC, RC, DC, CSS, OS were 96% (96%), 95% (94%), 80% (77%), 83% (82%), 78% (75%); respectively.
Of 13 patients with local failure, 11 (85%) had positive margin (p=0.02). Regional failure occurred in 16
patients, four treated with IMRT and 12 with 3D-CRT (p=0.02). DM was the most frequent treatment
failure (n=62), mainly in lung (n=38). On MVA, Stage III/IV, positive margin and high-risk pathology
significantly correlated with DM. Of 62 deaths, 49 were cancer-related. MVA identified Stage III/IV and LVI
as poor predictors for CSS and OS, while positive margin predicted CSS only. No grade 4 or 5 RTOG late
toxicity was reported; 10 patients had grade 3, including neck fibrosis (n=4), osteoradionecrosis (n=4),
trismus (n=1) and dysphagia (n=1).

Conclusions: Surgery and PORT achieved excellent long-term outcomes and low rates of toxicity in SGC.
Further research is required for patients with Stage III/IV, positive margin and high-risk pathology to
determine incremental benefit of concurrent chemotherapy with PORT to reduce DM.

Publication Details:
Ali Hosni, Shao Hui Huang, David Goldstein, Wei Xu, Biu Chan, Aaron Hansen, Andrew Bayley, Scott
Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Brian O’Sullivan, John Waldron, Jolie
Ringash. Major Salivary Gland Carcinoma: Independent Prognostic Factors for Distant Metastasis and
Survival. Radiother Oncol. Coauthor or Collaborator.

2015 Sep Clinical Outcomes Following Re-Irradiation in Head and Neck Cancers. Canadian Association of
Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: To evaluate
the clinical outcomes following re-irradiation (rRT) in non-nasopharynx head and neck cancers.

Materials and Methods: Retrospective review of a prospectively collected database of all patients who had
rRT with curative intent to the head and neck area, for either locoregional recurrences (LRR) or second
new primaries (SNP), between 2002 and 2012. Overall survival (OS), local control (LC), regional control
(RC) and distal control (DC) was calculated from time of rRT. Multivariate modeling was used to identify
predictors of outcomes. Toxicity was graded per Common Terminology Criteria for Adverse Events v3.0
(CTCAE).

Results: Eighty-five patients were included in this study with a median follow-up of 47 months (4-117).
Twenty-eight (33%) had rRT for SNP and 57 (67%) for LRR with a median interval from initial RT to rRT of
3.6 years (0.3-56.7). Histology was SCC in 65 (76%) patients and non-SCC in 20 (24%) patients. There
were 63 (74%) males and the median age at rRT was 67.4 years. The TNM distribution was: T0-T1
(n=38), T2-T4 (n=47), N0 (n=42), N1 (n=12), N2 (n=31). Fifty-one (60%) patients had rRT adjuvantly post-
surgery and 21 (25%) had concurrent chemotherapy. Seventy (82%) patients were treated with
hyperfractionated regimes with 1-1.5 Gy/fraction, twice daily to a dose of 44-66 Gy, seven (8%) patients
received conventional fractionation with 1.8-2 Gy/fraction to a dose of 40-70 Gy and seven (8%) received
hypofractionated regimes with >2 Gy/fraction to a dose of 35-66 Gy. The mean rRT BED10 was 58.1 and
the mean cumulative BED10 was 84.7. 75 (88%) patients had rRT using IMRT technique, nine (11%) non-
IMRT techniques and one patient had brachytherapy. The OS, LC, RC and DC at two years were 52%
(42-64), 88% (78-93), 93% (84-97) and 89% (80-94) respectively. The two-year cancer-specific survival
was 64% (52-73). Multivariate analysis showed that SCC histology was associated with worse OS (HR
3.91(1.6-9.3), p=0.0026) and SNP with better OS (HR0.4 (0.21-0.77)). The rate of grade ≥3 late toxicity
was five (2-13) at one year and 7% (3-16) at three years.

Conclusions: This large series shows that rRT using IMRT technique in head and neck cancers can be
used safely to salvage selected patients.

Publication Details:
Satiavani Ramasamy, Shao Hui Huang, Susie Su, Wei Xu, John Waldron, John Cho, Andrew Hope,
Andrew Bayley, John Kim, Jolie Ringash, Scott Bratman, Raymond Jang, David Goldstein, Brian
O’Sullivan, Meredith Giuliani. Clinical Outcomes Following Re-Irradiation in Head and Neck Cancers.
Radiother Oncol. Coauthor or Collaborator.

3. LOCAL

Invited Lectures and Presentations

2016 May 27 Invited Speaker. Combining Immunotherapy with Radiation Therapy: concept and opportunities. 18th
Annual Wharton/Elia Day. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s):
Moderator: O’Sullivan B.

2016 May 27 Invited Speaker. HPV genotype impacts survival in HNSCC. 18th Annual Wharton/Elia Day. Princess
Margaret Cancer Center. Toronto, Ontario, Canada.

2016 May 20 Presenter. Genomic approaches to risk stratification in head and neck cancer. 7th Annual Princess
Margaret Cancer Center Faculty Retreat. Toronto, Ontario, Canada.


2016 Feb 25 **Presenter.** Basic and translational science. AZ/Medimmune Head and Neck Cancer Preceptorship. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): **Bratman S.**

2016 Feb 1 **Invited Speaker.** Looking for Home Runs. Disease Site Breakout Session Presentation: Head and Neck. Personalizing Cancer Medicine Conference. Toronto, Ontario, Canada. Presenter(s): **Bratman, S.**


2015 Nov 17 **Presenter.** Biomarkers for oligometastases and SBRT. Ablative Radiotherapy for Metastases, Radiation Medicine Program IGRT Accelerated Education Program. Toronto, Ontario, Canada.


2015 Jun 10 **Presenter.** Opportunities for advancing personalized treatment strategies through circulating tumour DNA detection. Radiation Medicine Program (RMP) Research Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada.

2015 May 15 **Presenter.** Detecting circulating viral DNA for personalized cancer medicine. 17th Annual Wharton/Elia Day. Ontario, Canada.

2015 Apr 17 **Presenter.** Novel markers of therapy response. Clinical and Experimental Radiobiology, University of Toronto Department of Radiation Oncology (UT-DRO). Toronto, Ontario, Canada.

2015 Mar 24 **Presenter.** Study design for biomarker research. Resident Academic Block Lecture, University of Toronto Department of Radiation Oncology (UT-DRO). Toronto, Ontario, Canada.

2015 Mar 16 **Co-Presenter.** From protocol to program of excellence in oligometastases. Radiation Medicine Program (RMP) Research Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Dr. **S. Bratman;** Dr. R. Wong and Dr. K. Han.

2015 Feb 25 **Invited Speaker.** Basic and translational science. AZ/Medimmune Head and Neck Cancer Preceptorship. Princess Margaret Cancer Center. Ontario, Canada. Presenter(s): **Bratman, S.**

2014 Oct 3 **Presenter.** Circulating DNA and its potential clinical utility. Applied Cancer Genomics Symposium, Princess Margaret Cancer Centre.

2014 Sep 25 **Presenter.** Clinical utility of circulating tumour DNA. Head and Neck Cancer Translational Research Meeting, Princess Margaret Cancer Centre.

2014 Jun 5 **Presenter.** Journal Club, Stanford Department of Radiation Oncology.


2013 May 9 **Presenter.** Bladder and testicular cancers. Resident Lecture, Stanford Cancer Institute.

2013 May 9 **Presenter.** SBRT/SABR for early stage lung cancer. Resident Lecture, Stanford Cancer Institute.

2013 May 2 **Presenter.** Journal Club, Stanford Department of Radiation Oncology.


Presented Abstracts


G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2013 Statistics Course for Medical Staff and Residents, Multilevel Education, Stanford University Department of Radiation Oncology.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Graduate Education

2015 - present  Primary Supervisor. Meghan Lambie, MSc. Supervisee Position: MSc. Genomic- based
Scott V. BRATMAN

prediction of inherent radiosensitivity and optimal chemoradiotherapy combinations.

2016  
**Co-Supervisor.** Ting Ting (Nina) Wang. *Molecular barcoding methods for ultrasensitive detection of ctDNA.*

2015 May - 2016 Dec  

2012 Jul - 2013 Jun  
**Co-Supervisor.** Kacey Van der Vorst, California Institute for Regenerative Medicine, SFSU. Supervisee Position: Graduate Student, Supervisee Institution: University of California, Davis. *Effect of breast tumor stromal fibroblasts on breast cancer stem cell radioresistance.*

2011 - 2012  

**Undergraduate MD**

2013 - 2014  
**Primary Supervisor.** Leslie Modlin, Medical Student, Stanford. Supervisee Position: Medical Student, Supervisee Institution: Stanford University.

**Postdoctoral Research Fellow (PhD)**

2015 - present  
**Primary Supervisor.** Minoru Inoue, MD PhD. Supervisee Position: MD PhD. *Contribution of neutrophil extracellular traps to metastasis in HPV-associated oropharyngeal cancer.* Awards: EIRR21 Fellowship.

**Clinical Research Fellow (MD)**

2015 - present  
**Co-Supervisor.** Yaser Hasan, MD. Supervisee Position: MD PhD. *Selection pressure and evolution induced by Immune checkpoint inhibitors and other immunologic therapies (SPECIAL).*

2015 - present  
**Primary Supervisor.** Sangjune Laurence Lee, MD. Supervisee Position: MD PhD. *An automated platform for scoring tumour-infiltrating lymphocytes by immunohistochemistry on a tissue microarray.*

2014 - present  
**Co-Supervisor.** Kyaw Aung, MD. Supervisee Position: MD PhD. *Selection pressure and evolution induced by Immune checkpoint inhibitors and other immunologic therapies (SPECIAL).*

2016 Jan - 2016 Dec  
**Primary Supervisor.** Shrinivas Rathod. Supervisee Position: MD PhD, Supervisee Institution: University of Toronto. *Clinical radiation oncology for head and neck cancer.*

2015 Jan - 2015 Dec  

2. **OTHER SUPERVISION**

**Graduate Education**

**Thesis Committee Member**

2016  
Ting Ting (Nina) Wang. *Molecular barcoding methods for ultrasensitive detection of ctDNA.*
Curriculum Vitae

James Brierley

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information
Primary Office
Department of Radiation Oncology
Princess Margaret Hospital/University Health Network
610 University Avenue
Toronto, Ontario, Canada
M5G 2M
Telephone (416) 946-2124
Email james.brierley@rmp.uhn.on.ca

1. EDUCATION

Degrees
1977 - 1980 MB, BS, Westminster Medical School, University of London, United Kingdom
1974 - 1977 BSc, Pharmacology, University of London - King’s College, United Kingdom

Postgraduate, Research and Specialty Training
1991 - 1993 Clinical Fellow, Radiation Oncology, Princess Margaret Hospital, Toronto
1986 - 1990 Registrar, Clinical Oncology, St. Luke’s Hospital, Guilford, United Kingdom
1984 - 1986 Rotating Registrar, Internal Medicine, King’s College Hospital, London, United Kingdom
1984 Senior House Officer, Cardiology, Brompton Hospital, London, United Kingdom
1983 Senior House Officer, Oncology, Royal Marsden Hospital, London, United Kingdom
1981 - 1983 Senior House Physician, Internal Medicine, Stoke Mandeville Hospital, Ayelsbury, United Kingdom
1981 House Surgeon, Westminster Hospital, London, United Kingdom
1980 House Physician, Westminster Hospital, London, United Kingdom

Qualifications, Certifications and Licenses
2007 - present FRCP, Fellow, Royal College of Physicians, United Kingdom
1993 - present FRCP, Fellow, Radiation Oncology, Royal College of Physicians of Canada, United Kingdom
1990 - present FRCR, Fellow, Royal College of Radiologists, United Kingdom
1985 - 2007 MRCP, Member, Royal College of Medicine, United Kingdom
2. EMPLOYMENT

Current Appointments

2008 - present  Professor, Radiation Oncology, University of Toronto
1993 - present  Staff Physician, Department of Radiation Oncology, Princess Margaret Hospital, University Health Network

Previous Appointments

HOSPITAL
1993 - 1995  Consultant Physician, Wellesley Hospital, Toronto

UNIVERSITY - RANK
1999 - 2008  Associate Professor, Radiation Oncology, University of Toronto
1993 - 1999  Assistant Professor, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2005  Gold Medal, Royal College of Radiologists, United Kingdom. (Distinction)

Teaching and Education Awards

LOCAL
Received
2015  RMP Distinction in Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto
2007  Postgraduate Advocacy and Mentorship Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
2007  Postgraduate Classroom Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Therapeutic Radiology and Oncology
American Thyroid Association
Canadian Association of Radiation Oncologist
Canadian Medical Association
Ontario Medical Association
Administrative Activities

INTERNATIONAL

American College of Surgeons Oncology Group (ACOSOG)
1998 - 2004 Member, Endocrine Organ Site Committee

American Joint Committee on Cancer (AJCC)
2010 - present Chair, Education and Promotions Task Force
2007 - 2010 Member, Education and Promotions Task Force
2002 - 2013 Canadian Representative

American Thyroid Association
2015 - present Member, Awards Committee
2004 - 2007 Member, Membership Committee

International Thyroid Cancer Research Group
2015 - present Member, Prospective Multicenter Registry of Metastatic Thyroid Carcinoma, Steering Committee
2013 - 2014 Member, By-laws Committee
2010 - 2013 Member, Membership Committee
2006 - 2010 Member, Executive Steering Committee

Princess Margaret Cancer Centre
1998 - 2001 Principal Investigator, Radiation Therapy Oncology Group

Union for International Cancer Control (UICC)
2012 - present Co-Chair, TNM Prognostic Factors Project Committee
2002 - present Canadian Representative, TNM Prognostic Factors Project Committee
2002 - 2012 Rapporteur, TNM Prognostic Factors Project Committee

World Health Organization
2012 - present Member, ICD-11 Neoplasm Topic Advisory Group

NATIONAL

Canadian Association of Radiation Oncologists (CARO)
2003 - 2005 Ontario Representative, Executive Committee
2002 - 2007 Member, History and Archives Committee

Canadian Partnership Against Cancer
2013 - present Surveillance Lead
2009 - present Chair, National Staging Advisory Committee
2011 - 2013 Chair, Surveillance Action Group
2007 - 2013 Member, Surveillance Action Group

National Cancer Institute of Canada (NCIC)
2001 - 2008 Chair, Canadian Committee on Cancer Staging

National Cancer Institute of Canada/Clinical Trials Group
2004 - 2008 Co-Chair, Rectal Cancer Orientated Group

Royal College of Physicians and Surgeons of Canada
2006 - 2010 Chair, Radiation Oncology Examining Board, Canada.

PROVINCIAL / REGIONAL
Cancer Care Ontario
2015 - present Chair, Thyroid Pathway Map Working Group
2012 - present Clinical Lead, Staging
2008 - 2012 Clinical Lead, Stage Capture Project
2007 - 2008 Senior Clinical Consultant, Stage Capture Project
2007 - 2008 Chair, Stage Capture Project - Technical Working Group
2006 - 2007 Member, Stage Capture Project - Data Quality Management Program Working Group
2005 - 2008 Member, Stage Capture Project - Provincial Leadership Team

Thanet and Canterbury Hospitals
1984 - 1985 Member, Drugs and Therapeutics Committee, Kent, United Kingdom.

Thanet Regional Health Authority
1984 - 1985 Member, Thanet Division of Medicine Committee, Kent, United Kingdom.

LOCAL
Princess Margaret Cancer Centre
2015 Jul - present Lead, Princess Margaret Cancer Centre Endocrine Site group Leader, Ontario, Canada.
2004 - present Medical Director, Cancer Registry & Data Access Committee
2004 - present Member, Cancer Clinical Research Unit (Formally Clinical Trials Support Unit), Toronto, Ontario, Canada.
2002 - present Leader, Department of Radiation Oncology: Endocrine Site Group
1999 - present Member, Cancer Registry Committee
2002 - 2010 Member, Cancer Committee
2002 - 2010 Leader, Gastrointestinal Site Group
2002 - 2007 Member, Phase II Consortium, Data Safety Monitoring Board
1999 - 2002 Chair, Staging and Education Committee
1998 Member, Cancer Committee
1997 - 1998 Secretary, Medical Staff Association
1997 - 1998 Member, Medical Advisory Committee
1996 - 2004 Leader, Department of Radiation Oncology: Gastrointestinal Site Group

Stoke Mandeville Hospital
1982 - 1983 President, Junior Doctors’ Mess
1982 - 1983 Treasurer, Junior Doctors’ Mess
C. Academic Profile

1. RESEARCH STATEMENTS

To evaluate the prognostic factors in thyroid malignancy and evaluate the role of radioactive iodine and external beam radiotherapy in the management of thyroid malignancy.

To determine the role of radiation in the definitive and adjuvant treatment of gastrointestinal malignancy.

Evaluation of staging systems and audit of staging procedures.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2004 Jul - 2007 Jun Principal Investigator. A Study to Assess the Utility of a Canadian Web-Based Research


NON-PEER-REVIEWED GRANTS

FUNDED


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


James BRIERLEY


25. McLeod DS, Cooper DS, Ladenson PW, Ain KB, Brierley JD, Fein HG, Haugen BR, Jonklaas J, Magnier J, Ross DS, Skarulis MC, Steward DL, Maxon HR, Sherman S. For The National Thyroid Cancer Treatment Cooperative Study Group Sl. Prognosis of differentiated thyroid cancer in relation to serum thyrotropin and thyroglobulin antibody status at time of diagnosis. Thyroid. 2014 Jan;24(1):35-42. Coauthor or Collaborator.


48. Jonklaas J, Cooper DS, Ain KB, Bigos T, Brierley JD, Haugen BR, Ladenson PW, Magner J, Ross DS, Skarulis MC, Steward DL, Maxon HR, Sherman SI. National Thyroid Cancer Treatment Cooperative Study Group. Radioiodine therapy in patients with stage I differentiated thyroid cancer. Thyroid. 2010 Dec;20(12):1423-4. Coauthor or Collaborator.


71. Jonklaas J, Sarlis NJ, Litofsky D, Ain KB, Bigos ST, Brierley JD, Cooper DS, Haugen BR, Ladenson PW, Magner J, Robbins J, Ross DS, Skarulis M, Maxon HR, Sherman SI. Outcomes of patients with differentiated thyroid carcinoma following initial therapy. Thyroid. 2006 Dec;16(12):1229-42. Coauthor or Collaborator.


91. Wong CS, Tsang RW, Cummings BJ, Fyles AW, Couture J, Brierley JD, Pintilie M. Proliferation parameters in epidermoid carcinomas of the anal canal. Radiother Oncol. 2000 Sep;56(3):349-53. **Coauthor or Collaborator.**


93. Sherman SI, Brierley JD, Sperling M, Ain KB, Bigos ST, Cooper DS, Haugen BR, Ho M, Klein I, Ladenson PW, Robbins J, Ross DS, Specker B, Taylor T, Maxon HR 3rd. Prospective multicenter study of thyroiscarcinoma treatment: initial analysis of staging and outcome. National Thyroid Cancer Treatment Cooperative Study Registry Group. Cancer. 1998 Sep 1;83(5):1012-21. **Co-Principal Author.**

94. Cooper DS, Specker B, Ho M, Sperling M, Ladenson PW, Ross DS, Ain KB, Bigos ST, Brierley JD, Haugen BR, Klein I, Robbins J, Sherman SI, Taylor T, Maxon HR 3rd. Thyrotropin suppression and disease progression in patients with differentiated thyroid cancer: results from the National Thyroid Cancer Treatment Cooperative Registry. Thyroid. 1998 Sep;8(9):737-44. **Coauthor or Collaborator.**

95. Chow E, Tsang RW, Brierley JD, Filice S. Parathyroid carcinoma--the Princess Margaret Hospital experience. Int J Radiat Oncol Biol Phys. 1998 Jun 1;41(3):569-72. **Coauthor or Collaborator.**

96. Hodgson DC, Brierley JD, Tsang RW, Panzarella T. Prescribing 131Iodine based on neck uptake produces effective thyroid ablation and reduced hospital stay. Radiother Oncol. 1998 Jun;47(3):325-30. **Senior Responsible Author.**


98. Tsang RW, Brierley JD, Simpson WJ, Panzarella T, Gospodarowicz MK, Sutcliffe SB. The effects of surgery, radioiodine, and external radiation therapy on the clinical outcome of patients with differentiated thyroid carcinoma. Cancer. 1998 Jan 15;82(2):375-88. **Co-Principal Author.**


**Journal Articles, Randomized Controlled Trial**


2. **Brierley JD**, Stockdale AD, Rostom AY. The variation of small bowel volume within the pelvis before and during adjuvant radiation for rectal cancer. Radiother Oncol. 1994 May;31(2):110-6. **Principal Author.**

**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Book Chapters


**Multimedia**


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2014 Nov 2 Invited Speaker. Thyroid Cancer Tumor Board Session. American Thyroid Association. San Diego, California, United States.


2013  Panelist. Nodal disease management. 2nd World Congress on Thyroid Cancer. Toronto.

2013  Panelist. Anaplastic Thyroid Cancer. 2nd World Congress on Thyroid Cancer. Toronto.

2013  Chair. Instructional Course - External beam radiation therapy in the management of aggressive thyroid cancer. 2nd World Congress on Thyroid Cancer. Toronto.


2010  Chair. “New UICC Staging System for Cancer (TNM-7) and Japanese Staging System: Problems and
Presented Abstracts

James BRIERLEY

Wong R.


Presented and Published Abstracts

2014 Oct Long-Term Moderate Thyroid Hormone Suppression Therapy is Associated with Improved Outcomes in Differentiated Thyroid Carcinoma: National Thyroid Cancer Treatment Cooperative Study Group Registry Analysis 1987-2012. 84th Annual Meeting of the American Thyroid Association. Colarado, California, United States. 

**Publication Details:**


**Publication Details:**

2012 Sep Thyroid cancer survivors’ supportive care needs: A cross-sectional survey. 82nd Annual Meeting of the American Thyroid Association. Quebec, Quebec, Canada.

**Publication Details:**
James BRIERLEY


2011
Accumulated Delivered Dose-response of Stereotactic Body Radiotherapy (SBRT) for Liver Metastases. 53rd Annual ASTRO Meeting. Miami Beach, Florida.

Publication Details:

2011

Publication Details:

2011
Evaluation of Set-up Reproducibility with and without Customzied Vacuum Immobilization Device in Rectal Cancer patients Treated with Preoperative Pelvic Radiation Therapy. 53rd Annual ASTRO Meeting. Miami Beach, Florida.

Publication Details:

2011

Publication Details:

2011
Patterns of Practice, Outcomes and Selection of Treatment Modalities for Patients with Localized Esophageal (E) and Gastroesophageal (GE) Cancer. 53rd Annual ASTRO Meeting. Miami Beach, Florida.

Publication Details:

2011
Prospective Evaluation of IMRT for Anal and Perianal Cancer: Early Patterns of Failure. 53rd Annual ASTRO Meeting. Miami Beach, Florida.

Publication Details:

2008 Oct
2008

Effect of Gender on Differentiated Thyroid Cancer Survival in the National Thyroid Cancer Treatment Cooperative Study Group Registry. 79th Annual Meeting of the American Thyroid Association and Registry. Chicago, Illinois.

Publication Details:
Jonklaas J, Litofsky D, Munsell M, Nogueras-Gonzales, Ain KB, Bigos T, Brierely JD, Cooper DS, Haugen BR, Ladenson PW, Magner JA, Robbins J, Ross D, Skarulis M, Stewart DL, Maxon HR, Sherman SI. Effect of Gender on Differentiated Thyroid Cancer Survival in the National Thyroid Cancer Treatment Cooperative Study Group Registry. Thyroid. 2008 Oct;18(Suppl 1):S21, A37. Coauthor or Collaborator.

2008

The Risk of Second Primary Malignancy in Thyroid Cancer Survivors Treated with Radioactive Iodine: A Systematic Review and Meta-Analysis. 79th Annual Meeting of the American Thyroid Association and Registry. Chicago, Illinois.

Publication Details:

2008

Hurtle Cell Carcinoma of the Thyroid: Prognostic Factors in the National Thyroid Cancer Treatment Cooperative Study (NTCTCS). 79th Annual Meeting of the American Thyroid Association and Registry. Chicago, United States.

Publication Details:

2007

Endocrinologists’ Self-Reported Utilization of Recombinant Thyrotropin in the Follow-up of Well-Differentiated Thyroid Carcinoma: Secondary Analysis of the CAM-ThyrCa Survey.

Publication Details:

2007

Secondary Primary Malignancy Risk in Thyroid Cancer Survivors: A Systematic Review and Meta-Analysis.

Publication Details:

2006

Bortezomib in Patients with Metastatic Differentiated Thyroid Cancer: Preliminary Results of a Multicenter Phase II Study.

Publication Details:
Brierley JD, Tsang RW, Glisson BS, Kies MS, Kane MA, Haugen BR, Litofsky DR, Sherman SI. Bortezomib in Patients with Metastatic Differentiated Thyroid Cancer: Preliminary Results of a Multicenter
Phase II Study. Thyroid. 2006;16(9):857. **Principal Author.**

2006

Differentiated Thyroid Cancer Presenting with Metastatic Disease: Clinical Management and Outcome.

**Publication Details:**
Tsang RW, Sampson E, Le LW, Rotstein L, **Brierley JD**. Differentiated Thyroid Cancer Presenting with Metastatic Disease: Clinical Management and Outcome. Thyroid. 2006;16(9):900. **Co-Principal Author.**

2006

Correlation Between Liver and Kidney dose Volume Histograms (DVHs) and late Toxicity after Adjuvant Radiochemotherapy for Gastric Adenocarcinoma. American Society for Therapeutic Radiology and Oncology (ASTRO).

**Publication Details:**

2003

Differentiated Thyroid Cancer: Analysis of Prognostic Factors and Effect of Treatment from a Single Institution on Patients Treated Over Forty Years.

**Publication Details:**
**Brierley J**, Tsang R, Panzarella T, Bana N. Differentiated Thyroid Cancer: Analysis of Prognostic Factors and Effect of Treatment from a Single Institution on Patients Treated Over Forty Years. Thyroid. 2003;13(S1). **Principal Author.**

2001

Near-total/total Thyroidectomy and Thyroid Suppression H Therapy Improves Survival of Patients with Differentiated Thyroid Cancer.

**Publication Details:**
Jonklaas J, Sarlis N, Litofsky D, Cooper D, Ain K, Bigos S, **Brierley J**, Haugen B, Kim P, Ladenson P, Marks P, Robbins J, Ross D, Skarulis M, Maxon H, Sherman S. Near-total/total Thyroidectomy and Thyroid Suppression H Therapy Improves Survival of Patients with Differentiated Thyroid Cancer. Thyroid. 2001;11(S1). **Coauthor or Collaborator.**

1996

The Impact of External Beam Radiation in Patients with Locally Advanced Thyroid Cancer.

**Publication Details:**
**Brierley J**, Klein I, Ho M for the National Thyroid Cancer Treatment Cooperative Study Registry. The Impact of External Beam Radiation in Patients with Locally Advanced Thyroid Cancer. Thyroid. 1996;6(S1). **Principal Author.**

1995

Medullary Thyroid Cancer - Prognostic Factors and the Role of External Radiation Therapy.

**Publication Details:**

1995

The Role of Radiation Therapy in Differentiated Thyroid Cancer.

**Publication Details:**
Tsang R, **Brierley J**, Simpson W J, Panzarella A, Gospodarowicz M, Sutcliffe S. The Role of Radiation Therapy in Differentiated Thyroid Cancer. Thyroid. 1995;5:S217. **Co-Principal Author.**

1991

Local Recurrence Following Conservative Surgery & Radiotherapy in Early Breast Cancer: The Experience of a Regional Radiotherapy Center.

**Publication Details:**
Other Lectures and Presentations

2007  Organ motion during preoperative chemoradiation for rectal cancer. World Congress on Gastrointestinal Cancer.

2006  Bortezomib in Patients with Metastatic Differentiated Thyroid Cancer: Preliminary Results of a Multicenter Phase II Study. American Thyroid Association. Plenary Presentation.

2004  The Internet Facilitates Cancer Staging. UICC World Conference for Cancer Organizations. Dublin, Ireland.


2001  Phase I/II Study of combined modality therapy in Pancreatic Cancer with Gemcitabine (Gem) and Escalating Dose Radiation Therapy (RT). American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco.

2000  Acute morbidity of preoperative concurrent radiotherapy and 5FU infusion in rectal cancer. European Society for Therapeutic Radiology and Oncology (ESTRO). Istanbul.

1999  The Accuracy of Recorded TNM Stage. European Society for Therapeutic Radiology and Oncology (ESTRO). Istanbul.


1999  How accurately is the TNM Stage recorded in a tertiary cancer center. American Society for Therapeutic Radiology and Oncology (ASTRO). San Antonio.

1997  Improved survival and local control following XRT in Differentiated Thyroid Cancer. American Society for Therapeutic Radiology and Oncology (ASTRO). Orlando.

1996 Jun  Early Stage Hodgkins Disease - The Late Effects of Treatment. The International Conference on Malignant Lymphoma.


1995  Medullary Thyroid Cancer - Prognostic Factors and the Role of External Radiation Therapy. The International Thyroid Congress. Toronto.

2. NATIONAL

Invited Lectures and Presentations


2012  Mercury rising: Who can avoid neoadjuvant RT. Toronto Cancer Conference. Toronto.


2010  Cancer Staging 101. Canadian Partnership Against Cancer.


2008  Thyroid Cancer a Radiation Oncologists Perspective. Canadian Society of Nuclear Medicine Annual Scientific Meeting 2008.

2004  Do we over treat or under treat Differentiated Thyroid Cancer? Vancouver Cancer Centre. Vancouver.

2002  The Management of Differentiated Thyroid Cancer. The experience from a single Institution (Princess Margaret Hospital) and a Multinational Registry. Montreal Thyroid Club. Montreal.


2002  High Dose Iodine Therapy in Thyroglobulin Positive Scan Negative Thyroid Cancer. Canadian Diabetes Association and Canadian Society of Endocrinology and Metabolism. 6th Annual Meeting. Vancouver.

Presented and Published Abstracts


Publication Details:


Publication Details:

2011  Patterns of Practice and its Effect on Outcomes for Patients with Localized Esophageal (E) and Gastroesophageal (GE) Cancer - a Decade of Practice. Canadian Association of Radiation Oncology
Annual Meeting (CARO). Winnipeg, Manitoba.

**Publication Details:**

2009
Management of Pituitary Adenoma with Stereotactic Radiotherapy at Princess Margaret Hospital. CARO Annual Meeting. Montreal, Quebec.

**Publication Details:**

2009
Intensity Modulated Radiotherapy (IMRT) and Concurrent Chemotherapy (CHT) for Anal and Perianal Cancer: Preliminary Report of Acute Toxicity. CARO Annual Meeting. Montreal, Quebec.

**Publication Details:**

**Other Lectures and Presentations**

2001

1999
The accuracy of recorded TNM Stage in a tertiary cancer center. Canadian Association of Radiation Oncologists (CARO). Montreal.

1999

1997
Designing a Curriculum for Quality Improvement in a Postgraduate Education Program. Canadian Association for Medical Education (CAME). Halifax.

1996
A review of Staging Classifications in Thyroid Cancer. The Royal College of Physicians and Surgeons. Halifax.

1995
Late Mortality and Morbidity following treatment for early stage Hodgkin’s Disease. The Royal College of Physicians and Surgeons. Montreal.

1994
Failure to Demonstrate an Effect of Interruption of Radiation Therapy on Local Control of Rectal Cancer. The Royal College of Physicians and Surgeons of Canada. Toronto.

1993
Involved field radiation in clinical stage I & II low grade lymphoma. The Royal College of Physicians and Surgeons of Canada. Vancouver.

1992

1992
External Beam Radiotherapy as Primary Treatment for Rectal Adenocarcinoma. The Royal College of Physicians and Surgeons of Canada. Ottawa.
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2013  All stage II and III rectal cancer should have adjuvant therapy. Do they? Or should they? Grand Rounds. Kingston.

2012  **Visiting Professor.** Should we give adjuvant therapy to all stage II and III rectal cancers? South Lake Hospital. Newmarket.

2011  Cancer Stage: How are we using Stage Data In Ontario? Does TNM have a future? Kingston Regional Cancer Centre; Grand Rounds Kingston. (Continuing Education).


2010  IMRT in Anal Cancer. The University of Toronto, Department of Radiation Oncology IMRT Insights: Transforming Practice Through Collaboration.


2007  How to Stage. McLaughlin Durham Regional Cancer Centre. Oshawa.


1999  Adjuvant Therapy in Thyroid Cancer. Queen’s University, Kingston Continuing Medical Education. (Continuing Education).


4. LOCAL

Invited Lectures and Presentations


2007  **Panelist.** Colorectal Cancer Symposium. Update on General Surgery, University of Toronto. (Continuing Education).

2006  External Beam Radiotherapy. Current Concepts in the Management of Thyroid Nodular Disease,
University of Toronto. (Continuing Education).

2005
Adjuvant Chemoradiation in Rectal Cancer. New Developments in Cancer Management, Princess Margaret Hospital Conference.

2004
External Radiation Therapy in Differentiated Thyroid Cancer. Current Concepts in the Management of Thyroid Nodular Disease, University of Toronto. (Continuing Education).

2002
The Role for External Radiation Therapy in Differentiated Thyroid Cancer. Current Concepts in the Management of Thyroid Nodular Disease, University of Toronto. (Continuing Education).

2001
Adjuvant Therapy in Gastric Cancer. COMET.

2000
Chemotherapy and Radiation therapy in Pancreatic Cancer. Focus on Gastrointestinal Oncology, University of Toronto, Continuing Medical Education. (Continuing Education).

1999
Chemoradiation. Indications and Applications. Future Directions in Radiation Oncology University of Toronto, Continuing Medical Education. (Continuing Education).

1999
The Role for Adjuvant Therapy in Thyroid Cancer. Current Concepts in the Management of Thyroid Nodular Disease. University of Toronto, Continuing Medical Education. (Continuing Education).

1998
Cancer of the Esophagus: Radiation and /or Chemotherapy. Course on Gastroenterology and Digestive Endoscopy. Wellesley Hospital. Toronto.

1998
Role of External Beam Radiation in the Multidisciplinary Management of Pancreatic Cancer. HPB Mini Symposium for the Visiting Professor, Department of Surgery, Faculty of Medicine, University of Toronto.

1997
The Role of Radiation Therapy in Locally Advanced Disease. Update in Pancreatic Cancer Research and Treatment. University of Toronto, Continuing Medical Education. (Continuing Education).

1997

1997
Is there a role for surgery in the management of Esophageal Cancer? Combined Annual Thoracic Refresher Course.

1996
The Role of Adjuvant Chemotherapy and Radiotherapy in Colorectal Cancer, Update in General Surgery. University of Toronto, Continuing Medical Education. (Continuing Education).

1996
The Adjuvant Management of Differentiated Thyroid Cancer, Current Concepts in the Management of Thyroid. University of Toronto, Continuing Medical Education. (Continuing Education).

1996
Esophageal Cancer, Update on Digestive Diseases. University of Toronto, Continuing Medical Education. (Continuing Education).

1995
The Role of Combination Therapy in Oesophageal Cancer. Toronto Thoracic Surgery Refresher Course, University of Toronto, Continuing Medical Education. (Continuing Education).

1993
The Role of Primary Radiotherapy in Rectal Cancer: Controversies in Colorectal Cancer. University of Toronto, Continuing Medical Education 1993. (Continuing Education).

5. OTHER

Presented and Published Abstracts

2014 Oct
Satisfaction with decisions on radioactive iodine use in low risk papillary thyroid cancer survivors. 84th Annual Meeting of the American Thyroid Association. Coronado, California, United States.

Publication Details:
decisions on radioactive iodine use in low risk papillary thyroid cancer survivors. Thyroid Cancer. 2014 Oct. **Coauthor or Collaborator.**

### 2013 Oct 1
A randomized controlled trial of lorazepam to reduce organ motion in patients receiving upper abdominal radiation therapy. ASTRO’s 55th Annual Meeting. Atlanta, Georgia, United States.

**Publication Details:**

### 2012 Sep
Pituitary adenomas treated with fractionated stereotactic radiotherapy: Clinical outcome and toxicity. 26th CARO Annual Scientific Meeting. Quebec, Quebec, Canada.

**Publication Details:**

### 2012 Sep
Making smartphone programming accessible to all: Creating a cancer staging app using app inventor for Android smartphones. 26th CARO Annual Scientific Meeting. Quebec, Quebec, Canada.

**Publication Details:**
Tsang DS, Catton P, **Brierley JD**. Making smartphone programming accessible to all: Creating a cancer staging app using app inventor for Android smartphones. Radiother Oncol. 2012 Sep;104(Suppl 2):S96. **Senior Responsible Author.**

### 2010 Nov
IMRT and concurrent chemotherapy for anal and perianal cancer: The Princess Margaret Hospital experience. 52nd ASTRO Annual Meeting. San Diego, California, United States.

**Publication Details:**

### 2010 Nov
Changes in Liver Volume During Radiotherapy Delivered Concurrently with Sorafenib. 52nd ASTRO Annual Meeting. San Diego, California, United States.

**Publication Details:**

### 2010 Nov
Assessing the Relationship Between Radiotherapy Dosimetric Characteristics and Post-operative Pulmonary Complications in Trimodality Esophageal Cancer Therapy. 52nd ASTRO Annual Meeting. San Diego, California, United States.

**Publication Details:**

2007

Organ Motion During Preoperative Chemoradiation for Rectal Cancer.

*Publication Details:*

2006

Clinical Outcome of Patients with Differentiated Thyroid Cancer Presenting with Metastatic Disease at Diagnosis.

*Publication Details:*
Tsang R, Sampson E, Le L, Rotstein L, Brierley J. Clinical Outcome of Patients with Differentiated Thyroid Cancer Presenting with Metastatic Disease at Diagnosis. Radiother Oncol. 2006;80(Suppl 1):S3. **Co-Principal Author.**

2006

Late Toxicity After Adjuvant Radiochemotherapy for Gastric Adenocarcinoma.

*Publication Details:*

2006

Upper Abdominal Organ Motion During Conformal Radiotherapy for Gastric Carcinoma.

*Publication Details:*

2006

Primary and Adjuvant Chemoradiotherapy for Locally Advanced Pancreatic Cancer: A Phase I/II Study with Long Term Outcome.

*Publication Details:*

2006

What is the Impact of 4D CT on the Planning of Esophageal Cancer?

*Publication Details:*

2006

Predictors of Outcome in Cervical Esophageal Cancer.

*Publication Details:*

2005

A Phase II Study of Preoperative Conformal Radiotherapy and Chemotherapy (CPTII/Cisplatin) for Esophageal Cancer.
Publication Details:

2005
Toxicity, Survival and Predictors of Outcome in Patients Receiving Adjuvant Chemoradiation for Gastric Adenocarcinoma.

Publication Details:

2005
Abdominal Organ Motion During Conformal Radiation.

Publication Details:

2005
Differentiated Thyroid Carcinoma: Analysis of Extra-thyroidal Extension and Residual Disease.

Publication Details:

2005
Clinical Outcome of Anaplastic Thyroid Carcinoma Treated with Once Daily and BID Fractionation Regimens.

Publication Details:

2004

Publication Details:

2004
Preoperative Radiation with Concurrent Chemotherapy for Resectable Rectal Cancer: Does Dose Escalation Improve Local Recurrence Free Survival and Disease Free Survival?

Publication Details:

2004
Primary Radical External Beam Radiotherapy of Rectal Adenocarcinoma: Long Term Outcome of 271 Patients.

Publication Details:


Publication Details:

2002 Reasons for No Post-Operative Therapy in Stage II/III Rectal Cancer.

Publication Details:

Principal Author.


Publication Details:

Coauthor or Collaborator.

2002 A Population-Based Assessment of Rectal Cancer: Quality Improvement Opportunities in Pathology Reporting.

Publication Details:

Coauthor or Collaborator.

2001 A Phase II Study of Preoperative Concurrent Chemotherapy and Escalating Dose of Radiotherapy in Patients with Adenocarcinoma of the Rectum.

Publication Details:


Publication Details:

2001 Phase I/II Study of Combined Modality Therapy in Pancreatic Cancer with Gemcitabine (Gem) and Escalating Dose Radiation Therapy (RT).

Publication Details:
2001  Self-Directed Multidisciplinary Continuing Education: Designing a CD ROM module on Colorectal Cancer.

*Publication Details:*  
Catton P, **Brierley J**, Wiljer D, Nyhof-Young J. Self-Directed Multidisciplinary Continuing Education: Designing a CD ROM module on Colorectal Cancer. Journal of Cancer Education. 2001. **Co-Principal Author.**

2000  Princess Margaret Hospital, University of Toronto. Acute Morbidity of Preoperative Concurrent Radiotherapy and 5FU Infusion in Rectal Cancer.

*Publication Details:*  
**Brierley J**, Swallow C, Oza A, Catton P, Wong CS, McLean M, Cummings B, Siu L, Moore M. Princess Margaret Hospital, University of Toronto. Acute Morbidity of Preoperative Concurrent Radiotherapy and 5FU Infusion in Rectal Cancer. Radiother Oncol. 2000;56(S1):S33. **Principal Author.**

2000  The accuracy of Recorded TNM Stage.

*Publication Details:*  

1999  A phase 1 study of radiation therapy and gemcitabine in patients with locally advanced pancreatic cancer.

*Publication Details:*  

1999  The accuracy of recorded TNM Stage in a tertiary cancer center.

*Publication Details:*  

1999  Princess Margaret Hospital, University of Toronto. Limited toxicity from combined preoperative radiation and continuous infusion chemotherapy in rectal cancer.

*Publication Details:*  

1999  How accurately is the TNM Stage recorded in a tertiary cancer center.

*Publication Details:*  

1997  The Use of Postoperative Thyroid Scans to Guide 131-Iodine Dosing for Thyroid Ablation.

*Publication Details:*  

1997  Improved Survival and Reduced local Relapse following External Beam Radiation in Papillary Thyroid Cancer with Microscopic Residuum following Surgical Excision.

*Publication Details:*  
**Brierley J**, Tsang R, Panzarella T, Gospodarowicz M. Improved Survival and Reduced local Relapse...
following External Beam Radiation in Papillary Thyroid Cancer with Microscopic Residuum following Surgical Excision. Int J Radiat Oncol Biol Phy. 1997;39:S310. **Principal Author.**

1996 Early Stage Hodgkins Disease - The Late Effects of Treatment.

**Publication Details:**
Brierley J, Rathmell A, Gospodarowicz M, Sutcliffe S, Munro A and The Princess Margaret Hospital Lymphoma Group. Early Stage Hodgkins Disease - The Late Effects of Treatment. Ann Oncol. 1996;7:S53. **Principal Author.**


**Publication Details:**

1996 Does Combined Modality Therapy (CMT) of lymphomas increase Acute Toxicity of Radiation Therapy? Results of a Two Year Prospective Audit.

**Publication Details:**

1996 Non-Hodgkins Lymphoma of the Waldeyer’s Ring.

**Publication Details:**

1996 Treatment Results in Clinical Staged I and II Large Cell Lymphoma.

**Publication Details:**

1996 A review of Staging Classifications in Thyroid Cancer.

**Publication Details:**

1996 The Treatment Planning Drill at the University of Toronto- a Recipe for Success.

**Publication Details:**

1995 Late Mortality and Mordidity following treatment for early stage Hodgkin’s Disease.

**Publication Details:**

1995 The Role of Radiation Therapy in Differentiated Thyroid Cancer.
Publication Details:

1994 Failure to Demonstrate an Effect of Treatment Time and Interruption of Radiation Therapy on Local Control of Rectal Cancer.

Publication Details:

1994 The Role of Radiation therapy in Hormonally - Active Pituitary Adenomas.

Publication Details:

1994 Radiation Therapy, Mitomycin C, and 5 Fluorouracil Infusion compared to Radiation Therapy and 5FU Infusion in the Non-surgical Management of Esophageal Squamous Carcinoma.

Publication Details:


Publication Details:

1993 A Morbidity and Mortality of Radiation Therapy for Pituitary Adenoma.

Publication Details:

1993 Involved Field Radiation in Clinical Stage I & II Low Grade Lymphoma.

Publication Details:

1993 Radiotherapy for Non-Functioning Pituitary Adenomas: Treatment Results and Prognostic Factors.

Publication Details:

1992 A Prospective Study of the Volume of Small Bowel in the Pelvis Before and During Radiotherapy.

Publication Details:
James BRIERLEY

1992
External Beam Radiotherapy as Primary Treatment for Rectal Adenocarcinoma.

Publication Details:

1989
Pagets Disease of the Nipple Treated with Radiotherapy.

Publication Details:

1988
The Influence of Breast Size on Late Radiation Reaction.

Publication Details:
Curriculum Vitae

Robert Glen Bristow

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office  
Radiation Medicine Program  
Princess Margaret Hospital  
610 University Ave., Rm 5-964  
Toronto, Ontario, Canada  
M5G 2M9  
Telephone  416-946-2936  
Fax  416-946-2227  
Email  Rob.Bristow@rmp.uhn.on.ca

1. EDUCATION

Degrees
1995 - 1997  PhD, Medical Biophysics, University of Toronto, Canada
1988 - 1992  MD, Graduated with Honors, Medicine, Faculty of, University of Toronto, Canada
1986 - 1988  MSc, Medical Biophysics, University of Toronto, Canada
1982 - 1986  BSc, Graduated with Honors, Zoology, University of Toronto, Canada

Postgraduate, Research and Specialty Training
1997 - 1998  Visiting Scholar-Post MD Fellowship, Department of Cell Biology and Genetics, Erasmus University, Rotterdam, Netherlands
1993 - 1996  Resident, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada
1992 - 1993  Internship, Comprehensive Internal Medicine, Toronto General Hospital, Department of Medicine, University of Toronto, Canada
1990  Summer Research Fellowship, Department of Radiation Medicine, Massachusetts General Hospital, Harvard University, Boston, United States
1989  Visiting Scientist, MD Anderson Cancer Center, Department of Experimental Radiotherapy, University of Texas, Houston, United States

Qualifications, Certifications and Licenses
2013 Aug - 2014 Aug  Primary Human Prostate Cancer Xenografts for the Study of Radiosensitivity and DNA Repair in Stem Cells, University Health Network, Toronto, Ontario, Canada, License / Membership #: AUP 2269.5
2013 Aug - 2013 Nov  Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and Radiotherapy on the Basis of Increased Tumour Growth Delay and Decreased Gut Toxicity, Toronto, Ontario, Canada, License / Membership #: AUP 833.22
2013 May - 2013 Aug  Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and
Radiotherapy on the Basis of Increased Tumour Growth Delay and Decreased Gut Toxicity, Toronto, Ontario, Canada, License / Membership #: AUP# 833.21
2013 Jan - 2013 Jul
Primary Human Prostate Cancer Xenografts for the Study of Radiosponse and DNA Repair in Stem Cells, University Health Network, Toronto, Ontario, Canada, License / Membership #: AUP# 2269.4

2013 Jan - 2013 Jun
Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and Radiotherapy on the Basis of Increased Tumour Growth Delay and Decreased Gut Toxicity. University Health Network, Toronto, Ontario, Canada, License / Membership #: AUP# 833.2

2011
Biosafety certificate. DNA Repair and Cell Cycle Checkpoints in Human Cancer, University Health Network, Canada, License / Membership #: # 25116

2011
Primary Human Prostate Cancer Xenografts for the Study of Radiosponse and DNA Repair in Stem Cells. University Health Network Animal Care Committee, Canada, License / Membership #: #AUP 2269.0

2010 - 2011
Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and Radiotherapy on the Basis of Increased Tumour Growth Delay and Decreased Gut Toxicity, University Health Network Animal Care Committee, Canada, License / Membership #: #AUP 833.14

2009 - 2011
Biosafety certificate, STTARR/PMH Research, Canada, License / Membership #: #13376

2009 - 2011
Biosafety certificate. DNA Repair and Cell Cycle Checkpoints in Human Cancer, University Health Network, Canada, License / Membership #: # 13376

2008 - 2010
Biosafety Certificate. Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and Radiotherapy and Improved radiation induced lung toxicity prediction with linked pre-clinical/clinical models and biomarkers. University Health Network, Canada, License / Membership #: #12456

2006 - 2008
Biosafety Certificate. DNA Repair and Cell Cycle Checkpoints in Human Cancer, University Health Network, Canada, License / Membership #: #7398

2001 - 2007
Studies in Molecular Carcinogenesis and Molecular Radiobiology in Genitourinary Oncology. University Health Network Animal Care Committee, Canada, License / Membership #: #AUP 833

1996
Fellowship, FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada

1993
General Practice Licence, College of Physicians and Surgeons of Ontario, Canada

1992
Licence, L.M.C.C; Canadian General Medical Examinations, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments

2009 - present
Professor, Radiation Oncology, University of Toronto, Canada

2009 - present
Professor, Medical Biophysics, University of Toronto, Canada

2006 - present
Senior Scientist, Ontario Cancer Institute and Campbell Family Cancer Research Institute, Canada

2005 - present
Full Member, Institute of Medical Science, University of Toronto, Canada

1999 - present
Clinician-Scientist, Radiation Medicine Program, Princess Margaret Hospital, Canada

Previous Appointments

UNIVERSITY - CROSS APPOINTMENT

2005 - 2009
Associate Professor, Medical Biophysics, University of Toronto, Canada

2003 - 2005
Associate Member, Institute of Medical Science, University of Toronto, Canada

1998 - 2005
Assistant Professor, Medical Biophysics, University of Toronto, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2011 ESTRO Honorary Fellow, European Society for Therapeutic Radiology and Oncology (ESTRO), Stockholm, Sweden. (Research Award)

2008 Virginia Logan Award Lecturer, Kimmel Cancer Center, Thomas Jefferson University, United States. (Distinction)

2003 Young Investigator Travel Award, Gordon Research Conference on Radiation Oncology, Ventura, California, United States. (Distinction)

1995 Junior Scientist Award, International Congress of Radiation Research - Radiation Research Society, Wurzburg, Germany. (Research Award)

1995 Outstanding Poster Award, Annual Meeting of the American Association for Cancer Research, Toronto, Canada. (Research Award)

NATIONAL
Received

2012 Apr John Ferguson Hero Award, PCC Research Strategy, Prostate Cancer Canada, Toronto, Ontario, Canada. (Distinction)

2012 Mar Picchione Visiting Scholar Award, Dalhousie Medical Research Foundation, Halifax, Nova Scotia, Canada. (Distinction)

2004 - 2010 Career Research Scientist, Canadian Cancer Society & National Cancer Institute of Canada, Canada. (Distinction)

1996 Resident Research Award, Canadian Society for Clinical Investigation and Medical Research Council of Canada, Canada. (Research Award)

1995 Phillips Award for Resident Research, Annual Meeting of the Canadian Association of Radiation Oncologists (CARO) - Royal College of Physicians and Surgeons of Canada, Montreal, Quebec, Canada. (Research Award)

1994 Phillips Award for Resident Research, Annual Meeting of the Canadian Association of Radiation Oncologists (CARO) - Royal College of Physicians and Surgeons, Toronto, Ontario, Canada. (Research Award)

PROVINCIAL / REGIONAL
Received

2013 Apr - 2013 Jul Alan Burton Award in Medical Biophysics, Western University, London, Ontario, Canada. (Specialty: Medical Biophysics)

2013 Mar Vivian Saykaly Visiting Professor of Oncology, McGill University, Montreal, Quebec, Canada.

2006 Best Annual Research Performance Award, DRO Annual General Meeting, Toronto, Ontario, Canada. (Research Award)
Robert Glen BRISTOW

LOCAL

Received

2016 May  Best Clinical Paper for 2015., Princess Margaret Cancer Center Research Institute. (Research Award)


2014  Best RMP Rounds for 'Precision Cancer Medicine for Localized Prostate Cancer: Genomic Subsets and Treatment Intensification', Princess Margaret Hospital, Canada. (Distinction)

2014  Radiation Medicine Program “Radiation Oncology Research Productivity” Award, Princess Margaret Hospital, Canada. (Distinction)

2011  CROF/Sanofi-Aventis Research Innovation Award, Department of Radiation Oncology, University of Toronto, Canada. (Research Award)

2009  Radiation Medicine Program “Radiation Oncology Research Productivity” Award, Princess Margaret Hospital, Canada. (Distinction)

2009  Sustained Excellence in Research Award, Department of Radiation Oncology, University of Toronto, Canada. (Distinction)

2006  Radiation Medicine Program “Research Leadership” Award, Princess Margaret Hospital, Toronto, Ontario, Canada. (Distinction)

2006  Research Leadership Award, Radiation Medicine Program, Princess Margaret Hospital, Canada. (Distinction)

2003  Winner of Best Poster, Department of Medical Biophysics Student Research Day, Supervisor, University of Toronto, Canada.

1996  1st Annual Brady Award for Resident Research, Joint Oncology Program, University of Toronto, Toronto, Ontario, Canada. (Research Award)

1996  W.J. Simpson Award for Resident Research, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada. (Research Award)

1994  W.J. Simpson Award for Resident Research, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada. (Research Award)

Nominated

2011  Gerald Kirsh Humanitarian Award, The Princess Margaret Hospital Foundation, Canada. (Distinction)

Teaching and Education Awards

PROVINCIAL / REGIONAL

Received

2006  Postgraduate Classroom Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, DRO Annual General Meeting, Toronto, Ontario, Canada. (Postgraduate MD)

LOCAL

Received

2013 Jun  Professional Mentorship Award, Radiation Medicine Program, Princess Margaret Cancer Centre, Dept of Radiation Oncology, Faculty of Medicine, Toronto, Ontario, Canada

2009  Post-Graduate Medical Education (PGME) Excellence Award in Teaching Performance/Mentorship and Advocacy, Faculty of Medicine, Dept of Radiation
Robert Glen BRISTOW

Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

2008

**Postgraduate Medical Education Excellence in Research Supervision Award**, Department of Radiation Oncology, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

2007

**Radiation Medicine Program Education Award “Research Supervisor” Award**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto, Ontario, Canada. (Postgraduate MD)

**Student/Trainee Awards**

**INTERNATIONAL**

**Received**

2010 - 2011

- **Junior Investigator Award**, Supervisor, Awardee Name: K Luoto. Tumor Microenvironment Workshop
  *Total Amount: 500 USD*

2010 - 2011

- **Selected to attend Films Workshop – Methods in Clinical Cancer Research**, Supervisor, Awardee Name: J Thoms. ECCO-AACR_EORTC-ESMO, Films, Switzerland

2009

- **AACR- AstraZeneca International Scholar-in-Training Award**, Supervisor, Awardee Name: Norman Chan. American Association for Cancer Research, United States
  *For the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics Meeting in Boston, Massachusetts.*

2009

- **AICR Marie Curie Fellowships 2010**, Supervisor, Awardee Name: Stephania Berton. American Institute for Cancer Research (AICR)

2009

- **ASCO Cancer Foundation Young Investigator Award**, Supervisor, Awardee Name: Stanley Liu. American Society of Clinical Oncology, United States
  *“Identification and characterization of the cellular mechanisms underlying DLL4-Notch pathway-mediated tumor radioresistance.”*

2009

- **VARIAN-Juliana Denekamp Award 2009**, Supervisor, Awardee Name: Stéphane Supiot. European Society for Therapeutic Radiology and Oncology
  *11th International Wolsberg Meeting on Molecular Radiation Biology/Oncology 2009.*

2008

- **10th ECCO-AACR-ASCO Workshop on Methods in Clinical Cancer Research – Travel Award**, Supervisor, Awardee Name: Dr. Bezad Banihashemi. ECCO-AACR-ASCO, Films, Switzerland

2008

- **AACR-GSK Outstanding Clinical Scholar**, Supervisor, Awardee Name: Eva Christensen. American Association for Cancer Research, United States

2008

- **Scholar-in-Training Award**, Supervisor, Awardee Name: Eva Christensen. American Association for Cancer Research, United States

2007 May

- **Young Investigator Award**, Supervisor, Awardee Name: Nirmal Bhogal. VIIIth International Workshop, Radiation Damage to DNA, Alberta, Canada
  *Poster - ASTRO.*

2007

- **Travel Award**, Supervisor, Awardee Name: Dr. Stephane Supiot. AACR, Aspen, Colorado, United States
  *AACR Workshop, Molecular Biology in Clinical Oncology.*

2007

- **Winner of the 2007 ASCO Foundation Merit Award**, Supervisor, Awardee Name: Dr. Stephane Supiot. ASCO Foundation, Orlando, Florida, United States
  *2007 Prostate Cancer Symposium.*

2007

- **Winner of the 2007 ECCO pResidential Abstract Award**, Supervisor, Awardee Name: Dr. Stephane Supiot. European Cancer Congress Meeting, Barcelona, Spain
  *(Given to the best abstract at the European Cancer Congress Meeting).*

2006

- **Scholar-in-Training Travel Award**, Supervisor, Awardee Name: Ramya Kumarsewaran. Radiation Research Society
2006 **Winner of the Scholars –In-Training Award**, Supervisor, Awardee Name: Norman Chan. Radiation Research Society
*Poster – ASTRO.*

2006 **Winner of the Scholars –In-Training Award**, Supervisor, Awardee Name: Ramya Kumarsewaran. Radiation Research Society
*Poster – ASTRO.*

2006 **Winner of the Shenaq International Research Award**, Supervisor, Awardee Name: Artur Gevorgyan. University of Toronto

2005 **Fellowship**, Supervisor, Awardee Name: Ananya Choudhury. Cancer Research UK/ Royal College of Radiologists, United Kingdom

2005 **Marie Curie Award**, Supervisor, Awardee Name: Shahnaz Al-Rashid. Radiation Research Society

2005 **Poster Presentation Award**, Supervisor, Awardee Name: Norman Chan. Radiation Research Society

2005 **SIT Travel Award**, Supervisor, Awardee Name: Norman Chan. Radiation Research Society

2005 **SIT Travel Award**, Supervisor, Awardee Name: Shahnaz Al-Rashid. Radiation Research Society

2005 **Student in Training Travel Award**, Supervisor, Awardee Name: Ananya Choudhury. Radiation Research Society

2004 **Trainee Award**, Supervisor, Awardee Name: Shahnaz Al-Rashid. Radiation Research Society, St. Louis, United States

2004 **Trainee Award**, Supervisor, Awardee Name: Oliver Faulhaber. Radiation Research Society, St. Louis, United States


**NATIONAL**
**Received**

2011 **Abbott Research Award**, Supervisor, Awardee Name: A Dal Pra. Canadian Urologic Oncology Group, Canada

2010 **Abbott Research Award**, Supervisor, Awardee Name: A Ishkanian. Canadian Urologic Oncology Group, Flims, Canada
*Title: Identification of candidate predictive biomarkers specific to intermediate risk prostate cancer, which may aid in prognostication and prediction of individual response to therapy.*

2009 **2009 Canadian Research Award for Specialty Residents, Division of Medicine**, Supervisor, Awardee Name: Stanley Liu. Royal College of Physician and Surgeons of Canada, Canada
*"A novel poly (ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under hypoxia.".*

2009 **Post MD Research Fellowship Award through NCIC**, Supervisor, Awardee Name: Stanley Liu. Terry Fox Foundation, Canada
*"Identification and characterization of the cellular mechanisms underlying DLL4-Notch pathway-mediated tumour radioreistance.".*

2008 - 2009 **Post-doctoral Fellowship**, Supervisor, Awardee Name: Dr. Michael Fraser. National Cancer Institute of Canada, Terry Fox Foundation, Canada

2008 **Oncology Canada Young Investigator Award-ASCO 2008**, Supervisor, Awardee Name: Dr. Adrian Ishkanian. Novartis

2008 **Post MD Research Fellowship Award**, Supervisor, Awardee Name: Dr. Stanley Liu. Terry Fox Foundation, Canada
2006 - 2009 Winner of the Excellence in Radiation Research (EIRR21), Strategic Training Fellowship, Supervisor, Awardee Name: Eva Christensen. Canadian Institutes of Health Research

2006 - 2008 EIRR21st Scholarship, Supervisor, Awardee Name: Ramya Kumarsewaran. Canadian Institutes of Health Research, Canada

2004 Junior Investigator Travel Grant, Supervisor, Awardee Name: Shahnaz Al-Rashid. Canadian Association of Radiation Oncologists, Canada

2004 Junior Investigator Travel Grant, Supervisor, Awardee Name: Oliver Faulhaber. Canadian Association of Radiation Oncologists, Canada

2004 Junior Investigator Travel Grant, Supervisor, Awardee Name: Dr. A. Tabassum. Canadian Association of Radiation Oncologists, Canada

2004 Junior Investigator Travel Grant, Supervisor, Awardee Name: Dr. A. Cuddihy. Canadian Association of Radiation Oncologists, Canada

2002 - 2004 Prostate Training Fellowship, Supervisor, Awardee Name: Dr. Andrew Coleman. Canadian Prostate Cancer Research Initiative - National Cancer Institute of Canada, Canada

2001 Travel Award, Supervisor, Awardee Name: Gillian Bromfield. Radiation Research Society, Canada

2000 - 2003 Studentship, Supervisor, Awardee Name: Shahnaz Al-Rashid. National Cancer Institute of Canada/Clinical Trials Group, Canada

2000 - 2001 Prostate Training Fellowship, Supervisor, Awardee Name: Dr. T. Kumaravel. Canadian Prostate Cancer Research Initiative - National Cancer Institute of Canada, Canada

PROVINCIAL / REGIONAL
Received

2010 Jul Peterborough K.M. Hunter Graduate Student Fellowship award, Supervisor, Awardee Name: S. Harding. University of Toronto, Canada
Total Amount: 20,000 CAD

2010 - 2011 Fellowship Grant – Flims Workshop, Supervisor, Awardee Name: J Thoms. Ontario Institute of Cancer Research, Canada

2010 - 2011 Paul Starita Graduate Student Fellowship award, Supervisor, Awardee Name: S. Harding. University of Toronto, Canada
Total Amount: 2,000 CAD

2010 Travel Award, Supervisor, Awardee Name: N. Chan. Terry Fox Research Institute, Canada
To attend the at the 2nd Terry Fox Research Institute Scientific Meeting, Vancouver, British Columbia, May 2010.

2006 - 2007 Ontario Graduate Scholarship, Supervisor, Awardee Name: Eva Christensen. Province of Ontario, Canada

2005 Winner, Supervisor, Awardee Name: Norman Chan. Ontario Student Opportunity Trust Fund, Canada

2004 Summer Studentship, Supervisor, Awardee Name: Graeme Nimmo. Ontario Cancer Institute, Canada

2002 Summer Studentship, Supervisor, Awardee Name: Jonathan Ng. Ontario Cancer Institute, Canada

1999 Summer Studentship, Supervisor, Awardee Name: Katherine Shim. Ontario Cancer Institute, Canada

LOCAL
Received
2009 Overall Excellence in Radiation Research by a Postgraduate Trainee, Supervisor, Awardee Name: Adrian Ishkanian. University of Toronto Department of Radiation Oncology, Canada

2009 Travel Award, Supervisor, Awardee Name: Kaisa Luoto. University Health Network, Canada For the 11th International Wolfsberg Meeting on Molecular Radiation.

2009 Travel Award, Supervisor, Awardee Name: Michael Fraser. University Health Network, Canada For the 11th International Wolfsberg Meeting on Molecular Radiation.

2009 Travel Award, Supervisor, Awardee Name: Adrian Ishkanian. University Health Network, Canada For the 11th International Wolfsberg Meeting on Molecular Radiation.

2009 W.J. Simpson Award, Academic Excellence in Research by a Resident, Supervisor, Awardee Name: Adrian Ishkanian. University of Toronto Department of Radiation Oncology, Canada

2008 - 2009 Helena Lam Fellowship, Supervisor, Awardee Name: Dr. Michael Fraser. Ontario Cancer Institute

2008 Best Oral Presentation – Fellow Award - DRO-UofT Research Day, Supervisor, Awardee Name: Dr. Danny Vesprini. University of Toronto, Canada

2008 Best Oral Presentation – Resident Award- DRO-UofT Research Day, Supervisor, Awardee Name: Dr. Stanley Liu. University of Toronto, Canada

2008 Best Radiation Medicine Program Resident Award, Supervisor, Awardee Name: Dr. Stanley Liu. Princess Margaret Hospital, Canada

2008 DRO-UofT Research Day Best Oral Presentation, Supervisor, Awardee Name: Eva Christensen. University of Toronto, Canada

2007 - 2008 Frank Fletcher Memorial Fund, Supervisor, Awardee Name: Shane Harding. University of Toronto

2007 - 2008 Graduate Fellowship in Prostate Cancer Research, Supervisor, Awardee Name: Shane Harding. Princess Margaret Hospital Foundation, Canada

2007 - 2008 The Scace Graduate Fellowship in Prostate Cancer Research, Supervisor, Awardee Name: Shane Harding. University of Toronto

2007 2007 Robert Matthews Scholarship, Supervisor, Awardee Name: Eva Christensen. Princess Margaret Hospital, Canada

2007 DRO Resident Award, Supervisor, Awardee Name: Dr. Stanley Liu. University of Toronto, Canada

2007 Helena Lam Fellowship, Supervisor, Awardee Name: Dr. Michael Fraser. Princess Margaret Hospital

2007 IMS Entry Scholarship, Supervisor, Awardee Name: Eva Christensen. University of Toronto, Canada

2007 Medical Biophysics Research Excellence Scholarship, Supervisor, Awardee Name: Norman Chan. University of Toronto, Canada

2007 Open Scholarship, Supervisor, Awardee Name: Norman Chan. University of Toronto, Canada

2007 W. J. Simpson Award, Supervisor, Awardee Name: Dr. Stanley Liu. Princess Margaret Hospital, Canada For Academic Excellence in Research by a Resident Department of Radiation Oncology.

2006 - 2007 Lawrence, Ila and William Gifford Scholarship, Supervisor, Awardee Name: Ramya Kumarsewaran. University of Toronto, Canada

2006 Graduate Fellowship in Cancer Research, Supervisor, Awardee Name: Ramya Kumarsewaran. Princess Margaret Hospital Foundation

2006 Honorable mention, The Laidlaw Manuscript Competition, Supervisor, Awardee Name:
Artur Gevorgyan. UofT Annual Research Day

2006
Winner of the Radiation Medicine Program for Exceptional Research Support,
Supervisor, Awardee Name: Farid Jalali. University of Toronto

OTHER
Received

2009
Scholars-in-Training (SIT) Travel Award, Supervisor, Awardee Name: Ken Tse. Radiation Research Society
For the Radiation Research Society Annual Meeting in Savannah, Georgia.

2005
EIRR Post-Doctoral Award, Supervisor, Awardee Name: Evangelia Tomai
Declined.

2005
Helen Lam Fellowship Award, Supervisor, Awardee Name: Evangelia Tomai
Declined.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Association for Cancer Research
American Society for Therapeutic Radiology and Oncology
Canadian Association of Radiation Oncologists
Canadian Medical Association
Canadian Urological Association
College of Physicians and Surgeons of Ontario
European Society for Therapeutic Radiology and Oncology
Ontario Medical Association
Radiation Research Society
Royal College of Physicians and Surgeons of Canada
The American Society for Cell Biology

Administrative Activities

INTERNATIONAL

12th International Tumour Microenvironment Workshop Toronto
2010 Organizer, Radiation Oncology, Toronto, Ontario.
2010 Co-Chair, Radiation Oncology, Toronto, Ontario.

8th International Workshop on DNA Damage and Repair
2004 Chair, Session on “DNA-dsb Repair”, Banff, Alberta.

ABBOTT Pharmaceuticals
2010 - present Consultant
2010 - present Member, Scientific Advisory Board

Academic Clinical Oncology and Radiobiology Research Network
2005 - 2008 Member, International Advisory Committee, United Kingdom.
American Association for Cancer Research
2003  Member, Clinical Program Committee, Washington, District of Columbia.

American Society for Therapeutic Radiology and Oncology
2011 - present  Member, ASTRO Cancer Biology/Radiation Biology Task Force
2011 - present  Member, Biology Resource Panel of the Clinical Affairs and Quality Committee
2011 - present  Chair, Radiation and Cancer Biology Committee
2011 - present  Member, Radiobiology and Cancer Biology Task Force
2011 - present  Member, Science and Research Council
2011 - present  Member, Annual Scientific Meeting Organization Committee
2008 - present  Vice Chair, Translational Radiobiology Committee
2004 - 2009  Member, Education Committee

American Society of Therapeutic Radiology and Oncology
2011  Session Moderator, “DNA Repair”, 3B Research Forum: Benchtop to Bedside and Back, Atlanta, Georgia.
2011  Organizer, 3B Research Forum: Benchtop to Bedside and Back, Atlanta, Georgia.
2011  Faculty, 3B Research Forum: Benchtop to Bedside and Back, Atlanta, Georgia.
2011  Chair, Prostate Cancer Genomics and Personalized Medicine Session, 2011 ASTRO Annual Scientific Meeting, Miami, Florida.
2011  Chair, Session on DNA Repair and Radiation Oncology, ASTRO Annual Scientific Meeting, Miami, Florida.
2011  Organizer, Biology Session Reviews, ASTRO Annual Scientific Meeting, Miami, Florida.
2011  Co-Chair, Biology Session Reviews, ASTRO Annual Scientific Meeting, Miami, Florida.
2011  Chair, Session on New Targets - DNA Response and Intracellular Signals, ASTRO Annual Scientific Meeting, Miami, Florida.
2010  Co-Chair, Translational Radiobiology Session, ASTRO Annual Meeting and Scientific Program, San Diego, California.
2001  Chair, Poster Session on “Translational Biology”, Annual Meeting, San Francisco, California.

Antoni van Leeuwenhoek Hospital
2010  Member, Scientific Advisory Board, Division of Radiotherapy, The Netherlands Cancer Institute
2010  Site Reviewer, Division of Radiotherapy, The Netherlands Cancer Institute

Astra-Zeneca
2001  Faculty, Focus Group on Prostate Cancer, Miami, Florida.

Australian-Canadian Prostate Cancer Alliance
2008  Organizer, Multidisciplinary Treatment of Prostate Cancer, First Meeting, Brisbane, Australia.
2008  Session Chair, Multidisciplinary Treatment of Prostate Cancer, First Meeting, Brisbane, Australia.
2008  **Session Chair**, “Translational Opportunities & Correlative Biomarkers”, Brisbane, Australia.
2008  **Session Chair**, “Clinical Trials Networks & Collaborations – Ongoing and new trials”, Brisbane, Australia.

**Australian-Canadian Prostate Cancer Research**
2010  **Session Chair**, The Tumour Microenvironment International Organizing Committee, AC-PCRA Scientific Meeting, Brisbane, Australia.

**Canadian Prostate Cancer-BioNet**

**Canadian-US Cancer Control Alliance**
2005  **Faculty**, Seattle, Washington.

**ECCO-ESTRO**
2011  **Chair**, ECCO Debate on Personalized Breast Cancer Trials, Annual Scientific Meeting, Stockholm, Sweden.
2011  **Chair**, Session on Immunology and Radiotherapy, Annual Scientific Meeting, Stockholm, Sweden.

**European Society for Therapeutic Radiology and Oncology**
2011 - present  **ESTRO Honorary Fellow**
2003  **Chair**, Session on “Clinical Genomics”; Radiobiology Workshop, Nijmegen, Netherlands.
2002  **Chair**, Session on “Introduction to Proteomics”; Annual Meeting, Prague, Czech Republic.
2000 - 2002  **Member**, Scientific and Planning Committee, Prague, Czech Republic.
2000  **Co-Chair**, Session on “Gene Therapy”, Annual Meeting, Istanbul, Turkey.

**Golden Horseshoe Radiobiology Meeting**
2008  **Session Chair**, University of Rochester, Rochester, New York.
2005  **Program Director**, Princess Margaret Hospital, Toronto, Ontario.
2004  **Chair**, Session on “DNA Damage Response, McMaster University, Hamilton, Ontario.

**Gordon Research Conference**
2010  **Vice Chair**, Radiation Oncology, Houston, Texas.

**ICPC**
2005  **Faculty**, Conference on Issues & Controversies in Prostate Care, Jamaica.

**Innovative Strategies to Improve Target Definition in Radiation Oncology**
2001  **Chair**, Session on “Biomolecular Targets in Radiotherapy”; Target Insight Meeting, Toronto, Ontario.

**International Atomic Energy Agency**
Robert Glen BRISTOW

2004 **Member**, Tissue Banking & Genomics Committee, (IAEA-Vienna), Amsterdam, Netherlands.

**International Cancer Genome Consortium**
2010 - present **Member**, International Steering Committee
2010 - present **Lead PI**, Prostate Cancer Project

**International Conference on Translational Research and Oncology**
2006 **Faculty**, Lugano, Switzerland.

**International Conference on Translational Research and Pre-Clinical Strategies in Clinical Radio-Oncology**
2002 **Chair**, Session on “Genomic Response”; Meeting, Lugano, Switzerland.

**International Union Against Cancer**
2001 **Course Director**, Training Program, Toronto, Ontario.
2001 **Faculty**, Training Program, Toronto, Ontario.

**Irish Prostate Cancer Consortium**
2011 **Member**, Scientific Advisory Board, Galloway, Ireland.

**Joint ECCO 15-34th ESMO Multidisciplinary Congress**
2009 **Session Chair**, “Cancer Stem Cells and Radiation Resistance”, Berlin, Germany.

**Joint Meeting of the Prostate Cancer Research Foundation of Canada and Prostate Cancer Research Foundation-United Kingdom**
2008 **Member**, Program Committee, Toronto, Ontario.

**MOVEMBER Prostate Cancer Global Action Plan (GAP)**
2009 - present **Member**, Scientific Advisory Committee

**Myriad Genetics**
2010 **Member**, Scientific Advisory Board, Park City, Utah.

**National Institute of Health**
2003 **Chair**, Session on “Predictive Assays”; Workshop on Radiobiology, Bethesda, Maryland.
2002 **Chair**, Session on “Biological Assays”; Workshop on Bio-Targeting, Bethesda, Maryland.
2000 **Delegate**, Young Investigators Workshop, Bethesda, Maryland.

**National Institutes of Health (NIH)**
2009 - present **Member**, Scientific Advisory Board, Structural Biology of DNA Repair NIH PO1 Program

**Prostate Cancer Foundation**
2013 - present Global Research Council, United States.
2010 - present **Member**, Scientific Advisory Board, United States.
2010 **Judge**, Australia Annual Scientific Meeting, Brisbane, Australia.
2010 **Member**, Organizing Committee, United Kingdom.
2009  **Member**, Scientific Advisory Board, STAR Program, United States.

**Radiation Research Society**

2011  **Member**, Constitution and Bylaws Committee
2009  **Member**, Editor Search Committee
2009  **Member**, Annual Meeting Committee
2008  **Session Chair**, Developments in the CMCR Programs, Annual Meeting, Boston, Massachusetts.
2001  **Chair**, Session on “DNA Repair II”, Annual Meeting, San Juan, Puerto Rico.

**Radiation Research Society and American Society of Therapeutic Radiation Oncology**


**Radiation Therapy Oncology Group**

2007  **Member**, Translational Committee, Tampa, Florida.

**Radiotherapy Oncology Group**

2007 - present  **Canadian Lead**, Translational Research Program (TRP) Committee
2008  **Committee Member**, 2009 Annual Meeting, New Orleans, Louisiana.

**Research Council**

2011 - 2012  **Chair**, Radiation and Cancer Biology Committee, Miami, Orlando.

**Target Insight II: Innovation Strategies for Target Definition to Enhance the Therapeutic Ratio Meeting**

2006  **Chair**, Session on Biological Targets in Radiation Therapy Session, Toronto, Ontario.

**Terry Fox Research Institute**

2010 - present  **Member**, Prostate Cancer Biomarkers Scientific Committee

**University of Oxford**

2010  **Chair**, Scientific Advisory Board, Gray Institute for Radiation Oncology & Biology

**VERTEX Pharmaceuticals**

2011 - present  **Chair**, Scientific Advisory Board

**Wolfsberg Radiobiology Meeting**

2004 - 2005  **Member**, Planning Scientific Committee, Ermatingen, Switzerland.
2004  **Judge**, “Translational Biology” Poster Competition, 8th International Meeting, Ermatingen, Switzerland.

**Wolfsberg ESTRO Radiobiology Meeting**

2011  **Poster Judge**, Ermatingen, Switzerland.
NATIONAL

Canadian Association for Radiation Oncologists
2001 - 2010 Chair, National Task Force on Translation Radiobiology

Canadian Association of Radiation Oncologists
2008 Chair, Symposium on the Tumour Microenvironment, Annual Meeting, Ontario.
2008 Session Chair, Imaging and Biology of the Tumour Microenvironment, Annual Scientific Meeting
2005 Co-Chair, Scientific Session G, Annual Meeting, Vancouver, British Columbia.
2004 Chair, Session on “Molecular Targets and Predictors in Radiotherapy”, Annual Meeting, Halifax, Nova Scotia.
2004 Program Director, Translational and Basic Science Poster and Podium Presentations, Annual Meeting, Halifax, Nova Scotia.
2003 - 2009 Chair, Translational Biology Scientific Advisory Group
2002 Chair, Poster Session on “New Modalities in Radiotherapy”, Annual Meeting, Toronto, Ontario.
2001 Chair, Poster Session on “Translational and GU Oncology”, Annual Meeting, Montreal, Quebec.

Canadian Cancer Research Alliance
2009 Session Discussion Leader, Stakeholder Consultation Session, Toronto, Ontario.

Canadian Cancer Research Conference
2011 Member, Scientific Program Committee, Toronto, Ontario.
2011 Session Chair, Session on Biological Adapted Therapy: Lessons Learned from Prostate and Breast Cancer, Toronto, Ontario.

Canadian Cancer Society & National Cancer Institute of Canada
2004 - present Career Research Scientist

Canadian Prostate Cancer BioResearch Network
2007 Program Director, 6th Annual Satellite Meeting, Montreal, Quebec.
2007 Co-Chair, 6th Annual Satellite Meeting, Montreal, Quebec.
2005 Program Director, 4th Annual Satellite Meeting, Vancouver, British Columbia.
2005 Co-Chair, 4th Annual Satellite Meeting, Vancouver, British Columbia.
2002 - 2006 Co-Administrator

Canadian Prostate Cancer Genome Sequence Project
2010 - present Project Lead, Steering Committee

Canadian Prostate Cancer Research Initiative
2006 Chair, Biomarkers Planning Committee
Robert Glen BRISTOW

Canadian Urology Association
2001 Member, Prostate Expert Panel on Locally Advanced Prostate Cancer

GU Radiation Oncologists of Canada
2004 Consultant, Prostate Radiotherapy Group Consensus Meeting
2004 Faculty, Prostate Radiotherapy Group Consensus Meeting
2000 Consultant, Advirosry Board
2000 Faculty, Advirosry Board

National Cancer Institute of Canada
2004 Member, External Planning Committee
2003 Chair, Workshop on “Translational Oncology”, Toronto, Ontario.

National Cancer Institute of Canada/Clinical Trials Group
2010 - present Chair, GU Disease Site Correlative Science Working Group Committee
2008 - present Member, IND Translational Biomarker Subcommittee
2008 Member, Investigation New Drugs Translational Committee
2007 Chair, Session on Biomarkers, Vancouver, British Columbia.

Prostate Cancer Canada
2009 - present Chair, Networks & Partnerships Committee
2009 - present Chair, National Network of BRCA1/2 Prostate Cancer Carriers
2006 - present Board Member
2011 Organizer, Translational Biology Meeting

Prostate Cancer Research Foundation of Canada
2005 - 2009 Chair, Scientific and Medical Advisory Committee

Target Insight III Meeting
2009 Co-Organizer, Toronto, Ontario.

PROVINCIAL / REGIONAL
Other Organizations
2012 - present Canadian Association for Radiation Oncology (CARO), Ottawa, Alberta, Canada.

Ontario Cancer Biomarker Network
2007 - 2009 Chair, Steering Committee
2007 - 2009 Member, Scientific Advisory Board

Ontario Cancer Institute
2006 Session Chair, Applied Molecular Oncology – Retreat, Toronto, Ontario.

Ontario Institute for Cancer Research
2010 - present Co-Lead, Prostate Cancer Initiative
2010 Co-Chair, Workshop on Prostate Cancer Strategic, Annual Meeting, Nottawasaga Inn, Ontario.

2008 Chair, Clinical Session, Annual Retreat, Nottawasaga Inn, Ontario.

The Thunder Bay Regional Research Institute
2008 - present Member, Scientific Advisory Board

LOCAL
Cancer Canada Research Alliance
2013 - present Scientific Meeting Committee, Ontario, Canada.

Mount Sinai Hospital
2011 - present Consultant, Clinical Genomics Centre, Samuel Lunenfeld Research Institute, Toronto, Ontario.

Princess Margaret Hospital
2007 - present Member, Advisory Committee (PAC), EIRR21st Radiation Sciences Program
2007 - present Head, Campbell Family Cancer Research Institute-Prostate Cancer Research Program
2004 - present Co-Chair, STTARR (Spatio-Temporal Targeting and Amplification of Radiation Response) Management Committee
1999 - present Member, PMH-UHN GenitoUrinary (GU) Oncology Group
2008 Faculty Member, Developments in Cancer Management: The 8th Princess Margaret Hospital Conference, Toronto, Ontario.
2007 - 2008 Program Director, Prostate Cancer Program Retreat, Toronto, Ontario.
2000 - 2004 Member, Continuing Education Committee, DRO
1999 - 2004 Member, Postgraduate Education Committee, DRO
1999 - 2004 Coordinator, Genito-Urinary (GU) Rounds, PMH GU-Site Group
1999 - 2002 Secretary, DRO Staff Association Meetings
1994 Representative, Department of Radiation Oncology, Association of Residents and Interns of Ontario (PAIRO)

Princess Margaret Hospital - University Health Network
2010 - present Co-Lead, Terry Fox Hypoxia Project Program Team
2004 - 2010 Co-Investigator, Terry Fox Hypoxia Project Program Team
2004 - 2010 Team Member, Terry Fox Hypoxia Project Program Team
2003 - 2005 Leader, Prostate Clinical Research Program
2000 - 2003 Leader, Section II, Clinical Research Program-Prostate
2000 - 2003 Leader, Clinical Impact Team-Prostate

University of Toronto
2008 - present Member, Department of Medical Biophysics Promotions Committee, Faculty of Medicine, Dept of Medical Biophysics
2011 Poster Judge, Institute of Medical Science Research Day, Faculty of Medicine, Dept of Radiation Oncology
2011 Chair, Search Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of
Radiation Oncology

2010  **Member**, UT-DRO Strategic Planning Committee, Faculty of Medicine, Dept of Radiation Oncology

2009  **Committee Member**, 2009 Target Insight Meeting, Princess Margaret Hospital

2009  **Organizer**, 2009 Target Insight Meeting, Princess Margaret Hospital

2001 - 2003  **Course Director**, MBP1018Y Oncology Course, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education

*Designed and administered Course; convened lecturers, exam preparation. 2001 - 50 Students, 20 hrs. 2002 - 45 Students, 10 hrs. 2003 - 45 Students, 10 hrs.*

1999 - 2004  **Member**, Faculty Council, Faculty of Medicine

1996  **Graduate School Representative**, External Review for Department of Medical Biophysics, Faculty of Medicine, Dept of Medical Biophysics

1991  **Member**, Aiken’s Award Committee on Course Development and Coordination, Faculty of Medicine

1990  **Member**, Palliative Care Subcommittee of the Oncology Coordinating Council

**Peer Review Activities**

**EDITORIAL BOARDS**

**Editor**

2013 Jan - present  Cancer Research (AACR)

2010 - present  Clinical and Investigative Medicine

2010 - present  European Journal of Clinical and Medical Oncology

2003 - present  Basic Science of Oncology, 4th edition-(international oncology textbook for residents and graduate students)

2003 - present  Radiotherapy and Oncology

**Associate Editor**

2010 - present  BMC Cancer

2007 - present  Radiation Research

**Guest Editor**

2010  Seminars in Radiation Oncology

2008  Cancer and Metastasis Reviews

**Senior Editor**

2013 Jan - present  Molecular Cancer Research (AACR)

**GRANT REVIEWS**

**External Grant Reviewer**

2008  Medical Research Council-UK, MRC Fellowships Committee Panel


2007  Cancer Research - United Kingdom, Progress and Project Panel, Oxford Initiative Grants Panel

2006  Netherlands Cancer Society

2006  South African Cancer Society

2005  Cancer Research – United Kingdom, Oxford Initiative Grants Panel

2005  Swiss Cancer League, Operating Grant Panel

2003  Canadian Institutes of Health Research

2003  Michael Smith Program in Health Research
2003 National Sciences and Engineering Council of Canada

Reviewer
2009 - present Prostate Cancer Canada, Clinician Scientist Awards Panel
2011 Canadian Cancer Society Research Institute, G2 Grant Panel
2011 Canadian Institutes of Health Research, Terry Fox Project Program Grants Panel
2011 Prostate Cancer Charity, UK
2011 Yorkshire Cancer Research Foundation, UK
2010 Canadian Breast Cancer Foundation, Prairies/NWT Region, Operating Grants Panel
2010 Cancer Research Society, Quebec, Ontario
2010 French National Cancer Institute (INCa), France
2010 Israel Cancer Research Fund, Panel, New York, USA
2010 Juravinski Cancer Centre Foundation, Grant Panel, Hamilton, Ontario
2010 Prostate Cancer Foundation of Australia
2010 The Prostate Cancer Charity, United Kingdom
2010 The Prostate Cancer Foundation, USA
2009 - 2010 Cancer Care Ontario, Clinician Scientist Awards Panel
2009 American Institute of Cancer Research
2009 Health Research Board- NHS, Ireland, Health Research Awards Panel
2009 Prostate Cancer Canada, Operating Grants Panel
2009 Swiss National Science Foundation
2008 Canadian Institutes of Health Research, Targeted Initiatives Awards Panel
2007 National Cancer Institute of Canada, Project Program Grant Panel
2004 National Institute of Health, Biomedical Award Study Section. Rockland, Maryland.

Chair
2007 - 2010 Canadian Association of Radiology and Oncology, RAZCER Awards-Grant Panel.
2005 - 2008 Prostate Cancer Research Foundation of Canada, Grant Panel

Reviewer Ad Hoc
2011 Swiss Cancer League, Operating Grants Panel

MANUSCRIPT REVIEWS
Reviewer

Biochemistry and Cell Biology
BMC Cancer
BMC Genomics
Breast Cancer Treatment and Research
British Journal of Cancer
Cancer Epidemiology. Biomarkers and Prevention
Cancer Letters
Cancer Prevention and Detection
Cancer Research
Cancer Treatment Reviews
Carcinogenesis
Cell Death and Differentiation
Clinical Cancer Research
DNA Repair
EMBO Reports
European Journal of Cancer
European Journal of Clinical and Medical Oncology
European Journal of Clinical and Medical Oncology
European Urology
European Urology
International Journal of Cancer
International Journal of Radiation Biology
International Journal of Radiation Oncology, Biology and Physics
Journal of Cellullar and Molecular Medicine
Journal of Clinical Oncology
Journal of Clinical Oncology
Journal of the National Cancer Institute
Journal of Urology
Lung Cancer
Mutation Research
Mutation Research - Genetic Toxicology and Environmental Mutagenesis
Nature Reviews Urology
Nucleics Acid Research
Oncogene
PLOS Genetics
Radiation Oncology Investigations Clinical and Basic Research
Radiation Research
Radiotherapy and Oncology
SCIENCE
Science Translational Medicine
Scientific Reports, Nature
The Canadian Journal of Urology
Urology

PRESENTATION REVIEWS
Reviewer
2011 ASTRO 3B Forum: Benchtop to Bedside and Back, Atlanta, Georgia
2011 ASTRO Annual Meeting Abstracts, San Diego, California
2010 ASTRO Annual Meeting Abstracts, San Diego, California
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2014 Jul - 2019 Jul

Principal Applicant. A Research Pipeline for Hypoxia-driven Precision Cancer Medicine. Terry Fox Research Institute (TFRI). PI: Wouters, Brad; Bristow, Rob. Collaborator(s): Fyles, Anthony; Jaffray, David; Koritzinsky, Marianne; Milosevic Michael. 7,453,399 CAD. [Grants]

2013 Jul - 2018 Jul


Determine genomic and TME effects on radioresistance of prostate cancer and drive novel Phase II trials to overcome radioresistance.

2012 Jul - 2015 Jun

Co-Principal Investigator. Clinician Scientist Award. Ontario Association of Radiation Oncologists (OARO). PI: Bristow, Rob. 255,000 CAD. [Grants]

This peer-reviewed award provides personal salary support for research to offset clinical activity.

2012 Jul - 2014 Dec

Principal Investigator. High-throughput discovery of prostate tumour initiating cells markers for prognosis and personalized medicine. Prostate Cancer Canada (PCC). Collaborator(s): Ailles Laurie, Brinkman Ryan, Van der Kwast Theodorus H. 150,000 CAD. [Grants]

2012 Apr - 2016 Apr


2012 Mar - 2015 Mar

NON-PEER-REVIEWED GRANTS

Funded

2008 Jul - present **Co-Investigator.** Fiducial Localization and Individualized Radiotherapy for Prostate Cancer (FLIP). REB#: 08-0271-C. PI: Menard, Cynthia. Collaborator(s): Bristow RG, Chopra S, Craig T, Foltz W, Milosevic M. [Clinical Trials]

2008 Jul - present **Co-Investigator.** Hypoxia & Clinical Outcome after Radiotherapy for Invasive Bladder Cancer (Chart Review). REB#: 08-0271-C. PI: Milosevic, Michael. Collaborator(s): Bristow RG. [Clinical Trials]

2008 - present **Principal Investigator.** Evidence for Intrinsic Tissue Sensitivity as a Predictor of Prostate Cancer Radioresponse (Chart Review). REB#:08-0473-CE. Collaborator(s): RMP Co-Investigators: D. Vesprini, C. Catton. [Clinical Trials]


2007 - present **Co-Investigator.** A Phase I-II Trial of Post-Operative Image-guided and Intensity Modulated Radiotherapy (IG-IMRT) for Localized Prostate Cancer. REB#: 07-0234-C. PI: Menard C. Collaborator(s): RMP Co-Investigators: Catton C, Craig T, Kong V, Bristow RG. [Clinical Trials]


2006 - present **Principal Investigator.** A Pilot Study to Determine the Feasibility of Testing Serum, Plasma
Robert Glen BRISTOW


2000 - present  Principal Investigator. Molecular Determinants of Radioresponse in Prostate Cancer. REB #: 01-0620-C. Collaborator(s): Milosevic M, Warde P, Lilge L. [Clinical Trials]

2000 - present  Principal Investigator. Influence of tumor hypoxia on outcome following radiotherapy, and on prostate cancer malignant progression – PMH Protocol. Intramural-DRO. Collaborator(s): Investigators: Milosevic M (PI), Toi A, Sweet J, Bristow RG, Hedley D, Panzarella T, Hill R. [Grants] REB#00-0443-C (Dr. Milosevic); REB#01-0620-C (Dr. Bristow).


2013 Jul - 2018 Jul  Co-Principal Investigator. PCC Prostate Cancer Discovery Team Grant. Prostate Cancer Canada. PI: Buttyan R, Bristow RG. Collaborator(s): Gleave M, Houmedia A. 6,000,000 CAD. [Grants]


2012 Jul - 2015 Jun  Principal Investigator. The Canadian Prostate Cancer Genome Network (CPC-GENE): A National Outcomes-Based DNA Sequencing Initiative. Prostate Cancer Canada and the
Ontario Institute for Cancer Research. Collaborator(s): Boutros P, Hudson T, Stein L, Muthuswamy, L, van der Kwast T, Collins C. 20,000,000 CAD
To complete whole genome sequencing of 500 prostate cancers and test for novel prognostic factors in outcome.

To quantify KLK proteins in urine and correlate to prostate cancer progression.


Precis: To understand the role of MRI in active surveillance.

2011 - 2012 Principal Investigator. A High-throughput Discovery of Prostate Cancer Stem Cell Epitopes. Orillia Cancer Foundation. Motorcycle Ride For Dad. 70,000 CAD. [Grants]


Précis: To create Tissue Microarrays in prostate radiotherapy for novel prognostic markers.

Précis: Test the role of gold nanoparticles as radiosensitizers
Effort: 3 %
Amount: $129,931/year.

Précis: To determine the pronosis of BRCA2 carriers in prostate cancer.
Amount: $154,377/yr.

Précis: To discover novel proteomic signatures of aggressive prostate cancer versus indolent prostate cancer.

Précis: To complete mRNA expression analyses on 115 prostate cancers and test for novel

Précis: Training Program in Radiation Oncology.  
Amount: $325,000/ per year.

2009 - 2014  **Co-Investigator.** Molecular-Mechanism-Based Target Identification and Drug Discovery for Radiotherapy of Cancer. Canadian Institutes of Health Research (CIHR). PI: Lu QB. Collaborator(s): Bristow RG, Jaffray D. 662,865 CAD. [Grants]  
Précis: This grant will investigate novel radiosensitizers to improve breast and prostate cancer outcome.  
Effort: 2%.

Précis: Hypoxia effects on homologous recombination.  
Effort: 15%.

Précis: To determine CGH array biomarkers of prostate cancer radiotherapy response.  
Effort: 10%.

Précis: To determine whether gammaH2AX foci predicts radiotherapy toxicity  
Effort: 2%.

Précis: Study cytokine expression in men undergoing radiotherapy  
Effort: 2%.


2008 - 2010  Principal Investigator. DNA Repair Inhibition in Prostate Cancer Cells and Individualized Therapy. Prostate Cancer Research Foundation of Canada. Collaborator(s): Bharati Bapat, Theo van der Kwast, John Trachtenberg. 60,000 CAD. [Grants]
Précis: Developing new targets for radiotherapy based on prostate cancer cell DNA repair status
Effort: 5%.


Amount: $146,178/ per year
Précis: Understanding the roles of p53 in DNA-dsb repair.
Effort: 10%.


Wilson B. 2,000,000 CAD. [Grants]
Amount: $400,000/ per year
Précis: Equipment grant.

2005 - 2010

Amount: $171,781 U.S./ per year
Précis: Determining the utility of DNA repair foci and micro nuclei as IR biodosimeters in skin murine.

2005 - 2009

Co-Investigator. Development of a prostate deformation model to enable accurate registration of endorectal coil magnetic resonance images (ERC-MRI) to reference treatment planning CT images. REB#: 05-0041-C. PI: Menard, C. Collaborator(s): RMP Co-Investigators: Bristow RG, Gospodarowicz M, Milosevic M, McLean M, Chung P, Crook J, Bayley A, Catton C, Warde P. [Clinical Trials]

2005 - 2009


2005 - 2008

Co-Investigator. The MYH gene and colorectal cancer risk. National Cancer Institute of Canada (NCIC). PI: Gallinger, S. Collaborator(s): Bristow RG, Cotterchio M, Manno M, Bishop T. 423,000 CAD. [Grants]
Précis: To determine the epidemiologic and molecular biologic role of MYH in colorectal cancer.

2005 - 2008

Précis: The role of SNPs in breast radiotherapy response.

2005 - 2007

Précis: To test SNP-toxicity profiles in prostate cancer radiotherapy.

2005 - 2006

Co-Investigator. Identification of Lung Cancer Mutations that Contribute to Treatment Response: A Pilot Study by the Princess Margaret Hospital Foundation Invest in Research Program. Princess Margaret Hospital Foundation. PI: Wouters B, Tsao M. Collaborator(s): Liu G, Brade A, Bezjak A, Bristow RG, Hope A. 100,000 CAD. [Grants]
Effort: 2%.

2005 - 2006

(onetime award).

2005 - 2006

Co-Investigator. Development of chemotherapeutic agents based on Inhibition of the ERK MAPkinase pathway. Canadian Institutes of Health Research (CIHR). Collaborator(s): Jongstra J, Bristow RG. 149,157 CAD. [Grants]
(onetime award).
2004 - 2012 **Principal Investigator.** Basic and translational studies of DNA damage and repair as relates to p53. National Cancer Institute of Canada (NCIC). Canadian Cancer Society (CCS).

[Grants]
Salary Support Award (#15559)
Amount: $75-85,000/ per year
Précis: Career Salary Award
Effort: N/A-salary award only.

R. Bristow: Core I Leader: Cell Imaging Program ($1,850,000)
Précis: Start up of a new STTARR Innovation Facility for cell and animal imaging.
Effort: N/A-Infrastructure grant only.


2004 - 2006 **Principal Investigator.** Intracellular Trafficking of the Rad51 Protein in Prostate Cancer. Prostate Cancer Research Foundation of Canada. 98,000 CAD. [Grants]
Amount: $49,000/ per year.

Amount: $300,000/ per year
Précis: Training Program in Radiation Oncology.


2003 - 2006 **Principal Investigator.** The p53 protein and DNA damage recognition. National Cancer Institute of Canada (NCIC). NCIC-Operating Grant. 400,710 CAD. [Grants]
Amount: $133,570/ per year.

2002 - 2006 **Principal Investigator.** Pre-Clinical Efficacy and Biomarker Analyses Pertaining to a Novel DNA Repair Inhibitor in Prostate and Pancreatic Cancer. Ontario Cancer Research Network Research. Collaborator(s): Hedley D, Moore M, Vallerga A. 565,440 CAD. [Grants]
Amount: $141,360/ per year.

Amount: $48,000/ per year.
*Amount: $39,800 over 2 years.*

2002 - 2004  **Principal Investigator.** Pilot Studies into the Anti-Apoptotic Protein, Survivin, as a Potential Target in Prostate Cancer Radiotherapy. Abbot-CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): Sweet J, Squire J. 61,000 CAD. [Grants]  
*Amount: $30,500/ per year.*

2002 - 2004  **Principal Investigator.** Pilot Studies into the Anti-Apoptotic Protein, Survivin, as a Potential Target in Prostate Cancer Radiotherapy. Abbot-CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): Sweet J, Squire J. 61,000 CAD. [Grants]  
*Amount: $30,500/ per year.*


*Amount: $666,000/ per year.*

*Amount: $97,483/ per year.*


*Amount: $105,000/ per year.*


*Amount: $114,000/ per year.*

2000  **Principal Investigator.** Molecular and Clinical Aspects of DNA Repair. Canada Foundation for Innovation (New Opportunities Fund). Collaborator(s): Investigators: Milosevic M (PI), Toi A, Sweet J, **Bristow RG**, Hedley D, Panzarella T, Hill R. 386,000 CAD. [Grants]  
(one-time award; equipment/infrastructure only).
1999 - 2005  
*Amount: $150,000/ per year.*

1999 - 2002  
**Principal Investigator.** Molecular characterization of DNA-dsb repair in transformed cells. National Cancer Institute of Canada (NCIC). NCIC-Operating Grant. 961,080 CAD. [Grants]  
*Amount: $320,360/ per year.*

1999 - 2000  
**Principal Investigator.** PMH Scientist Start-up Funds. Princess Margaret Hospital Foundation (The). 10,000 CAD. [Grants]  
*(one-time award).*

1998 - 2011  

1998 - 1999  
**Principal Investigator.** The molecular analysis of mammalian DNA double-strand break repair. University of Toronto. Dean’s Research Fund. 9,791.68 CAD. [Grants]

**D. Publications**

1. **MOST SIGNIFICANT PUBLICATIONS**

1. Al Rashid ST, Harding S, Law C, Coackley C, **Bristow RG.** Chromatin-binding of p53 with ATM and 53BP1 in response to DNA damage. Radiation Res. 2011 May;175(5):588-98. [Senior Responsible Author.]

2. Chan N, **Bristow RG.** Contextual Synthetic Lethality/Loss of Heterozygosity: Tumor Hypoxia and Modification of DNA Repair. Clin Cancer Res. 2010;16(18):4553-60 (Trainee publication, N Chan). [Senior Responsible Author.]

   *Important studies showed that support chronic hypoxic cells as homologous recombination defective and prone to increased sensitivity to DNA damaging agents PARP inhibitors. These manuscripts suggests that chronically hypoxic cells and acutely hypoxic cells may be used as biomarkers for personalized medicine. (IMPACT FACTORS 7.3 and 8.2 – Highlighted in Nature Reviews Cancer and Nature Reviews Drug Discovery).*


   *Important studies showed that support chronic hypoxic cells as homologous recombination defective and prone to increased sensitivity to DNA damaging agents PARP inhibitors. These manuscripts suggests that chronically hypoxic cells and acutely hypoxic cells may be used as biomarkers for personalized medicine. (IMPACT FACTORS 7.3 and 8.2 – Highlighted in Nature Reviews Cancer and Nature Reviews Drug Discovery).*

This paper is one of the first to define the genetics of intermediate risk prostate cancer and defined five novel microdeletions associated with the disease. It also clarified the genetics of the commonly used prostate cancer cell lines to show that only one, 22RV1, had genetic changes consistent with primary human samples. Importantly, NKX3.1 haploinsufficiency (a gene involved in cancer initiating cell biology and DNA repair) was found to be a new prognostic factor in prostate cancer. (IMPACT FACTORS 7.3 and 4.1).


This paper describes the activity of the wild type and mutant versions of recombinant DNA repair protein MYH in colorectal carcinogenesis based on actual mutations found in cancer patients. This paper sets up the basic science behind studying MYH and other BER repair proteins in hypoxic tissues and using novel biochemical assays to determine activity in relation to cellular radiobiology. (IMPACT FACTOR 14.0).


This review critically discusses the role of hypoxia in altering DNA-dsb repair leading to repair-deficient and aggressive tumour cell phenotypes. It argues for a new hypothesis concerning hypoxia in which HR-deficient hypoxic cells may be the target for novel cancer therapies and associated biomarkers. (IMPACT FACTOR 37.2).


COVER OF DEC 1 2005 CANCER RESEARCH: This manuscript suggests a unique biology for this p53 phosphoform in the initial steps of DNA damage signaling and implicates ATM-p53 chromatin-based interactions as mediators of cell cycle checkpoint control and DNA repair to prevent carcinogenesis. (IMPACT FACTORS 8.2 and 2.6).

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


64. Al Rashid ST, Harding S, Law C, Coackley C, Bristow RG. Chromatin-binding of p53 with ATM and 53BP1 in response to DNA damage. Radiation Res. 2011 Feb;8:107-13 (Trainee publication, Thoms, J). **Senior Responsible Author.**


Robert Glen BRISTOW


111. Liu SK, Coackley C, Bristow RG. A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under hypoxia. Radiother Oncol. 2008;88(2):258-68. **Senior Responsible Author.**


Robert Glen BRISTOW


124. Choudhury A, Cuddihy A, **Bristow RG**. Radiation and Other New Molecular-Targeted Agents, Part I: Targeting ATM-ATR Checkpoints, DNA Repair and the Proteasome. Semin Radiat Oncol. 2006;16(1):51-58 (Trainee publication). **Senior Responsible Author.**


Book Chapters

Editorials

Commentaries
3. Dent RA, **Bristow RG**. In Situ Repair Assays as Guides to Personalized Breast Cancer Chemotherapeutics: Ready for Prime Time? J Clin Oncol. 2011 Jun;29(16):2130-2. **Coauthor or Collaborator**.
5. Zafarana G, **Bristow RG**. Tumor senescence and radioresistant tumor-initiating cells (TICs): let sleeping dogs lie! Breast Cancer Res. 2010;12(4):111. (Total Accesses to this article: 2910; denoted as “Highly Accessed”). **Senior Responsible Author**.

Letters to Editor

In Preparation
2. Coleman A, Smith K, Trachtenberg J, Ozcelik H, Narod S and **Bristow RG**. BRCA2 mutations, DNA Repair and Prostate Cancer: Implications for Local and Systemic Management (Review). 2004 (Trainee publication). **Senior Responsible Author**.
Robert Glen BRISTOW

Online Resources

   Coauthor or Collaborator.

Journal Issues

Journal Articles, Review

Other Publications

3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles
5. Fraser M, Berlin A, van der Kwast T, **Bristow RG**. Genomic, Pathological, and Clinical Heterogeneity as Drivers of Personalized Medicine in Prostate Cancer. Urologic Oncology. 2013 Aug. In Press. **Senior Responsible Author.**


35. PMH Prostate Program. PMH Forefront – A Prostate Center Update Newsletter, Winter issue. 2008.

37. A Prostate Centre Update. PMH Forefront – A Prostate Center Update Newsletter, Summer issue. 2008.
38. A Prostate Centre Update. PMH Forefront – A Prostate Center Update Newsletter, Spring issue. 2008.
42. FISH and CHIPs and prostate cancer: Refining prognosis and treatment by analyzing unique tissue genetics. Canadian Prostate Cancer Network News. 2007 Oct;1(3).
43. Assessment tools offer answers online. The Toronto Star. 2007 Sep 17.
44. PMH Prostate Program. PMH Forefront – A Prostate Center Update Newsletter. 2007.

Books

Books Edited
Book Chapters


7. Fraser M, Saad F, Bristow RG. The Genetics of Prostate Cancer As Relates to Prognosis. In: Cancer Genomics. Wlatham (United States); 2013. Senior Responsible Author.


Commentaries


Multimedia

5. DNA Repair and Genetic Instability in Solid Tumours. Department of Medical Biophysics brochure and website.
7. Prostate Cancer Research in Canada. Spokesperson, Prostate Cancer Research Foundation Canada Media Campaign and Fundraising. PRINT; Media Campaign.

In Preparation

Newspaper Articles
6. “Health: Prostate Cancer Researchers say that federal funding is dwindling. A special breakfast today was intended to get that message to MPs”. Ottawa Sun (Health Today). 2004 Nov. Acknowledged in Publication (Not Author).

Journal Issues

Other Publications

4. SUBMITTED PUBLICATIONS

Journal Articles


Other Publications


E. Intellectual Property

1. PATENTS


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 May 18 **Presenter.** Biomarkers for Radiation Oncology. Session II: Preclinical and clinical studies of the biomarkers for radiation oncology. Tumor genomic and microenvironmental heterogeneity as biomarkers for personalized prostate cancer medicine. Dresden, Germany.


2014 Sep 21 **Invited Speaker.** Targeting tumour hypoxia: current status and future prospects. Radiation Research Meeting. Las Vegas, California, United States. Presenter(s): Bristow, RG.

2014 Apr 3 **Chair.** Complimentarity of Genomic Instability & Hypoxia Indices for Predicting Prostate Cancer Recurrence. ESTRO. Vienna, Austria. Presenter(s): Bristow, R.

2014 Apr 3 **Invited Speaker.** 3D-CRT/IMRT with/without short term androgen deprivation in localized T1b-cT2aN0M0 prostate cancer. ESTRO. Vienna, Austria. Presenter(s): Bristow, R.

2013 Nov 13 **Invited Speaker.** DNA Repair Targeting and Radiobiology. CC-115 Advisory Board. New York, New York, United States.


2013 Aug **Invited Speaker.** Stress Induced Hypoxia and Treatment Resistance. Aus-Can Prostate Cancer Research Alliance Symposium. Queensland, Australia. Presenter(s): Bristow, RG.

2013 Aug **Invited Speaker.** ICGC Prostate Cancer Sequencing. Queensland, Australia. Presenter(s): Bristow RG.

2013 Aug **Invited Speaker.** Tracking DNA Repair Following Chemotherapy and Radiotherapy In Situ. Aus-Can Prostate Cancer Research Alliance Symposium. Queensland, Australia. Presenter(s): Bristow, RG.

2013 Jul **Invited Speaker.** “Genetics Factors of Prostate Cancer Radioresponse”. BigArt Symposium. Århus, Denmark.

2013 Jul **Invited Speaker.** “Interplay between the Cancer Genome and Tumour Microenvironment in Prostate Cancer Progression”. Heinrich-Warner Symposium. Hamburg, Germany.

2013 Jul **Invited Speaker.** Genetics, Hypoxia and Radiobiology Entwined: The Case for Hypofractionation. Davos, Zürich (de), Switzerland. Presenter(s): Bristow, RG.

2013 May 23 **Visiting Professor.** Hypoxia-mediated Defects in DNA Repair as the Basis for Contextual Synthetic Lethality and Cancer Treatment”. Johns Hopkins. Baltimore, Maryland, United States.

2013 May 23 **Visiting Professor.** “Prostate Cancer Genomics and Microenvironment Entwined: “Caveat Emptor” for Personalized Medicine”. Johns Hopkins University. Baltimore, Maryland, United States.

2013 May **Invited Speaker.** The genomic and microenvironmental landscape for personalized prostate cancer
medicine. Tumour Microenvironment Meeting. Miami, Florida, United States.

2013  **Visiting Professor.** Radiation/Chemoradiation and Biological Targeting. ASTRO’s Annual Meeting Steering Committee. Atlanta, Georgia, United States.

2011  Genomic and Microenvironmental Predictors of Prostate Cancer Radiotherapy. 22nd L H Gray International Conference, Realizing the potential of drug/radiation interactions in cancer treatment. Manchester, United Kingdom.


2011  Contextual Synthetic Lethality: Studies of Hypoxia and DNA Repair. 3B ASTRO Translation Research Meeting. Atlanta, Georgia, United States.


2011  **Invited Speaker.** Personalized Prostate Cancer Treatment on the Basis of Individual Genomics. ASTRO Annual Scientific Meeting. Miami, Florida. Audience: Radiation Oncologists & Scientists. (Continuing Education).


2010  Genomics, DNA Repair and Prostate Cancer. Myriad Genetics Scientific Advisory Board Meeting. Salt Lake City, Utah.

2010  View of the Radiation Oncologist in Prostate Cancer. Swiss Academy of Multidisciplinary Oncology (SAMO) Interdisciplinary Workshop on Urogenital Tumors. Lucerne, Switzerland.

2010  Predicting radiotherapy outcome using somatic genetics in prostate cancer. Acta Oncologica 2010
Symposium-BiGART2010. Aarhus, Denmark.


2010 The ICGC Prostate Project. Australian-Canadian, Prostate Cancer Research Alliance (AC-PCRA). Brisbane, Australia.

2010 Thoughts on IHC and Genetic Validation of MRI-based Prostate Imaging. Australian-Canadian, Prostate Cancer Research Alliance (AC-PCRA). Brisbane, Australia.

2010 The Biology of Prostate Hypoxia and Approaches to Targeting. Australian-Canadian, Prostate Cancer Research Alliance (AC-PCRA). Brisbane, Australia.

2010 Targeting DNA Repair as a New Therapy for Prostate Cancer. Prostate Cancer Foundation of Australia (PCFA). Brisbane, Australia.


2010 Out of the Box Thinking in Radiobiology for Hypoxia and DNA Repair. Medical Biophysics (MBP) Retreat. Lake Couchiching, Ontario.

2010 Contextual Cell Lethality and Hypoxic Cancer Cell Kill. American Society for Radiation Oncology (ASTRO) 52nd Annual Meeting. San Diego, California.

2010 DNA repair gene modifications in prostate cancer and individualised therapy: A Canadian- ICGC prostate cancer project. Translational Cancer Genomics Symposium - Personal Genomes for Improved Cancer Care, Garvan Institute of Medical Research. Sydney, Australia.


2009 Feb Hypoxia, DNA Repair and Genetic Instability. 4th International Conference on Translational Research (ICTR) and Pre-Clinical Strategies in Radiation Oncology. Geneva, Switzerland. Audience: Oncologists & Scientists. (Continuing Education).


2009  **Invited Speaker.** IMRT and Biological Approaches in Radiotherapy for Prostate Cancer. Joint ECCO 15-34th ESMO Multidisciplinary Congress. Berlin, Germany. Audience: Oncologists & Scientists. (Continuing Education).


2009  **Visiting Professor.** Contextual Synthetic Lethality of Cancer Cell Kill Based on the Tumor Microenvironment. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia. Audience: Oncologists & Scientists. (Continuing Education).

2009  Tissue-Based Imaging In Tumours and Normal Tissues in Response to Experimental Cancer Therapies: The STTARR Program. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia.

2009  **Visiting Professor.** The STTARR Program State of MaRS: Complementary Activities between Industry and Academia. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia. Audience: Oncologists & Scientists. (Continuing Education).

2009  Hypoxia and DNA Repair. ON-Q-ITY Advisory Board Meeting. Boston, United States.

2009  **Visiting Professor.** Imaging to a Mixed Clinical and Academic Audience. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia. Audience: Oncologists & Scientists. (Continuing Education).


2008 Jun  Individualizing Cancer Therapy on the Basis of Intratumoral DNA Repair. Scientific Meeting of the Prostate Cancer Research Foundation of the United Kingdom. King City, Ontario. Audience: Oncologists & Scientists. (Continuing Education).


2008 Jan  

2008 Jan  
**Invited Speaker.** PARP Inhibition And The Tumour Microenvironment. Clinical and Experimental Research in Radiation Oncology-European Society of Therapeutic Radiation and Oncology (CERRO-ESTRO). Les Meunieres, France. Audience: Oncologists & Scientists. (Continuing Education).

2008 Jan  

2008  
**Invited Speaker.** Biomarkers for DNA Repair Inhibitor Radiotherapy Trials. Workshop on New Developments in Molecular Imaging for Translational Research for Clinical Applications, University Hospital Carl Gustav Carus, Technische Universität Dresden. Dresden, Germany. Audience: Oncologists, Radiologists & Scientists. (Continuing Education).

2008  

2008  

2008  
**Invited Speaker.** DNA Repair Inhibitors and the Clinic. Annual Meeting of the American Society of Therapeutic Society (ASTRO). Boston, Massachusetts.

2008  
**Invited Speaker.** Hypoxia, DNA Repair and Prostate Cancer. Australian Canadian Prostate Cancer Research Alliance Program. Brisbane, Australia.

2007 Feb 

2007  
**Invited Speaker.** Biomarkers of Radiation Dosimetry. Center for Biophysical Assessment and Risk Management Following Irradiation, University of Rochester. Rochester, New York.

2007  
**Invited Speaker.** DNA Repair Mechanisms and Implications for Radiation Oncology. 10th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland.

2007  
**Invited Speaker.** p53 Phosphorylation and Interactions with ATM following DNA damage. 13th International Congress of Radiation Research. San Francisco, California.

2007  
**Invited Speaker.** DNA Repair Foci as a Biomarker on DNA damage. Golden Horseshoe Meeting, MacMaster University. Hamilton, Ontario.

2007  
**Invited Speaker.** Hypoxia and DNA Repair as Factors in Prostate Cancer Progression and Aggression. Prostate Cancer Research Program 2007 IMPaCT Meeting. Atlanta, Georgia.

2006 Jan  

2006  
DNA Damage and Repair Biomarkers During Conformal Radiotherapy for Prostate Cancer: Results From A Phase I Pre-Operative Trial of 15 Patients. ASCO Prostate Meeting. San Francisco, California. 2006


DNA repair as a biological modifier and target. 7th International Conference on Dose, Time and Fractionation in Radiation Oncology. Madison, Wisconsin. Audience: Clinicians & Basic Researchers. (Continuing Education). 2005 Sep


Expression of DNA-dsb Repair Proteins is Altered Under Hypoxia in Prostate Cancer Cells. 9th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. 2005

Strikes, Spares and Misses: Hypoxia, DNA Repair and Prostate Cancer. Clinical And Experimental Research In Radiation Oncology (CERRO)- The European Society for Therapeutic Radiology and Oncology, Les Menuires, France. Audience: International-Basic Scientists and Oncologists. (Continuing Education). 2005


DNA Repair Foci As A Biological Dosimeter, In Situ. Center for Biophysical Assessment and Risk Management Following Irradiation, University of Rochester. Rochester, New York. 2005


Translational Science and Radiobiology Tissue Banking in Canada. International Atomic Energy Agency (IAEA) The European Society for Therapeutic Radiology and Oncology Meeting. Amsterdam, Netherlands. 2004


Serine 15-phosphorylated p53 and DNA damage Signaling. 2nd ESTRO Radiobiology Workshop. Nijmegen, Netherlands. 2003
Robert Glen BRISTOW


2000 Modifying DNA repair capacity as genetic target for radiotherapy. First International Conference on Translational Research and Pre-Clinical Strategies in Radio-Oncology. Lugano, Switzerland.

2000 p53 as therapeutic target. First International Conference on Translational Research and Pre-Clinical Strategies in Radio-Oncology. Lugano, Switzerland.


1999 Jun G1 Cell Cycle Checkpoint and DNA Damage Response. Future of Radiobiology in Radiation Oncology International Symposium, Department of Radio-Oncology, University of Essen. Essen, Germany. DA: Molecular and Cellular Biologists (>100). (Continuing Education).


1999 G1 Cell Cycle Checkpoint and DNA Damage Response. Future of Radiobiology in Radiation Oncology International Symposium, Department of Radio-Oncology, University of Essen. Germany.


1997 Molecular mechanisms of non-homologous recombination in DNA dsb repair following ionizing radiation. Medical Genetics Centre, Erasmus University. Rotterdam, Netherlands.
Presented Abstracts


2014 Apr 3 Chair. Radiobiology 3: Interplay Between Hypoxia, DNA Repair and Radiosensitivity. ESTRO. Vienna, Austria. Presenter(s): Bristow, R.


2011 Senior Responsible Author. Genomic and Microenvironmental Predictors of Prostate Cancer Radioresponse. L H Gray International Conference. Manchester, United Kingdom. Bristow RG.

2009 Senior Responsible Author. RNF8 independent K63 poly-ubiquitination plays a role in maintaining genomic stability. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Ramaekers C, van den Beucken Twan, Bristow RG, Wouters BG. (Trainee Presentation).

2009 Senior Responsible Author. A subset of nuclear Akt is phosphorylated on Ser473 in an ATM-dependent manner in response to radiation –induced DNA Double Strand Breaks. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Fraser M, Bristow RG. (Trainee Presentation).

2009 Senior Responsible Author. Array CGH of prostate cancer biopsies identifies genetic variations in DNA

2009  
**Senior Responsible Author.** c-Myc and DNA Double Strand Break Repair Gene Expression. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Luoto KR, Meng A, Penn LZ, **Bristow RG**. (Trainee Presentation).

2009  

2008 Apr  

2008 Apr  
**Senior Responsible Author.** PML nuclear bodies are juxtaposed to DNA-DSBs following IR-induced DNA damage. American Association of Cancer Research (AACR) Annual Meeting. San Diego, California. Tse KCK, Jalali F, Kumareswaran R, Dellaire G, Bazett-Jones DP, **Bristow RG**. (Trainee Presentation).

2008  
**Senior Responsible Author.** Hypoxia and DNA Repair as Factors in Prostate Cancer Progression and Aggression. Proceedings of the 13th International Congress of Radiation Researchs. San Francisco, California. Chan N, Milosevic M, **Bristow RG**.

2008  

2008  

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2008  
**Senior Responsible Author.** Selenium and Radiosensitivity of Prostate Cancer Cells In Vitro. Golden Horseshoe Meeting – Radiation Symposium. Rochester, New York. Tabassum A, Venentkaraman V, **Bristow RG**.

2008  
**Senior Responsible Author.** Myc and DNA Repair. Golden Horseshoe Meeting – Radiation Symposium. Rochester, New York. Luoto K, **Bristow RG**.

2008  
**Senior Responsible Author.** 53BP1 as a Biosensor of DNA Damage. Golden Horseshoe Meeting – Radiation Symposium. Rochester, New York. Harding S, **Bristow RG**.

2008  
**Senior Responsible Author.** Goda J, Bristow RG. Use of gammaH2AX and Lymphocytes to Predict Prostate Radiosensitivity. Golden Horseshoe Meeting- Radiation Symposium. Rochester, New York.

2007  
**Senior Responsible Author.** Nutlin-3 Radiosensitizes Prostate Cancer Cell Lines Independent of p53 Status. The Prostate Cancer Symposium. Tampa, Florida. Supiot S, **Bristow RG**.

2007  
**Senior Responsible Author.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes
malignant human cell lines under oxia and hypoxia. 10th International Wolfsberg Meeting. Ermatingen, Switzerland. Liu S, Coackley C, Bristow RG.

2006 Nov  **Senior Responsible Author.** DNA-dsb Signaling and Repair in Hypoxic Cells within Prostate Cancer Xenografts. American Society of Therapeutic Radiation and Oncology (ASTRO). Phan T, Meng A, Do T, Nicklee T, Ho J, Cole H, Sweet J, Hedley D and Bristow RG. (Trainee Presentation).


2006  **Senior Responsible Author.** Nutlin-3 Radiosensitizes Prostate Cancer Cell Lines Independent of p53 Status. American Society of Therapeutic Radiation and Oncology (ASTRO). Supiot S, Bristow RG.


2006  **Senior Responsible Author.** Hypoxia As A Mediator Of DNA-dsb Repair in Prostate Cancer Xenografts. European Society for Therapeutic Radiation Oncology (ESTRO). Bristow RG.

2006  **Senior Responsible Author.** Molecular Epidemiology of DNA repair signaling proteins as a risk factor for bladder cancer. National Cancer Research Institute Conference. Birmingham, United Kingdom. Choudhury A, Barrett J, Sak SC, Bristow RG, Bishop DT, Kiltie AE. Awarded the BOA Young Investigator Award.

2006  **Senior Responsible Author.** Enhancement of chemo and radiosensitization by targeting homologous recombination via RAD51. Medical Research Society/Academy of Medical Sciences/Royal College of Physicians. London. Choudhury A, Zhao H, Al-Rashid S, Kiltie A, Bristow RG.


2005 Apr  **Senior Responsible Author.** Mutant p53 and phosphostates. Golden Horseshoe Radiobiology Meeting. Toronto. Cuddihy A, **Bristow RG.**

2005 Apr  **Senior Responsible Author.** DNA repair and p53. Golden Horseshoe Radiobiology Meeting. Toronto. Al Rashid S, **Bristow RG.** (Trainee Presentation).

2005  **Senior Responsible Author.** Hypoxia Reduces Expression of DNA Double Strand Break Repair Genes in Prostate Cancer. 9th International Tumor Microenvironmental Workshop. Oxford. Meng A, Jalali F, Nicklee T, Ho J, Hedley D, Bindra R, Glazer P and **Bristow RG.**

2005  **Principal Author.** DNA-dsb Repair as a Biological Modifier and Target. 7th International Conference on Dose, Time and Fractionation in Radiation Oncology. Madison, Wisconsin. **Bristow RG.**


2003 Jan  **Principal Author.** Homologous Recombination as A Target for Therapy in Prostate Cancer. Gordon


2003 **Senior Responsible Author.** Serine 15-phosphorylated p53 and DNA damage Signaling. 2nd Annual European Society of Therapeutics Radiology and Oncology Workshop on Radiobiology. Nijmegen. Al Rashid S, Jalali F, Bristow RG. (Trainee Presentation).


2001 **Senior Responsible Author.** Radiation-Induced Cell Death Pathways in Normal and Malignant Prostate Epithelial Cells. 48th Meeting of the Radiation Research Society. San Juan, Puerto Rico. Bromfield GP, Bristow RG. (Trainee Presentation).


1994 **Principal Author.** Rat embryo cells transfected with a mutant p53 gene show increased radioresistance. 41st Meeting of the Radiation Research Society. Memphis. **Bristow RG,** Peacock J, Chung S, Jang A, Benchimol S, Hill RP.

1994 **Collaborator.** The p53-mediated G1 checkpoint remains intact in rat embryo fibroblasts transfected with ras or HPV16-E7. 7th International p53 Workshop. Lake Muskoka, Ontario. Peacock J, Chung S, **Bristow RG,** Hill RP, Benchimol S.

1991 **Principal Author.** Ras and radioresistance. International Congress of Radiation Research. Toronto. **Bristow RG,** Hunt T and Pardo F.


1990 **Principal Author.** Chromosomal Damage Following XRT and 5-FU in CHO Cells. 37th Meeting of the Radiation Research Society. New Orleans. **Bristow RG,** Savin S, Hittleman W and Brock W.

1988 **Principal Author.** In Vitro Prediction of Radioprediction and Predictive Assays. 35th Meeting of the Radiation Research Society. Philadelphia. **Bristow RG** and Hill R.

**Lectures and Other Presentations**

2011 **Visiting Professor.** Contextual Synthetic Lethality: Studies of Hypoxia and DNA Repair Within the Tumour Microenvironment. Center for Cancer Research and Cell Biology, Queen’s University Belfast. Belfast, United Kingdom.

2011 **Visiting Professor.** Personalized Medicine for Prostate Cancer. Center for Cancer Research and Cell Biology, Queen’s University Belfast. Belfast, United Kingdom.


2010 Oxygen and Prostate Cancer-Friend or Foe. Prostate Cancer Foundation of Australia. Brisbane, Australia. (Presentation to Patients/Public).

2010 **Visiting Professor.** Contextual Synthetic Lethality: the Tumour Microenvironment and DNA Repair As Targets for Novel Cancer Therapies. Department of Radiation Oncology, University of Florida Shands Cancer Center. Gainesville, Florida.


2009 Feb **Visiting Professor.** Cancer Cell Hypoxia and DNA Repair: New Targets and New Therapies. Department of Biology, Adam Mickiewicz University. Poznan, Poland. Audience: Oncologists & Scientists. (Continuing Education).


2009 **Visiting Professor.** Hypoxia and DNA Damage Biomarkers as Predictors of Prostate Cancer Therapy Response. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia. Audience: Oncologists & Scientists. (Continuing Education).


2008 Sep The phosphorylation of 53BP1: a response to DNA-double strand breaks category: DNA damage
induction, repair and the damage response. ASTRO. Harding S. (Trainee Presentation).

2008 Jun A subset of nuclear Akt is phosphorylated on Ser473 in an ATM-dependent manner in response to radiation –induced DNA Double Strand Breaks. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Fraser M. (Trainee Presentation).

2008 Jun A subset of nuclear Akt is phosphorylated on Ser473 in an ATM-dependent manner in response to radiation –induced DNA Double Strand Breaks. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Fraser M. (Trainee Presentation).


2008 Feb Visiting Professor. Hoxygen Leads to DNA Repair Deficiencies ad Novel Therapeutics. Department of Radiation Oncology, University of Texas Southwesten University. Dallas, Texas. Audience: Oncologists & Scientists. (Continuing Education).


2006 Dec Visiting Professor. DNA Repair and Prostate Cancer Progression: The Hypoxia Connection. UCLA’s GU Leaders in the Field Seminar, Department of Urology, University of California. Los Angeles, California. Audience: Biologists and Clinicians. (Continuing Education).


2005 Oct  **Visiting Professor.** Novel Strategies in Targeting DNA Repair To Improve Oncologic Outcome. Department of Oncology, Peter MacCallum Cancer Centre. Melbourne, Australia. Audience: Clinicians & Basic Researchers. (Continuing Education).

2005 Jun  **Visiting Professor.** Hypoxia, DNA Repair and Prostate Cancer. Department of Radiation Oncology, University of Maastricht, Maastricht, Netherlands. DA: International-Basic Scientists and Oncologists. (Continuing Education).

2005 Jun  **Visiting Professor.** Hypoxia, DNA Repair and Prostate Cancer. Department of Radiation Oncology, University of Medical Center Nijmegen. Nijmegen, Netherlands. Audience: International-Basic Scientists and Oncologists. (Continuing Education).


2004 May  Recruitment of Serine-15 Phosphorylated P53 To Nuclear Sites Of DNA Damage In Situ. 8th International Workshop On Radiation Damage To DNA. Banff, Alberta, Canada. Audience: Clinicians and Researchers (100). (Continuing Education).


2002  **Visiting Professor.** p53 and DNA Repair Complexes In Situ. Medical Research Council (MRC) Harwell Radiation Stability and Genetics Unit and Department of Oncology, Oxford University. Oxford, United Kingdom.


**Lecturees and Other Presentations**


2007  Hypoxia and DNA Repair as Factors in Prostate Cancer Progression and Aggression. 13th International

Plenary Talk
2014 Jul 14 Presenter. Taking the Bull by the Horns: the MATADORs Targeted-radiotherapy trials. ANZUP Annual Scientific Meeting. Melbourne, Australia. Presenter(s): Bristow, RG.
2014 Jul 14 Presenter. Implementing Cancer Genomics in Individual Prostate Cancer Risk Stratification. Australia. Presenter(s): Bristow, RG.

2. NATIONAL

Invited Lectures and Presentations
2013 Sep Speaker. Metformin use in PRostate Cancer Patients Treated with Radiotherapy: Improved outcomes due to Enhanced Tumor Oxygenation. CARO-COMP JSM. Presenter(s): Bristow RG, Dal Pra A.
2013 Mar Visiting Professor. “Personalized Genomic and Biomarker Assessment for Individualized Prostate Cancer Treatment.”. Department of Oncology, Dalhousie University. Halifax, Ontario, Canada.
2012 Invited Speaker. The CPC-GENE Project for Individualized Prostate Cancer Therapy. Terry Fox Research Institute (TFRI) Meeting on Prostate Cancer. Montreal, Quebec, Canada.
2011 Personalized Prostate Cancer Medicine Based on Genetic Predictors of Radiotherapy Response. Southern Alberta Cancer Research Institute, University of Calgary. Calgary, Alberta.
2009


2009


2008 Jan


2008


2007 Oct


2007 Jan


2007


2006 May


2005 Sep


2005 Apr

Fidelity of DNA Repair as a Factor in Prostate Carcinogenesis. Montreal General Hospital/McGill. Montreal, Quebec. Audience: Clinicians & Scientists. (Continuing Education).

2004 Sep


2004


2004


2004


2004


2001


1997

P53 protein as a modifier of DNA repair. Department of Genetics, University of British Columbia. Vancouver, British Columbia.

1997

Presented Abstracts


2010 May Chronic Hypoxia Suppresses Base Excision Repair by Inhibition of Protein Synthesis: An Example of Contextual Synthetic Lethality. 2nd Terry Fox Research Institute Scientific Meeting. Vancouver, British Columbia. Presenter(s): Chan N, N Chan, M Ali, GP McCallum, PG Wells, S Gallinger and RG Bristow. (Trainee Presentation).

2007 Principal Author. Hypoxia Limits DNA-dsb Signalling and Repair in Prostate Cancer Cells: In Vitro and In Vivo Studies. Prostate Cancer Research Foundation of Canada Retreat. Toronto. Bristow RG.


2006 Principal Author. DNA Repair and Prostate Cancer Canadian Collaborations in Carcinogenesis and Therapy. 5th Annual Canadian Prostate Cancer BioResearch Network Meeting. Niagara-on-the-lake. Bristow RG.


Media Appearances


2006 Sep 18 Prostate Cancer Program offers Assessment Tools. CTV.ca. Toronto, Ontario. (Presentation to

**Lectures and Other Presentations**


2010 Prostate Cancer: Individualizing a Man’s Disease. Prostate Cancer Canada Breakfast Fundraiser. Toronto, Ontario. (Presentation to Patients/Public).

2010 New Avenues of Prostate Cancer Research Funded by Prostate Cancer Canada. Prostate Cancer Canada Annual Conference. Toronto, Ontario. (Presentation to Patients/Public).

2010 **Visiting Professor**. Contextual Synthetic Lethality: the Tumour Microenvironment and DNA Repair as Targets for Novel Cancer Therapies. Department of Radiation Oncology, University of Calgary. Calgary, Alberta.

2009 **Visiting Professor**. Inhibiting DNA Repair as a Means to Improve Radiotherapy Outcome. Department of Radiation Oncology, University of Manitoba and Manitoba Institute of Cell Biology, Cancercare Manitoba. Winnipeg, Manitoba. Audience: Oncologists & Scientists. (Continuing Education).


2008 Sep Chronically Hypoxic Cells are Uniquely Sensitized to PARP Inhibition. CARO. Chan N. (Trainee Presentation).

2008 Sep Novel targeted inhibitors of PARP, ATM and DNAPKcs radiosensitize oxic and hypoxic malignant human cells. CARO. Coackley C. Poster presentation. (Trainee Presentation).


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2007 Sep  A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. CPCRI. Toronto. Liu SK. (Trainee Presentation).


2006  CPCRI Prostate Cancer Research Education Breakfast. (Presentation to Patients/Public).


2004 Jun  Home Run Challenge. Prostate Cancer Awareness Week, Blue Jays Game on behalf of the Prostate Cancer Research Foundation of Canada. Toronto, Ontario. (Presentation to Patients/Public).


Lectures and Other Presentations


Workshop Leader

2013 Nov 21  Workshop Leader. Genomic Signatures in Prostate Cancer. GUROC. Montreal, Quebec, Canada.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2013 May  Invited Speaker. Ottaw, Ontario, Canada. Presenter(s): Bristow, RG.


2007 Biomarkers of DNA Damage for Clinical Trials. AstraZeneca / KUDOS / Princess Margaret Hospital Site Visit. Toronto, Ontario.


2006  DNA-dsb Repair as a Target for Radiobiology. Target Insight II: Innovation Strategies for Target Definition to Enhance the Therapeutic Ratio Meeting. Toronto, Ontario.


2002 Nov  Cancer Genetics and Individualized Cancer Treatment: Lessons with Prostate Cancer. Ontario Medical Student Weekend Conference, Faculty of Medicine, University of Toronto. Toronto, Ontario. Audience: Clinicians and Researchers (150). (Continuing Education).


**Presented Abstracts**


Robert Glen BRISTOW


2006 May  Principal Author. DNA-dsb Repair as a Target for Radiotherapy. Target Insight II: Innovation Strategies for Target Definition to Enhance the Therapeutic Ratio Meeting. Toronto. Bristow RG. Audience: Biologists, Physicists and Clinicians. (Continuing Education).


Media Appearances


2005  New and upcoming Developments in Prostate Cancer Research. CBC Radio 88.3 at 5:30p.m. Thunder Bay, Ontario. Taped interview. (Presentation to Patients/Public).


2004 Jun  Why men do not like the in doctor? It usually takes a wife or partner to get the man to go for a physical. City-TV. Toronto, Ontario. Taped Interview Public Awareness Television Program.


Lectures and Other Presentations


2008 May  Continual Hypoxia compromises the repair of DNA-double strand breaks: Implication for genetic instability. Applied Molecular Oncology Seminar, Division of the OCI, UofT. Kumareswaran R. Poster presentation. (Trainee Presentation).


2008 Apr  The STTARR Program at UHN. Eli-Lilly Industrial Presentation. Toronto, Ontario. (Presentation to Patients/Public).


2008 Apr  The STTARR Program at UHN. Merck Industrial Presentation. Toronto, Ontario. (Presentation to Patients/Public).


Robert Glen BRISTOW


2003 Sep “Prostate Cancer Awareness in Canada” on behalf of the Prostate Cancer Research Foundation of Canada. Heart Lake Dragon Boat Race of Prostate Research. Brampton, Ontario. (Presentation to Patients/Public).

2003 “Prostate Cancer Health”; on behalf of the Prostate Cancer Research Foundation of Canada. Albany Club Members. Toronto, Ontario. (Presentation to Patients/Public).


Lectures and Other Presentations


4. LOCAL

Invited Lectures and Presentations


2014 Apr Invited Speaker. Personalized Medicine: the Prostate Cancer Example at PMH. The Ride to Conquer Cancer Event. Toronto, Ontario, Canada. Presenter(s): Bristow, R.


2004 May Preventing Carcinogenesis and Improving Therapeutic Response. Late Effects Biology: The Science and Management of Radiation Late Effects, University of Toronto, Department of Radiation Oncology. King City, Ontario. Audience: Radiation Oncologists, Nurses & Therapists (>100).

1999 May Trends in Radiation Oncology. Annual Debate: University of Toronto Continuing Medical Education Course in Radiation Oncology, University of Toronto. Toronto. DA: Clinicians and Scientists (100). (Continuing Education).

Presented Abstracts


2006 Apr Senior Responsible Author. Hypoxia and DNA-dsb Signaling and Repair in Prostate Cancer Xenografts. UofT Department of Radiation Oncology Annual Research Day. Phan T, Meng A, Do T, Nicklee T, Ho J, Hedley D, Bristow RG. (Trainee Presentation).

2006 Apr Senior Responsible Author. Correlation between Radiation Induced Acute Toxicity and Biochemical


Media Appearances


2007 University of Toronto, Department of Radiation Oncology Career Choice Video. Toronto, Ontario. (Presentation to Patients/Public).

Invited Workshop

2013 Sep 30 Personalize Treatment. ICGC.

Lectures and Other Presentations

2011 Studies using array CGH and Prostate Radiotherapy Outcome. GU Tumour Board, Princess Margaret Hospital. Audience: GU Tumour Board. (Continuing Education).

2010 Studies using array CGH and Prostate Radiotherapy Outcome. GU Tumour Board, Princess Margaret Hospital. Audience: GU Tumour Board. (Continuing Education).


2007 Jun A STTARR is Born: Focusing on Radiation Response. Toronto Sunnybrook Regional Cancer Centre –

2007 Jun

2007 May

2007 May

2007 May
DNA-double strand greak sensing and hypoxia-mediated genetice instability. Department of Medical Biophysics Student Symposium. Princess Margaret Hospital. Kumareswaran R. Poster presentation. (Trainee Presentation).

2007 Mar

2007 Feb
Hypoxia-mediated genetic instability and DNA-double strand break sensing”. Department of Medical Biophysics Student Seminar, University of Toronto. Kumareswaran R. Seminar presentation. (Trainee Presentation).

2006 Nov

2006 Nov

2006 Jun

2006 Jun
Hypoxia-mediated genetic instability and DNA-double strand break sensing. Department of Medical Biophysics Student Seminar, Princess Margaret Hospital. Toronto, Ontario. Kumareswaran R, Meng A, Bristow RG. (Trainee Presentation).

2006 May 19

2006 May 9

2006 May 5

2006 Mar
Hypoxia-mediated genetic instability and DNA-double strand break sensing. Hypoxia Meeting, Princess Margaret Hospital. Kumareswaran R, Bristow RG. (Trainee Presentation).

2006 Feb
Targeting DNA Repair for Prostate Cancer Therapy. Urology Research Rounds, Princess Margaret Hospital. Audience: Clinicians (15). (Continuing Education).

2006 Feb
Targeting DNA-dsb Repair as a New Cancer. Radiation Medicine Rounds, Princess Margaret Hospital. Audience: Radiobiologists, Physicists and Clinicians (50). (Continuing Education).

2006 Feb
Selenium Use and Radiotherapy: A good or bad thing? GU Tumor Board, Princess Margaret Hospital. Audience: Clinicians (30). (Continuing Education).
Robert Glen BRISTOW


2006  Hypoxia Program, Project 3. ESAC Visit, Princess Margaret Hospital. Audience: Biologists, Physicists and Clinicians. (Continuing Education).


2005 Aug  Targeting DNA Repair as a Cancer Treatment Strategy. RMP Rounds, Princess Margaret Hospital. Audience: Clinician & Radiotherapist (50). (Continuing Education).


2005 Jan  Translational Cancer Research at UHN. UHN Board of Trustees, Toronto Club. Toronto, Ontario. (Presentation to Patients/Public).


2004 Jun  Microscopic Analyses of DNA Repair Complexes In Situ: Hypoxia and Genetic Instability. Princess Margaret Hospital Gyn-Oncology Rounds, University of Toronto, Princess Margaret Hospital. Toronto, Ontario. Audience: Clinicians and Researchers (20). (Continuing Education).

2004 Jun  Strikes, Spares and Misses: DNA Repair Complexes In Situ in Prostate Cancer. GU Oncology Rounds, University of Toronto, Nursing Residence-Toronto General Hospital. Toronto, Ontario. Audience: Clinicians and Researchers (20). (Continuing Education).

2004 Jun  Rad51 and Hypoxia. Meeting of the Terry Fox Hypoxia Program Grant Group, University of Toronto, Sheraton Hotel. Toronto, Ontario. Audience: Clinicians and Researchers (20). (Continuing Education).

2004 May  Senior Responsible Author. DNA-dsb Repair In Situ In Normal and Malignant Cells. ET Division Research Rounds. Coleman A, Jonkman J, Bristow RG. (Trainee Presentation).

2004 Apr  The STARR Innovation Centre: A Template for Radiation Research. Department of Radiation Oncology, University of Toronto Rounds, Princess Margaret Hospital. Toronto, Ontario. Audience: Radiation Oncologists and RMP Staff Members (60). (Continuing Education).

2004 Mar  The Hypoxia Program and Prostate Cancer. Department of Radiation Oncology, University of Toronto Rounds, Princess Margaret Hospital. Toronto. WINNER BEST RADIATION MEDICINE PROGRAM ROUNDS. Audience: Radiation Oncologists and RMP Staff Members (60). (Continuing Education).


2003 Aug  The STTARR Innovation Program for Cell and Human Imaging within RMP. Department of Radiation Oncology Rounds, Princess Margaret Hospital. Toronto. Audience: Radiation Oncologists and RMP Staff Members (60). (Continuing Education).


1999 Apr DNA-DSB Repair: A Discrete or Indiscrete Affair? Department of Radiation Oncology Rounds, Princess Margaret Hospital. Toronto. Audience: Radiation Medicine Program Staff (60). (Continuing Education).


Lectures and Other Presentations

2009 Something Old, Something New. RMP Rounds - Prostate Cancer, Princess Margaret Hospital. Audience: 60 Radiation Medicine Program Affiliates. (Continuing Education).


5. OTHER

Invited Lectures and Presentations


2013 Prostate Cancer Genomics and Changing Clinical Practice: A Partnership between Clinicians, Bioinformaticians and the Patients. Ontario, Canada. Presenter(s): Bristow, RG.

Presented Abstracts

2012 Nov AZD5438, an inhibitor of CDK 1, 2, and 9, enhances the radiosensitivity of non-small cell lung carcinoma cells. Presenter(s): Turnati V, Raghavan P, Yu L, Chan N, Tomimatsu N, Buma, S, Bristow RG, Saha D.

2012 Sep Hypofractionated and conventionally fractionated radiotherapy schedules for localized prostate cancer. Canadian Association of Radiation Oncologists (CARO) 2012 Annual Scientific Meeting. Ottawa, Ontario,
G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2004 Translational Radiobiology IMS 1502H, Graduate Education, Faculty of Medicine, Institute of Medical Science, University of Toronto
This new half-year course will be given over 2 terms starting in 2005 within the new trans-disciplinary M.Sc in Radiation Sciences Program (IMS-based). The course is designed to be seminar-based and student-interactive. It also has a unique hands-on laboratory component spread over 5 basic and applied oncology research modules. Local and guest lecturers will interact with the students to generate modern state-of-the-art approaches to molecular oncology and the development of new treatments within the field of radiation oncology.

2001 MBP1018Y-Basic Science of Oncology, Graduate Education, Faculty of Medicine, Dept of Medical Biophysics, University of Toronto Press
This full-year graduate course is available to all graduate students in biological sciences within the School of Graduate Studies (SGS) at the University of Toronto. It is hosted by the Department of Medical Biophysics. Dr. Bristow took over as Course Supervisor in 2001 and re-designed a series of lectures in a didactic format interspersed with clinical examples to showcase the breadth of oncology research. The course covers molecular and cellular oncology and the biological basis for several cancer treatment modalities in 13 to 15 lectures of 2 hours each. Overall, the course received excellent evaluations.

2000 UICC Cancer Research Training Course: International Union for the Control of Cancer (UICC-Geneva) and Princess Margaret Hospital (University Health Network-Toronto), Faculty of Medicine, Dept of Radiation Oncology
This course was designed by Dr. Bristow de novo as per UICC guidelines and was hosted by OCI-PMH laboratories and local OCI/PMH scientific lecturers. Dr. Bristow was Course Director, lecturer and established the didactic and practicum curriculum for the international attendees. The course covered major topics of cellular and molecular oncology and cancer treatments over a seven-day period. More than 20 graduate and post-graduate trainees from over 16 countries took part in the course. The course was instrumental in teaching state-of-the-art biology to a wide variety of students from varied scientific background to take back to their home countries and implement within their own programs and laboratories.

A full schedule of lectures pertaining to the breadth and depth of the subjects is appended as well as an evaluation of the course. The vast majority of the group stated that the overall experience within the course was excellent.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

2011 Primary Supervisor. Ramya Kumareswaran.
2011 Primary Supervisor. Michael Fraser.
2010 - 2011 Primary Supervisor. PhD. Kenneth Tse.


2005 - 2006  **Primary Supervisor.** MSc. Cindy Yau. Collaborator(s): Supervisor: Dr. Hedley.


2004 - 2006  **Primary Supervisor.** PhD. Ahmed Haddad. Collaborator(s): Supervisor: Dr. L. Klotz and Dr. N. Fleshner.


2004  **Primary Supervisor.** MSc. Cindy Yau. Collaborator(s): Supervisor: Dr. Hedley.

2004  **Primary Supervisor.** PhD. Adam Shuhendler. Collaborator(s): Supervisor: Dr. Peter Wells.


Undergraduate MD

2010 - 2011  Primary Supervisor. Fiona Warde.
2010 - 2011  Primary Supervisor. Shaquil Kassam.
2009          Primary Supervisor. Derek Wong.
2008          Primary Supervisor. Refat Khan.
2008          Primary Supervisor. Safia Ladha.
2008          Primary Supervisor. Jas Wasniewski.
2008          Primary Supervisor. Nadja Ring.
2007          Primary Supervisor. Annie Cheng.
2007          Primary Supervisor. Tanya Pavri.
2007          Primary Supervisor. Aleem Abdulla.
2007          Primary Supervisor. Refat Khan.
2006          Primary Supervisor. Kenneth Tse.
2006          Primary Supervisor. Agatha Jassem.
1999          Primary Supervisor. Wissam Assaily.

Postgraduate MD

2006 - 2009  Primary Supervisor. Stanley Liu. Awards: 2007: Winner of the 2007 University of Toronto DRO Resident Award. Winner of the W. J. Simpson Award for Academic Excellence in Research by a Resident, Department of Radiation Oncology, University of Toronto. 2008: Best Radiation Medicine Program Resident Award, Princess Margaret Hospital. Terry Fox Foundation Post MD Research Fellowship Award. Best Oral Presentation -- Resident Award- DRO-UofT Research Day 2009: ASCO Cancer Foundation Young Investigator Award and more.
2005 - 2010  Primary Supervisor. Helen Zhao.
2005          Primary Supervisor. Cindy Law.
2005  **Primary Supervisor.** Clinical Fellow. Ananya Choudhury.

2005  **Primary Supervisor.** Clinical Fellow. Dr. Kirsty Wiltshire.

2004 - 2011  **Primary Supervisor.** Carla Coackley.


2004  **Primary Supervisor.** Clinical Fellow. Ananya Choudhry.

2001 - 2011  **Primary Supervisor.** Alice Meng.

1999 - 2003  **Primary Supervisor.** Farid Jalali.

### Postdoctoral Research Fellow (PhD)

2011  **Primary Supervisor.** Christine Schultze.


2008 - 2010  **Primary Supervisor.** Mina Lakshman.

2007 - 2011  **Primary Supervisor.** Nirmal Bhogal. Awards: 2007: Young Investigator Award, VIIIth International Workshop, Radiation Damage to DNA.

2007 - 2010  **Primary Supervisor.** Michael Fraser. Awards: 2009: UHN Travel Award for the 11th International Wolfsberg Meeting on Molecular Radiation.


2007  **Primary Supervisor.** Stanley Liu. Awards: 2007: W. J. Simpson Award for Academic Excellence in Research by a Resident Department of Radiation Oncology, PMH.

2006 - 2008  **Primary Supervisor.** Moshin Ali.


2005  **Primary Supervisor.** Dr. Evangelia Tomai. Awards: 2005: declined: Helen Lam Fellowship Award & EIRR Post-Doctoral Award.


2000 - 2003  **Primary Supervisor.** Dr. Rong Fan.


### 2. OTHER SUPERVISION

#### Graduate Education

**Thesis Committee Member**

Robert Glen BRISTOW

2010 - 2011  Nataliya Zhukova.
2010 - 2011  Ken Kron.
2009 - 2011  Kika Anyiwe. Collaborator(s): Supervisor: Dr. Aaron Schimmer.
2009 - 2011  Preethy Prasad. Collaborator(s): Supervisor: Dr. X.Y. Wu.
2009 - 2011  Johnny Li. Collaborator(s): Supervisor: Dr. Rasq Hakem.
2008 - 2011  Andrea Para. Collaborator(s): Supervisor: Dr. R. Hill.
2008 - 2011  Kenneth Tse. Collaborator(s): Supervision: Dr. R. Bristow.
2006 - 2009  Eva Christensen. Collaborator(s): Supervisor: Dr. R. Bristow.
2006 - 2009  Shane Harding. Collaborator(s): Supervisor: Dr. R. Bristow.
2006         Carla Rosario. Collaborator(s): Supervisor: Dr. C. Swallow.
2006         Jamil Sawani. Collaborator(s): Supervisor: Dr. R. Bristow.
2006         Andrea Para. Collaborator(s): Supervisor: Dr. R. Hill.
2005 - 2006  Shahnaz Al Rashid. Collaborator(s): Supervisor: Dr. R. Bristow.
2005         Artur Gevorgyan. Collaborator(s): Supervisor: Dr. C. Forrest; HSC.
2005         MSc. Andrew Primeau. Collaborator(s): Supervisor: Dr. I. Tannock.
2005         PhD. Katherin Zaugg. Collaborator(s): Supervisor: Dr. Tak Mak.
2005         PhD. Jerry Machado. Collaborator(s): Supervisor: Dr. S. Kamel-Reid.
2003         PhD. Kathryn Zaun. Collaborator(s): Supervisor: Tak Mak.
2003         MSc. Dr. Benchimol. Collaborator(s): Supervisor: Dr. D. Hedley.
2002         MSc. Carol Lee. Collaborator(s): Supervisor: Dr. Malkin – HSC.
2000  MSc. Lynn Shepherd. Collaborator(s): Supervisor: Dr. Ian Tannock.
2000  MSc. Patricia Ruozo. Collaborator(s): Supervisor: Dr. David Hedley.

**Thesis Examiner**

2005  PhD. Michael Ko. Collaborator(s): Supervisor: Dr. C. Swallow and Dr. J. Dennis.
2004 May  David Sealy.
2004  Joseph M.
2004  Carol Lee.
2004  PhD. Mark Niedre.
Curriculum Vitae

Charles Nicholas Catton
Professor

A. Date Curriculum Vitae is Prepared: 2016 July 29

B. Biographical Information

Primary Office
Princess Margaret Hospital
610 University Ave
Rm 5-991
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2983
Fax 416-946-4586
Email charles.catton@rmp.uhn.on.ca

1. EDUCATION

Degrees
1972 - 1976 MD, University of Ottawa, Ottawa, Ontario
1970 - 1972 Western University, London, Ontario

Postgraduate, Research and Specialty Training
1984 Senior Registrar, Radiation Oncology, The Royal Marsden Hospital, Sutton, United Kingdom
1983 Clinical Fellow, Radiation Oncology, Toronto-Bayview Regional Cancer Centre, Toronto, Ontario
1980 - 1983 Resident, Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
1979 - 1980 Chief Resident, Toronto East General Hospital, Toronto, Ontario
1978 - 1979 Toronto Western Hospital, Toronto, Ontario
1976 - 1978 Sunnybrook Health Sciences Centre, Toronto, Ontario

Qualifications, Certifications and Licenses
1983 Board Certified, American Board of Radiology (Therapeutic)
1983 FRCPC, Radiation Oncology, Royal College of Physicians of Canada
1980 FRCPC, Internal Medicine, Royal College of Physicians of Canada
1980 Board Certified, American Board of Internal Medicine

2. EMPLOYMENT

Current Appointments
2010 - present Professor, Radiation Oncology, University of Toronto
1988 - present Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario
Previous Appointments

HOSPITAL
1986 - 1988 Staff Radiation Oncologist, OCTRF Toronto-Bayview Regional Cancer Centre, Toronto, Ontario
1985 - 1986 Staff Radiation Oncologist, OCTRF Hamilton Regional Cancer Centre, Hamilton, Ontario

UNIVERSITY - RANK
2010-present Professor, Radiation Oncology, University of Toronto
2003 - 2010 Associate Professor, Radiation Oncology, University of Toronto
1992 - 2003 Assistant Professor, Radiation Oncology, University of Toronto
1988 - 1992 Assistant Professor, Radiology, University of Toronto
1986 - 1988 Lecturer, Dept of Radiology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2006 Godfrey Price Memorial Lecturer, Bristol University, Bristol, United Kingdom. (Distinction)
2016 Best of ASCO award. 2016 ASCO ASM Chicago, USA (Award)

LOCAL
Received
2008 Radiation Oncology Research Productivity Award, Princess Margaret Hospital. (Research Award)

Teaching and Education Awards

LOCAL
Received
2002 Teaching Award - Best RMP Rounds, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital. (Multilevel Education)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
2004 - present Canadian Association of Radiation Oncologists
College of Physicians and Surgeons of Ontario
European Society of Therapeutic Radiology and Oncology
Ontario Medical Association
Fellow, Royal College of Physicians and Surgeons of Canada
Administrative Activities

INTERNATIONAL

American Society of Clinical Oncology
2011-present  **Member**, GU Expert Panel, Prostate Guideline Committee

Cancer Research UK (CRUK)
2011  **Reviewer**, Clinical Trial Proposal

Connective Tissue Oncology Society
1999 - 2000  **Member**, Scientific and Organizing Committees - Annual Scientific Meeting

European Organisation for Research and Treatment of Cancer (EORTC)
2011  **Member**, Protocol Review Committee

National Cancer Institute of Canada/Clinical Trials Group
2006 - present  **Vice Chair**, Trial Management Group

Connective Tissue Oncology Society
1999 - 2000  **Member**, Scientific and Organizing Committees - Annual Scientific Meeting

European Organisation for Research and Treatment of Cancer (EORTC)
2011  **Member**, Protocol Review Committee

National Cancer Institute of Canada/Clinical Trials Group
2006 - present  **Vice Chair**, Trial Management Group

National Cancer Institute of Canada/Clinical Trials Group
2006 - present  **Executive**, GU Disease Oriented Group

Canadian Association of Radiation Oncologists
2002 - 2003  **Member**, Scientific and Organizing Committees - Annual Scientific Meeting

National Cancer Institute of Canada/Clinical Trials Group
2004 - 2013  **Executive**, GU Disease Oriented Group

Royal College of Physicians and Surgeons of Canada
2001 - 2008  **Member**, Specialty Committee in General Surgical Oncology

NATIONAL

Canadian Association of Radiation Oncologists
2002 - 2003  **Member**, Scientific and Organizing Committees - Annual Scientific Meeting

National Cancer Institute of Canada/Clinical Trials Group
2004 - 2013  **Executive**, GU Disease Oriented Group

Royal College of Physicians and Surgeons of Canada
2001 - 2008  **Member**, Specialty Committee in General Surgical Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
2010 - present  **Member**, GU Disease Site Group Evidence Based Guidelines Committee
2009 - present  **Chair**, Sarcoma Expert Panel and Sarcoma Services Oversight Committee
2014- present  Expert consultant, Request for Out of Country Care panel.

Ontario Association of Radiation Oncologists
2005 - 2008  **Chair** (elected position)
Charles Nicholas CATTON

2005 - 2008  Co-Chair, OCOG Clinical Trial Committee, PROFIT trial

LOCAL

University of Toronto
2005 - 2014  Director, Fellowship Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2011 - 2012  Member, PGME Fellowship Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2002 - 2014  Associate Member, Graduate Faculty, Faculty of Medicine, Institute of Medical Science, Graduate Education
2002 - 2005  Member, Medical Oncology Resident Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2000 - 2008  Member, Umbrella Committee, Surgical Oncology Fellowship Programs, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1997 - 2008  Member, General Surgical Oncology Resident Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

Peer Review Activities

GRANT REVIEWS

External Grant Reviewer
2009  Cancer Research UK (CRUK)
2009  Prostate Cancer Charity (UK)
2009  Trans-Tasman Radiation Oncology Group (TROG)
2006  Hercules Foundation, Belgium
2005  Canadian Prostate Cancer Research Initiative (NCIC)
2004  Alberta Cancer Board

MANUSCRIPT REVIEWS

Reviewer

Annals of Surgical Oncology
British Journal of Radiology
British Journal of Urology-International
Canadian Medical Association Journal
Canadian Urological Association Journal
Clinical Oncology
European Journal of Surgical Oncology
Expert Review of Anticancer Therapy
International Journal of Radiation Oncology Biology Physics
JAMA Oncology
Journal of Clinical Oncology
Journal of Surgical Oncology
Lancet
Nature- Clinical Practice Oncology
Radiation Oncology
C. Academic Profile

1. RESEARCH STATEMENTS

1992 – present

My scholarly efforts over the past 20 years have been to optimize treatment outcomes for patients with localized prostate cancer, and sarcomas. Conceptual innovations undertaken for optimizing the care of those with localized prostate cancer include:

• Development of high-precision radiotherapy treatment techniques.
• Investigation of an altered radiation fractionation regimen.
• Establishing the limitations of standard therapy.
• Development of novel combined radiotherapy-surgery techniques.

I have had impact on professional practices nationally and internationally through:

• Leading proof-of-principle clinical trials.
• Application of these principles through process improvement and practice change.
• Leadership to promote the adoption of new concepts and approaches into practice.
• For sarcomas, I lead the development and implementation of Provincial sarcoma care guidelines.

2. TEACHING PHILOSOPHY

To provide teaching and mentorship to Radiation, Medical and Surgical Oncology fellows and residents; medical students, allied health workers and the public. I have promoted best practices through participation in General Surgical Oncology curriculum development at a national level. I have expanded capacity through leadership of the University of Toronto Radiation Oncology Fellowship Program.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2011 - 2014


This trial will utilize novel imaging and guidance techniques along with our experience in prostate hypofractionation to investigate hypofractionated dose escalation to the dominant prostate nodule only. It includes imaging correlative studies to investigate tumor hypoxia.

2010 - 2015

Known as the PROFIT trial, this is an international phase III trial designed to test the hypothesis generated by my Phase II trial; that hypofractionated IG-IMRT for intermediate risk prostate cancer is non-inferior to conventionally fractionated dose-escalated IG-IMRT.

2009 - 2012

**Co-Investigator.** A Randomised Trial of a Shorter Radiation Fractionation Schedule for the Treatment of Localized Prostate Cancer (PROFIT – Prostate Fractionated Irradiation Trial). Australian National Health and Medical Research Council. PI: Jarad Martin. Collaborator(s): P Warde, T Kron. 443,500 AUD. [Grants]

*This grant was obtained to fund the Australian component of the PROFIT trial.*

2008 - 2009

**Co-Investigator.** A randomised trial of a shorter radiation fractionation schedule for the treatment of localised prostate cancer (PROFIT: Prostate fractionated irradiation trial). Prostate Cancer Foundation of Australia. PI: Jarad Martin. Collaborator(s): P Warde, T Kron, S Turner, M Middleton, and KH Tai. 100,000 AUD. [Grants]

*This grant was obtained to fund the Australian component of the PROFIT trial.*

2008


*This is a formal evaluation of the toxicity associated with our established fiducial marker IGRT program.*

2007


*A prospective trial designed to limit toxicity of prostate RT by PTV optimization, employing multi-modal imaging techniques.*

2006 - 2019


*An international trial designed to investigate the optimal timing of post-operative radiotherapy, and optimal duration of adjuvant hormone therapy for prostate cancer. I was involved in trial design and international implementation as co-vice chair of the Trial Management Committee, and I implemented the trial in Canada through the NCIC-CTG as the Canadian Co-principal Investigator.*

2006 - 2007

**Co-Investigator.** A pilot study of adaptive radiotherapy for localized prostate cancer. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). 05-0037-C. PI: J Martin. [Clinical Trials]

2006


*A study to evaluate deformational changes in normal tissue that occur over the course of prostate radiotherapy, and to evaluate the impact on prostate and normal tissue dosimetry.*

2006

**Co-Investigator.** The impact of prostate dimensions on toxicity after high dose conformal external beam radiotherapy for prostate cancer. *This was a secondary analysis of my dose-

2005 - 2010 **Principal Investigator.** A randomized trial of a shorter fractionation schedule for localized carcinoma of the prostate. Canadian Institutes of Health Research (CIHR). Known as the PROFIT trial, this is an international phase III trial designed to test the hypothesis generated by my Phase II trial; that hypofractionated IG-IMRT for intermediate risk prostate cancer is non-inferior to conventionally fractionated dose-escalated IG-IMRT. Collaborator(s): H Lukka, P Warde, M Levine, J Julian, A Gafni, G Bauman, M Parliament, J Wu, T Pickles, L Souhami, JP Bahary. 2,209,971 CAD. [Grants]


2004 **Supervisor.** Evaluation of rectal and bladder normal tissue complication probability after escalated dose external beam radiotherapy for prostate cancer. This project undertook a dosimetric analysis of prospectively collected toxicity data from our initial phase II dose escalation prostate trial. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). PI: Peter Chung. Collaborator(s): R Bristow, A Bayley, P Warde, M Gospodarowicz, M Milosevic, E White and D Jaffray. 29,614 CAD. [Grants]

2003 - 2004 **Principal Investigator.** A cohort comparison of daily target organ image matching and correction using implanted fiducial markers or flat plate cone beam computerised tomography (CT) for patients undergoing conformal radiotherapy for localized prostate cancer. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). 03-0483-CE. Collaborator(s): P Chung; R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]


2002 **Supervisor.** A cohort study of a bowel regimen to reduce intra-fraction prostate motion. Canadian Prostate Cancer Research Initiative. 15485. PI: Alan Nichol. Collaborator(s): P Warde, R Bristow, M Gospodarowicz, M Milosevic, E White, D Jaffray. 36,500 CAD. [Grants] This prospective trial acquired cinematic MRI images of the prostate, to evaluate the magnitude and causes of intrafractional prostate motion, and to evaluate the impact of a bowel regimen on inter- and intrafractional prostate motion.

2001 - 2005 **Principal Investigator.** A cohort comparison of daily target organ image matching and correction using implanted fiducial markers or flat panel cone beam computerized tomography (CT) for patients undergoing conformal radiotherapy for localized prostate cancer. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): P Warde, R Bristow, A Bayley, M
Gospodarowicz, M Milosevic, E White D Jaffray. 15,000 CAD. [Grants]
This was the initial clinical evaluation of the cone beam CT technology in comparison with our standard IG technique.

2001

**Principal Investigator.** A Phase I-II Prospective Trial of Conformal Hypofractionated Intensity Modulated Radiotherapy (IMRT) for Clinical Stage T1,T2N0M0 Adenocarcinoma of the Prostate. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): P Warde, R Bristow, M Gospodarowicz, M Milosevic, T Haycocks. 29,000 CAD. [Grants]
*This trial was to investigate the safety and feasibility of short-course, large dose per fraction radiotherapy for prostate cancer, using an IG-IMRT technique.*

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

**2006 - present**

**Co-Principal Investigator.** Prostate cancer: Radiotherapy and Androgen Deprivation In Combination After Local Surgery (RADICALS). National Cancer Institute of Canada (NCIC). 07-063. PI: F Saad. Collaborator(s): M Sydes; W Paruleker; J Logue; N Clarke; K Mellon; H Kyneston; C Cooper; H Payne; M Parmar. [Clinical Trials]
*Co-funded with Cancer Research UK (C Parker, Principal Investigator).*

**2004 - 2005**

**Principal Investigator.** A phase III randomised study of preoperative radiation plus surgery vs surgery alone for patients with retroperitoneal sarcoma (RPS). American College of Surgery Oncology Group. 04-0416-C. Collaborator(s): C Swallow; B O’Sullivan. [Clinical Trials]

**2002 - 2003**

**Principal Investigator.** A randomized study of inter- and intra fraction prostatic motion using two different immobilization devices during conformal prostatic radiotherapy. Princess Margaret Hospital Foundation (The). 01-0856-C. Collaborator(s): P Warde; R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]

**2000 - 2001**

**Principal Investigator.** A phase III trial of supine vs. prone positioning for men undergoing escalated dose conformal radiotherapy for localized adenocarcinoma of the prostate. Princess Margaret Hospital Foundation (The). Collaborator(s): A Bayley; P Warde; R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]

**1999 - 2004**

**Co-Investigator.** A Randomized phase III study of neo-adjuvant hormone therapy in patents with localized prostate cancer treated with escalated dose radiotherapy. Princess Margaret Hospital Foundation (The). PI: P Warde. Collaborator(s): R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]

**1998 - 2001**

**Principal Investigator.** Phase I-II trial of pre-operative irradiation and postoperative brachytherapy for the management of non-metastatic retroperitoneal soft tissue sarcoma. Princess Margaret Hospital Foundation (The). Collaborator(s): C Swallow; B O’Sullivan. [Clinical Trials]

**1997 - 1999**

**Principal Investigator.** A phase I-II trial of escalated dose conformal external beam radiotherapy for the management of localized carcinoma of the prostate. Princess Margaret Hospital Foundation (The). Collaborator(s): A Nichol; P Warde; R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]

**1996 - 1997**

**Principal Investigator.** A randomized, double blind, placebo-controlled multicentre trial of a shorfatty acid rectal enema in the treatment of radiation induced proctitis and
proctosigmoiditis. Industry. Collaborator(s): H Steinhart. [Clinical Trials]

1989 - 1992 Principal Investigator. A multicentre phase I-II trial of hyperfractionated cranial irradiation for primary CNS lymphoma. Toronto-Bayview Regional Cancer Centre. [Clinical Trials]

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   This prospective phase II trial used cine-MRI scan to measure the magnitude of intra-fractional prostatic movement at different points in the planning and treatment process, and evaluated an intervention designed to limit that motion. This trial provided important information regarding the magnitude of uncertainty associated with intra-fractional prostate motion, and provided an accurate evaluation of the safety margin (PTV) required in prostate treatment planning to account for this uncertainty.


   This prospective phase II trial represented the application of our accumulated experience in developing high-precision radiotherapy techniques for prostate cancer, and reports the safety and efficacy of a novel, dose-escalated hypofractionation technique. The results were instrumental in my being awarded a CIHR grant to establish an ongoing Ontario Clinical Oncology Group sponsored phase III trial. This trial has since been adopted by the Trans-Tasman Radiation Oncology Group (TROG) and is accruing internationally.


   This prospective phase II trial reported the long-term outcome of the initial Canadian experience with dose-escalated radiotherapy, and confirmed the safety and efficacy of our technique. It was a direct consequence of our earlier work to optimize conformal prostate radiotherapy. It has been cited 21 times.


   This randomized trial formed part of our long-term work to minimize set-up error and optimize the PTV for dose-escalated prostate radiotherapy, and was one of the first to formally evaluate different immobilization methods. It has been cited 38 times.


   This study formed part of our long-term work to minimize set-up error and optimize the PTV for dose-escalated prostate radiotherapy, and was one of the first to demonstrate the feasibility and utility of CT/MRI fusion in radiation treatment planning for prostate cancer. It has been cited 51 times.
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Charles Nicholas CATTON


Charles Nicholas CATTON


Charles Nicholas CATTON


134. Milosevic MF, Warde PR, Bannerjee D, Gospodarowicz MK, Mclean M, Catton PA, **Catton CN**. Urethral carcinoma in women: response to radiation therapy. Radiother Oncol. 2000;56:29-35. **Coauthor or Collaborator.**


141. Warde P, **Catton C**, Gospodarowicz M. Prostate cancer 7: Radiation therapy for localized disease. CMAJ. 1998;159:11. **Co-Principal Author.**

142. Milosevic M, Voruganti S, Blend R, Alasti H, Warde P, McLean M, Catton P, **Catton C**, Gospodarowicz M. Magnetic resonance imaging (MRI) for localization of the prostate apex: comparison to computed tomography (CT) and urethrography. Radiother Oncol. 1998;47(3):277-84. **Coauthor or Collaborator.**


168. McLean M, McGowan TS, Catton CN, Catton PA, Panzarella T. The Impact of Prostatic Manipulation upon Serum PSA in Patients with Adenocarcinoma of the Prostate. Clinical Oncol. 1993;5:293-296. **Coauthor or Collaborator.**


Letters to Editor


Consensus Development Conference, Journal Articles, Practice Guideline, Review


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


11. Lock M, Catton C. High-precision radiotherapy: where are we going and how do we get there? CJU. 2006;13(2). Coauthor or Collaborator.


Book Chapters


Editorials


Commentaries


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2015 The OCOG-TROG PROFIT trial. Lessons from a successful international collaboration. TROG ASM, Newcastle, NSW, Australia.

Radiotherapy collaborative trials, the Canadian perspective. TROG ASM, Newcastle, NSW, Australia
Clinical trials for rare tumors: Opportunity in scarcity. TROG ASM, Newcastle, NSW, Australia

Hypofractionated radiotherapy for prostate cancer. What we know and what we don’t. Controversies in Clinical Oncology. Tata Medical Centre, Kolkata, India.

Debate: Stereotactic radiotherapy will replace brachytherapy for localized prostate cancer (For: C Catton; against Prof P Hoskin). Controversies in Clinical Oncology. Tata Medical Centre, Kolkata, India.

Panel Discussion: Is radiotherapy now an obsolete treatment for testicular seminoma? Controversies in Clinical Oncology. Tata Medical Centre, Kolkata, India.

Update on moderate hypofractionated radiotherapy for prostate cancer. AROICON2015, Lucknow, India

Combined management of extremity soft-tissue sarcoma. AROICON2015, Lucknow, India

2013
Management of soft tissue sarcomas. Calvary Mater Hospital Centre, Newcastle, NSW, Australia.

Combined Modality therapy for prostate cancer. Calvary Mater Hospital Centre, Newcastle, NSW, Australia.

How to write a clinical paper. Trainee session, RANZCR Faculty of Radiation Oncology ASM> Auckland New Zealand.

What is the best radiotherapy for 2013 and beyond? 5th triennial best practice workshop in Urological Oncology. Sydney, NSW.

2012
UTDRO Fellowship Program. Royal Australian and New Zealand College of Radiology. Cairns, Queensland, Australia. (Trainee Presentation).

2010

2009

2007

2006
Department of Clinical Oncology, Liaquat National Hospital. Karachi, Pakistan.

Departments of Radiation, Surgical and Medical Oncology, Aga Khan University Hospital. Karachi, Pakistan.

Department of Clinical Oncology, Bristol University. Bristol, United Kingdom.

IMRT and IGRT for STS. Elekta Users Annual Meeting. Miami, Florida.


Local management of Soft-tissue sarcomas. Grand Surgical Rounds, Aga Khan University Hospital. Karachi, Pakistan. (Continuing Education).

Current Controversies is Prostate Cancer. GU rounds, Aga Khan University Hospital. Karachi, Pakistan.
2006  Special Rounds: Current Controversies is Prostate Cancer. Institute for Postgraduate Medical Studies and Health Sciences, Liaquat National Hospital. Karachi, Pakistan.


2004  Clinical application of cone-beam CT to conformal prostate irradiation. Elekta Users Research Group Annual Meeting. Crawley, United Kingdom.


Presented Abstracts


Charles Nicholas CATTON


2007 Outcome following limb salvage surgery and external beam radiotherapy for high grade soft tissue sarcomas of then groin and axilla. American Society of Therapeutic Radiology and Oncology Annual Scientific Meeting. Phimolsarnti RP, Griffin AM, Ferguson PC, Catton CN, Chung PW, Bell RS, Wunder JS, O’Sullivan B.


2. NATIONAL

Invited Lectures and Presentations


2013 VMAT workshop. GU Radiation Oncologists of Canada, Montreal.


2011 Critique of RTOG 94-08. GU Radiation Oncologists of Canada.


2010 Pelvic IMRT for Prostate Cancer. Allan Blair Cancer Centre. Regina, Saskatchewan.

2010 Visiting Professor. Allan Blair Cancer Centre. Regina, Saskatchewan.
2010  **Visiting Professor.** Queen Elizabeth II Health Sciences Centre, Dalhousie University. Halifax, Nova Scotia.


2007  Optimizing the PTV. BC Cancer Agency GU Radiation Oncology Strategic Retreat. Victoria, British Columbia.


2007  **Visiting Professor.** Provincial Department of Radiation Oncology GU Site Group, BC Cancer Agency. Victoria, British Columbia.

2006  **Visiting Professor.** Department of Radiation Oncology University of Alberta, Tom Baker Cancer Centre. Calgary, Alberta.


2004  **Visiting Professor.** Department of Radiation Oncology, University of Saskatchewan. Saskatoon, Saskatchewan.

2004  **Visiting Professor.** Department of Radiation Oncology, Allan Blair Cancer Centre. Regina, Saskatchewan.

2004  Workshop IMRT planning process. The evolution of high precision radiotherapy in the GU group at the Princess Margaret Hospital. The Saskatchewan Cancer Foundation. Saskatoon, Saskatchewan.

2004  The evolution of high precision radiotherapy in the GU group at the Princess Margaret Hospital. The Saskatchewan Cancer Foundation, Allan Blair Cancer Clinic. Regina, Saskatchewan.


Charles Nicholas CATTON

2002 Hypofractionation for prostate cancer. Princess Margaret Hospital experience. IMRT workshop, GU Radiation Oncologists of Canada (GUROC) Annual Meeting. Montreal, Quebec.


Presented Abstracts


2007 Bone fractures following external beam radiotherapy and limb preservation surgery for extremity soft tissue sarcoma: relationship to irradiated bone length, volume and dose. Connective Tissue Oncology Society Annual Scientific Meeting. Dickie CI, Parent AL, Griffin AM, Chung PW, Catton CN (collaborator), Wunder JS, Ferguson PC, Sharpe MB, O’Sullivan B.


2005 Comparison of outcomes of soft tissue sarcoma arising in the popliteal fossa or posterior thigh. Canadian Orthopaedic Association. Montreal, Quebec. Clarkson PW, Griffin AM, Catton CN, O’Sullivan B, Ferguson PC, Wunder JS, Bell RS.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2011 Hormonal and Radiotherapy for Localized Prostate Cancer. Grand River Regional Cancer Centre.

2010 Feb 10 Hypofractionation for localized prostate cancer. Web seminar to SEORCC; Ottawa Hospital, Barrie Regional Cancer Centre and Cornwall Cancer Clinic.


Charles Nicholas CATTON


2005  **Visiting Professor.** Department of Radiation Oncology, McMaster University, Juravinski Cancer Centre. Hamilton, Ontario.

2004  **Visiting Professor.** Department of Radiation Oncology, Lakehead University, Northwestern Ontario Regional Cancer Centre. Thunder Bay, Ontario.


1999  **Visiting Professor.** Department of Oncology, University of Western Ontario, London Regional Cancer Centre. London, Ontario.


4. LOCAL

**Invited Lectures and Presentations**

2013 Mar 1  **Speaker.** The UTDRO Fellowship Program. UTDRO Career Day. Toronto, Ontario, Canada. (Trainee Presentation).

2013 Jan 22  **Invited Speaker.** Building the research platform in the GU site group. Making the most of what you got. Odette Cancer Centre. Ontario, Canada.

2013 Jan  **Invited Lecturer.** Combined management of soft tissue sarcomas. Department of Surgical Oncology. Toronto, Ontario, Canada. (Trainee Presentation).

2012 Sep  **Invited Speaker.** Radiotherapy for prostate cancer. Department of Surgical Oncology. Toronto, Ontario, Canada. (Trainee Presentation).

2012 Feb  **Lecturer.** Radiation Management of Sarcomas. Lecture for General Surgical Oncology and Breast Surgical Oncology clinical fellows. Toronto, Ontario, Canada. (Trainee Presentation).


2011 Oct 31  Introduction to Radiotherapy. UT Surgical Oncology Fellows. (Trainee Presentation).


2011  **Presenter.** Palliative care: Complex case discussion. The Toronto Cancer Conference. Toronto, Ontario, Canada.
2005 Modifying the late effects of combined therapy for STS. U of T DRO Rounds, Princess Margaret Hospital. Toronto, Ontario.
2002 High precision RT and beyond for prostate cancer. At New Developments in Cancer Management. Inter-Division Dept of Oncology, University of Toronto. Toronto, Ontario.
2000 Recent advances in prostate cancer. CE Programme for Community Urologists. Toronto, Ontario. (Continuing Education).
1999 Opportunities afforded by modern radiotherapy in prostate cancer. GU Oncology 99 Symposium, University of Toronto. Toronto, Ontario.
1997 Palliative radiotherapy for prostate cancer. GU Oncology 97 Symposium, Inter-Division Dept of Oncology, University of Toronto. Toronto, Ontario.
1995 The Role of Radiation Therapy in Early Stage Prostate Cancer. Uro-Oncology Workshop, University of Toronto. Toronto, Ontario.
G. Research Supervision

1. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

MSc. Eva Christensen.

2007 - 2008
Biographical Sketch – 2008 to Present
Pamela Catton MD, MHPE, FRCPC

Dr. Catton is the Medical Director of both Patient Education at UHN, and Survivorship at PMH, where she also holds the title of Director Cancer Education. She is a practicing radiation oncologist who has treated prostate cancer patients since 1983. In 2006 she left the GU site group to focus on breast cancer, but maintains a small follow up practice. She is a Professor and Vice Chair of Radiation Oncology at the University of Toronto, and in 2005 was awarded the Butterfield Drew Chair in Breast Cancer Survivorship (PMH and U of T). In 2006, she was the PI on a successful CFI grant that allowed the development of ELLICSR, the Electronic Living Laboratory for Interdisciplinary Cancer Survivorship Research, which opened four years later. This 12000 foot centre has been developed into a collaborative centre for health wellness and cancer survivorship and supports clinicians researchers, educators and patients in their quest to revolutionize the cancer experience. She is the Director of ELLICSR and has assembled an eclectic team of over 40 researchers, ehealth innovators, educators, cancer specialists, advanced practice nurses and other allied health professionals to build a comprehensive survivorship program for all patients. She has a long history of developing innovative education programs for patients, health care undergraduate and post graduate students, graduate students and practitioners, with an emphasis on digital tools. She was the series medical editor of Oncology Interactive, a 23 title CD ROM patient education series that included prostate cancer, and www.caringtotheend, www.caringvoices the Virtual Tour, and more recently www.theprincessmargaret. The patient version of the Princess Margaret website is now the platform that will enable patients to access a host of self care and self management tools and personalized support.

Employment

CURRENT APPOINTMENTS

2011 Jul - present  Medical Director, Patient Education, University Health Network
2010 Jul - present  Director, Collaborative Centre for Health Wellness and Cancer Survivorship, Princess Margaret Cancer Program, University Health Network
2009 Jul - present  Radiation Oncologist, St. Michael’s Hospital, Toronto, Ontario
2005 Jul - present  Butterfield Drew Chair in Survivorship Research, Princess Margaret Cancer Program, University Health Network
2004 Jul - present  Medical Director, Breast Cancer Survivorship Program, Princess Margaret Cancer Program, University Health Network

Education

DEGREES

1994 Jul - 1996 Jun  Masters in Health Professions Education, University of Illinois at Chicago
1973 Jul - 1977 Jun  MD, University of Ottawa

QUALIFICATIONS, CERTIFICATIONS AND LICENSES

1982 Jul - present  Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1982 Jul - present  Diplomat, Therapeutic Radiology, American College of Radiology
1977 Jul - present  Licentiate, Medical Council of Canada
Role in Residency Program:

COMMITTEE:
Member and Fellow of the Royal College of Physicians and Surgeons 1983 - Present
Member, Canadian Association of Radiation Oncologists (CARO) 1986 - Present

Grant Reviewer
RCPSC Faculty Development Grants and Research Grants 2001 - Present
RCPSC/AMS CanMeds Development Grants 2001 - Present
RCPSC/AMS Medical Education Fellowship Grants 2003 - Present

Residents Supervised

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Start Date</th>
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<tr>
<td>Catton, P</td>
<td>UBC Observer, Eugene Chang, PGY5</td>
<td>January 2012</td>
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<td>Scholarship, Teaching and Learning in Residency</td>
<td>January 2012</td>
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<td>Saudi Arabia Observer, Yaser Alayed, Senior Resident</td>
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<td>DRO Resident, Alireza Fotouhighiam, PGY2</td>
<td>January 2012</td>
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<td>March 2012</td>
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<td>April 2012</td>
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<td>DRO Resident, Rob Thompson, PGY2</td>
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<td>DRO Resident, Rob Thompson, PGY2</td>
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<td>DRO Resident, Nafisha Lalani, PGY2</td>
<td>October 2012</td>
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<td>DRO Resident, Nafisha Lalani, PGY2</td>
<td>November 2012</td>
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<tr>
<td>Catton, P</td>
<td>DRO Resident, Nafisha Lalani, PGY2</td>
<td>December 2012</td>
</tr>
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Research Interests
Establishing a comprehensive academic Cancer Survivorship program.

Inter and Extra-Mural Support
Funded Peer-Reviewed Grants


**Research Summary – Research Supervisor**

**Supervisor UT Medical Student**

Project supervisor, “Lifestyle interventions and the risk of breast cancer recurrence, a systematic review

Nafisha Lalani 2008-2010

Lalani N, Urowitz S, **Catton, P**. Lifestyle interventions and the risk of breast cancer recurrence.

Presented to the Ontario Medical Research Day  March 2010

**Supervisor Radiation Oncology Fellow**

Project supervisor, “Analysis of the quality of life of breast cancer survivors with lymphedema”

Dr. Sandra Wajstaub 2009-2010

**Supervisor of Graduate Student**

Thesis supervisor, Masters of Science

Dr. Eng-Siew Koh, Institute of Medical Science  2005-Present

“Understanding the Determinants of Recruitment and Retention in Longitudinal Research in Childhood Cancer Survivors”

Thesis committee member, Masters of Science

Dr. Orla McArdle, Institute of Medical Science 2008-2012

“Fertility in Young Cancer Survivors - Novel Assessment of Ovarian Reserve”

• Co-applicant on successful Canadian Breast Cancer Foundation Grant $330,391  2007-2010

• Winner WEBC fellowship 50,000.00, P. Catton supervisor  2008-2009

Project co-supervisor, Masters of Education Major Research Project

Dr. Minako Uchino  2010-2011

“Incorporating New Imaging Competencies in the Radiation Oncology Residency Curriculum”

**Selected Publications**

1. **PEER-REVIEWED PUBLICATIONS - JOURNAL ARTICLES**


2. Papadakos J, Bussière-Côté S, Abdelmutti N, **Catton P**, Jusko-Friedman A, Massey C,


A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone (1)-416-480-6165
Fax (1)-416-480-6002
Email patrick.cheung@sunnybrook.ca

1. EDUCATION

Degrees
1991 Sep - 1995 Jun MD, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada
1989 Sep - 1991 Jun BSc, Arts and Science, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
2000 Jul 1 - 2001 Jun 30 Clinical Research Fellowship, Sunnybrook Odette Cancer Centre, Conformal Radiation Therapy & GU Brachytherapy, Dept of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Yee Ung & Dr. Gerard Morton
1998 Jul 1 - 2000 Jun 30 Radiation Oncology Residency, Princess Margaret Hospital & Sunnybrook Odette Cancer Centre, PGY 4-5, Radiation Oncology, Dept of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1995 Jul 1 - 1998 Jun 30 Internship and Residency, Kingston General Hospital and Kingston Regional Cancer Centre, PGY 1-3, Radiation Oncology, Dept of Oncology, Queen’s University at Kingston, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2000 - 2010 Diplomate, Radiation Oncology, American Board of Radiology, United States, License / Membership #: 47660
2000 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Ontario, Canada, License / Membership #: 525451
1997 United States Medical Licensing Examination Steps 1, 2, 3, United States Medical Licensing Examination, United States
1997 Medical Council of Canada Qualifying Examination Parts 1, 2, Medical Council of Canada, Canada
2. EMPLOYMENT

Current Appointments

2014 Jul 1 - present  Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2010 Jan - present  Affiliate Scientist, Evaluative Clinical Sciences, Sunnybrook Research Institute, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2001 Aug 1 - present  Staff Radiation Oncologist; Lung and GU Site Groups, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL

2009 Jan 1 - 2013 Sep 30  Radiation Oncology Genitourinary (GU) Site Group Leader, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

UNIVERSITY

2011 Jan 1 - 2012 Jan 1  Associate Director of Postgraduate Education, Radiation Oncology, Faculty of Medicine, University of Toronto

UNIVERSITY - RANK

2003 Jul 1 - 2014 Jun 30  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2001 Aug 1 - 2003 Jun 30  Lecturer, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL
Received

2015 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2011 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2008 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2005 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2004 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2003 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)

Teaching and Education Awards

LOCAL
Received

2011 Jun  Residents’ Award for Excellence in Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
2008 Jun  Post Graduate Classroom Teaching Award (highest effectiveness scores), Dept of
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2001 - present  Ontario Medical Association / Canadian Medical Association
1998 - present  Canadian Association of Radiation Oncologists
1997 - present  American Society for Therapeutic Radiology and Oncology
1997 - present  Royal College of Physicians and Surgeons of Canada
2001 - 2007  American Society of Clinical Oncology

Administrative Activities

PROVINCIAL / REGIONAL

Other Organizations

Co-Chair, GU Conversations Organizing Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Mississauga, Ontario, Canada.

University of Toronto

2011 - 2013  Co-Chair, Target Insight Organizing Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Toronto, Ontario, Canada.
2009 - 2011  Member, Target Insight Organizing Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Toronto, Ontario, Canada.

LOCAL

Odette Cancer Centre

2009 - 2013  Member, Capital Replacement Committee, Toronto, Canada.
2009 - 2013  Leader, Radiation Oncology Genitourinary (GU) Site Group, Toronto, Canada.

Sunnybrook Health Sciences Centre

2014 - present  Member, Research Ethics Board, Toronto, Ontario, Canada.

University of Toronto

2011 - 2013  Member, Radiation Oncology Postgraduate Education Committee, Radiation Oncology Residency Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Canada.
2011 - 2012  Associate Director, Postgraduate Education, Radiation Oncology Residency Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Canada.
C. Academic Profile

1. RESEARCH STATEMENTS

2001 Jan - present

Research Statement.
My research has focused on optimizing high precision radiotherapy techniques to deliver hypofractionated/stereotactic radiotherapy, and then evaluating such treatment strategies in phase I/II clinical trials in lung and prostate cancers. More recently, these themes have continued with exploring the use of hypofractionated/stereotactic radiotherapy in patients with oligometastases and oligo-progression.

2. TEACHING PHILOSOPHY

My teaching philosophy can be summarized by the following statements: I believe that a successful teacher is one who 1) can teach without intimidation, 2) can make the topic interesting so the student will WANT to learn on their own, 3) can praise and criticize a student’s performance in a constructive and neutral manner, and 4) can be a mentor and friend at the same time.

I believe that most students are very receptive to such an approach, as demonstrated by the teaching awards I have been fortunate enough to receive. It has been gratifying to see previous residents and fellows of mine becoming successful staff Radiation Oncologists in various parts of the world.
3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

My work in the last decade has resulted in 3 major themes for creative professional activities. All fall under the category of professional innovation/creative excellence. Starting from the most recent, they are:

Theme 1: Treatment of Oligometastases and Oligo-Progression

Theme 2: Accelerated Hypofractionated and Stereotactic Body Radiotherapy for Lung Cancer.

Theme 3: High Precision Radiotherapy and Hypofractionation/Stereotactic Body Radiotherapy for Prostate Cancer.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2016 Sep - 2017 Sep Principal Investigator. Randomized Feasibility Trial of Prostate Radiotherapy vs Prostatectomy in Men with Hormone Sensitive Oligometastatic Prostate Cancer. Abbvie ACURA Uro-Oncologic Radiation Award. Collaborator(s): Robert Nam, Lawrence Klotz, Raj Satkunasivam, D. Andrew Loblaw. 29,500 CAD. [Grants]

2016 Jan - 2019 Dec Principal Investigator. BR.35 “A Randomized Phase II Study of Precision Radiotherapy for Oligometastatic Non-Small Cell Lung Cancer”. Canadian Cancer Trials Group (CCTG). 266,000 CAD. [Clinical Trials]

2015 Sep - 2016 Sep Principal Investigator. Phase I Trial of SBRT with Radium-223 for Patients with Oligometastatic Castration Resistant Prostate Cancer with Bone Only Metastases. Abbvie ACURA Uro-Oncologic Radiation Award. Collaborator(s): Hany Soliman, Urban Emmenegger, Scott Berry, D. Andrew Loblaw. 29,500 CAD. [Grants]


2011 Jan - 2011 Dec **Co-Investigator.** Nomogram Predicting the 7-Year Biochemical Disease Free Survival After External Beam Radiation Therapy (EBRT) and androgen deprivation therapy (ADT) for High Risk Prostate Cancer Patients. Canadian Radiation Oncology Foundation/Sanofi-Aventis Research Innovation Award (CASARIA). PI: D’Souza, Neil and Loblaw, D. Andrew. Collaborator(s): **Patrick Cheung, Michael Kattan.** 12,000 CAD. [Grants]

2011 Jan - 2011 Dec **Co-Investigator.** Randomized Phase II Study of Two Extreme Hypofractionated Radiotherapy Schedules for Low and Intermediate Risk Prostate Cancer (PATRIOT/pHART7). Prostate Cancer Canada. PI: Quon, Harvey and Loblaw, D. Andrew. Collaborator(s): Alan Ong, **Patrick Cheung, William Chu, Hans Chung, Geordi Pang, Renee Korol, Melanie Davidson.** 119,500 CAD. [Grants]


2006 Jan - 2008 May **Principal Investigator.** BR.25 “Accelerated Hypofractionated 3-Dimensional Conformal Radiotherapy (3DCRT) For Inoperable Stage I/II Non-Small Cell Lung Cancer (NSCLC)”. National Cancer Institute of Canada Clinical Trials Group. Collaborator(s): Islam Mohamed, Dorianne Rheaume, Frances Shepherd, Jim Wright, Yee Ung. 280,000 CAD. [Clinical Trials]


Bahary, Louis Souhami, A Gafni. 2,048,721 CAD. [Grants]


NON-PEER-REVIEWED GRANTS

FUNDED


2015 Jan - 2017 Dec  Principal Investigator. Comprehensive Stereotactic Radiotherapy for Oligometastatic Prostate Cancer: A Phase I/II Study. Abbvie Investigator Initiated Grant. Collaborator(s): Peter Chung, Andrew Loblaw, Arjun Sahgal, Robert Bristow. 246,866 CAD. [Industrial Grants]

2014 - 2020  Co-Principal Investigator. Stereotactic Radiotherapy for Oligo-Progression in Kidney Cancer Patients on 1st Line Sunitinib Therapy: A Phase II Study. Pfizer Investigator Initiated Grant. PI: Cheung, Patrick; Bjarnason, Georg. Collaborator(s): Arjun Sahgal, William Chu, Daniel Heng. 551,261 CAD. [Industrial Grants]
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


This is one of the few comparisons between accelerated hypofractionation and stereotactic ablative radiotherapy (SABR) for early stage NSCLC using a propensity score matched analysis. It confirms that SABR has superior loco-regional control. Overall survival is also superior in the SABR arm, most likely due to non-treatment factors.

   This is the first published report of a prospective national phase 2 study evaluating the efficacy of an accelerated hypofractionated radiotherapy regimen for early stage non-small cell lung cancer. It serves as a benchmark representing “conventional radiotherapy” to compare to newer stereotactic approaches.


   This was the first prospective randomized study to suggest that acute toxicity and quality of life may be worsened when delivering SBRT for lung tumours on 4 consecutive days compared to over 11 days.


   This study reported on ~230 patients with high risk prostate cancer treated with a concomitant hypofractionated boost (simultaneous integrated boost) on 3 consecutive prospective trials. This particular manuscript focused on the effect of IMRT and bladder filling on acute toxicity and is one of the first prospective studies to show a benefit for IMRT over a 4 field box technique for elective pelvic nodal irradiation.


   This was the first published report documenting the acute and late toxicities of a 5 week course of accelerated radiotherapy for localized high risk prostate cancer. This novel treatment regimen delivered a concomitant hypofractionated boost along with conventional elective pelvic nodal irradiation, and this study confirmed that it is a safe approach with toxicities that were comparable to more conventional courses of radiotherapy delivered over 7-8 weeks.


   This study was one of the first to study the concept of small patient specific PTV margins for prostate cancer. It has become one of my highest cited publications and the technical data has formed the basis of several hypofractionated/SBRT studies conducted at the Sunnybrook Odette Cancer Centre in the last few years.

2. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


**Letters to Editor**


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2015 Nov 20 Invited Lecturer. SABR for Oligoprogressive Cancer. UK SABR Consortium. Belfast, Belfast, United Kingdom. (Continuing Education).


Presented Abstracts


**2. NATIONAL**

**Invited Lectures and Presentations**


2016 Jun 25 **Invited Lecturer.** Role of Local Treatment in Oligometastatic Prostate Cancer. 4th Annual CUA-CUOG Multidisciplinary GU Cancers Meeting. Vancouver, Canada. (Continuing Education).


2015 Feb 6 **Invited Lecturer.** Debate: No for PCI for Extensive Stage SCLC. Canadian Lung Cancer Conference. Vancouver, British Columbia, Canada. (Continuing Education).

2014 Jun 13 **Invited Lecturer.** National Lung Cancer Advisory Board. Pfizer. Montreal, Quebec, Canada. (Continuing Education).


2014 Feb 20 **Invited Lecturer.** Role of Radiation in Hormone-Sensitive Metastatic Prostate Cancer. Issues &...
Controversies in Urologic Cancer. Whistler, British Columbia, Canada. (Continuing Education).

2014 Feb 7 Invited Lecturer. Recent Canadian Trials in SBRT. Canadian Lung Cancer Conference. Vancouver, British Columbia, Canada. (Continuing Education).


Presented Abstracts


### 3. PROVINCIAL / REGIONAL

#### Invited Lectures and Presentations

2015 Oct 30 **Invited Lecturer.** Case Based Discussions: Radiotherapy for Stage 3 and Oligometastatic NSCLC. Oncology Education - Best of Lung Cancer Summit. Toronto, Ontario, Canada. (Continuing Education).


2014 Oct 18 **Invited Lecturer.** SBRT for Primary RCC and Oligometastases. Okanagan Genitourinary Oncology Conference. Vernon, British Columbia, Canada. (Continuing Education).

2014 Oct 18 **Invited Lecturer.** SBRT for Prostate Cancer. Okanagan Genitourinary Oncology Conference. Vernon, British Columbia, Canada. (Continuing Education).

2014 Oct 17 **Invited Lecturer.** SBRT for Everything and Anything. BCCA Provincial Radiotherapy Rounds. Kelowna, British Columbia, Canada. (Continuing Education).

2014 May 26 **Invited Lecturer.** Optimizing the Management of Advanced NSCLC in the Northern Ontario Region. Pfizer. Sudbury, Ontario, Canada. (Continuing Education).

2013 May 2 **Invited Lecturer.** Panel Case Discussion: Oligoprogression in Metastatic Cancer. Target Insight VII: Rethinking Radiation Therapy for Metastatic Cancer. One King West Hotel & Residence. Toronto, Canada. (Continuing Education).

2012 Oct 22 **Invited Lecturer.** Stereotactic Body Radiotherapy for Lung Tumours. Oncology Rounds, Royal Victoria
Hospital. Barrie, Canada. (Continuing Education).

2012 May 3  Invited Lecturer. Should There be Provincial Guidelines Regarding the Use of SBRT? Target Insight VI: Forging the Hypofractionation Frontier: SBRT, HDR Brachytherapy, and Beyond. One King West Hotel & Residence. Toronto, Canada. (Continuing Education).


2010 Apr 7  Invited Lecturer. Adjuvant vs Salvage Radiotherapy for Prostate Cancer. GU Conversations, Ruth Chris’ Steakhouse. Mississauga, Canada. (Continuing Education).


Presented Abstracts


4. LOCAL

Invited Lectures and Presentations

2016 Jun 9  **Invited Lecturer.** Ra-223 Clinical Trials at Odette Cancer Centre. Bayer Xofigo Consultant Meeting. Toronto, Canada. (Continuing Education).

2016 Feb 12  **Invited Speaker.** Prostate Cancer Research at Odette Cancer Centre. Giving Hearts Gala. Toronto, Canada. (Presentation to Patients/Public).

2016 Feb 9  **Invited Lecturer.** Radiotherapy for Metastatic Prostate Cancer....SBRT to Radium-223. TEGH-OCC Joint Educational Meeting. Toronto, Canada. (Continuing Education).


2016 Jan 19  **Invited Lecturer.** SBRT....increasing the indications with or without the evidence? Cancer Research Rounds (CR2); Sunnybrook Odette Cancer Centre. Toronto, Canada. (Continuing Education).


2015 Oct 6  **Invited Lecturer.** The Role of Local Ablative Therapy in Oligometastatic Prostate Cancer. Abbvie. Toronto, Ontario, Canada. (Continuing Education).

2015 Jun 16  **Invited Lecturer.** Upcoming Sunnybrook Clinical Trials with Ra-223. Bayer. Toronto, Ontario, Canada. (Continuing Education).

2015 Apr 29  **Invited Lecturer.** Novel Radiotherapy Strategies to Treat Metastatic Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, Canada. (Presentation to Patients/Public).

2013 Jun 20  **Chair.** The Changing Landscape in Managing Metastatic Castrate Resistant Prostate Cancer: A Focus on the Pre-Chemotherapy Space. Amgen Oncology and Janssen Educational Event, Oliver & Bonacini Cafe Grill. Toronto, Canada. (Continuing Education).


2012 Nov 22  **Invited Lecturer.** Stereotactic Body Radiation Therapy: Treating the 'Untreatable'. Toronto Cancer Conference, Metro Toronto Convention Centre. Toronto, Canada. (Continuing Education).


2011 Nov 16  **Invited Lecturer.** Clinical Trials in Prostate Radiotherapy: What we have done and where we are going. Patient Appreciation Night. McLaughlin Auditorium, Sunnybrook Health Sciences Centre. Toronto, Canada. (Presentation to Patients/Public).


2011 Apr 20  **Invited Lecturer.** Radiation Therapy for Prostate Cancer: The Latest and Greatest Approaches. Prostate Cancer: The Latest Lifesaving Information Lecture Series. McLaughlin Auditorium, Sunnybrook Health Sciences Centre. Toronto, Canada. (Presentation to Patients/Public).
2010 Nov 11  **Invited Lecturer.** Advances in Radiotherapy for Lung Cancer. Wellspring Discussion Series in conjunction with Lung Cancer Canada, Wellspring Westerkirk House. Toronto, Canada. (Presentation to Patients/Public).

2009 Sep 23  **Invited Lecturer.** Update on Treatment Options for Localized Prostate Cancer. 19th Annual Cancer Information Series for Patients, Edwards Gardens. Toronto, Canada. (Presentation to Patients/Public).


2007 May 9  **Invited Lecturer.** Debate: Locally Advanced Prostate Cancer Should Be Treated With Radiation and Hormonal Therapy. TSRCC 2nd Annual Nursing Symposium, Toronto-Sunnybrook Regional Cancer Centre. Toronto, Canada. (Continuing Education).

2005 Nov 11  **Invited Lecturer.** ABC’s of Lung Cancer. 2nd Annual Expanding Horizons: Timely Diagnosis & Treatment of Lung Cancer, Toronto-Sunnybrook Regional Cancer Centre. Toronto, Canada. (Continuing Education).


2002 Nov 30  **Invited Lecturer.** The Development and Application of Technology in GU: Do We Do It for Our Patients or For Ourselves? University of Toronto, Department of Radiation Oncology Saturday Seminar, Princess Margaret Hospital. Toronto, Canada. (Continuing Education).

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### G. Research Supervision

#### 1. PRIMARY OR CO-SUPERVISION

**Undergraduate Education**


**Postgraduate MD**


2016 Jan - 2016 Jun  **Primary Supervisor.** Clinical Fellow. Pablo Munoz S. *SBRT for Metastatic Prostate Cancer.*

2015 Jul - 2015 Dec  **Primary Supervisor.** Clinical Fellow. Tomas Merino. *SBRT for Oligometastatic and Oligoprogressive NSCLC.*


2013 Jul - 2014 Jun  **Primary Supervisor.** Clinical Fellow. Andrew Chiang. *Stereotactic Body Radiotherapy (SBRT) Boost to Mimic High-Dose Rate (HDR) Brachytherapy Boost for Intermediate Risk*
H. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2011 - present Treatment of Oligometastases and Oligo-progression.
A phase 1 study studying the use of SBRT to treat up to 5 sites of metastatic tumours has just completed accrual at OCC recently. Almost all solid cancers were eligible. The data will be analyzed in late 2014 and early results should be ready for presentation in 2015. I was successful in obtaining an investigator initiated industry grant to study the use of SBRT to treat hormone sensitive oligometastatic prostate cancer as a collaborative effort with colleagues at Princess Margaret Cancer Centre. Another recent successful initiative was obtaining another investigator initiated industry grant to study the use of SBRT for oligo-progression in metastatic kidney cancer as a multi-institution Canadian phase II trial. A review of the Sunnybrook experience in treating pulmonary oligometastases and oligo-progression with SBRT is underway.

The role of radiotherapy in the management of oligometastases/oligo-progression is a topic of interest for the whole Radiation Oncology specialty and is a priority for the Department of Radiation Oncology at the University of Toronto. In the last 2 years, I have been invited to speak about the role of radiotherapy in the management of oligometastatic cancers at...
various venues locally, provincially, and nationally. In 2014, 2 large grants have been awarded to me to study this topic for prostate and kidney cancers and multi-institutional clinical trials are underway.

2002 - present

High Precision Radiotherapy and Hypofractionation/Stereotactic Body Radiotherapy for Prostate Cancer.

PTV Margin Optimization for Prostate Cancer:
In 2002, I was awarded my first peer reviewed grant to start a clinical and technical phase I study which measured patient specific intra-fraction prostate motion and used small patient specific PTV margins to deliver a hypofractionated external beam boost using daily image guidance for low and intermediate risk prostate cancer. Patients were treated with conventional fractionation for the first 4.5 weeks (42 Gy in 22 fractions) where pre- and post-treatment EPID images were performed to measure patient specific intrafraction prostate motion. After this, a hypofractionated boost of 30 Gy in 10 fractions was delivered using patient specific intra-fraction PTV which was calculated from each patient’s intrafraction prostate motion data from the first phase of treatment.

Concomitant Hypofractionated IMRT Boost (Simultaneous Integrated Boost) for High Risk Prostate Cancer:
In 2003, I received a NCIC Prostate Cancer Research Initiative IDEA grant to study the delivery of a concomitant hypofractionated boost of 67.5 Gy in 25 fractions, while the pelvic lymph nodes received 45 Gy in 25 fractions at the same time as a more time efficient method to deliver a radical external beam radiotherapy to the prostate which explored hypofractionation and elective pelvic nodal irradiation at the same time for high risk prostate cancer. All patients received long term (2-3 years) of adjuvant androgen deprivation therapy. After the initial pilot project, more peer reviewed and industry grants were obtained to study this as part of a much larger phase II project of ~ 230 patients. Acute/late toxicities, and quality of life outcomes have been published, and the mature 5 year efficacy results has been reported at the 2013 CARO/ASTRO meetings as oral presentations (reviewer’s choice at CARO). One unique aspect of this study is that 5 year post radiotherapy prostate biopsies were performed to check for pathologic local failure.

SBRT to Mimic HDR Brachytherapy Boost for Prostate Cancer:
In 2009, I received a peer reviewed grant to conduct a phase I study of using SBRT to deliver a single fraction of 10-15 Gy to mimic HDR brachytherapy for intermediate risk prostate cancer. All patients received mildly hypofractionated external beam radiotherapy as well to a dose of 37.5 Gy in 15 fractions. This novel study employed a host of high precision techniques for the delivery of the single 10-15 Gy fraction: catheterization to control bladder volume, intra-rectal balloon for prostate immobilization, MRI/CT contouring, cine MRI to measure patient specific intrafraction motion, and use of patient specific PTV margins for the SBRT delivery, which continues the theme of small patient specific treatment margins from my first prostate IMRT project from 2002. This study has just completed accrual and acute toxicity results will be analyzed at the end of 2014.

PTV Margin Optimization for Prostate Cancer:
With the technical data gathered from this first IMRT project, small 4-5 mm population based intra-fraction PTV became the basis of all future hypofractionated/stereotactic radiotherapy studies for prostate cancer that employ daily image guidance with implanted fiducial markers at OCC. The 2005 publication about patient specific PTV margins is one of the highest cited references I have. Since 2007, I have been an invited lecturer regularly at the biannual GU Radiation Oncologists of Canada meeting to speak about various aspects of high precision radiotherapy for prostate cancer.

Concomitant Hypofractionated IMRT Boost (Simultaneous Integrated Boost):
The favourable toxicity/QoL results from these published studies have led to current randomized phase II studies being conducted at OCC, the Cross Cancer Institute, and a multi-centre phase III study in Quebec which compares the SIB approach pioneered at OCC to conventional fractionation for high risk prostate cancer. A recent publication from this
population of ~230 patients is the largest prospective study to demonstrate the value of IMRT and a full bladder to reduce acute toxicity during elective nodal irradiation for high risk prostate cancer patients. Long term results from this study will be analyzed in 2015.

SBRT to Mimic HDR Brachytherapy Boost for Prostate Cancer:
If the acute and late toxicity results are favourable, then larger studies of this approach may be started in the future. This will be the first study to tackle the question of whether a brachytherapy like dose of 10-15 Gy in 1 fraction can be safely delivered with external beam radiotherapy. The data gathered from the technical side of the study has already informed how OCC will technically approach the next generation of SBRT studies for prostate cancer with regards to immobilization and PTV margins.

2002 - present

Accelerated Hypofractionated and Stereotactic Body Radiotherapy for Lung Cancer.
Accelerated Hypofractionation for Early Stage Lung Cancer:
Since 1996, an accelerated hypofractionated radiotherapy schedule (48-52 Gy in 12-13 fractions) has been delivered for peripherally located early stage NSCLC at the Sunnybrook Odette Cancer Centre (OCC). This was relatively unique in the world, and I published on the results of this approach in 2002. In 2011, the long term results of such an approach were published. Based on this experience, a prospective multi-institutional phase II study was initiated in 2006 through the NCIC Clinical Trials Group which evaluated the use of 3D-CRT to deliver a dose of 60 Gy in 15 fractions for stage I NSCLC. The results of this trial were presented at the 2012 CARO/ASTRO/Chicago Thoracic Symposium meetings and the manuscript has been published in 2014 in JNCI.

Stereotactic Body Radiotherapy for early stage Lung Cancer:
In 2008, I spearheaded a lung SBRT program at OCC, and it has become one of the largest SBRT centres in Canada. Early technical studies (including a randomized trial comparing 2 immobilization devices) have been published that justifies our techniques. In addition, a randomized pilot study was performed comparing delivering lung SBRT over 4 days vs 11 days. The results from this study were presented at the 2012 CARO/ASTRO/Chicago Thoracic Symposium meetings, and the manuscript was published in 2013. In the 2013 CARO/ASTRO meetings, the medium term efficacy outcomes of the OCC lung SBRT program (~250 patients treated from 2008-2011) were presented. Manuscripts about predictors of local control and chest wall toxicity have been published in 2014 and 2015, respectively. In 2014, the efficacy outcomes from the historical accelerated hypofractionated approach (1996-2008) have been compared to the modern SBRT era (2008-2011) for early stage NSCLC and were presented at the 2014 CARO/ASTRO meetings, with a manuscript submitted for publication in 2015.

Accelerated Hypofractionation for Early Stage Lung Cancer:
Even before the results of the NCIC-CTG trial were presented in 2012, many Canadian centres adopted the 60 Gy in 15 fraction fractionation scheme, based on the previous published OCC experience and their own experience when treating patients on the NCIC-CTG trial. The favourable results from the NCIC-CTG trial suggest that this approach may be an excellent alternative to SBRT in centres who do not have SBRT capability. This trial has also led to success in obtaining a Canadian Cancer Society Research Institute Impact Grant to conduct a multi-centre phase III study comparing 60 Gy in 15 fractions to SBRT in Canada.

Stereotactic Body Radiotherapy for Early Stage Lung Cancer:
Since 2010, I have supervised 5 Radiation Oncology fellows at OCC to gain clinical and research experience with lung SBRT and management of oligometastases. The high volume of SBRT treatments ensure a rich experience for those wishing to learn about the technique. The 4 vs 11 day randomized study revealed that SBRT delivered over 4 days was more acutely toxic compared to the 11 days, and is the first prospective study in the world to demonstrate a clinical effect due to overall treatment time for SBRT. In 2010, several technical and clinical publications were produced from our large lung SBRT experience. Since 2009, I have been invited to speak at various venues locally, provincially,
and nationally about lung SBRT.
CURRICULUM VITAE

Name: Charles Cho

Business Address: Radiation Medicine Program
Stronach Regional Cancer Centre at
Southlake Regional Health Centre
596 Davis Drive
Newmarket, Ontario
L3Y 2P9

Telephone: 905-895-4521 ext. 6595
Fax: 905-952-2818
E-Mail: ccho@southlakeregional.org

Education

University Education:

1992-1996 Bachelor of Science (Honours Physiology)
University of Alberta, Edmonton, Alberta
Graduated with First Class Honours

1996-1999 Master of Science, Department of Physiology Banting and Best Institute
University of Toronto, Toronto, Ontario
Thesis: The Role of Oxidative Stress in Two Models of Insulin Resistance Within
Primary Adipocytes

Post Graduate and Medical Training:

1999-2003 Doctor of Medicine
Queen’s University, Kingston, Ontario

2003-2008 Fellow of the Royal College of Physicians of Canada
Postgraduate Medical Training: Radiation Oncology
University of Toronto, Toronto, Ontario

2008-2009 Clinical Research Fellow: Radiation Oncology
Princess Margaret Hospital, University of Toronto, Toronto, Ontario

Biographical Information

Hospital/Staff Appointments:

2009-Present Active Staff, Radiation Oncology
Stronach Regional Cancer Centre (SRCC)
Southlake Regional Health Centre, Newmarket, Ontario, Canada

Active Staff, Radiation Oncology
The Princess Margaret Cancer Centre, Toronto, Ontario, Canada
Professional Affiliations:

- Canadian Medical Association
- Ontario Medical Association
- Canadian Association of Radiation Oncology
- American Society for Therapeutic Radiology and Oncology

Licensures:

- College of Physicians and Surgeons of Ontario (Canada)

Administration and Committee Appointments:

- Colorectal Cancer Pathway Working Group Member (2015-present)
- Cancer Care Ontario Program for Evidence Based Care: Gastrointestinal Disease Site Group (2011-Present)
- Southlake External Beam Process Committee (2009-Present)
- Postgraduate Medical Education Committee, Resident Representative (2007)
- MD admissions and interview committee (2000, 2001)

Current Clinical Studies

2011-present  Survey of Anti-cancer and non Anti-cancer Drug cost and Adherence: multicentre study between UHN, St Michaels Hospital, and SRHC
Principal Investigator: Kassam, Z
REB SRHC # 0011-1112 (SRHC)

2011-present  Patient Preferences for Completing Epidemiology Questionnaires Incorporated into Cancer Clinical Trials (Collaboration between UHN, St Michaels Hospital, and SRHC)
Principal Investigator: Kassam, Z
REB # 0010-1112 (SRHC)

2012-present A Prospective Evaluation of Patients undergoing Radiation Treatment for Upper Gastrointestinal Malignancies in the Radical Setting: Quality of Life, Toxicity and Clinical Outcomes
Principal Investigator: Kassam, Z
Co-Investigators: Cho C, Zhang B
REB # 0017-1112 (SRHC)

2012-present The Influence of Social Determinants of Health, Physical Activity, and Supplement Use on Smoking Cessation and Recidivism in Cancer Patients (Collaboration between UHN and SRHC)
Principal Investigator: Kassam Z
REB # 0022-1213 (SRHC)

2012-present An Evaluation of Factors Associated with Upper Gastrointestinal Malignancies
Principal Investigator: Kassam Z
2013-present  Ontario Health Study  
Principal Investigator: Kassam, Z  
REB # 0039-1314 (SRHC)

2013-present  Complementary and Alternate Medicine for Patients undergoing treatment at SRCC  
Principal Investigator: Kassam, Z  
Co-Is: Wells W, Fenkell F, Cho C, Taremi M, Dr Z Allibhai  
REB # 0018-1314 (SRHC)

2014-present  A pilot project to assess the feasibility of introducing patient reported outcomes (PROs) into the Standard of Care of patients undergoing radiation treatment for rectal carcinoma in the radical setting.  
Principal Investigator: Kassam, Z  
REB #0065-1314 (SRHC)

2014-present  Patient Preferences for Research Access to Administrative Data In Ontario  
Principal Investigator: Kassam, Z  
REB # 0020-1415 (SRHC)

2014-present  Prospective Evaluation and Data mining to predict and minimize Individual Clinical Toxicity in Breast cancer radiotherapy (PREDICT – Bre)  
Principal Investigator: Ruschin M, Local Principal Investigator: Fenkell L  
REB # 0012-1415 (SRHC)

Grants:

2013-present  Accelerated Implementation Diffusion of Quality Initiatives for Rectal Cancer across Canada  
Canadian Partnership against Cancer: Grant Submitted September 2013

Publications

Refereed Publications:


Peer Reviewed Abstracts:


# Curriculum Vitae

Byoung Chun John Cho

## A. Date Curriculum Vitae is Prepared: 2016 July 20

## B. Biographical Information

| Primary Office | Department of Radiation Oncology  
|                | Princess Margaret Hospital  
|                | 610 University Avenue  
|                | Toronto, Ontario, Canada  
| Telephone      | 416-946-4501 x2124  
| Fax            | 416-946-6566  
| Email          | john.cho@rmpuhn.on.ca |

## 1. EDUCATION

### Degrees

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<tr>
<th>Date Range</th>
<th>Degree Description</th>
<th>Institution/Location</th>
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<tbody>
<tr>
<td>2000 Sep - 2004 Feb</td>
<td>PhD, Medicine</td>
<td>University of Amsterdam (Universiteit van Amsterdam), Netherlands</td>
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<tr>
<td>1991 Sep - 1995 Apr</td>
<td>MD</td>
<td>Queen’s University at Kingston, Ontario</td>
</tr>
<tr>
<td>1989 Sep - 1990 Apr</td>
<td>BSc</td>
<td>University of Toronto</td>
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### Postgraduate, Research and Specialty Training

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<tr>
<th>Date Range</th>
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<th>Institution/Location</th>
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<tbody>
<tr>
<td>1995 Jul 1 - 2000 Jun 30</td>
<td>Residency, Radiation Oncology</td>
<td>Cross Cancer Institute, Edmonton, Alberta</td>
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</table>

### Qualifications, Certifications and Licenses

<table>
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<tr>
<th>Date Range</th>
<th>Certification Description</th>
<th>Institution/Location</th>
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<tr>
<td>1995 Oct - present</td>
<td>Licentiate (LMCC), Rad</td>
<td>Medical Council of Canada</td>
</tr>
<tr>
<td>2000 Jul - 2012 Dec</td>
<td>Fellow FRCP(C), Radiation Oncology</td>
<td>Royal College of Physicians and Surgeons of Canada</td>
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## 2. EMPLOYMENT

### Current Appointments

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<th>Date Range</th>
<th>Position Description</th>
<th>Institution/Location</th>
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<tbody>
<tr>
<td>2004 Aug 1 - present</td>
<td>Assistant Professor, Radiation Oncology</td>
<td>University of Toronto</td>
</tr>
<tr>
<td>2004 Aug 1 - present</td>
<td>Staff Radiation Oncologist</td>
<td>Princess Margaret Hospital, Toronto, Ontario</td>
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### Previous Appointments

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<th>UNIVERSITY - RANK</th>
<th>Date Range</th>
<th>Position Description</th>
<th>Institution/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 Aug 1 - 2012 Dec 31</td>
<td>Assistant Professor, Radiation Oncology</td>
<td>University of Toronto</td>
<td></td>
</tr>
</tbody>
</table>

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

1989 Sep - 1992 Apr  Canadian Scholarship, University of Toronto. (Distinction)

PROVINCIAL / REGIONAL

Received

2000 Sep - 2002 Apr  Clinical Research Fellowship, Alberta Cancer Board. (Research Award)
1989 Sep - 1990 Apr  Ontario Scholarship, University of Toronto. (Distinction)

LOCAL

Received

1999 Sep - 2000 Apr  Robert and Ada Wright Memorial Award, University of Alberta. (Distinction)
1992 Sep - 1994 Apr  Memorial Fund Award, Queen’s University at Kingston, Ontario. (Distinction)
1991 Sep - 1992 Apr  Chancellor Scholarship, Trinity College, University of Toronto. (Distinction)
1989 Sep - 1991 Apr  College Scholarship, Trinity College, University of Toronto. (Distinction)
1989 Sep - 1991 Apr  Faculty Scholarship, University of Toronto. (Distinction)

Nominated

2010 May  Gerald Kirsh Humanitarian Award, Princess Margaret Hospital. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2009 - present  International Association for the Study of Lung Cancer
2004 - present  Ontario Medical Association
1998 - present  Canadian Association of Radiation Oncology
1997 - present  Royal College of Physicians and Surgeons, Canada
1991 - present  Canadian Medical Association
1998 - 2000  American College of Radiation Oncology
1996 - 2000  American College of Radiology
1996 - 2000  American Society for Therapeutic Radiology and Oncology
1995 - 2000  Alberta Medical Association
1995 - 2000  Canadian Association of Interns and Residents
1995 - 2000  Professional Association of Interns and Residents of Alberta
Administrative Activities

INTERNATIONAL

International Mesothelioma Interest Group
2007 - present  Member

NATIONAL

National Cancer Institute of Canada/Clinical Trials Group
2007 - present  Member, Mesothelioma and Thymoma Working Group, Lung Disease Site Committee

LOCAL

University of Toronto
2013 - present  Chair, DRO Partnership Executive
2009 - present  Member, Radiation Medicine Program Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Multilevel Education
2008 - present  Social Director, DRO Partnership Executive
2006 - present  Member, Radiation Medicine Program Quality Assurance Monitoring Committee, Dept of Radiation Oncology
2012 - 2013  Vice Chair, DRO Partnership Executive
2011 - 2012  Treasurer, DRO Partnership Executive
2004 - 2008  Secretary, DRO Staff

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDED


2009 Jan - 2010 Dec **Co-Investigator.** Seamless Phase I/II Study of Stereotactic Lung Radiotherapy (SBRT) for Early Stage, Centrally Located, Non-Small Cell Lung Cancer (NSCLC) in Medically Inoperable Patients (RTOG 0813). Radiation Therapy Oncology Group. 09-0112-C. PI: Bezjak A. Collaborator(s): Brade A, Hope A, Sun A. [Grants]

2009 Jan - 2010 Dec **Principal Investigator.** A Randomized Phase II Study Comparing 2 Stereotactic Body Radiation Therapy (SBRT) Schedules for Medically Inoperable Patients with Stage I Peripheral Non-Small Cell Lung Cancer. Radiation Therapy Oncology Group. 09-0857-C. Collaborator(s): Bezjak A, Brade A, Hope A, Sun A. [Grants]


2008 Jan - 2012 Dec **Co-Investigator.** A Phase II Trial of Stereotactic Body Radiation Therapy (SBRT) in the Treatment of Patients with Operable Stage I/II Non-Small Cell Lung Cancer. Radiation Therapy Oncology Group. 08-0107-C. PI: Bezjak A. Collaborator(s): Brade A, Hope A, Sun A. [Contracts]


2008 Jan - 2012 Dec **Co-Investigator.** A Phase 3 Study of Pemetrexed, Cisplatin and Radiotherapy Followed by Consolidation Pemetrexed versus Etoposide, Cisplatin and Radiotherapy Followed by Consolidation Chemotherapy for Stage III Non-Small Cell Non-squamous Lung Cancer. Eli Lilly Canada Inc. 08-041 OCREB. PI: Brade A. Collaborator(s): Bezjak A, Hope A, Shepherd F, Sun A. [Industrial Grants]


2008 Jan - 2011 Jan **Co-Investigator.** A Randomized Phase III Comparison of Standard-Dose (60Gy) versus High-Dose (74Gy) Conformal Radiotherapy with Concurrent and Consolidation Carboplatin/Paclitaxel in Patients with Stage IIIA/IIB Non-small Cell Lung Cancer. Radiation Therapy Oncology Group. 08-0016-C. PI: Sun A. Collaborator(s): Bezjak A, Brade A, Hope A. [Contracts]


2005 Jan - 2011 Dec  Principal Investigator. Phase II Study of Neoadjuvant Pemetrexed (ALIMTA) plus Cisplatin followed by Surgery and Radiation Therapy for Malignant Pleural Mesothelioma. Eli Lilly Canada Inc. 05-0815-C. [Industrial Grants]


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Oral Presentation


Poster Presentation


Other Publications

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

Book Chapters

Editorials

E. Intellectual Property

1. PATENTS


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations
2002 IMRT in breast cancer improving radiotherapy treatment. 21st Annual Meeting ESTRO. Prague, Czech Republic.

Presented Abstracts

2011 Sep The Characteristics of Tumour and Involved Lymph Nodes in Human Papilloma Virus (HPV) Related Oropharyngeal Carcinoma Determined by Gross Tumour Volumes (GTV) Defined for Radiotherapy

2010 Sep  

2010 Sep  

2010  

2008 Feb  

2008  

2008  

2008  

2008  

2007  

2006  

2004  

2003  

2002  


Presented and Published Abstracts

2016 Apr 29 Invited Speaker. The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Turin, Italy.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Feb Refining UICC TNM stage and prognostic groups for non-metastatic HPV-related oropharyngeal carcinomas. 5th International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:

2015 Feb Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status. 5th International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.
Byoung Chun John CHO

Publication Details:

2015 Feb ‘Cure’ is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis. 5th International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2014 Sep IMRT With Selective Target Volume Approach in Head and Neck Squamous Cell Carcinoma of Unknown Primary Site. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

Publication Details:

**2014 Sep**
Patient-Reported Outcomes: Correlation of MDASI-HN and Clinical Support Required for Patients Receiving Curative Head and Neck Chemoradiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

**Publication Details:**

2014 Sep

**Publication Details:**

2012 Nov
Outcome of stage 1 non-small cell lung cancer after stereotactic body radiation therapy, does growth rate matter? ASRTO Annual Meeting. Miami, United States.

**Publication Details:**

2012 Nov
Comparison of 3D Conformal Radiotherapy (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non Small Cell Lung Cancer (NSCLC). American Society for Radiation Oncology (ASTRO) 54th Annual Meeting. Boston, United States.

**Publication Details:**

2012 Sep

**Publication Details:**

2011 Oct

**Publication Details:**
2011 Oct
Outcomes for T2N0M0 Glottic squamous cell treated with IMRT compared with conventional parallel opposed fields. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Miami Beach, Florida.

Publication Details:

2011 Oct

Publication Details:

2011 Aug
Effect of image-guidance frequency on geometric accuracy and setup margins in radiotherapy for locally advanced lung cancer. CME ASTRO.

Publication Details:

2011

Publication Details:

2010

Publication Details:

2010
Patterns of Failure in Patients with Limited-Stage Small Cell Lung Carcinoma. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Diego, California.

Publication Details:

2010

Publication Details:
Giuliani M, Lindsay PE, Brade AM, Sun A, Beziek A, Le LW, Cho J, Leighl N, Shepherd FA, Hope AJ. Outcomes of Salvage Therapy in Patients with Limited Stage Small Cell Lung Carcinoma with Isolated

2010

Stereotactic Body Radiotherapy (SBRT) for Non-small Lung Cancer (NSCLC) – is FDG-PET a Predictor of Outcome? American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Diego, California.

Publication Details:

2009 Nov


Publication Details:

2009 Nov

Intrafractional target position accuracy for lung stereotactic body radiotherapy (SBRT) using cone-beam CT (CBCT). Chicago, Illinois, United States.

Publication Details:

2009 Nov

Assessing the accuracy of the carina as a landmark for image matching using cone-beam CT in radical lung radiotherapy. ASTRO. Chicago, Illinois, United States.

Publication Details:

2009 Jul


Publication Details:

2009 Jul


Publication Details:

2009 Jul

Publication Details:

2009 Jul

Publication Details:

2009
Fractionation modulated radiotherapy: adding time into IMRT by optimizing the dose per fraction. European Society for Therapeutic Radiology & Oncology (ESTRO). Maastricht, Netherlands.

Publication Details:

2009

Publication Details:

2009
Comparison of tumor coverage in radical lung radiotherapy: impact of cone-beam CT image guidance using spine or carina matching. 13th Annual World Conference on Lung Cancer. San Francisco, California, United States.

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009
**Publication Details:**

2008 Stereotactic Body Radiation Therapy (SBRT) for Early-Stage Non-Small Cell Lung Cancer (NSCLC). International Lung Cancer Conference. Liverpool, United Kingdom.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

Publication Details:

2007
The dosimetric effects of changes in thoracic cavity fluid levels during adjuvant hemithoracic intensity modulated radiotherapy following extrapleural pneumonectomy for mesotheliomas. World Conference on Lung Cancer (WCLC). Seoul, Korea, Republic Of.

Publication Details:

2007

Publication Details:

2006
Stereotactic body radiotherapy (SBRT) and medical inoperability of early stage non-small cell lung cancer. ASCO Annual Meeting. Atlanta, Georgia.

Publication Details:

2006
Lung cancer stereotactic body radiotherapy: the dosimetric effect of heterogeneity correction on normal tissue tolerances and target coverage. European Society for Therapeutic Radiology & Oncology (ESTRO). Leipzig, Germany.

Publication Details:

2006
Evaluation of 4Dimensional-Computed Tomography for Delineation of The Clinical Target Volume (CTV) for Breast Boost Radiotherapy. European Society for Therapeutic Radiology & Oncology (ESTRO). Leipzig, Germany.

Publication Details:

2006

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2006 Clinical physics for radiotherapy oncologists: all the topics you may have forgotten and are too afraid to ask. 20th Annual Meeting CARO. Calgary, Alberta.

Presented Abstracts


Incorporating spatial dose effects using dose-voxel based histograms. Canadian Association of Radiation Oncology Annual Scientific Meeting. Montreal, Quebec. Cho BC, Witte M.

**Presented and Published Abstracts**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

Publication Details:


Publication Details:
Clinical outcomes following re-irradiation in head and neck cancers. Radiother Oncol. 2015;116(Suppl):S60.


Publication Details:

2015 Sep Outcomes in Patients with Stage III Non-Small Cell Lung Cancer Treated with Neoadjuvant Concurrent Chemotherapy and Radiotherapy Followed by Surgical Resection. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO). Kelowna, British Columbia, Canada.

Publication Details:


Publication Details:


Publication Details:

2014 Aug The prognostic value of pre-treatment circulating neutrophils in oropharyngeal cancer by HPV status.

Publication Details:

2014 Aug Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

Publication Details:


Publication Details:


Publication Details:

2013 Sep Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT). CARO Annual Meeting. Quebec, Canada.

Publication Details:
Byoung Chun John CHO


2013 Sep Late radiographic changes after lung stereotactic body radiotherapy: Piloting a synoptic reporting and recurrence predication scale. CARO Annual Meeting. Canada.

Publication Details:

2013 Sep Stereotactic Lung Radiotherapy in Patients with Previous Pneumonectomy: Safety and Efficacy. CARO Annual Meeting. Quebec, Canada.

Publication Details:

2013 Sep Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy compared to Primary Laryngectomy. CARO Annual Meeting. Quebec.

Publication Details:

2013 Sep DISPLAYING 3D RADIATION DOSE ON ENDOSCOPIC VIDEO FOR THERAPEUTIC ASSESSMENT AND SURGICAL GUIDANCE. CARO Annual Meeting. Quebec, Canada.

Publication Details:


Publication Details:

2012 Sep Outcome of IMRT for hypopharyngeal cancer compared to conventional radiotherapy. CARO Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:


Publication Details:

2012 Sep
Comparison of 3D Conformal Radiotherapy (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non Small Cell Lung Cancer (NSCLC). CARO Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:

2011 Sep
Is SBRT alone appropriate for early stage non-small-cell lung cancer with primary tumours larger than 4cm? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba.

Publication Details:

2011 Sep

Publication Details:

2011 Sep
Correlation of Dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba.

Publication Details:

2011 Sep

Publication Details:

2011 Sep
Acute toxicities observed with neoadjuvant short accelerated hemithoracic radiotherapy (RT) followed by extra-pleural pneumonectomy (EPP) for malignant pleural mesothelioma (MPM): preliminary results. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba.

Publication Details:

2011 Sep
Clinical outcomes in stage 1 non-small cell lung cancer patients managed with accelerated hypofractionated radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting.
Winnipeg, Manitoba.

Publication Details:

2010 Sep

Publication Details:

2010

Publication Details:

2010
Four Year Outcomes of Patients with Stage I Lung Cancer Treated with Stereotactic Body Radiation Therapy (SBRT). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Vancouver, British Columbia.

Publication Details:

2010
A Phase II Study of Concurrent Pemetrexed (P)/Cisplatin (C) Radiation (RT) for unresectable Stage IIIA/B Non-Small Cell Lung Cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2010
FDG PET SUV Uptake in Stereotactic Body Radiotherapy (SBRT) for Non-Small Cell Lung Cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009 Sep
Factors Influencing Prophylactic Cranial Irradiation Utilization in Limited Stage Small Cell Lung Cancer.

Publication Details:

2009 Sep
Assessment of Intra-fraction Target Position Accuracy for Lung Stereotactic Body Radiotherapy (SBRT) using Cone-beam CT (CBCT). Canadian Association of Radiation Oncology. Quebec City, Quebec.

Publication Details:


Publication Details:

2009 Sep Princess Margaret Hospital experience with Lung Stereotactic Body Radiotherapy for early stage non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:


Publication Details:

2009 Sep Pre-Radiation Treatment PET/CT Scan can Predict the Localization of Residual Disease Post-Treatment in Lung Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:


Publication Details:
2008 A Pilot Prospective Study of Metabolic and Anatomic Response using FDG PET CT before, during and after Radiotherapy in Lung Cancer. Canadian Association of Radiation Oncology (CARO).

Publication Details:


Publication Details:


Publication Details:

2008 Respiratory Correlated Cone Beam CT in the Assessment of Volumetric and Geometric Tumour Changes in Non-Small Cell Lung Cancer during Radiotherapy. CARO Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

Coauthor or Collaborator.


Publication Details:


Publication Details:


Publication Details:

**Publication Details:**


**Publication Details:**


**Publication Details:**

2006 Selection of patients for stereotactic lung radiotherapy (SBRT) for early stage non-small cell lung cancer (NSCLC). Canadian Association of Radiation Oncology (CARO). Calgary, Alberta.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2005


Publication Details:

2005


Publication Details:

2005


Publication Details:

3. PROVINCIAL / REGIONAL

Presented Abstracts

2010


Presented and Published Abstracts

2009 Apr


Publication Details:

4. LOCAL

Invited Lectures and Presentations

2006

Evolution and revolution of radiotherapy treatment in breast cancer. 6th Princess Margaret Hospital Conference. Toronto, Ontario.

2006

A cased-based approach to recent major paradigm shifts in cancer treatment: breast cancer case. 6th Princess Margaret Hospital Conference. Toronto, Ontario.

Presented Abstracts

2006


5. OTHER

Presented and Published Abstracts

2009 Survival impact of prophylactic cranial irradiation in limited-stage small-cell lung cancer.

Publication Details:


Publication Details:

2008 Sep 10 A Pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during and after radiotherapy in lung cancer. CARO Annual Meeting. Montreal, Quebec, Canada.

Publication Details:


Publication Details:


Publication Details:
## G. Research Supervision

### 1. PRIMARY OR CO-SUPERVISION

**Postgraduate MD**

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Supervisory Role</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Incidental prophylactic nodal irradiation and patterns of nodal relapse in inoperable early stage NSCLC patients treated with SBRT: A case-matched analysis</td>
<td>Primary Supervisor</td>
<td>L Lao</td>
</tr>
<tr>
<td>2010</td>
<td>A single institutional retrospective review of treatment and outcomes for unknown primaries of the head and neck treated with definitive radiotherapy</td>
<td>Primary Supervisor</td>
<td>A Edwards</td>
</tr>
<tr>
<td>2010</td>
<td>A feasibility study evaluating the utility of diffusion weighted magnetic resonance imaging to assess treatment response and recurrence after stereotactic body radiotherapy for early stage non-small cell lung cancers</td>
<td>Primary Supervisor</td>
<td>Z Allibhai</td>
</tr>
<tr>
<td>2008</td>
<td>A feasibility study to evaluate intensity modulated radiation therapy (IMRT) for concomitant boost breast radiotherapy (CBRT)</td>
<td>Primary Supervisor</td>
<td>A Teh</td>
</tr>
<tr>
<td>2006</td>
<td>Planning the target for radiotherapy post breast conserving surgery in breast cancer: evaluation of imaging technology for the definition of target motion</td>
<td>Primary Supervisor</td>
<td>T Nageeti</td>
</tr>
</tbody>
</table>
Curriculum Vitae

Edward L.W. Chow

A. Date Curriculum Vitae is Prepared: 2016 August 4

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone (416) 480-4998
Fax (416) 480-6002
Email Edward.Chow@sunnybrook.ca

1. EDUCATION

Degrees

2002 Sep - 2007 Jun PhD, Institute of Medical Science, University of Toronto, Canada, Supervisor(s): Prof. Ian Tannock
1999 Jul - 2001 Jun MSc, Clinical Epidemiology, Health Policy, Management and Evaluation, University of Toronto, Canada, Supervisor(s): Prof. Ian Tannock
1983 - 1988 Bachelor of Medicine and Bachelor of Surgery (MBBS), University of Hong Kong

Postgraduate, Research and Specialty Training

1997 Dec - 1998 Jun Fellow, Radiation Oncology Program, St. Jude Children’s Research Hospital, United States
1997 Aug - 1997 Nov Fellow, Radiation Oncology Program, McMaster University, Canada
1994 Jul - 1997 Jun Resident, Radiation Oncology Program, Princess Margaret Hospital, University of Toronto, Canada
1993 Jan - 1993 Jun Resident, Core Internal Medicine Program, University of Toronto, Canada
1992 Jan - 1992 Dec Rotating Intern, Pasqua Hospital, University of Saskatchewan, Canada
1991 Jul - 1991 Dec Resident, Core Internal Medicine Program, University of Toronto, Canada
1991 Jun Clinical Fellow, Bone Marrow Transplant Team, Health Science Centre, University of Manitoba, Canada
1990 Oct - 1991 May Clinical Fellow, Addiction Research Foundation, University of Toronto, Canada
1990 Feb - 1990 Jul Senior House Officer, Accident and Emergency Department, Dudley Road Hospital, University of Birmingham, United Kingdom
1989 Feb - 1990 Jan Intern, Medicine and Surgery, Dudley Road Hospital, University of Birmingham, United Kingdom
1989 Jan Intern, Internal Medicine, Nethersole Hospital, University of Hong Kong, Hong Kong
Qualifications, Certifications and Licenses

1999 May  DABR, United States
1997 Jun  FRCP, Royal College of Physicians and Surgeons of Canada, Canada
1994 Jun  ECFMG, United States
1992 Jun  FLEX, United States
1991 May  LMCC, Medical Council of Canada, Canada
1990 Mar  MCCEE, Canada

2. EMPLOYMENT

Current Appointments

2010 - present  Associate Member, Institute of Medical Science, University of Toronto, Canada
2010 - present  Senior Scientist, Sunnybrook Research Institute, Canada
2009 - present  Professor, Radiation Oncology, University of Toronto, Canada
1998 - present  Active Staff, Department of Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Canada

Previous Appointments

HOSPITAL
1998 Oct  Consultant, Department of Radiation Oncology, St. Jude Children’s Research Hospital, United States
1993 Jul - 1994 Jun  Clinical Associate, Department of Radiation Oncology, Princess Margaret Hospital, Canada

RESEARCH
2004 - 2009  Scientist, Sunnybrook Research Institute, Canada

UNIVERSITY - RANK
2004 - 2009  Associate Professor, Radiation Oncology, University of Toronto, Canada
1998 - 2004  Assistant Professor, Radiation Oncology, University of Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
1999 Aug  Travel Award, ASCO/AACR. (Research Award)

NATIONAL
Received
2015  Canadian Cancer Society’s Top 10 Research Impact Stories of 2015, Canadian Cancer Society. (Research Award)

2013
CARO Supportive Care Award, Canadian Association of Radiation Oncology. (Distinction)

2008
Quality Award to Rapid Response Radiotherapy Program by Cancer Care Ontario, Cancer Quality Council of Ontario and Canadian Cancer Society, Canada. (Distinction)

PROVINCIAL / REGIONAL
Received

2010
Outstanding Leadership Award, Ontario Palliative Care Association, Canada. (Distinction)

2008
Co-op Student of the Year Employer Award, Education at Work Ontario, Canada. (Distinction)

2006
Co-op Student of the Year Employer Award, Education at Work Ontario, Canada. (Distinction)

1997
Fellowship Award, Geoffrey H. Wood Foundation, Canada. (Research Award)
Total Amount: 50,000 CAD

LOCAL
Received

2015
Best Annual Research Performance, University of Toronto, Department of Radiation Oncology AGM. (Research Award)

2013
Sustained Excellence in Research Award, University of Toronto. (Research Award)

2010
Best Annual Research Performance Award, Department of Radiation Oncology, University of Toronto, Canada. (Research Award)

2008
Cummings Education Leadership Award, Department of Radiation Oncology, University of Toronto, Canada. (Distinction)

2008
Excellence in Research Leadership, Department of Radiation Oncology, University of Toronto, Canada. (Distinction)

2004
Best Annual Research Performance Award, Department of Radiation Oncology, University of Toronto, Canada. (Research Award)

2001 - 2005
Dr. Marion Hilliard Trust Fund, Sunnybrook and Women’s College Health Sciences Centre, Canada. (Research Award)

2001
Second Prize, MSc Clinical Epidemiology Poster Competition, University of Toronto, Department of Health Administration, Toronto, Ontario, Canada. (Research Award)

2000
Open Fellowship Award in Department of Health Administration, Faculty of Medicine, University of Toronto, Canada. (Research Award)

1996
PGY4 Radiation Oncology Resident Research Award, University of Toronto, Canada. (Research Award)
“Enhanced Control By Radiotherapy Of Cervical Lymph Node Metastases Arising From Nasopharyngeal Carcinoma Compared With Nodal Metastases From Other Head And Neck Squamous Cell Carcinomas”.

1986
Best Award in Community Medicine Research Project, University of Hong Kong, Hong Kong. (Research Award)
“Care of Patients in End Stage Renal Failure”. 
Teaching and Education Awards

LOCAL
Received
2013 2nd Annual Sunnybrook Education Advisory Council (SEAC) Educating Beyond Sunnybrook Award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Continuing Education)

Student/Trainee Awards

NATIONAL
Received
2011 - 2013 Fellowship Award in Clinical Research, Supervisor, Awardee Name: Dennis K. Canadian Institutes of Health Research, Canada Radiation-Induced Nausea and Vomiting (RINV): Part 1) an international survey of patterns of practice for RINV prophylaxis among radiation oncologists. Part 2) a pilot study investigating the efficacy of Aprepitant and Granisetron for the prophylaxis of RINV. Total Amount: 110,000 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Therapeutic Radiology and Oncology
Canadian Association of Radiation Oncologists
European Organization for Research and Treatment of Cancer Quality of Life Group
European Society for Therapeutic Radiology and Oncology
Ontario Medical Association
Royal College of Physicians and Surgeons of Canada

Administrative Activities

INTERNATIONAL
2010 Third International Consensus on Advanced Cancer with ASTRO, CARO, ESTRO and TROG
2008 - 2010 Co-organizer

American Board of Radiology
2004 - 2006 Invited item writer, Radiation Oncology written examination

ASTRO
2002 - present ASTRO representative, Hospice and Palliative Care groups
2005 Chair, Abstract - Quality of Life
2004 - 2005 Chair, Abstract - Palliative Care
2003  Co-Chair, Panel “Utilization of palliative radiotherapy in North America.”
2001 - 2005  Member, Health Services Research Committee
2001  Co-Chair, Panel “Treatment of Bone Metastases in the 21st Century.”

Hong Kong College of Radiologists
2013 Mar  External examiner, third palliative medicine subspecialty board exit examination, Clinical Oncology, Hong Kong.
2009  External examiner, second palliative medicine subspecialty board exit examination, Clinical Oncology

International Bone Metastases Consensus Working Party on Palliative Radiotherapy Endpoints for Future Clinical Trials in Bone Metastases
2000 - present  Chair (jointly organized with ASTRO, ESTRO and CARO).

RTOG CCOP
2008 - present  Member, Steering committee

NATIONAL
CARO
2009 - present  CARO Abstract Review, Canada.

PROVINCIAL / REGIONAL
Inaugural Joint University of Toronto and China Symposium: Current Concepts in Spinal and Musculoskeletal Oncology
2008  Co-Chair, Toronto, Ontario, Canada.

The Annual Ontario Provincial Conference on Palliative and End-of-Life Care
2008  Member, Organizing committee, Toronto, Ontario.
2002 - 2007  Program Co-Chair, Toronto, Ontario.

The Science and Art of Pain and Symptom Management, Annual Conference
1999  Member, Organizing committee, 6th Annual Conference, Toronto, Ontario.

LOCAL
Department of Radiation Oncology, University of Toronto
2015 - present  Member, Three Year Review Committee

International Medical Graduates Examinations in Ontario
1993 - 1996  Examiner, Canada.

Medical Council of Canada
1993 - 1996  Examiner, LMCC

Odette Cancer Centre
Edward L.W. CHOW

2007 - present  Chair, Rapid Response Radiotherapy Program
2006 - present  Member, Research Advisory Committee, Department of Radiation Oncology
2002 - present  Chair, Bone Metastases Site Group

Toronto Sunnybrook Regional Cancer Centre
2006 - 2007  Member at Large, Radiation Oncology Associates
1999 - 2002  Co-Chair, Quality Assurance Advisory Committee, Department of Radiation Oncology

University of Toronto
2010 - 2015  Member, Departmental Promotion Committee, Department of Radiation Oncology
2009 - 2011  Department of Radiation Oncology Research Day Abstract review, Toronto, Ontario, Canada.

Peer Review Activities

EDITORIAL BOARDS

Editor
2011 - present  Current Opinion in Supportive and Palliative Care
2006 - present  Hotspot

Advisor
2001 - 2007  Hospital News Advisory Board

Associate Editor
1999 - 2005  Hotspot, educational newsletter for the community oncologists and palliative care physicians from Rapid Response Radiotherapy Program, Toronto-Sunnybrook Regional Cancer Centre

Guest Editor
2009  Journal of Pain Management (Special issue on Cancer and Pain)

Member
2013 - present  Editorial Advisory Board for Annals of Palliative Medicine
2013 - present  Editorial Advisory Board for Hong Kong Journal of Radiology
2011 - present  Editorial Advisory Board for Journal of Bone Oncology
2011 - present  Editorial Advisory Board for Journal of Radiation Oncology
2008 - present  Editorial Advisory Board for Journal of Pain and Symptom Management
2007 - present  Editorial Advisory Board for Expert Review of Pharmacoeconomics and Outcomes Research
2002 - 2007  Oncology Exchange

GRANT REVIEWS

External Grant Reviewer
2014 Dec  United Arab Emirates University (UAEU), Number of Reviews: 1
2014 Sep - 2014 Nov  Research Council of Norway, Number of Reviews: 4

Canadian Breast Cancer Research Alliance, Developmental and Exploratory (DEX) Research Grants
Canada Institutes of Health Research, University Industry Committee
Catalan Agency for Health Information, Assessment and Quality for evaluation of the quality of life research projects for La Fundació La Marató de TV3
Chinese University of Hong Kong, General Research Fund
Dutch Cancer Society
Neurological Foundation of New Zealand
New Jersey State Commission on Cancer, Research Grant Competition
New Zealand Genesis Oncology Trust

MANUSCRIPT REVIEWS

Reviewer
2015 Mar 6 Cureus, Number of Reviews: 1
2014 Sep - 2014 Sep 30 Tumori, Number of Reviews: 1
2014 Apr International Journal of Radiation Oncology, Biology, Physics, Number of Reviews: 1
2014 Apr Rubriq, Number of Reviews: 1
2014 Mar Journal of Bone Oncology, Number of Reviews: 1
2014 Feb European Journal of Oncology Nursing, Number of Reviews: 1
2014 Clinical Oncology, Number of Reviews: 2
2014 European Journal of Oncology Nursing, Number of Reviews: 1
2014 Lancet Oncology, Number of Reviews: 4
2014 Radiotherapy and Oncology, Number of Reviews: 3
Asian-Pacific Journal of Clinical Oncology
BMJ Supportive & Palliative Care
Breast Cancer Research and Treatment
British Journal of Cancer
Canadian Family Physician
Cancer
Cancer Control: Journal of the Moffitt Cancer Center
CardioVascular and Interventional Radiology
Clinical & Experimental Metastasis
Clinical Cancer Research
Clinical Lung Cancer
Clinical Medicine & Research
Clinical Oncology
Clinical Orthopaedics and Related Research
European Journal of Pain
Expert Review of Anticancer Therapy
Expert Review of Pharmacoeconomics and Outcomes Research
Future Oncology
International Journal of Radiation Oncology, Biology, Physics
International Journal of Urology
Journal of Cancer Research and Therapeutics
Journal of Clinical Oncology
Journal of Experimental & Clinical Cancer Research
Journal of Hand and Microsurgery
Journal of Pain and Symptom Management
Journal of Palliative Care
Journal of Palliative Medicine
Journal of Psychosomatic Research
PRESENTATION REVIEWS

Internal Grant Reviewer
2009 - 2011 University of Toronto, Department of Radiation Oncology Research Day Abstract review
Reviewer
2009 - present CARO Abstract review

C. Academic Profile

1. RESEARCH STATEMENTS

Palliative radiotherapy in the treatment of bone metastases.

Development of quality of life instruments in advanced cancer.

End-of-life care including survival prediction and symptom cluster research.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Collaborator(s): Squires J, Brundage M, Chow E, Fairchild A, Graham I, Grinshaw J, Wong R, Wu J. 100,000 CAD


2010  Principal Investigator. Development of a Canadian-led international bone metastases module to accompany European Organization for Research and Treatment of Cancer Quality of Life Group Core Questionnaire (the EORTC QLQ-C30) for future clinical trials in patients with bone metastases. Phase IV study. EORTC. Quality of Life Group Grant. 74,000 EUR. [Grants]


2007  Principal Investigator. Development of a Canadian-led international bone metastases module to accompany European Organization for Research and Treatment of Cancer Quality of Life Group Core Questionnaire (the EORTC QLQ-C30) for future clinical trials in patients with bone metastases. Translation of non-English speaking languages for international validation. EORTC. Quality of Life Group Grant. 3,030 EUR. [Grants]


2003 - 2006


2001

**Principal Investigator.** Determination of the patient expectation of a clinically relevant partial response as achieved with palliative external beam radiotherapy for bone metastases. University of Toronto. Dean’s Fund Competition for New Staff Grants. Collaborator(s): Hruby G, and Danjoux C. 10,000 CAD. [Grants]

2000


2000


1999


**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2015 - present


2013 Jul - 2014 Jun


2002

**Principal Investigator.** Prospective validation of a predictive model for survival in metastatic cancer patients attending an outpatient palliative radiotherapy clinic. Toronto Sunnybrook Regional Cancer Centre. Radiation Program Fund. 8,000 CAD. [Grants]

2002


1998


Clinical Trials Group Study (SC 20) in collaboration with TROG, RTOG, UK, French and Dutch Bone Metastases Study Group. Target accrual of 850 patients with per case funding $3500.

Clinical Trials Group Study in collaboration with UK Bone Metastases Study Group. Target accrual of 164 patients with per case funding covered by SC 20.

Study Chair. A randomized phase III double blind study of dexamethasone versus placebo in the prophylaxis of radiation-induced pain flare following palliative radiotherapy for bone metastases. National Cancer Institute of Canada (NCIC). [Clinical Trials]
Clinical Trials Group Study (SC 23) in collaboration with TROG. Target accrual of 256 patients with per case funding $3500.

Study Chair. Assessing the quality of life in cancer patients receiving palliative radiotherapy for symptomatic lung cancer or lung metastases using the European Organization for Research and Treatment of Lung Cancer Module (EORTC QLQ- LC13). [Clinical Trials]

Study Chair. Assessing the quality of life in patients with bone metastases using the European Organization for Research and Treatment of Cancer Bone Metastases Module (EORTC QLQ- BM22). [Clinical Trials]

Study Chair. Prospective analysis of antiemetic medication prescribed for radiation induced emesis for patients in the Rapid Response Radiotherapy Program. [Clinical Trials]

Study Chair. Assessing the quality of life in patients with brain metastases using the European Organization for Research and Treatment of Cancer Brain Module (EORTC QLQ- BN20). [Clinical Trials]

Study Chair. Validation of the brain module to accompany European organization for research and treatment of cancer quality of life group core questionnaire (the EORTC QLQ-C30) for future clinical trials in patients with brain metastases. [Clinical Trials]

Study Chair. Multi-Lingual validation of the EORTC QLQ-BM22. [Clinical Trials]

Study Chair. Examining urinary markers for dexamethasone metabolism, inflammatory cytokines and bone marker turnover following the dexamethasone prophylaxis of pain flare. [Clinical Trials]

Study Chair. Dexamethasone for the prophylaxis of radiation-induced pain flare following palliative radiotherapy for bone metastases - A Phase II study. [Clinical Trials]
Study Chair. Examining urinary markers of pain flare in patients undergoing external beam radiotherapy in the treatment of bone metastases. [Clinical Trials]

Study Chair. Examining the incidence of pain flare following external beam radiotherapy in the treatment of bone metastases. [Clinical Trials]

Study Chair. Shortening the European Organization for Research and Treatment of Cancer Bone Metastases Module (EORTC QLQ-BM22). [Clinical Trials]

Study Chair. A prospective cohort study of androgen independent prostate cancer patients receiving Zoledronic Acid. [Clinical Trials]

Study Chair. A Phase II study of early integration of Zoledronic Acid with radiotherapy to bone in the treatment of painful bone metastases in prostate cancer. [Clinical Trials]

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   Accurate survival prediction is difficult, but important, in medical decision-making. A predictive model for survival in metastatic cancer patients attending an outpatient palliative radiotherapy clinic was developed using simple clinical prognostic factors. We have successfully validated the simpler model in an independent series of patients. This model can be used to guide clinical decisions, plan supportive services and allocate resource use. This manuscript has been selected to be accompanied by an editorial.


   Optimal dose fractionation in the treatment of bone metastases remains controversial. This was a meta-analysis of all published randomized radiation trials in bone metastases, and provides evidence that single fraction radiation therapy results in the same degree of pain relief in uncomplicated bone metastases when compared with multiple treatments.


   We are one of the first centers reporting that pain flare is common following external beam radiotherapy for bone metastases. This is the first publication that describes the potential role of dexamethasone as a prophylaxis for radiation-induced pain flare. Data from this study led to a randomized study sponsored by National Cancer Institute of Canada Clinical Trials Group (PI Edward Chow) that has been approved to open in 2009. International trial groups such as RTOG and TROG have expressed interest to join.

Symptom cluster research is in its infancy. We have published several papers in this area on bone metastases and brain metastases. Here we identified symptom clusters at baseline, and we also followed their interactions after the administration of palliative radiotherapy. This publication was accompanied by an editorial commenting the merits of the research. This work has also led to an ongoing effort by RTOG to repeat the same research in their randomized trial on bone metastases.


This is the first published paper examining the accuracy of survival prediction by palliative radiation oncologists. Most of the survival estimates are far from accurate, often in the overly optimistic direction. The paper recommends clinicians should employ validated predictive models to formulate the length of survival.

2. **PEER-REVIEWED PUBLICATIONS**

Journal Articles


86. Dennis K, Poon M, Chow E. Rapid access palliative radiation therapy programs: an efficient model of care. Future Oncol. 2015;11(17):2417-2426. **Senior Responsible Author.**


90. Chow R, Chiu L, Navari R, Passik S, Chiu N, Popovic M, Lam H, Pasetka M, Chow E, DeAngelis C. Efficacy and safety of olanzapine for the prophylaxis of chemotherapy-induced nausea and vomiting (CINV) as reported in Phase I and II studies: a systematic review. Supportive Care in Cancer. 2015;24(2):e342-e348. **Senior Responsible Author.**


Edward L.W. CHOW


244. Lutz S, Chow E. A Review of Recently Published Radiotherapy Treatment Guidelines for Bone Metastases: Contrasts or Convergence? J Bone Oncol. 2012;1(1):18-23. **Co-Principal Author.**


380. Li K, Hadi S, Kirou-Mauro A, **Chow E.** When should we define the response rates in the treatment of bone metastases by palliative radiotherapy? Clin Oncol. 2008;20:83-89. **Principal Author.**


410. Harris K, Li K, Flynn C, **Chow E**. Worst, average or current pain in brief pain inventory: which should be used to calculate response to palliative radiotherapy in patients with bone metastases? Clin Oncol. 2007;19:523-527. **Senior Responsible Author.**

411. Li K, Harris K, Hadi S, **Chow E**. What should be the optimal cutpoints for mild, moderate and severe pain? J Palliat Med. 2007;10(6):1338-1346. **Senior Responsible Author.**


417. Fan G, Sinclair E, Christakis M, Erhlich L, Zubovits J, **Chow E**. Solitary bone metastasis beneath the shoulder shield: coincidence or cause. Curr Oncol. 2006;13(4):121-123. **Senior Responsible Author.**


427. Li K, Fung K, Sinclair E, Danjoux C, Barnes E, Tsao M, **Chow E**. Correlation of pain scores with functional interference in the Brief Pain Inventory. Curr Oncol. 2005;12(2):37-43. **Senior Responsible Author.**


459. Wu J, Bezjak A, **Chow E**, Kirkbride P. Treatment endpoints following palliative radiotherapy for painful bone metastases: Need for a consensus definition? Clin Oncol. 2002;14:70-77. **Coauthor or Collaborator.**


466. **Chow E**. Survival of patients with bone metastases enrolled in randomized trials of palliative radiotherapy. Curr Oncol. 2002;9(3):67-71. **Co-Principal Author.**


481. **Chow E**, Danjoux C. A need for mentoring in academic radiation oncology. Curr Oncol. 1999;6:103-105. **Principal Author**.

482. Danjoux C, **Chow E**. Creating a supportive mentoring environment for academic radiation oncology. Curr Oncol. 1999;6:106-107. **Co-Principal Author**.


**Editorials**


2. Rowbottom L, McDonald R, Chan S, **Chow E**, Henry B. Implications and thoughts on physician-assisted death. *Journal of Pain Management*. 2016;9(3). **Coauthor or Collaborator.**

3. Vuong S, DeAngelis C, **Chow E**. Has pain management improved over the last decade in the Rapid Response Radiotherapy Program? *Current Opinion in Supportive and Palliative Care*. 2016;10(1):3-4. **Senior Responsible Author.**


Letters to Editor


### 3. NON-PEER-REVIEWED PUBLICATIONS

#### Journal Articles


2. Harris K, Chow E. Patients’ and health care professionals’ (HCPs) perspectives on the most important quality of life issues in bone metastases. EORTC Quality of Life Group Newsletter. 2007(6):4-6. Spring. **Senior Responsible Author.**


5. Chow E. What is ductal carcinoma in situ? In Stride. 2002;8. Spring. **Principal Author.**


7. Chow E. What’s involved in cancer clinical trials? In Stride. 2002;4-6. Winter. **Principal Author.**
Edward L.W. CHOW


Books


Books Edited


Book Chapters


Edward L.W. CHOW


Edward L.W. CHOW


Book Reviews


Invited Reviews


4. SUBMITTED PUBLICATIONS

**Journal Articles**


7. Wong E, Rowbottom L, Tsao M, Zhang L, McDonald R, Danjoux C, Barnes E, Chan S, Chow E. Prognostic value of baseline and changes in quality of life in predicting survival of patients with brain metastases. CNS Oncology. 2016. **Senior Responsible Author.**


Edward L.W. CHOW


Editorials


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Mar 21 Visiting Professor. What have we learned from recent bone metastases radiation trials. Liaoning Cancer Hospital & Institute. Liaoning, Shenyang, China.


2013 Nov Palliative Care. 2013 Best of ASTRO. San Diego, California, United States. Presenter(s): Edward Chow.


2013 Mar Invited Speaker. The added challenges of bone metastases treatment in elderly patients. Hong Kong College of Radiologists. Hong Kong, Hong Kong.


2012 Nov Invited Speaker. Bone metastases palliative radiotherapy---obstacles and challenges. Association of
Edward L.W. CHOW

Italian Radiation Oncologists 2012 Annual Congress. Rome, Roma, Italy.


2012 May Bone metastases treatment in the elderly patients: the added challenges of bone metastases treatment in elderly patients. ESTRO-CARO joint symposium. Barcelona, Spain.

2012 Mar Development and validation of EORTC BM 22 bone metastases module. Department of Clinical Oncology, Prince of Wales Hospital, The Chinese University of Hong Kong. Hong Kong, China.

2012 Mar Development and validation of EORTC BM 22 bone metastases module. Taipei-Veterans General Hospital, School of Medicine, National Yang-Ming University. Taipei, Taiwan, Province Of China.

2012 Mar Implication of EORTC BM 22 Questionnaire in breast cancer patients with bone metastases. Pre-meeting of annual meeting of Taiwan Association of General Surgery. Taipei, Taiwan, Province Of China.


2009 Mar Bone Metastases: Quality of Life – Whose Perspectives. VU University Medical Center, department of Neurology, Medical Center Haaglanden. The Hague, Netherlands.


2008 Jan Symptom clusters: concepts, measurement and opportunities for research. RTOG scientific Meeting. San Diego, California.


2007 Jun Modern management of bone metastases. Department of Clinical Oncology, Tuen Mun Hospital. Hong Kong, China.

2007 Jun Bone metastases module. Faculty of Medicine. Showa University School of Medicine and Ritsumeikan University. Tokyo and Shiga, Japan.


2007 Apr Bone metastases module. Zenith Meeting. Prague, Czech Republic.

2007 Mar Bone metastases research. Department of Radiation Oncology, Mount Vernon Hospital. Middlesex, United Kingdom.
2006 Aug  **Plenary speaker.** Survival prediction in geriatric cancer patients. Cancer care in an aging population. Medical Oncology Group of Australia/Faculty of Radiation Oncology Annual Scientific Meeting. Queensland, Australia.

2006 Aug  Bone metastases research. Department of Radiation Oncology, Sydney Cancer Centre/Royal Prince Alfred Hospital, University of Sydney. Sydney, Australia.

2006 Aug  Bone metastases research. Department of Clinical Oncology, Prince of Wales Hospital, The Chinese University of Hong Kong. Hong Kong, China.

2006 Aug  Bone metastases research. Department of Clinical Oncology, Queen Mary Hospital, The University of Hong Kong. Hong Kong, China.

2006 Aug  Modern management of bone metastases. Breakfast session. Medical Oncology Group of Australia/Faculty of Radiation Oncology Annual Scientific Meeting. Queensland, Australia.

2006 May  Bone metastases module. EORTC Quality of Life Group Spring meeting. Paris, France.


2005 Mar  Pain and structural effects of external beam radiotherapy. Fifth International Conference on Cancer-Induced Bone Disease (CIBD). Davos, Switzerland.


2002 Jun  International consensus on palliative radiotherapy endpoints for future clinical trials in bone metastases. 18th UICC International Cancer Congress. Oslo, Norway.

**Presented Abstracts**

2013 Sep  **Presenter.** Response and quality of life outcomes in a randomized trial of single vs. multiple fractions for re-irradiation of painful bone metastases: NCIC CTG SC.20. American Society for Radiation Oncology Annual Meeting. Atlanta, Georgia, United States. Presenter(s): Edward Chow.

2011 Jun  Update on the systematic review in palliative radiotherapy trials for bone metastases. MASCC/ISOO 23rd International Symposium Supportive Care in Cancer. Toronto, Ontario, Canada.


Edward L.W. CHOW

2004 Jun  Prospective assessment of quality of life following whole brain radiotherapy for brain metastases. MASCC/ISOO 16th International Symposium Supportive Care in Cancer. Miami Beach, Florida.


2002 Jun  A predictive model for survival in metastatic cancer patients attending an outpatient palliative radiotherapy clinic. 18th UICC International Cancer Congress. Oslo, Norway.


1999 Nov  Palliation of bone metastases: a survey of patterns of practice in Canada. 6th Hong Kong International Cancer Care Conference. Hong Kong.


1999 Sep  Radiotherapy for unresectable or marginally resectable osteosarcoma. The European Cancer Conference. Vienna, Austria.


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2015 Presenter. Quality of life and symptom burden in breast cancer patients across the continuum. MASCC /

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2015
Inadequacy of palliative training in the medical school curriculum. MASCC/ISOEO International Symposium on Supportive Care in Cancer. Presenter(s): Chiu N, Cheon P, Lutz S, Lao N, Pulenzas N, Chiu L, McDonald R, Leigha R, Chow E.

Publication Details:
Inadequacy of palliative training in the medical school curriculum. Supportive Care Cancer. 2015;23((Suppl 1)):S72-S73. Senior Responsible Author.

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2015 Update on the management of chemotherapy induced nausea and vomiting – focus on palonosetron. MASCC/ISOO International Symposium on Supportive Care in Cancer. Presenter(s): Zhou M, Popovic M, Pasetka M, Pulenzas N, Chow E, DeAngelis C.

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Publication Details:
Rowbottom L, David E, McDonald R, Chow E. Radio-frequency ablation assisted cementoplasty of a lytic acetabular lesion. Supportive Care Cancer. 2015;23((Suppl 1)):S42. Senior Responsible Author.

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Comparison of radiological changes before and after stereotactic body radiation therapy for non-spine bone metastases. MASCC/ISOO International Symposium on Supportive Care in Cancer. Presenter(s): Tan C M, Le P, Chow E, Chin L.

Publication Details:
Tan C M, Le P, Chow E, Chin L. Comparison of radiological changes before and after stereotactic body radiation therapy for non-spine bone metastases. Supportive Care Cancer. 2015;23((Suppl 1)):S41. Coauthor or Collaborator.

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Lao N, Probyn L, McDonald R, Rowbottom L, Popovic M, Pulenzas N, Vuong S, Chow E. Sclerotic humeral metastasis at risk of fracture. Supportive Care Cancer. 2015;23((Suppl 1)):S42-S43. **Senior Responsible Author.**

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International patterns of practice in radiotherapy for bone metastases: a review of the literature. MASCC/ISOO International Symposium on Supportive Care in Cancer. Presenter(s): McDonald R., Lam H, Chow E, Rowbottom L, Soliman H.

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McDonald R., Lam H, Chow E, Rowbottom L, Soliman H. International patterns of practice in radiotherapy for bone metastases: a review of the literature. Supportive Care Cancer. 2015;23((Suppl 1)):S279. **Coauthor or Collaborator.**

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Outcomes after whole-brain reirradiation for multiple brain metastases: total dose is associated with improved overall survival. American Society for Radiation Oncology (ASTRO). Presenter(s): Logie N,

**Publication Details:**

2015
Urinary cytokines/chemokines as markers of pain flare in patients with painful bone metastases undergoing external beam radiation therapy. Canadian Association of Radiation Oncologists (CARO); American Society for Radiation Oncology (ASTRO). Presenter(s): Bushehri A, Pasetka M, Dennis K, Hird A, Azad A, **Chow E**.

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Sources of pain in a patient with metastatic prostate cancer, Paget’s disease and renal failure. MASCC (Multinational Association of Supportive Care in Cancer).

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International patterns of practice for the treatment of painful bone metastases with palliative radiotherapy from 1993 to 2013. MASCC (Multinational Association of Supportive Care in Cancer).

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Palonosetron in chemotherapy-induced nausea and vomiting: are statistically significant differences always clinically important? MASCC (Multinational Association of Supportive Care in Cancer).

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Symptom clusters using the functional living index – emesis instrument in patients with gastrointestinal cancer receiving radiotherapy treatments. MASCC (Multinational Association of Supportive Care in Cancer).
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2014 Karnofsky performance status and change in overall survival over five years. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Symptoms and quality of life in patients with brain metastases receiving whole brain radiation therapy. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Muscular metastases arising from squamous cell carcinoma of the lung. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Pathological fracture from metastatic bone disease of an unknown primary cancer. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Palliative radiotherapy for brain and bone metastases from a papillary thyroid carcinoma. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Comparison of three shortened questionnaires for assessment of quality of life in advanced cancer. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Symptom clusters analysis in bone metastases patients using the European organization for research and treatment of cancer quality of life questionnaire bone metastases module (EORTC QLQ-BM22). MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Radiotherapy for a cervix cancer patient with Ehlers-Danlos syndrome: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Pain relief from palliative radiation therapy in a patient with cervical spine bone metastases. MASCC
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2014 Does cumulative dose of repeat whole brain radiotherapy correlate with survival: a pooled multicentre analysis. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Breakthrough cancer pain: a comparison of surveys with European and Canadian patients. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Quality of life after palliative radiotherapy in bone metastases: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Relatively asymptomatic presentation in a young man with widespread renal cell carcinoma. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Accomplishments of students working in the rapid response radiotherapy clinic: a ten year review. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Spinal cord compression as a first presentation of cancer: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 A systematic review and meta-analysis of radiotherapy for the prophylaxis of heterotopic ossification. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 The EORTC QLQ-BN20 for assessment of quality of life in patients receiving treatment or prophylaxis for brain metastases: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Review of brain metastases research in the rapid response radiotherapy program (RRRP). MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Prognostic value of pre-treatment and changes in health-related quality of life for survival in patients with multiple brain metastases treated with whole brain radiotherapy. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Factors influencing health related quality of life in cancer patients with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).
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Comparison of the EORTC QLQ-LC13 and the FACT-L for assessment of quality of life in patients with lung cancer. MASCC (Multinational Association of Supportive Care in Cancer).

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Comparison of the EORTC QLQ-BR23 and the FACT-B for the assessment of quality of life in patients facing breast cancer: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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Comparison of the EORTC QLQ-BN20 and the FACT-Br quality of life questionnaires for patients with primary brain tumours: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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Rasch analysis of the EORTC QLQ-BM22 module to assess health-related quality of life in patients with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

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Minimal clinically important differences in the EORTC QLQ-BN20 in patients with brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).
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2014 Survival of patients with multiple brain metastases treated with whole brain radiotherapy. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Correlating symptoms with survival in patients with multiple brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Bone and lung metastases 13 years after initial early stage breast cancer diagnosis: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Avascular necrosis of the femoral head in a patient with metastatic breast cancer. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Review of symptom cluster research in the rapid response radiotherapy program (RRRP). MASCC (Multinational Association of Supportive Care in Cancer).

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2014 A case report of chronic lymphocytic leukemia and multiple myeloma. MASCC (Multinational Association of Supportive Care in Cancer).

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2014 Symptom clusters in patients with brain metastases treated with radiation – 3 different statistical analyses. MASCC (Multinational Association of Supportive Care in Cancer).

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Gender differences in symptoms experienced by advanced cancer patients: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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Metastatic lung cancer to spine, liver and adrenal gland in a 27 year old female: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

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Primary synovial sarcoma of the distal femur: a rare case report. MASCC (Multinational Association of Supportive Care in Cancer).

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Optimization of a surgical approach for validation studies in the spine. MASCC (Multinational Association of Supportive Care in Cancer).

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Multiple myeloma as a second primary malignancy in a prostate cancer patient: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

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Phase II study of aprepitant and granisetron for the prophylaxis of radiotherapy-induced nausea and vomiting (RINV) following moderately-emetogenic radiotherapy for bone metastases: preliminary results. MASCC (Multinational Association of Supportive Care in Cancer).

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Feasibility study of a daily diary for assessing the prevalence of radiation induced emesis (RIE). MASCC (Multinational Association of Supportive Care in Cancer).

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Quality of life in patients with advanced cancers using the functional assessment of cancer therapy-
general assessment tool: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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2013 Comparing prognostic factors in patients with spinal metastases: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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2013 Quality of life in patients with primary and metastatic brain tumors as assessed by the FACT-Br: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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2013 Quality of life in patients with primary and metastatic brain cancers as reported in the literature using the EORTC QLQ-BN20 and QLQ-C30. MASCC (Multinational Association of Supportive Care in Cancer).

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2013 Content validation of the brain symptom and impact questionnaire (BASIQ) in patients and health-care professionals to assess quality of life in patients with brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).

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2013 Minimal important differences in the EORTC QLQ-C30 to determine meaningful change for patients with advanced cancer. MASCC (Multinational Association of Supportive Care in Cancer).

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Incidence of skeletal morbidity rates over time in patients with multiple myeloma-related bone disease as reported in randomised trials employing bone-modifying agents. MASCC (Multinational Association of Supportive Care in Cancer).

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Patterns of practice in the prescription of palliative radiotherapy for bone metastases at the rapid response radiotherapy program from 2005 to 2012. MASCC (Multinational Association of Supportive Care
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2013 Symptom clusters in patients with metastatic cancer: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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2013 Patterns of practice in the prescription of palliative radiotherapy for the treatment of thoracic symptoms at the rapid response radiotherapy program between 2006 and 2012. MASCC (Multinational Association of Supportive Care in Cancer).

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2013 Single fraction palliative radiotherapy in the treatment of bone metastases with soft tissue mass. MASCC (Multinational Association of Supportive Care in Cancer).

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2013 The accuracy of clinicians’ prediction of survival and prognostic factors indicative of survival: a systematic literature review. MASCC (Multinational Association of Supportive Care in Cancer).

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2012 Quality of life of brain metastases patients receiving stereotactic radiosurgery using the EORTC QLQ-C15-PAL and the EORTC QLQ BN20+2. MASCC (Multinational Association of Supportive Care in Cancer).

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2012 Predictive factors for overall quality of life in advanced cancer patients from EORTC QLQ C30. MASCC (Multinational Association of Supportive Care in Cancer).

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2000

Prospective evaluation of the effectiveness of radiotherapy in providing pain relief for bony metastases and the impact of response criteria definition. 42nd Ann Mtg Amer Soc Ther Rad Oncol.

Publication Details:

1999


Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

1999 Impact of new technology on radiation therapy treatment deviations at TSRCC. 41st Ann Mtg Amer Soc Ther Rad Oncol.

Publication Details:

1999 Impact of new technology on radiation therapy treatment deviations at TSRCC. Ann Mtg Eur Soc Ther Rad Oncol.

Publication Details:


Publication Details:

1996 Oct Enhanced radiocurability of cervical lymph node metastases arising from nasopharyngeal carcinoma
compared with nodal metastases from other head and neck squamous cell carcinomas. 38th Annual Meeting American Society for Therapeutic Radiology and Oncology. Los Angeles, California.

**Publication Details:**

1996 Enhanced control by radiotherapy of cervical lymph node metastases arising from nasopharyngeal carcinoma compared with nodal metastases from other head and neck squamous cell carcinomas. 38th Ann Mtg Amer Soc Ther Rad Oncol.

**Publication Details:**

## 2. NATIONAL

### Invited Lectures and Presentations

**2013 Jun 14** Invited Speaker. A randomized trial of single versus multiple fractions (Fx) for re-irradiation (RE-RT) of painful bone metastases (PBM): NCIC CTG SC.20. First Best of ASCO Canada Conference. Toronto, Ontario, Canada.


### Presented Abstracts

**2013 Sep** Presenter. An intergroup randomized trial of single vs. multiple fractions for re-irradiation of painful bone metastases: NCIC CTG SC.20. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada. Presenter(s): Edward Chow.


### Presented and Published Abstracts

**2013** Repeat whole brain radiotherapy for multiple brain metastases: Does biologically equivalent dose correlate with survival? Canadian Association of Radiation Oncologists (CARO).
Publication Details:

2007

Publication Details:

2007
Pain flare following radiotherapy for painful bone metastases: A joint effort of three cancer centres to determine the incidence. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

2007
Review of the rapid response radiotherapy program at an outpatient cancer centre. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

2007
Quality of life and symptoms of patients treated with whole brain radiotherapy. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

2006
Involvement of family physicians in the care of patients receiving palliative radiotherapy. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

2006

Publication Details:

2006
Patients’ and health care professionals’ perspectives on the most important quality of life issues in bone metastases. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

Publication Details:

2005  Pain and structural effects of external beam radiotherapy. 5th Ann Conf Canc.

Publication Details:

2001  Phase II study assessing the effectiveness of biafine cream as a prophylactic agent for radiation-induced acute skin toxicity to the breast in women undergoing radiotherapy with concomitant CMF chemotherapy. Ann Mtg Can Assoc Radiol.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2000


Publication Details:

2000


Publication Details:

2000

Evaluation of our first year experience of new combined Bone Metastases Clinic. Canadian Society for Clinical Investigation (CSCI).

Publication Details:

1998


Publication Details:

1998


Publication Details:

1996


Publication Details:
### 3. PROVINCIAL / REGIONAL

#### Invited Lectures and Presentations

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 Sep</td>
<td>Palliative care round on latest advances in the endocrine treatment of breast cancer. Scarborough Community Care Access Centre.</td>
<td></td>
</tr>
<tr>
<td>2005 Sep</td>
<td>Introduction to radiation therapy with a focus on palliative radiation. The Royal Victoria Hospital of Barrie.</td>
<td></td>
</tr>
<tr>
<td>2005 Apr</td>
<td>To know or not to know - that is the question. 15th Annual Ontario Provincial Conference on Palliative and End-of-Life Care. Toronto, Ontario.</td>
<td></td>
</tr>
<tr>
<td>2004 Sep</td>
<td>Palliative care round on management of bone metastases. Scarborough Community Care Access Centre.</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>2003 Mar</td>
<td>Survival prediction – how important is it and how good are we? 13th Annual Hospice Palliative Care Conference. Toronto, Ontario.</td>
<td></td>
</tr>
<tr>
<td>2002 Jan</td>
<td>Survival prediction: how important is it and how good are we? Grand Round, Scarborough General Hospital. Scarborough, Ontario.</td>
<td></td>
</tr>
</tbody>
</table>

**Presented Abstracts**

<table>
<thead>
<tr>
<th>Year</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 Apr</td>
<td>Update of the international consensus on palliative radiotherapy endpoints for bone metastases. 2011 Annual Hospice Palliative Care Conference. Toronto.</td>
</tr>
<tr>
<td>2010 Apr</td>
<td>Radiation treatment of bone metastases----biased or evidence based. 2010 Annual Hospice Palliative Care Conference. Toronto.</td>
</tr>
<tr>
<td>2010 Apr</td>
<td>Radiation treatment of bone metastases----biased or evidence based. 2010 Annual Hospice Palliative Care Conference. Toronto.</td>
</tr>
<tr>
<td>2009 Apr</td>
<td>Determining the accuracy of health care professionals in predicting the survival of patients with advanced metastatic cancer. 2009 Annual Hospice Palliative Care Conference. Toronto.</td>
</tr>
<tr>
<td>2009 Apr</td>
<td>Validation of meaningful change in pain scores in the treatment of bone metastases. 2009 Annual Hospice Palliative Care Conference. Toronto.</td>
</tr>
<tr>
<td>2001 Apr</td>
<td>How accurate are physicians’ clinical prediction of survival and the available prognostic tools in estimating survival times of terminally ill cancer patients - a systematic review. Palliative Care 11th Annual Conference. Toronto, Ontario.</td>
</tr>
<tr>
<td>1999 Apr</td>
<td>New combined bone metastases clinic: the ultimate one stop for cancer patients with bony metastases. The annual Palliative Care Conference. Toronto, Ontario.</td>
</tr>
</tbody>
</table>
4. LOCAL

**Invited Lectures and Presentations**

2014 Sep 16  **Invited Speaker.** Management of Advanced Cancer with Palliative Radiotherapy. Purdue Pharma. Toronto, Ontario, Canada. Presenter(s): Chow E, Tsao M, Danjoux C.


**Presented and Published Abstracts**


*Publication Details:*
Ten years experience of a research student project (2004-2013) The Odette Cancer Centre Rapid Response Radiotherapy Program.

5. OTHER

**Presented and Published Abstracts**

2014  Prognostic significance of changes in symptom severity with survival following whole brain radiotherapy in patients with multiple brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).

*Publication Details:*

2014  Rapid onsets of pain flare and pain relief following palliative radiotherapy in a patient with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

*Publication Details:*
## G. Research Supervision

### 1. PRIMARY OR CO-SUPERVISION

#### Undergraduate Education

<table>
<thead>
<tr>
<th>Period</th>
<th>Primary Supervisor</th>
<th>Supervisee</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Jan - present</td>
<td>Primary Supervisor</td>
<td>B. Sc. Stephanie Chan</td>
<td>2nd Year, University of Waterloo.</td>
</tr>
<tr>
<td>2015 Sep - present</td>
<td>Primary Supervisor</td>
<td>B. Sc. Vithusha Ganesh</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2014 Aug - present</td>
<td>Primary Supervisor</td>
<td>B. Sc. Leigha Rowbottom</td>
<td>3rd year, University of Waterloo.</td>
</tr>
<tr>
<td>2014 - present</td>
<td>Primary Supervisor</td>
<td>B. Sc. Rachel McDonald</td>
<td>3rd year undergraduate student, University of Waterloo.</td>
</tr>
<tr>
<td>2015 Sep - 2015 Dec</td>
<td>Primary Supervisor</td>
<td>B. Sc. Sherlyn Vuong</td>
<td>Research Assistant, University of Waterloo.</td>
</tr>
<tr>
<td>2012 - 2014</td>
<td>Primary Supervisor</td>
<td>B. Sc. Gillian Bedard</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2012 - 2014</td>
<td>Primary Supervisor</td>
<td>B. Sc. Erin Wong</td>
<td>Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo.</td>
</tr>
<tr>
<td>2012</td>
<td>Primary Supervisor</td>
<td>B. Sc. Michael Poon</td>
<td>Queen’s University.</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>Primary Supervisor</td>
<td>B. Sc. Michelle Zhou</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>Primary Supervisor</td>
<td>B. Sc. Gemma Cramarossa</td>
<td>McMaster University.</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>Primary Supervisor</td>
<td>B. Sc. Rehana Jamani</td>
<td>McMaster University.</td>
</tr>
<tr>
<td>2011 - 2012 Jun</td>
<td>Primary Supervisor</td>
<td>B. Sc. Emily Chen</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2011</td>
<td>Primary Supervisor</td>
<td>B. Sc. Karen Lien</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2010 - 2012 Aug</td>
<td>Primary Supervisor</td>
<td>B. Sc. Kaitlin Koo</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2010 - 2012 Aug</td>
<td>Primary Supervisor</td>
<td>B. Sc. Liang Zeng</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2010</td>
<td>Primary Supervisor</td>
<td>B. Sc. Justin Kwong</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2010</td>
<td>Primary Supervisor</td>
<td>B. Sc. Cassandra Uy</td>
<td>McMaster University.</td>
</tr>
<tr>
<td>2010</td>
<td>Primary Supervisor</td>
<td>B. Sc. Karrie Wong</td>
<td>McMaster University.</td>
</tr>
<tr>
<td>2010</td>
<td>Primary Supervisor</td>
<td>B. Sc. Esther Chan</td>
<td>University of Waterloo.</td>
</tr>
</tbody>
</table>
Edward L.W. CHOW

Awards: 2011 Co-op Student of the Year for Faculty of Science, University of Waterloo; 2011 North America Co-op Education & Internship Association - Honorable mention.

2009

2009
Primary Supervisor. B. Sc. Roseanna Presutti. Supervisee Institution: University of Waterloo. Awards: 2009 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo
2009 Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo
2009 Canadian Association for Co-operative Education Co-op Student of the Year - Honorable mention
2013-2014 Ontario Graduate Scholarship.

2009

2008 - 2011
2008 Co-op Student of the Year for Faculty of Science, University of Waterloo - Honorable mention
2010 Co-op Student of the Year for Faculty of Science, University of Waterloo
2011 International Scholarship Foundation, Scholarship of $10,000.

2008
Primary Supervisor. B. Sc. Nadia Salvo. Supervisee Institution: University of Waterloo. Skin Prophylaxis. Awards: 2008 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo; 2010-2011 Ontario Graduate Scholarship; 2011 University of Toronto Medical School Alex G Climans scholarship preadmission best research award.

2008

2008

2008

2007 - 2008
Primary Supervisor. B. Sc. Amanda Hird. Supervisee Institution: University of Waterloo. Dexamethasone pain flare project. Awards: 2007 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo
2007 Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo
2007 Canadian Association for Co-operative Education Co-op Student of the Year - Honorable mention
2007 Michael and Karyn Goldstein Travelling Award
2007 Education at Work Ontario Co-op Student of the Year Nominee.

2007 - 2008
Primary Supervisor. B. Sc. Candi Flynn. Supervisee Institution: University of Waterloo. Testicular cancer module development. Awards: Scholarship for MSc Degree in Clinical Epidemiology, University of Western Ontario
2008-2010 Ontario Graduate Scholarship
2009 Master’s Studentship Award, Heart and Stroke Foundation of Ontario
2009 CIHR MSc Scholarship
2010 Have a Heart Bursary Program Award, Canadian Cardiovascular Society Academy.

2007 - 2008

2007
2010-2012 Ontario Graduate Scholarship.

2006 - 2008
Length of stay in hospice care. Awards: 2006 Laura Talbot-Allan Award, Faculty of Applied Health Sciences, University of Waterloo.

2006 - 2008  
**Primary Supervisor.** B. Sc. Andrea Kirou-Mauro. Supervisee Institution: McMaster University. *Patient/Proxy correlation of ESAS.*

2006 - 2008  
**Primary Supervisor.** B. Sc. Eric De Sa. Supervisee Institution: York University. *Patterns of Practice at RRRP.*

2006 - 2008  
**Primary Supervisor.** B. Sc. Philiz Goh. Supervisee Institution: University of Waterloo. *Prostate bone metastases.* Awards: 2006 Seymour Schulich Award in Nursing, University of Toronto; 2008 Hal Rogers Endowment Award; 2008 National Education & Research Award, Canadian Nursing Student’s Association; 2008 Donner Wheeler Nursing Career Scholarship, Registered Nurses’ Foundation of Ontario; 2009 Hosinec Family Scholarship 2010 Lippincott Williams & Wilkins (LWW) Nursing Poster Presentation Award; 2010 University of Toronto Faculty of Nursing Gordon Cressy Student Leadership Award 2010 University of Toronto Student.

2006 - 2008  

2006 - 2007  

2006  
**Primary Supervisor.** B. Sc. Sukirtha Tharmalingam. Supervisee Institution: University of Waterloo. *Bone metastases module.* Awards: Patients’ and health care professionals’ perspectives on the most important quality of life issues in bone metastases. Young investigator award. MASCC/ISOO 18th International Symposium Supportive Care in Cancer, Toronto, Canada, June 2006 Scholarship for MSc Degree in Epidemiology, University of Toronto Ontario Graduate Scholarship.

2006  

2006  

2005 - 2006  
**Primary Supervisor.** B. Sc. Hannah Chiu. Supervisee Institution: University of Waterloo. *Gender difference in bone metastases.*

2005 - 2006  
**Primary Supervisor.** B. Sc. Kristin Harris. Supervisee Institution: University of Waterloo. *Gender difference in brain metastases and bone metastases module development.* Awards: New Investigator Scholarship, 13th Annual Conference of the International Society for Quality of Life Research, Lisbon, Portugal, October 2006; 2006 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo; 2006 Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo; 50th Anniversary Co-op Student Award, University of Waterloo; 2006 University Canadian Association for Co-operative Education Co-op Student of the Year 2006.

2004 - 2005  
**Primary Supervisor.** B. Sc. Meagan Doyle. Supervisee Institution: University of Waterloo. *Decadron prophylaxis in the pain flare from radiation treatment of bone metastases.* Awards: 2006 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo City of Thunder Bay Medical Student Award.

2004  
**Primary Supervisor.** B. Sc. Kathy Li. Supervisee Institution: University of Waterloo. *Brief Pain Inventory.* Awards: Scholarship for MSc Degree in Clinical Epidemiology and Biostatistics, McMaster University Scholarship for PhD Degree in Health Policy Program, McMaster University Ontario Graduate Scholarship for Diploma in Health Sciences and Policy Program, Ontario Training Centre.

2003 - 2006  
**Primary Supervisor.** B. Sc. Nicole Bradley. Supervisee Institution: University of Waterloo.
Symptom distress in patients attending an outpatient palliative radiotherapy clinic. Awards: The Best Oral Presentation Award. 15th Annual Ontario Provincial Conference on Palliative and End-of-Life Care, Toronto Ontario, April 2005
2005 Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo
2005 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo.

2003 - 2004
**Primary Supervisor.** B. Sc. Maria-Theresa de Borja. Supervisee Institution: University of Toronto. *Correlation among patients and health care professionals in assessing functional status using the Karnofsky and ECOG performance status scales.* Awards: Ed Carpen Award for the most outstanding technical or scientific student exhibit at the Ontario Association of Medical Radiation Technologists' Annual General Conference, April 2004, The Best Poster Award 14th Annual Ontario Provincial Conference on Palliative and End of Life Care, Toronto, Ontario, April 2004 Canadian Association of Medical Radiation Technologists' Dr. Marshall Mallet Student Exhibit Award, 2004, University of Toronto Radiation Sciences Program Research Project Award 03-04.

2003 - 2004
**Primary Supervisor.** B. Sc. Michelle Greig. Supervisee Institution: University of Toronto. *Level of concordance between proxy and patient’s ratings in brief pain inventory.*

2003 - 2004
**Primary Supervisor.** B. Sc. Leila Makhani. Supervisee Institution: McMaster University. *Correlation of pain relief from spinal bone metastases with palliative radiotherapy.*

2003
**Primary Supervisor.** B. Sc. Vivian Yau. Supervisee Institution: University of Toronto. *Patient expectation with palliative radiotherapy of bone metastases.*

2003
**Primary Supervisor.** B. Sc. Alison Ling. Supervisee Institution: University of Toronto. *Prospective validation of a predictive model for survival in terminally ill cancer patients.*

2002 - 2003

2000 - 2001
**Primary Supervisor.** B. Sc. Alison Ling. Supervisee Institution: Guelph University. *Pain flare post radiotherapy on bone metastases.*

**Graduate Education**

2002
**Primary Supervisor.** MSc. Carol Gillies. Supervisee Institution: Anglia Polytechnic University, Cambridge, U.K. *An integrated clinic model for the multidisciplinary management of bone metastases.*

**Undergraduate MD**

2014 May - 2014 Aug
**Primary Supervisor.** Year 1. Paul Cheon, Medical Science. Supervisee Institution: University of Toronto.

**Postgraduate MD**

2010 - 2012
**Primary Supervisor.** Clinical Fellow. Dr. Kristopher Dennis. *Functional interference due to pain following palliative radiotherapy for bone metastases among patients in their last three months of life.* Awards: 2011-2013 CIHR fellowship award The Best Abstract in Supportive Care and Symptom Control Award. CARO Annual Conference, Winnipeg, Manitoba, September 2011.

2006

2006
**Primary Supervisor.** Clinical Fellow. Dr. Alysa Fairchild. *Has the pattern of practice in the prescription of palliative thoracic radiotherapy for lung cancer changed between 1999 and*
2006 at the RRRP? Awards: Young Investigator’s Award, MASCC 19th International Symposium Supportive Care in Cancer, St. Gallen, Switzerland, June 2007.

2006


2001 - 2002


2. OTHER SUPERVISION

Undergraduate Education

2003 - 2006

Curriculum Vitae

William Chu
Clinician Investigator, B.Sc., M.Sc., M.D., F.R.C.P.C.

A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

Primary Office
Odette Cancer Center
Sunnybrook Health Sciences Centre
2075 Bayview Ave, T2-175
Toronto, Ontario, Canada
M4N 3M5
Telephone (416) 480-5000, Ext. 4982
Email william.chu@sunnybrook.ca

1. EDUCATION

Degrees
2003 MD, Health Sciences, Faculty of, McMaster University, Hamilton, Ontario, Canada
1997 MSc, Neurology and Neurosurgery, McGill University, Montreal, Canada
1993 BSc, Honours Biochemistry (Specialist - Molecular Biology), Biochemistry, McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training
2008 - 2009 Fellow, Radiation Oncology and Imaging Research, Odette Cancer Center and Sunnybrook Research Institute, University of Toronto, Toronto, Ontario, Canada
2007 - 2008 Chief Resident, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2003 - 2008 Radiation Oncology Specialist Training, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2008 - present Fellow, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2013 Jul 1 - present Courtesy Staff, The Scarborough Hospital, Toronto, Ontario, Canada
2013 Jul 1 - present Courtesy Staff, Rouge Valley Hospital, Toronto, Ontario, Canada
2013 Jul 1 - present Courtesy Staff, Toronto East General Hospital, Toronto, Ontario, Canada
2009 - present Affiliate Scientist, Sunnybrook Research Institute, Sunnybrook Health Sciences Centre,
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2006  Translational Research Travel Grant, American Society for Therapeutic Radiology and Oncology. (Distinction)
2005  ECCO/AACR/ASCO Fellowship, 7th Joint Workshop on Methods in Clinical Cancer Research, Flims, Switzerland. (Distinction)

LOCAL
Received
2015 Oct  A Sunnybrook Moment of Service Excellence, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction)
2008 - 2009  Fellowship, University of Toronto. (Research Award, Specialty: Radiation Oncology and Imaging Research)
2006  W.J. Simpson Award, University of Toronto. (Research Award)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
2006 - present  American Society for Therapeutic Radiology and Oncology
2006 - present  European Society for Therapeutic Radiology and Oncology
2003 - present  Canadian Association of Radiation Oncology
2003 - present  Canadian Medical Association
2003 - present  Ontario Medical Association

Administrative Activities

LOCAL
Cancer Care Ontario
2012 - present  External Reviewer, Program in Evidence Based Care, Toronto, Ontario, Canada.
2014 Jun - 2014 Dec  Member, Colorectal Cancer QBP Pathway Committee, Toronto, Ontario, Canada.
William CHU

Dept of Radiation Oncology, University of Toronto


2011 - 2012 Organizing Committee, Target Insight VI - Forging the HypoFractination Frontier: SBRT, HDR Brachytherapy and Beyond - May 3-4, 2012, Ontario, Canada.

Sunnybrook Health Sciences Centre - Odette Cancer Center

2015 Jan - present Lead, MRI Linac Consortium, GI Tumour Site Group, Toronto, Ontario, Canada.
2014 Jul - present Supervisor, OCC GU Resident Rotation Coordinator, Toronto, Ontario, Canada.
2013 OCC Head-Medical Physics Search Committee, Toronto, Ontario, Canada.
2010 - 2011 Member, Sunnybrook/OCC Mixed Use Steering Committee, Ontario, Canada.
2009 - 2012 Member, MRI Sim Operations Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2009 - 2010 Member, Sunnybrook Clinical Research Centre Committee

UHN/Princess Margaret Cancer Centre & SHSC/Odette Cancer Centre

2013 Sep - present Member, UT DRO Competency to Practice (Planning) Exam Committee, Toronto, Ontario, Canada.
Collaborating and consulting with DRO staff colleagues in order to prepare and execute the annual UT DRO PGY4 and PGY5 Competency to Practice (Planning) Exam.

University of Toronto

2011 - 2012 Member, Strategic Plan Implementation Committee, Department of Radiation Oncology
2009 - 2012 Reviewer, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2007 Member, External Review Committee, Royal College of Physicians and Surgeons of Canada, Department of Radiation Oncology
2006 - 2007 Member, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2003 - 2008 Member, Postgraduate Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2012 - present Journal of Cancer Research and Therapeutics
2010 - present Clinical Oncology
2009 - present International Journal of Radiation Oncology, Biology, Physics

PRESENTATION REVIEWS
Reviewer
2012 Nov - 2013 Jun The International Stereotactic Radiosurgery Society Congress 2013
C. Academic Profile

1. RESEARCH STATEMENTS

Advanced Imaging and Radiation Therapy.
My research focuses on novel functional MRI and ultrasound technologies to interrogate carcinogenesis and monitor radiotherapeutic response, the integration of advanced imaging technologies into radiation treatment planning and delivery, and innovative ablative treatment strategies. My clinical focus is on genitourinary and gastrointestinal malignancies.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED

Stereotactic body radiotherapy (SBRT) is an emerging radiation therapy technique that delivers high doses of radiation with very high precision to a small tumor target. It is a definitive treatment option for an increasing variety of primary tumors including the lung, liver and prostate. SBRT is now a standard treatment option at the Odette Cancer Centre (OCC) for patients with renal cell carcinoma (RCC) who are either ineligible for surgery or decide against it. The principal aim of this study is to prospectively assess quality of life and outcomes in patients who receive kidney SBRT.

A multi-centre phase II study conducted in Canada to look at the role of SBRT in delaying the need to change systemic therapy in patients who develop oligo-progression while on Sutent. In essence, it is exploring a new way of using radiotherapy in the management of metastatic cancer in conjunction with systemic therapy.


Principal Investigator - Canadian Lead. The PACE trial (Prostate Advances in Comparative Evidence) - International randomized study of laparoscopic prostatectomy vs stereotactic body radiotherapy (SBRT) and conventionally fractionated radiotherapy vs SBRT for early stage organ-confined prostate cancer. Prostate Cure Foundation. PI: Chu, William. Collaborator(s): van As N, (Chief investigator - Royal Marsden), Loblaw A, Cheung P, Morton G, Vesprini D, Chung H, Szumacher E. 750,000 CAD. [Grants]


*Sponsor: Motorcycle Ride for Dad - Award.*


2010 - 2013 **Co-Investigator.** Radiosensitization with bevacizumab for stereotactic body radiotherapy (SBRT) for colorectal liver metastases. Hoffman-La Roche Limited. PI: Ko Y and Chung H. Collaborator(s): **Chu, W**, Milot L, Czarnota G. 72,930 CAD. [Clinical Trials]


2009 - 2010 **Principal Investigator.** Functional imaging of the prostate cancer metabolome with hyperpolarized 13C-MSRI. Prostate Cancer Canada. PCC Pilot Grant Program. Collaborator(s): Chen A, Cunningham C. 59,520 CAD. [Grants]

*Abbott - CARO Uro-Oncologic Radiation Award (ACURA).*

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**E. Publications**

1. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


Book Chapters


Abstract


2. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2006 **Presenter.** Image-Guided Radiotherapy with Cone-Beam CT after Prostatectomy: Evaluating the Impact
on PTV Margin. European Society for Therapeutic Radiology and Oncology (ESTRO) 25. Leipzig, Germany.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2016 Jun 23 Radiological changes on CT after stereotactic body radiation therapy to non-spine bone metastases: A

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Feb


2014 Sep 14

Evaluation of immobilization on target localization for image-guided kidney/adrenal SBRT. ASTRO. San Francisco, California, United States. Presenter(s): Sonier M, **Chu W**, Korol RM. **Publication Details:**

2014 Sep 14

Quality of life in patients treated with stereotactic ablative body radiotherapy (SABR) for liver metastases. American Society for Radiation Oncology. San Francisco, California, United States. Presenter(s): Thibault I, **Chu W**, Chan KK, Erler D, Chow E, Chung H. **Publication Details:**
Thibault I, **Chu W**, Chan KK, Erler D, Chow E, Chung H. Quality of life in patients treated with stereotactic ablative body radiotherapy (SABR) for liver metastases. International Journal of Radiation Oncology, Biology, and Physics. 2014 Sep;90(1S):S709. **Co-Principal Author.**

2014 Sep 14


2013 Jun 16


2012

Comparison of acute toxicity in patients treated with a 4-field box or IMRT to deliver elective pelvic nodal irradiation for localized high-risk prostate cancer. ASCO, Genito-Urinary Cancer Symposium. San Francisco, California, United States. Presenter(s): Jain S, Cheung P, Loblaw A, Morton G, Danjoux C,
Szumacher E, Chu W, Chung H, Vesprini D, Sahgal A, Zhang L, Deabreu A.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2008 High-frequency detection of cell death: Assessment of chemotherapy, radiotherapy, photodynamic therapy and novel microbubble-therapy effects. Ultrasonic Imaging and Tissue Characterization (UITC)

**Publication Details:**

**2007 Oct**

**Publication Details:**

2007

**Publication Details:**

2007
Ultrasound imaging and spectroscopy of cancer radiation therapy effects. American Association for Cancer Research (AACR) Annual Meeting. Los Angeles, California, United States. Presenter(s): Czarnota, GJ, **Chu W**, Giles A, Kolios MC.

**Publication Details:**
Czarnota, GJ, **Chu W**, Giles A, Kolios MC. Ultrasound imaging and spectroscopy of cancer radiation therapy effects. AACR Proceedings. 2007; (Abstract 5484). [Coauthor or Collaborator.](#)

2007

**Publication Details:**

2007

**Publication Details:**
Czarnota GJ, Giles A, Kolios MC, **Chu W**. High-frequency ultrasound monitoring of apoptosis in response to radiation. AACR Annual Meeting Proceedings. 2007; In Press. [Coauthor or Collaborator.](#)

2007
Publication Details:
**Chu W**, Kolios MC, Czarnota GJ. Functional imaging of apoptosis in human tumours with high-frequency ultrasound imaging and spectroscopy. J Ultrasound Med. 2007;In Press. **Principal Author.**

2007

Publication Details:

2006

Publication Details:
Ultrasound Imaging and Spectroscopy of Cancer Therapy Effects.

2006

Publication Details:
**Chu W**, Kolios MC, Czarnota GJ. Ultrasound imaging and spectroscopy of cancer therapy effects. Int J Radiat Oncol Biol Phys. 2006;66(S571):649. **Principal Author.**

2003
Improved Outcome of Children with Acute Myeloid Leukemia (AML) Treated with the Chemotherapy Protocol MRC AML10 at a North American Center - Central Role of Intensive Supportive Care. American Society of Hematology (ASH) Annual Meeting. San Diego, California, United States. Presenter(s): Das P, **Chu W**, Hitzler J, Sung L, Doyle J, Grant R.

Publication Details:
Das P, **Chu W**, Hitzler J, Sung L, Doyle J, Grant R. Improved Outcome of Children with Acute Myeloid Leukemia (AML) Treated with the Chemotherapy Protocol MRC AML10 at a North American Center - Central Role of Intensive Supportive Care. Blood. 2003;102(11). Abstract 2277. **Coauthor or Collaborator.**

1998
Effect of human neuronal apoptosis on Alzheimer disease-related protein expression and metabolism. Neuroscience Annual Meeting. Los Angeles, California, United States. Presenter(s): LeBlanc A, **Chu W**, Goodyer C.

Publication Details:
LeBlanc A, **Chu W**, Goodyer C. Effect of human neuronal apoptosis on Alzheimer disease-related protein expression and metabolism. Neuroscience Annual Meeting. 1998;In Press. **Coauthor or Collaborator.**

1998
p53 and p21 abnormalities in the human hepatocyte cell line HH29. World Congresses of Gastroenterology. Vienna, Austria. Presenter(s): Gilmour S, **Chu W**, Yang S, Malkin D, Roberts E.

Publication Details:
Gilmour S, **Chu W**, Yang S, Malkin D, Roberts E. p53 and p21 abnormalities in the human hepatocyte cell line HH29. World of Congresses of Gastroenterology. 1998;In Press. **Coauthor or Collaborator.**

Oral Presentation

2016 May 7
**Presenter.** MR-HIFU mild hyperthermia for sensitization of radiation and chemotherapy for recurrent rectal cancer: First phase I clinical trial results. International Society for Magnetic Resonance in Medicine
2. NATIONAL

Invited Lectures and Presentations


Presented and Published Abstracts


Publication Details:


Publication Details:
planning CT scan for prostate cancer (randomized study). In Press. 2016. **Coauthor or Collaborator.**

**2016 Sep 14**

**Acute quality of life changes after stereotactic ablative radiotherapy for liver metastasis: A prospective cohort analysis.** Canadian Association of Radiation Oncology CARO. Banff, Alberta, Canada. 


*Publication Details:* 

**2014 Aug 25**

**Quality of life in patients treated with stereotactic ablative body radiotherapy (SABR) for liver metastases.** Canadian Association of Radiation Oncology. St. John’s, Newfoundland and Labrador, Canada. 

*Presenter(s): Thibault I, Chan KK, **Chu W**, Erler D, Chow E, Chung H.*

*Publication Details:* 
Thibault I, Chan KK, **Chu W**, Erler D, Chow E, Chung H. Quality of life in patients treated with stereotactic ablative body radiotherapy (SABR) for liver metastases. International Journal of Radiation Oncology, Biology, Physics. 2014;90(1):S709-710. **Coauthor or Collaborator.**

**2014 Aug 25**

**4DCT simulation with synchronized contrast injection of liver SBRT patients.** Canadian Organization of Medical Physicists. Banff, Alberta, Canada. 

*Presenter(s): Karotki A, Milot L, **Chu W**, Korol R, Erler D, Chung H.*

*Publication Details:* 
Thibault I, Chan KK, **Chu W**, Erler D, Chow E, Chung H. 4DCT simulation with synchronized contrast injection of liver SBRT patients. International Journal of Radiation Oncology, Biology, Physics. 2014;In Press. **Coauthor or Collaborator.**

**2009**

**Potential benefit of adaptive radiation therapy following prostatectomy.** Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Canada. 

*Presenter(s): Craig T, **Chu W**, Odedal D, Wiltshire K, Chan K, Warde P, Catton C, Menard C.*

*Publication Details:* 

**2007**

**Evaluating Image-Guided Radiotherapy with Cone-Beam CT after Prostatectomy: Can we Reduce the PTV Margin?** Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Toronto, Ontario, Canada. 

*Publication Details:* 
Evaluating Image-Guided Radiotherapy with Cone-Beam CT after Prostatectomy: Can we Reduce the PTV Margin?.

**2006**

**Ultrasound Imaging and Spectroscopy of Cancer Therapy Effects.** Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Calgary, Alberta, Canada. 

*Publication Details:* 
Ultrasound Imaging and Spectroscopy of Cancer Therapy Effects.

**Oral Presentation**

**2016 Sep 14**

**Stereotactic Body Radiotherapy for Liver Metastases: Impact on Systemic Treatment Strategy.** Canadian Association of Radiation Oncology CARO. Banff, Alberta, Canada. 

*Presenter(s): Aldehaim M, Helou J, Chung H, Erler D, Korol R, Davidson M, Zhang L, **Chu W**.*
2013 Sep 20  Impact of Immodilization on Treatment Delivery Precision for Liver SBRT. CARO COMP 2013 Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Korol R, Wronski M, Lochray F, **Chu W**, Chung H.


**Poster**


2013 Sep 18  Quality Comparison of VMAT and IMRT Treatment Planning and Delivery for Liver SBRT. CARO COMP 2013 Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Wronski M, Korol R, **Chu W**, Chung H.

### 3. LOCAL

#### Invited Lectures and Presentations

2015 Sep 20  **Presenter.** Magnetic Resonance-Guided High Intensity Focused Ultrasound for Recurrent Rectal Cancer. Colorectal Cancer Association of Canada. Oakville, Ontario, Canada. Presenter(s): **Chu W**.

2015 Feb 2  **Presenter.** MR-guided Focused Ultrasound Hyperthermia for Recurrent Rectal Cancer. OCC GI Rounds. Toronto, Ontario, Canada. Presenter(s): **Chu W**.

2013 Oct 23  **Presenter.** The Emerging Role of Stereotactic Radiotherapy for Medically Inoperable Renal Cell Carcinoma. Annual Toronto East General Hospital-Sunnybrook Health Sciences Centre GU Meeting. Toronto, Ontario, Canada. TEGH-OCC CME Event. (Continuing Education).

2013 Oct 21  **Lecturer.** Local Ablative Radiation Techniques. University Health Network. Toronto, Ontario, Canada. Presenter(s): Chung H, Cheung P, **Chu W**. Monday Morning Lectures for DSO Clinical Fellows (speakers and lectures for all clinical fellows in the Department of Surgical Oncology). (Trainee Presentation).


2013 Jun 17  **Presenter.** Stereotactic Body Radiotherapy for Malignant Liver Lesions. 11th International Stereotactic Radiosurgery Society Congress. Toronto, Ontario, Canada. Presenter(s): **Chu W**. Poster Presentation.


2013 Apr 10  **Presenter.** Stereotactic Radiotherapy Ablation for Renal Cell Carcinoma in Poor Surgical Candidates. Sunnybrook Odette Cancer Centre w/Juravinski Cancer Centre. Mississauga, Ontario, Canada. Presenter(s): **Chu W**. Annual GU Conversations Meeting 2013.


2012 May 3  Presenter. Clinical Indications for liver SBRT. Target Insight VI, Forging the hypoFractionation Frontier: SBRT, HDR Brachytherapy and Beyond, University of Toronto. Toronto, Ontario, Canada.


1999  Presenter. CYP3A4 and cancer risk. Symposium on Genetic Variation in Metabolism and Cancer Risk, Centre for Research in Women's Health. Toronto, Ontario, Canada.

G. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

Development and Implementation of MR-Guided Focused Ultrasound for Recurrent Rectal CA.
Principal Investigator (First-in-human trial).

The PACE Trial - International Randomized Study of Laparoscopic Prostatectomy vs Stereotactic Body Radiotherapy (SBRT) and Conventionally Fractionated Radiotherapy vs SBRT for Early Stage Organconfined Prostate Cancer.
Principal Investigator (Canadian-lead).

Stereotactic Body Radiotherapy for Renal Cell Carcinoma.
Principal Investigator (National Prospective Trial).

Stereotactic Radiotherapy for Liver Tumours.
Co-Principal Investigator.
2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

Development and Implementation of Unified UT DRO Anal Canal Cancer Treatment Protocol at OCC.

Development and Implementation of Renal Cell Cancer Stereotactic Treatment Protocol at OCC.
Curriculum Vitae

Caroline Chung
BSc, MSc, MD, FRCPC, CIP

A. Date Curriculum Vitae is Prepared: 2016 September 22

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Cancer Centre
610 University Ave
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946-6513
Fax (416) 946-2227
Email caroline.chung@rmp.uhn.on.ca

1. EDUCATION

Degrees
2008 - 2010 MSc, Institute of Medical Science, University of Toronto
1999 - 2003 MD, The University of British Columbia
1995 - 1999 BSc, Biochemistry – Molecular Biology and Genetics, The University of British Columbia

Postgraduate, Research and Specialty Training
2008 - 2010 Clinician Investigator Program, The University of British Columbia, Canada
2008 - 2010 Research Fellow, Radiation Oncology, Princess Margaret Hospital
2003 - 2008 Radiation Oncology Residency, The University of British Columbia

Qualifications, Certifications and Licenses
2008 Jun Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2005 - 2011 License, Ontario College of Physicians and Surgeons
2005 General Medical License, British Columbia
2004 Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2015 Aug - present Clinician-Scientist (cross-appointment), Joint Division of Medical Imaging, University Health Network, Toronto, Ontario, Canada
2012 Sep - present Lead, Brain Metastasis Clinic, University Health Network - Princess Margaret Cancer Centre, Toronto, Ontario, Canada
2012 - present Clinician-Scientist, Ontario Association of Radiation Oncologists, Ontario, Canada
2011 Jul 1 - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto,
Previous Appointments

HOSPITAL
2011 - 2012 Radiation Oncologist, Radiation Oncology, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada
2009 Jul 1 - 2010 Jun 30 Chief Fellow, Radiation Oncology, Radiation Oncology, University of Toronto, Princess Margaret Cancer Centre, Toronto, Ontario, Canada
2007 Jan 1 - 2008 Jan 1 Chief Resident, Radiation Oncology, Radiation Oncology, University of British Columbia, BC Cancer Agency, Vancouver, British Columbia, Canada

RESEARCH
2013 Aug - 2015 Apr Member, Ontario Cancer Research Ethics Board, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2015 Jan - 2015 Dec Marquis Who’s Who in the World. (Distinction)
For over 110 years, Marquis Who’s Who® has been the gold standard for biographical information, trusted by academic and public libraries. The 2015 32nd edition of Who’s Who in the World provides concise, accurate biographies of renowned individuals from around the world, representing virtually every major field of human endeavor.
2014 Jan - 2015 Dec Alliance for Clinical Trials in Oncology Alliance Scholar Award, Alliance for Clinical Trials in Oncology Foundation. (Research Award)
Total Amount: 88,000 USD

NATIONAL
Received
2007 Best Resident Poster Award, Canadian Association of Radiation Oncology. (Research Award)
2000 Summer Research Award in Medicine, Medical Research Council of Canada. (Research Award)

PROVINCIAL / REGIONAL
Received
2010 Jun Best Oral Presentation, The University of British Columbia, Vancouver, British Columbia, Canada. (Distinction, Specialty: Clinician Investigator Program)
2010 Scholarship, Government of Ontario. (Distinction)
2009 Jun Best Oral Presentation, The University of British Columbia, Vancouver, British Columbia, Canada. (Distinction, Specialty: Clinician Investigator Program)

LOCAL
Received
2015 Jun Research Productivity 2014/2015, Princess Margaret Cancer Centre - Radiation Medicine
Caroline CHUNG

Program, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)

2014 Jun

Chief’s Choice for 2014/2015, Princess Margaret Cancer Centre - Radiation Medicine Program, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)

2013 Sep

Outstanding Research Potential Award, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)

2012 Jul

Postgraduate Medical Education Excellence in Research Supervision Award, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)

2010 Oct

Department of Radiation Oncology Chair’s Award, University of Toronto, Toronto, Ontario, Canada. (Distinction)

2007

Barbara Allan Scholarship in Medicine, The University of British Columbia. (Distinction)

2006

Barbara Allan Scholarship in Medicine, The University of British Columbia. (Distinction)

2006

CanMeds Role Resident in Radiation Oncology Award, The University of British Columbia. (Distinction)

2005

Resident Research Day Oral Presentation Award, The University of British Columbia. (Distinction)

2003

Tommy Diespecker Memorial Medical Prize, The University of British Columbia. (Distinction)

2003

Victoria Herman Van Dine Scholarship in Medicine, The University of British Columbia. (Distinction)

2002

Louis Lipsey Toohill Scholarship, The University of British Columbia. (Distinction)

2001

Connie and Sam Carlin Scholarship, The University of British Columbia. (Distinction)

OTHER

Received

2007

Betty Rice Memorial Award for Lung Cancer Research, BC Cancer Agency, British Columbia, Canada. (Research Award)

Teaching and Education Awards

LOCAL

Received

2015

Chief’s Choice Award, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre

Chief’s Choice for 2014/2015 Award: Mind over Matters.

2015

RMP Research Award, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre


2014 Sep

Master of Health Science in Medical Radiation Sciences Best Guest Lecturer Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. (Postgraduate MD)

2013 Sep

Postgraduate Medical Education Excellence in Research Supervision Award, Dept of Radiation Oncology, Faculty of Medicine, Toronto, Ontario, Canada. (Postgraduate MD, Residents and Fellows, Specialty: Radiation Oncology)

2013 Jun

Best Academic Half-day Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre, Toronto, Ontario, Canada. (Specialty: Radiation Oncology)

2012 Jun

Best Academic Half-Day Teaching, Dept of Radiation Oncology, Faculty of Medicine. (2012)
2012 Jun **Best Teaching Activity**, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre. (Multilevel Education)

Nominated

2012 Jun **Clinical Teaching Award**, Dept of Radiation Oncology, Faculty of Medicine, Radiation Medicine Program Princess Margaret Hospital

2012 Jun **Professional Mentorship Award**, Dept of Radiation Oncology, Faculty of Medicine, Radiation Medicine Program Princess Margaret Hospital

**Student/Trainee Awards**

**INTERNATIONAL**

Received

2012 May **Trainee Educational Stipend**, Awardee Name: Lee SL. International Society for Magnetic Resonance in Medicine, Australia

**LOCAL**

Received

2013 Jun **Best Fellows’ Oral Presentation Award**, Radiation Oncology, primary supervisor, Awardee Name: Minh-Thi Tieu. Princess Margaret Cancer Centre, Toronto, Ontario, Canada

2012 Jun **Best Resident Poster Award**, Radiation Oncology, primary supervisor, Awardee Name: Goldie Kurtz. Princess Margaret Hospital/University of Toronto, Toronto, Ontario, Canada

4. **PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

**Professional Associations**

2014 Dec 8 - present **Member**, Jumpstarting Brain Tumor Drug Development Coalition’s Imaging Standardization Steering Committee

2014 Dec - present **Member**, Radiological Society of North America

2014 Dec - present **Lead - Research Subcommittee**, Society of Palliative Radiation Oncology (ASTRO)

2012 Nov - present **Lead - Organs-at-risk Standardization Committee**, Gamma Knife Society

2012 Nov - present **Member**, Society of Neuro-Oncology

2012 - present **Member**, International Society of Radiosurgery

2012 - present **Co-Director**, Women in Cancer

2011 - present **Member**, Alliance for Clinical Trials in Oncology

2011 - present **Member**, Flims Alumni Club

2011 - present **Member**, Korean American Medical Association

2011 - present **Member**, Korean American Society for Therapeutic Radiology and Oncology

2010 - present **Member**, American Association for Cancer Research (AACR)

2010 - present **Member**, American Society for Therapeutic Radiology and Oncology (ASTRO)

2010 - present **Member**, Canadian Medical Association (CMA)

2010 - present **Member**, International Society for Magnetic Resonance in Medicine (ISMRM)

2010 - present **Member**, Ontario Medical Association (OMA)

2008 - present **Member**, International Relations Working Group (CARO)
2010 - 2015 Apr  Member, British Columbia Medical Association (BCMA)

**Administrative Activities**

**INTERNATIONAL**

**Alliance**
2012 - present  Member, Neurooncology Committee
2012 - present  Member, Imaging Committee

**Gamma Knife Society**
2013 - present  Co-Chair, Gamma Knife Standardization Working Group
2012 - 2013  Member, Gamma Knife Standardization Working Group

**Women in Cancer**
2012 - present  Co-Chair, Women in Cancer

**NATIONAL**

**Canadian Association of Radiation Oncology (CARO)**
2009 - present  Member, CIC Working Group
2008 - present  Member, Symptom Control Advisory Group
2005 - present  Member, Manpower Committee

**Canadian Breast Cancer Symposium**
2012 - 2013  Member, Conference Organizing Committee

**PROVINCIAL / REGIONAL**

**Professional Association of Residents of British Columbia**
2004 - 2007  Program Representative for Radiation Oncology
2003 - 2004  Program Representative for St Paul’s Hospital PGY-1

**LOCAL**

**Department of Radiation Oncology, Princess Margaret Cancer Centre**
2012 Feb - 2014 Jan  Secretary, Radiation Oncology Partnership Executive

**The University of British Columbia**
2006 - 2007  Chief Resident of Radiation Oncology, Residency Training Committee, Postgraduate MD
2006  Resident Representative, Radiation Oncology CaRMs Selection Committee, Postgraduate MD
2005 - 2006  Resident Representative, Residency Training Committee, Postgraduate MD

**University of Toronto**
2012 - present  Secretary, Oncology Executive Committee, Faculty of Medicine, Dept of Radiation Oncology
2011 - present  Member, Strategic Initiative Committee: Metastatic and recurrent disease research, including building the best metastatic disease management program in the world
2009 - 2010  Member, Academic Communications Committee, Faculty of Medicine, Dept of Radiation
Oncology

2009 - 2010

**Fellow Representative**, Residency Training Committee, U of T/Dept of Radiation Oncology, Postgraduate MD

2009 - 2010

**Chief Fellow of Radiation Oncology**

**Peer Review Activities**

**MANUSCRIPT REVIEWS**

**Reviewer**

2015 Feb - present  Oncotarget, Number of Reviews: 1
2015 Jan - present  Clinical Cancer Research, Number of Reviews: 4
2015 Jan - present  Neurooncology, Number of Reviews: 2
2014 Aug - present  PLOS ONE, Number of Reviews: 3
2014 Mar - present  Medical Dosimetry, Number of Reviews: 2
2014 - present  Int J Radiat Oncol Biol Phys, Number of Reviews: 10
2013 Jul - present  Onkologie, Number of Reviews: 1
2013 Apr - present  Radiation Oncology, Number of Reviews: 1
2012 Sep - present  Journal of Thoracic Oncology, Number of Reviews: 3
2012 May - present  Leukemia and Lymphoma, Number of Reviews: 2
2012 Jan - present  International Journal of Radiation Biology, Number of Reviews: 4
2012 Jan  Annals of Surgical Oncology, Number of Reviews: 2
2010 Jul  Cancer, Number of Reviews: 8

**PRESENTATION REVIEWS**

**Reviewer**

2011 Sep - present  Canadian Association of Radiation Oncology, Number of Reviews: 6
2012 Dec  International Society of Radiosurgery, ISRS abstracts, Number of Reviews: 10
2012  Canadian Association of Radiation Oncology, Number of Reviews: 8

**ABSTRACT REVIEW**

**Reviewer**

2012 - present  CARO, Radiotherapy Oncology (supplemental - abstracts), Number of Reviews: 38
2014  Society of Neuro-Oncology, Number of Reviews: 20

**PROTOCOL REVIEW**

**Reviewer**

2012 Jun - present  Radiation Medicine Program Protocol Review Committee, Number of Reviews: 8

**PROTOCOL REVIEWER**

**Reviewer**

2013 Apr - present  Ontario Cancer Research Ethics Board, Number of Reviews: 2
2012 - present  Symptom Control Committee, Alliance, Number of Reviews: 3
Other Research and Professional Activities

THESIS PROJECT

2011 Mar  
**Master of Science.** Imaging Biomarkers of Response to Radiation and Anti-angiogenic Agents in Brain Tumors. Institute of Medical Science, University of Toronto.

C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly and Professional Activity.

Dr. Chung’s clinical practice includes the treatment of primary CNS malignancies, brain metastases and breast cancer. Her primary research interests have focused on personalized image-guided approaches for the management of brain tumors and metastases. Specifically, this includes the investigation of novel combinations of systemic therapy and radiosurgery for brain metastases and the evaluation of imaging biomarkers of both response and toxicity following treatment. With a translational approach, her preclinical work has included the investigation of conformal radiation in combination with targeted anti-angiogenic therapy in a murine intracranial brain tumor model with serial multiparametric MRI and biofluid measures to discover promising biomarkers of response to guide personalized treatment of brain tumors. The findings from this preclinical work have lead to several ongoing clinical trials evaluating serial MRI biomarkers in patients treated with radiosurgery as well as a Phase I dose-escalation trial of anti-angiogenic agent (Sunitinib) in concurrently with radiosurgery. In terms of image-guided therapy, Dr. Chung has also lead the early clinical evaluation of a novel image-guided Gamma Knife radiosurgery unit that incorporates cone-beam CT and infrared intrafraction motion-monitoring. In addition to tumor directed therapy, Dr. Chung is investigating imaging measures and potential treatments of radiation injury in the brain through her translational research and as the principal investigator of a multi-centred Phase II randomized clinical trial of bevacizumab + steroids vs. placebo + steroids through the Alliance for Clinical Trials in Oncology collaborative group.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2016 Apr - 2019 Apr  

2014 Jul - 2015 Jun  
**Principal Investigator.** Randomized Phase II Study: Corticosteroids + Bevacizumab vs. Corticosteroids + Placebo (BeSt) for Radionecrosis after Radiosurgery for Brain Metastases
International, multi-centered, double-blinded randomized phase II clinical trial of bevacizumab + corticosteroids vs. placebo + corticosteroids.

2014 Jan - 2015 Dec  Principal Investigator. Alliance for Clinical Trials in Oncology Alliance Scholar Award. Grant funding for correlative biomarkers for the research project entitled “Randomized Phase II Study: Corticosteroids + Bevacizumab vs. Corticosteroids + Placebo for Radionecrosis after Radiosurgery for Brain Metastases”.


2006  Principal Investigator. ACTION Research Grant for Neuropathic Pain Research. ACTION. 9,000.
2005 - 2013


*Amount: $3,000/patient.*

### NON-PEER-REVIEWED GRANTS

**FUNDED**

**2013 Jul - 2018 May**

**Site Investigator.** A double-blind, placebo-controlled, randomized, Phase IIIb trial evaluating the efficacy and safety of standard of care (SOC) +/- continuous bevacizumab treatment following progression of disease in patients with glioblastoma after first (1st)-line treatment with radiotherapy, temozolomide and bevacizumab. PI: Mason, W. Collaborator(s): Laperriere N, Millar BA. [Clinical Trials]

2013 Apr - 2015 Dec

**Principal Investigator.** Glycemic Interventions in Glioblastoma Outcomes (GIGO) Pilot Study. Gerry and Nancy Pencer Brain Tumor Centre. 50,000 CAD. [Grants]

2011 - 2014

**Co-Investigator.** Feasibility of a prospective, randomized trials comparing surgery versus radiosurgery for the treatment of single brain metastases. Department of Neurosurgery, Toronto Western Hospital. REB #: 10-0486-C. PI: Zadeh, G. Collaborator(s): Menard C, Bernstein M, Laperriere N, Millar BA, **Chung C** (Co-Investigators). 32,500. [Clinical Trials]

2010 - 2013

**Co-Principal Investigator.** A phase I study of stereotactic radiosurgery concurrent with sunitinib in patients with brain metastases. Pfizer Inc. (USA). REB#: 09-0115-C. PI: **Chung C**, Brade A. Collaborator(s): Mason W, Zadeh G, Menard C (Co-Investigators). 140,250. [Clinical Trials]

2009 - 2012

**Co-Investigator.** A randomized, double blind, placebo controlled, multicenter phase III trial of bevacizumab, temozolomide and radiotherapy, followed by bevacizumab and temozolomide versus placebo, temozolomide and radiotherapy followed by placebo and temozolomide in patients with newly diagnosed glioblastoma. F. Hoffmann-La Roche Ltd. (Basel, Switzerland). REB#: 09-036-OCREB. PI: Mason, W. Collaborator(s): **Chung C**, Millar BA, Laperriere N (Co-Investigators). 179,752. [Clinical Trials]

*$26,000/patient.*

### 2. SALARY SUPPORT AND OTHER FUNDING

**Personal Salary Support**

2012 Jul - present


2014 Jan


2011

Fellowship Grant for ECCO-AACR-EORTC-ESMO Methods in Clinical Cancer Research Workshop, Travel Grant. Canadian Radiation Oncology Foundation.

2007

Peter Poon Grant Proposal Competition, Travel Grant. BC Cancer Agency.

2006

2001  Summer Studentship Grant from Rehabilitation Medicine. University of British Columbia.


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

Journal Articles


34. Chung C, Stuart D, Keyes M. Radiation Recall Reaction Induced by Adjuvant Trastuzumab (Herceptin). Case Rep Med. 2009;2009(307894). **Principal Author.**


**Book Chapters**


Editorials


Medscape


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


4. SUBMITTED PUBLICATIONS

Journal Articles


**F. Presentations and Special Lectures**

**1. INTERNATIONAL**

**Invited Lectures and Presentations**

2015 Jun **Chair.** OAR Standardization Meeting. International Stereotactic Radiosurgery Society. Yokohama, Japan. Presenter(s): Chung C, Paddick I. Chair of the OAR Standardization Working Group supported by International LGKS and ISRS and co-Chair of this meeting.


2013 Oct 19 **Invited Speaker.** International Stereotactic Radiotherapy Symposium. MD Anderson Cancer Center. Houston, Texas, United States.


2012 Jul **Speaker.** Developing Non-invasive Biomarkers to Guide Multimodality Therapy of Brain Tumors. 30th Annual KAMA International Convention and Scientific Programs. Dana Point, California, United States.


**Presented Abstracts**


2014 Oct  Presenter. Prognostic Factors that Predict Durable Response and Survival with Salvage Radiosurgery for Brain Metastases. EORTC Brain Metastases Research and Emerging therapy Conference. Marseille, France. Presenter(s): Chung C.


2013 Sep 30 Screening patients for deep inspiration breath hold to reduce cardiac doses for adjuvant left breast irradiation. European Cancer Congress. Amsterdam, Netherlands. Presenter(s): R. Carlson, K. Hiemstra, S. Pearson, X. Qiu, A. Fyles, C. Chung. (Trainee Presentation).


2007 Detection of circulating tumour cells from peripheral blood samples by a novel cell concentration method.
and immunohistochemistry (IHC) compared with reverse-transcriptase-polymerase chain reaction (RT-PCR) in stage III and IV non-small cell lung cancer patients (NSCLC). 12th Annual World Lung Conference. Seoul, Korea, Republic Of. (Oral Presentation).

Presented and Published Abstracts

2015 Jun  
**Co-author**. Continuous Dose Delivery with Gamma Knife Perfexion. American Association of Physicists in Medicine. Anaheim, California, United States. Presenter(s): Ghobadi K.

*Publication Details:*  
Ghobadi K, Aleman D, Li W, Chung C, Jaffray D. Continuous Dose Delivery with Gamma Knife Perfexion. Medical Physics. 2015 Jun;42(6):3576. **Coauthor or Collaborator.**

2015 May  

*Publication Details:*  

2015 May  

*Publication Details:*  

2015  
Input Function Selection and T10 Correction on DCE-MRI Tumor Response Prediction Using Compared to Volumetric DCE CT. American Association of Physicists in Medicine. Anaheim, California, United States. Presenter(s): Coolens C.

*Publication Details:*  
Coolens C, Driscoll B, Foltz W, Chung C. Input Function Selection and T10 Correction on DCE-MRI Tumor Response Prediction Using Compared to Volumetric DCE CT. Medical Physics. 2015 Jun;42(6):3215. **Senior Responsible Author.**

2014 Dec  
Predictors of breast radiotherapy plan modifications: Quality assurance rounds in a large cancer centre. World Cancer Congress. Melbourne, Victoria, Australia. Presenter(s): Lymberiou T.

*Publication Details:*  

2014 Nov  
Delaying radiotherapy in 1p19q co-deleted and partull deleated gliomas. Society for Neuro-Oncology. Miami, Florida, United States. Presenter(s): McNamara M.

*Publication Details:*  

2014 Nov  
Prognostic value of early changes in neutrophil and lymphocyte measures during chemoradiotherapy for

Publication Details:


Publication Details:


Publication Details:

2014 Nov Delaying Radiotherapy In 1p19q Co-Deleted And Partially Deleted Gliomas. Society for Neuro-Oncology. Miami, Florida, United States. Presenter(s): McNamara M.

Publication Details:

2014 Sep Temozolomide for 1p19q co-deleted and partially deleted gliomas. European Society for Medical Oncology. Madrid, Spain. Presenter(s): McNamara MG.

Publication Details:

2014 Sep Reduction in neutrophil-lymphocyte ratio during initial concurrent chemoradiotherapy is prognostic for survival of glioblastoma patients. European Association of Neuro-Oncology. Turin, Italy. Presenter(s): Mason MT. (Trainee Presentation)

Publication Details:

2014 Sep Presenter. Clinical Evaluation of a Novel Thermoplastic Mask System with Intrafraction Motion Monitoring using IR Tracking and Cone-beam CT for Gamma Knife® Radiosurgery. American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco, California, United States. Presenter(s):
Chung C.

Publication Details:

2014 Sep
Impact of Immobilization on Intra-Fraction Motion for Gamma Knife Stereotactic Radiosurgery Using Cone-Beam Computed Tomography. American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco, California, United States. Presenter(s): Li W.

Publication Details:

2014 Sep
Predictors of breast radiotherapy plan modifications: quality assurance rounds in a large cancer centre. American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco, California, United States. Presenter(s): Lymberiou T.

Publication Details:

2014 Sep
A Multi-institutional Predictive Nomogram for Distant Brain Failure in Patients Treated with Upfront Stereotactic Radiosurgery Without Whole Brain Radiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco, California, United States. Presenter(s): Ayala-Peacock D.

Publication Details:

2014 May

Publication Details:

2014 May
Social media use amongst oncologists: Results of a national physician survey. American Society of Clinical Oncology. Chicago, Illinois, United States. Presenter(s): Adilman R.

Publication Details:

2013 Dec

Publication Details:

2013 Dec

Publication Details:

2013 Dec

Publication Details:

2013 Dec

Publication Details:

2013 Nov
Structure and reliability of the dexamethasone symptom questionnaire-chronic in primary or metastatic brain tumor patients. World Federation of Neuro-Oncology. San Francisco, California, United States. Presenter(s): Vera-Bolanos E.

Publication Details:

2013 Nov
Does time to first progression (TTP) impact post-progression survival in glioblastoma (GBM) in the temozolomide (TMZ) treatment era? World Federation of Neuro-Oncology. San Francisco, California, United States. Presenter(s): McNamara MG.

Publication Details:

2013 Nov
Glycemia impacts survival of glioblastoma patients treated with radiation and temozolomide. World Federation of Neuro-Oncology. San Francisco, California, United States. Presenter(s): Tieu M. (Trainee Presentation)

Publication Details:


2013 Sep  Factors impacting survival following second surgery in patients with glioblastoma (GBM) in the temozolomide (TMZ) treatment era, incorporating neutrophil/lymphocyte ratio (NLR) and time to first progression. European Cancer Congress. Amsterdam, Netherlands. Presenter(s): McNamara M.

*Publication Details:* McNamara M, Lwin Z, Jiang H, Templeton A, Zadeh G, Bernstein M, Chung C, Millar BA, Laperriere N, Mason WP. Factors impacting survival following second surgery in patients with glioblastoma (GBM) in the temozolomide (TMZ) treatment era, incorporating neutrophil/lymphocyte ratio (NLR) and time to first progression. European Journal of Cancer. 2013 Sep;49:S780-S781. **Coauthor or Collaborator.**

2013 Sep  Impact of endocrine therapy in early-stage breast cancer on time to locoregional recurrence. ASCO Breast Cancer Symposium. San Francisco, California, United States. Presenter(s): Menjak IB. (Trainee Presentation)

*Publication Details:* Menjak IB, Maki E, Berman HK, Chung C, McCready DR, Sridhar SS. Impact of endocrine therapy in early-stage breast cancer on time to locoregional recurrence. Journal of Clinical Oncology. 2013 Sep;31(26_supplement). **Coauthor or Collaborator.**


2012 Nov  **Presenter.** Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. American Society for Therapeutic Radiology and Oncology (ASTRO). Boston, Massachusetts, United States. Presenter(s): Chung C.


2012 Nov  Quantification of the magnetic susceptibility effects during MRI-guided radiosurgery of hemorrhagic brain metastases. American Society for Therapeutic Radiology and Oncology (ASTRO). Boston, Massachusetts, United States. Presenter(s): Stanescu T.
2012 Nov

Publication Details:

2012 Nov
Salvage Radiosurgery for Brain Metastases: Prolonged Survival with Durable Tumor Control. American Society for Therapeutic Radiology and Oncology (ASTRO). Boston, Massachusetts, United States. Presenter(s): Kurtz G. (Trainee Presentation)

Publication Details:

2012 Sep
Conditional Probability of Survival in Patients with Glioblastoma Multiforme in the Temozolomide Treatment Era. European Society of Medical Oncology (ESMO). Vienna, Austria. Presenter(s): McNamara M.

Publication Details:

2012 Sep
Presenter. Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. European Association of Neuro-Oncology (EANO). Marseille, France. Presenter(s): Chung C.

Publication Details:

2012 May 11

Publication Details:

2012 May
Radiotherapy for treatment of basal cell carcinoma of the medial canthal region. European Society for Therapeutic Radiology and Oncology (ESTRO) 31. Barcelona, Spain. Presenter(s): Herrmann E. (Trainee Presentation)

Publication Details:
Caroline CHUNG


2012 Mar 25

Initial performance characterization and clinical implementation of a novel image-guided system for Perfexion. 16th International Leksell Gamma Knife Society Meeting. Sydney, Australia. Presenter(s): Ruschin M.

Publication Details:

2012 Mar 25

Presenter. Radiosurgery for Brainstem Metastases. 16th International Leksell Gamma Knife Society Meeting. Sydney, Australia. Presenter(s): Chung C.

Publication Details:

2012


Publication Details:

2011 Nov

Identification of MRI biomarkers and histopathological alterations in response to combinatorial therapy with sunitinib and radiation in a murine model of glioma. Society for Neuro-Oncology in Conjunction with American Association of Neurological Surgeons. Orange County, California, United States. Presenter(s): Jalali S.

Publication Details:

2011 Oct

Evaluating setup reproducibility between a CT planning and gamma knife radiosurgery couch using a relocatable head frame. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Miami, Florida, United States. Presenter(s): Li W.

Publication Details:

2011 Oct


Publication Details:

2011 Jun

Final results: A phase I study of sorafenib and palliative radiation in patients with malignancy in the thorax, abdomen or pelvis. American Society of Clinical Oncology. Chicago, Illinois, United States. Presenter(s):
Brade AM.

Publication Details:

2010 Nov
Presenter. Intracranial murine tumor investigation of radiation and antiangiogenic agents using serial MRI. American Society for Therapeutic Radiology and Oncology (ASTRO). San Diego, California, United States. Presenter(s): Chung C.

Publication Details:

2010

Publication Details:

2007 Sep
Detection of circulating tumour cells from peripheral blood samples by a novel cell concentration method and immunohistochemistry (IHC) compared with reverse transcriptase-polymerase chain reaction (RT-PCR) in Stage III/IV Non-small cell lung cancer (NSCLC). International Association for the Study of Lung Cancer. Seoul, Seoul Teugbyeolsi [Seoul-T’ukpyolshi], Korea, Republic Of. Presenter(s): Chung C.

Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2015 May 1 Presenter. Corticosteroids + Bevacizumab vs. Corticosteroids + Placebo (BeSt) for Radionecrosis after Radiosurgery for Brain Metastases. NCIC CTG CEC.5. Radiation Forum NCIC CTG Spring Meeting. Toronto, Ontario, Canada. Presenter(s): Chung C.


2012 May 4 Invited Speaker. Personalized Treatment of Brain Tumors: Integrating Radiotherapy and Molecular Therapeutics. Target Insights VI. Toronto, Canada. (Continuing Education).

2011 Sep 14 Invited Lecturer. Stereotactic Radiotherapy – CNS, Eye and Breast. Canadian Association of Radiation
2013 Sep  

2012 Jun 26  
**Presenter.** Orthovoltage Radiotherapy for Medial Canthal Basal Cell Carcinoma. Canadian Ophthalmological Society Conference. Toronto, Ontario, Canada. Presenter(s): Krema H, Herrmann E, Albert-Green A, Payne D, Laperriere N, **Chung C.**

2012 Feb  
Identification of MRI Biomarkers and Histopathological Alterations in Response to Combinatorial Therapy with Antiangiogenic Agents and Radiation in a Murine Model of Glioma Tumor. 15th Biennial Canadian Neuro-oncology Meeting. Vancouver, British Columbia, Canada. Presenter(s): Jalali S, Foltz W, Burrell K, **Chung C,** Zadeh G.

2012  
**Presenter.** Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. Canadian Association of Radiation Oncology (CARO). Ottawa, Canada.

2011 Nov  
**Presenter.** Evaluating the Role of Pre-operative MRI to Guide Individualized Early Breast Cancer Treatment. Canadian Cancer Research Conference. Toronto, Ontario, Canada. Presenter(s): **Chung C.**

2011 Sep  

2011 Sep  
**Presenter.** Adult craniopharyngioma tumours: long-term outcomes in patients treated with radiation therapy. Canadian Association of Radiation Oncology (CARO). Ottawa, Ontario, Canada. Presenter(s): Masson-Cote L, Masucci L, Atenafu EG, Millar BA, **Chung C,** Menard C, Laperriere N, Payne D, Sahgal A.

2010 Sep  
**Speaker.** Intracranial Murine Tumour Investigation of Radiation and Antiangiogenic Agents using Serial MRI. Canadian Association of Radiation Oncology (CARO) 2010. Vancouver, British Columbia, Canada. (Oral Presentation).

2010  

2009 Sep  
**Presenter.** Development of a Canadian Palliative Radiation Oncology Curriculum. Canadian Association of Radiation Oncology (CARO) 2009. Quebec City, Quebec, Canada. Presenter(s): **Chung C.** (Poster Discussion).

2009  

2008  
**Presenter.** Detection of circulating tumour cells from peripheral blood samples by a novel cell concentration method and immunohistochemistry (IHC) compared with reverse transcriptase-polymerase chain reaction (RT-PCR) in Stage III/IV Non-small cell lung cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) 2008. Montreal, Quebec.

2007  
Pearl of Wisdom: Choosing Your Battles Wisely. Royal College of Physicians and Surgeons 1st Chief
Residents’ Workshop. Winnipeg, Manitoba. (Oral Presentation).


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2005 Sep Preliminary Validation of the RTOG Acute Skin Toxicity Scoring System in Patients Undergoing Adjuvant Radiotherapy for Breast Cancer. Canadian Association of Radiation Oncologist. Victoria, British Columbia, Canada. Presenter(s): Berthelet E.

Publication Details:


Publication Details:

T, Patterson K, Olivotto I.

Publication Details:


Publication Details:

Conference Organizing Committee

Other Lectures and Presentations

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2013 Jun 23 Invited Speaker. (Receptor-)Targeted Therapy for Breast Cancer. Medical Disease Management Symposium. Huntsville, Ontario, Canada. (Continuing Education).


Presented Abstracts


Facilitator, Discussion Leader


4. LOCAL

Invited Lectures and Presentations


2014 Aug Presenter. Highlights of Summer Series on Customer Satisfaction & where will we go from here? An open discussion on how we can enhance our patient experience at the Princess Margaret Cancer Centre. Summer Series Rounds, Princess Margaret Cancer Centre. Toronto, Canada.

2014 Jun 4 Visiting Professor. Changing landscape of brain mets management - including the growing potential to combine targeted therapies. Grand Rounds to the Department of Oncology Queen’s University. Kingston, Canada.


Presented Abstracts


Other Lectures and Presentations

2011 Speaker. Palliative Radiotherapy. Subspecialty Noon Rounds, Department of Medicine, Toronto General Hospital. Toronto, Ontario, Canada.


5. OTHER

Presented and Published Abstracts


Publication Details:
G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2012 Feb - present  UT-DRO Fellows Research Seminar, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 - present  Joint Neuro-Oncology Journal Club, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 - present  Resident Practice Drills, PGY 5, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2011 Sep - present  Principles of Radiation Oncology, Undergraduate MD, Faculty of Medicine, Dept of Medicine

Introductory lecture on the basic principles of Radiation Oncology to 2nd year medical students at the University of Toronto.

2006 - present  Radiation Oncology Palliative Care Curriculum Development, Postgraduate MD, Canadian Association of Radiation Oncologists

Resident Representative on SCADG (CARO)

• Creation of a national survey to assess the educational needs of Radiation Oncology Residents in the area of palliative care in Radiation Oncology.
• Creation of a national curriculum in the CanMEDS format to address these educational needs.

2014 May 1 - 2014 May 2  Target Insights VIII: 4PRT - Photons, Protons, Particles and Progress in Radiation Therapy, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Target Insight, now in its 8th year has been a mechanism to present targeted information to the radiation oncology community. In the recent past, this included the best practice use of advanced technologies such as IMRT, VMAT, IGRT and brachytherapy. This year the University of Toronto, The Hospital for Sick Children, Odette Cancer Centre, and Princess Margaret Cancer Centre are partnering together to bring the topic of Particle Therapy to the forefront of discussion for Canadians. Studies have demonstrated the gains in this treatment include lower overall costs because of less treatment morbidity.

Member of the organizing committee and chair of session.

2014 May - 2014 Jun  Research Mentor - Radbio Course, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, Medical Radiation Science, University of Toronto

Worked with a student in the Masters of Health Science Radiation Science Program at the University of Toronto to develop a research proposal/concept. I provided guidance and mentorship in the approach and methodology for developing a study concept.

2014 Apr 24 - 2014 Apr 26  Personalized High Precision RT and Management for Brain Tumors, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University Health Network-Princess Margaret Cancer Centre

I developed and lead this 3 day course in conjunction with the Academic Enrichment Program at the University Health Network. This course provides a multidisciplinary overview in the management of brain tumors, primary and secondary, and high-precision radiation delivery. The course included didactic sessions, case discussions, and interactive radiation contouring and planning exercises.

2013 Dec 6  Competency to Practice Evaluation Exam, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2013 Apr 10  Mentor, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Jenn Teichman & Madeline Song.

2013 Apr 2  MRI Basics, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology

Development of an introductory session on MR physics and clinical applications for Radiation Oncology trainees.
2013 Jan 25 Biannual resident research, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
PGY 2-4 Research Proposal.

2013 Jan 2 - 2013 Jan 18 Radiologist, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
Eye clinic/ CNS.

2013 Jan 2 - 2013 Jan 18 Radiologist, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
CNS and Brain Mets.

2012 Dec 6 Planning Examiner, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
PGY 4 & PGY5 Resident Examiner.

2012 Oct 8 - 2012 Oct 28 Radiologist, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
Eye clinic/ CNS review/ Brain Mets.

2012 Oct 1 - 2012 Nov 30 PGY Rad Onc resident from Spain, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Oct 1 - 2012 Oct 13 Radiologist, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
Eye clinic.

2012 Jul 9 Biannual Resident Research, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
PGY 2-4 Research Proposal.

2012 Jul - 2014 Dec Medical Oncology Resident Teaching (GIM), Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
Introductory lecture on Principles of Radiation Therapy given to Residents rotating through Medical Oncology.

2012 Jun CIP Research Meeting, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, UBC Clinician Investigator Program

2012 May Exam Preparation, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Apr Gamma Knife Treatment, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
Senior Resident Teaching.

2012 Mar Ocular Malignancies, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
Academic Half-day Teaching.

2012 Mar Frontiers of Radiation Medicine Research (MSC-1501H) Present, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Mar Brain Mets and Metronomic Chemo, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Feb Ocular Cancers Lecture, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Feb Odette Cancer Center Competency to Practice Re-sit Exam, PGY 4 & PGY 5, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Odette Cancer Centre

2003 Aug UBC Rehabilitation Medicine, Undergraduate MD, The University of British Columbia
Edition/Revision of 5 problem-based learning cases for UBC Medical School curriculum -- Review of the evidence to edit the tutorial case manual information content and re-structuring of cases to improve the PBL learning process, based on evolving concepts of medical education.
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

**Undergraduate MD**


2011 Jul - 2012 Dec | **Primary Supervisor.** Year 1. Laurence Lee. *Discovery of biomarkers to guide individualized therapy of brain metastasis.*

**Postgraduate MD**

2012 Jan - present  | **Primary Supervisor.** Core Program. Chia-Lin (Eric) Tseng, PGY 2. *New Models of Care in Breast Cancer Patients, Non-thesis Project.*


2011 Dec - 2012 Apr | **Primary Supervisor.** Clinical Fellow. Evelyn Herrmann. 2) *Index Ratio of Volume of Brain irradiated to 12 Gy to Volume Receiving the Prescription dose as a predictor of incidence of radionecrosis following Radiosurgery With or Without Whole Brain Radiotherapy for Brain Metastases, Non-thesis Project.*

Curriculum Vitae

Hans Tse Kan Chung
B.Sc., MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 2

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue, T-Wing
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-4982
Fax 416-480-6002
Email hans.chung@sunnybrook.ca

1. EDUCATION

Degrees
1995 - 1999 MD, Honours, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada
1992 - 1995 BSc, Pharmacology, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training

2011 Oct 27 - 2011 Oct 29 IGRT Liver Course, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
2005 Mar 7 - 2005 Mar 8 Ultrasound-guided Transperineal Brachytherapy for Early Stage Prostate Cancer Course, Department of Radiation Oncology, Seattle Prostate Institute, Seattle, Washington, United States
2004 Jul 15 - 2005 Jul 14 GU Fellow, Clinical Instructor, Department of Radiation Oncology, University of California, San Francisco, San Francisco, California, United States, Supervisor(s): Dr. Mack Roach III
2003 May Northwestern Radiobiology Course, Department of Radiation Oncology, University of Washington, Seattle, United States
2003 - 2004 Chief Resident, Department of Radiation Oncology, The University of British Columbia
2002 Oct Leaders’ Forum, Canadian Medical Association, Ottawa, Ontario, Canada
2002 May Northwestern Radiobiology Course, Department of Radiation Oncology, University of Alberta, Edmonton, Alberta, Canada
2001 May Northwestern Radiobiology Course, Department of Radiation Oncology, BC Cancer Agency, Vancouver, British Columbia, Canada
2000 - 2004 Resident, Department of Radiation Oncology, The University of British Columbia, Vancouver, British Columbia, Canada
1999 Jul 1 - 2000 Jun 30 General Internship, Royal Columbian Hospital, The University of British Columbia, Canada
Qualifications, Certifications and Licenses

2006 - present  Diplomate, American Board of Radiology, United States
2004 Jul - present  License, Medical Board of California, California, United States
2004 Jul - present  Fellow, Royal College of Physicians and Surgeons of Canada, Canada
2001 - 2004  General Practitioner License, College of Physicians Surgeons of British Columbia, British Columbia, Canada
2000  Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments

2011 Jul 1 - present  Affiliate Scientist, Physical Sciences, Odette Cancer Research Program, Sunnybrook Research Institute, Toronto, Ontario, Canada
2009 - present  Consulting Staff Physician, Department of Surgery, North York General Hospital, Toronto, Ontario, Canada
2009 - present  Courtesy Staff Physician, Department of Surgery/Urology, Toronto East General Hospital, Toronto, Ontario, Canada
2008 Sep - present  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2008 Sep - present  Staff Physician, Department of Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL

2007 - 2008  Consultant Staff Physician, Department of Radiation Oncology, National University Hospital, Singapore
2005 Sep - 2006  Associate Consultant Staff Physician, Department of Radiation Oncology, National University Hospital, Singapore

UNIVERSITY

2004 Jul 15 - 2005 Jun 14  Clinical Instructor, Radiation Oncology, University of California, San Francisco, San Francisco, California, United States

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

1995 Jun - 1995 Aug  Health Research Foundation & Medical Research Council Summer Research Scholarship in Medicine, Pharmaceutical Manufacturers’ Association of Canada, Ontario, Canada. (Research Award)

Total Amount: 3,680 CAD

1994 Jun - 1994 Aug  Health Research Foundation & Medical Research Council Summer Research Scholarship in Medicine, Pharmaceutical Manufacturers’ Association of Canada, Ontario,
Canada. (Research Award)
Total Amount: 3,680 CAD

Total Amount: 9,500 CAD

1992 Jun Governor General's Academic Medal, Government of Canada, Burlington, Ontario, Canada. (Distinction)
Awarded to the student graduating with the highest average from a high school.

1992 University of Toronto Scholars, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Recognition to the University’s outstanding students. Total Amount: 1,500 CAD

PROVINCIAL / REGIONAL
Received

1992 Jul - 1995 Jun Howard Ferguson Provincial Scholarship, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Awarded to outstanding Ontario students applying from outside the Greater Toronto area.
Total Amount: 10,000 CAD

LOCAL
Received

2001 May Dr. Lucille Ellison Prize, The University of British Columbia, Vancouver, British Columbia, Canada. (Distinction)
Awarded annually to the resident delivering the best presentation at the annual Residents’ Research Day.

1999 Apr Dr. Kelly Gollish 5T7 Memorial Award, University of Toronto. (Distinction)
Awarded to the medical student who has achieved honours standing and has demonstrated an interest in the field of ophthalmology.

1996 Dr. JS Thompson Memorial Award, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Awarded to the first-year medical student who demonstrated the greatest ability in Anatomy and Embryology.

1995 Dr. James A. & Connie P. Dickson Award, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Recognition of academic achievement in the past undergraduate academic year.

1994 Dr. James A. & Connie P. Dickson Award, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Recognition of academic achievement in the past undergraduate academic year.

1993 University College Alumni Scholarship, University College, University of Toronto, Toronto, Ontario, Canada. (Distinction)

1990 Chinese Heritage Language Aware of Excellence, Halton Roman Catholic School Board. (Distinction)

Teaching and Education Awards

LOCAL
Received

2010 Postgraduate Classroom Teaching Award, Dept of Radiation Oncology, Faculty of
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 Jan 1 - present American Brachytherapy Society
2008 - present Ontario Medical Association
2006 - present American Board of Radiology
2005 - present Singapore Medical Council
2004 - present American Society of Clinical Oncology
2003 - present American Society for Therapeutic Radiology and Oncology
2002 - present European Society for Therapeutic Radiology and Oncology
2001 - present Canadian Medical Association
2000 - present Canadian Association of Radiation Oncologists
1999 - present Royal College of Physicians and Surgeons of Canada
2001 - 2005 British Columbia Medical Association

Administrative Activities

INTERNATIONAL
Radiation Therapy Oncology Group (RTOG)
2009 - present Member, GU Committee, United States.

NATIONAL
Genitourinary Radiation Oncologists of Canada (GUROC)
2013 Jun - present Steering Committee, Canada.

Royal College of Physicians and Surgeons of Canada

PROVINCIAL / REGIONAL
Chinese Canadian Medical Society
2001 - 2004 Member, Board of Directors, British Columbia.

Professional Association of Residents of British Columbia (PAR-BC)
2001 - 2002 Member, Bargaining Committee, British Columbia.
2001 - 2002 Director, Finance
2000 - 2003 Member, Board of Directors
Hans Tse Kan CHUNG

LOCAL
Sunnybrook Health Sciences Centre
2009 - 2010 Member, Research Ethics Board

Sunnybrook Odette Cancer Centre
2009 - present Group Leader, Brachytherapy Lead, Department of Radiation Oncology, Toronto, Ontario, Canada.
2009 - present Group Leader, GI Radiation Oncology Site, Department of Radiation Oncology

University of British Columbia
2003 Member, PAR-BC Internal Reviewer of Community Medicine Program
2002 Member, Search Committee for Associate Dean, Postgraduate Medical Education
2002 Member, 3rd Year Medical Students OSCE Examiner, Department of Surgery

University of Toronto
2010 - 2011 Member-at-large, Executive Committee, Department of Radiation Oncology

Peer Review Activities

EDITORIAL BOARDS
Executive Editor-in-Chief
2007 Mar Member, March 2007 issue of the China Oncology journal
2009 - present World Journal of Gastrointestinal Oncology

MANUSCRIPT REVIEWS
Reviewer
2014 - present Canadian Urological Association Journal
2012 - present British Journal of Urology International
2009 - present Radiotherapy & Oncology
2009 - present World Journal of Gastrointestinal Oncology
2008 - present Expert Review of Anticancer Therapy
2008 - present International Journal of Radiation Oncology Biology Physics

PRESENTATION REVIEWS
Reviewer
2009 - present University of Toronto, Scientific Abstract Reviewer, Research Day, Department of Radiation Oncology
2008 - present Canadian Association of Radiation Oncologists (CARO), Abstract reviewer, Annual Scientific Meeting
2013 Jan International Stereotactic Radiosurgery Society, 11th International Stereotactic Radiosurgery Society Congress, Number of Reviews: 7
C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly and Professional Activity.
My clinical focus is genitourinary and gastrointestinal malignancies. My specialized skills include HDR and LDR prostate brachytherapy and stereotactic body radiotherapy for liver cancers. My research interests include ultrasound-based imaging of prostate cancers for detection and response, and clinical studies.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2015 Dec - present  Principal Site Investigator. NCIC GA.1: A Randomized Phase II/III Trial of Preoperative Chemoradiotherapy versus Preoperative Chemotherapy For Resectable Gastric Cancer. [Clinical Trials]

2014 Dec - present  Co-Principal Investigator. Prospective study of palonosetron in the prophylaxis/rescue of radiation induced nausea and vomiting (RINV) – a Phase II Study. Eisai Limited. PI: Chow E. Collaborator(s): Chung, H, DeAngelis C, Chan K. [Clinical Trials]


2011 Jul - present  Co-Chair (IMRT). RTOG 0924 Androgen deprivation therapy and high dose radiotherapy with or without whole-pelvic radiotherapy in unfavorable intermediate or favorable high risk prostate cancer: a phase III randomized trial. National Cancer Institute (USA). National
Hans Tse Kan CHUNG


2011 Jul - present  Principal Site Investigator. RADICALS: Radiotherapy and Androgen Deprivation in Combination after Local Surgery. A randomized controlled trial in prostate cancer (NCIC PR.13). National Cancer Institute of Canada (NCIC). OCREB#: 07-063. PI: Parker, Chris. [Clinical Trials]


2012 - 2014 Principal Investigator. A Prospective Cohort Study of Radiotherapy-Induced Nausea and Vomiting (RINV) Among Patients with Gastrointestinal Cancers. Sunnybrook Odette Cancer
Hans Tse Kan CHUNG

Centre. Rapid Response Radiotherapy Program, Department of Radiation. REB#: 069-2012. Collaborator(s): DeAngelis C, Dennis K, Chow E, Chu W, Davey P. [Clinical Trials]

2011 Jul - 2013 Jun

2011 Jul - 2012 Jun

2010 Jul - 2013 Oct

2010 Jul - 2013 Jun
**Principal Investigator.** Radiosensitization with bevacizumab for stereotactic body radiotherapy (SBRT) for colorectal liver metastases. Hoffman-La Roche Limited. Investigator-initiated funding. REB#: 275-2011. Collaborator(s): Ko YJ. 72,930 CAD. [Industrial Grants]

2010 Jul - 2013 Jun

2010 Jul - 2012 Jun

2009 Jul - 2011 Dec

2009 Jul - 2010 Jun

2009 Jul - 2010 Jun

2009 Jul - 2010 Jun
**Co-Investigator.** Stereotactic body radiotherapy (SBRT) boost to mimic high-dose rate (HDR) brachytherapy boost for intermediate risk prostate cancer: A phase I study. Canadian Association of Radiation Oncologists (CARO). Abbott-CARO Uro-Oncologic Radiation Awards (ACURA). REB#: 046-2010. PI: Cheung, Patrick. Collaborator(s): Loblaw DA, Mah K,
NON-PEER-REVIEWED GRANTS

FUNDED


2012 May Principal Applicant. Unrestricted educational grant. Abbott Laboratories. PI: Chung, Hans. 15,000 CAD. [Grants]


2011 Mar Principal Applicant. Unrestricted educational grant for residents’ education. Abbott Laboratories. PI: Chung, Hans. 1,500 CAD. [Grants]

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


3. Hans Tse Kan CHUNG

41. Baxi S, Park E, Chong V, CHUNG HT. Temporal changes in IMRT contouring of organs at risk for nasopharyngeal carcinoma - the learning curve blues and a tool that could help. Technol Cancer Res Treat. 2009;8(2):131-40. **Senior Responsible Author.**


49. Oestreicher JH, CHUNG HT, Hurwitz JJ. The correlation of clinical lacrimal bone density and thickness, established at the time of DCR surgery, with systemic bone mineral densitometry testing. Orbit. 2000;19(2):73-9. **Coauthor or Collaborator.**


51. Ng GY, Varghese G, CHUNG HT, Trogadis J, Seeman P, O'Dowd BF, George SR. Resistance of the dopamine D2L receptor to desensitization accompanies the up-regulation of receptors on to the surface of Sf9 cells. Endocrinology. 1997;138(10):4199-206. **Coauthor or Collaborator.**

52. Ng GYK, O'Dowd BF, Lee SP, CHUNG HTK, Brann MR, Seeman P, George SR. Dopamine D2 receptor dimers and receptor-blocking peptides. Biochem and Biophys Res Comm. 1996;227:200-4. **Coauthor or Collaborator.**

53. CHUNG HTK, Ng GYK, George SR. Biochemical characterization of D2 receptor monomers and dimers expressed in Sf9 cells. UTMJ. 1996;73:86-93. **Principal Author.**

**Book Chapters**


**Letters to Editor**


**Online Resources**


**2. SUBMITTED PUBLICATIONS**

**Journal Articles**


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 May 21 **Invited Speaker.** HDR Prostate Monotherapy Brachytherapy Advisory Board. Elekta. Atlanta, Georgia, United States. Presenter(s): **Chung H**.

2013 Jun 19 **Invited Lecturer.** Liver SBRT. International Stereotactic Radiosurgery Society. Toronto, Ontario, Canada. Presenter(s): **Chung HT**.

2011 Nov **Invited Speaker.** Odette Cancer Centre Stereotactic Liver Metastases Program. Department of Clinical Oncology, Queen Mary Hospital and Queen Elizabeth Hospital. Hong Kong, Hong Kong.

2011 Ultrasound Imaging in Oncology, Today and Tomorrow. Elekta Clarity Society. Miami, United States.

2010 **Invited Lecturer.** Prostate Brachytherapy: LDR and HDR. Department of Clinical Oncology, Queen Mary Hospital and Queen Elizabeth Hospital. Hong Kong.

2006 Resident Grand Rounds. Department of Radiation Oncology, University of California. San Francisco, United States. (Continuing Education).

2006 Inter- and Intra-clinician Variability in Contouring of Gastric Target Volume for Adjuvant Chemoradiation. Annual Scientific Meeting of The Royal Australian and New Zealand College of Radiologists (RANZCR) Faculty of Radiation Oncology. Singapore.

2006 The Role of Radiotherapy in Adjuvant Treatment for Gastric Cancer. 1st Asia-Pacific Gastric Cancer Conference. Singapore.

Presented Abstracts


2013 Apr **co-author.** MRI-US Fused Targeted Prostate Biopsy Detects Clinically Significant Cancer in Active Surveillance Patients Better than 12 Core Random Biopsy with less than 4 Cores. International Society for

2006 Feb  
**Presenter.** A Pilot Study of Endorectal MRI and Spectroscopy Changes with Dutasteride in Patients with Low-Risk Prostate Cancer. Prostate Cancer Symposium, ASTRO, ASCO, SUO. San Francisco, California, United States. Presenter(s): Chung HT, Kurhanewicz J, Carroll P, Roach M.

2005  

2003  
Preliminary analysis of outcomes following linac-based stereotactic irradiation for acoustic neuroma. Fourth International Conference on Vestibular Schwannoma and Other CPA Lesions. Cambridge, United Kingdom. Authors: Chung HT et al.

**Presented and Published Abstracts**

2016 Sep  

*Publication Details:*
SBRT in Metastatic NSCLC: for Oligometastases, Oligoprogression, and Local Control.

2016 Sep  

*Publication Details:*
Empowering patients through education – development and evaluation of a multimedia patient education tool to ensure patient preparedness for planning CT scan for prostate cancer (randomized study).

2016 Sep  

*Publication Details:*
Single 19 Gy High-Dose-Rate Brachytherapy monotherapy for Treatment of Prostate Cancer: Tolerability and dosimetric predictors of acute toxicity and health related quality of life.

2016 Sep  

*Publication Details:*
Concomitant Hypofractionated IMRT Boost For High Risk Prostate Cancer: Five Year Results.

2016 Sep  
**senior responsible author.** Combined stereotactic body radiation treatment and Bevacizumab as a radiosensitizer for colorectal liver metastases. American Society for Radiation Oncology (ASTRO). Boston, Massachusetts, United States. Presenter(s): Munoz P, Ko Y, Milot L, Chu W, Czarnota G, Chung H.

*Publication Details:*
Combined stereotactic body radiation treatment and Bevacizumab as a radiosensitizer for colorectal liver metastases.
Combined stereotactic body radiation treatment and Bevacizumab as a radiosensitizer for colorectal liver metastases.

**2016 Jul**  

*Publication Details:*  

**2016 Jun**  

*Publication Details:*  

**2016 Jun**  

*Publication Details:*  

**2016 Jun**  

*Publication Details:*  

**2016 Jun**  

*Publication Details:*  

**2016 Jun**  

**Publication Details:**
Low dose rate brachytherapy vs standard external beam radiotherapy vs stereotactic body radiotherapy for low risk prostate cancer: a cost-utility analysis.


**Publication Details:**
Acute health-related quality of life changes after liver stereotactic ablative radiotherapy. Radiat Oncol. Principal Author.


2015 Oct **senior responsible author.** Changes and Dosimetric Correlates of Health Related Quality of Life After

**Publication Details:**


**Publication Details:**

2015 Jul 3  **Presenter.** Preliminary data of a pilot study of combined stereotactic body radiotherapy (SBRT) and bevacizumab as a radiosensitizer for colorectal liver metastases. World GI Congress. Barcelona, Spain. Presenter(s): **Chung HT**, Milot L, Chu W, Czarnota GJ, Ko YJ.

**Publication Details:**
**Chung HT**, Milot L, Chu W, Czarnota GJ, Ko YJ. Preliminary data of a pilot study of combined stereotactic body radiotherapy (SBRT) and bevacizumab as a radiosensitizer for colorectal liver metastases. Ann Oncol. 2015 Jul;26(suppl 4):iv85-iv86. **Principal Author.**


**Publication Details:**


**Publication Details:**
Murgic J, **Chung HT**, D’Alimonte L, Lu L, Cumal A, Law N, Morton G, Loblaw A, Ravi A. An Analysis Of Inter-Observer Variability In Catheter Reconstruction And Dosimetric Implications In Ultrasound-Based High-Dose-Rate Brachytherapy For Prostate Cancer. Brachytherapy. 2015 May;14(suppl):S96. **Co-Principal Author.**


**Publication Details:**
**Chung HT**, D’Alimonte L, Loblaw A, Ravi A, Wronsiki M, Davidson M, Haider M, Morton G. Quality of Life (QOL) and Acute Toxicities of a Pilot Study of Focal Salvage High Dose Rate (HDR) Prostate
Brachytherapy in Patients with Local Recurrence after Definitive External-beam Radiotherapy (XRT). Brachytherapy. 2015 May;14(suppl):S51. **Principal Author.**


**2015 Feb** presenter. Quality of Life (QOL) and Acute Toxicities of a Pilot Study of Focal Salvage High Dose Rate (HDR) Prostate Brachytherapy in Patients with Local Recurrence after Definitive External-beam Radiotherapy (XRT). American Society of Clinical Oncology. Orlando, Florida, United States. Presenter(s): Thibault I, Chu W, Chan KK, Erler D, Chow E, **Chung HT**. Quality of Life (QOL) and Acute Toxicities of a Pilot Study of Focal Salvage High Dose Rate (HDR) Prostate Brachytherapy in Patients with Local Recurrence after Definitive External-beam Radiotherapy (XRT). J Clin Oncol. 2015 Feb;33(suppl 7):abstr 79. **Principal Author.**

**2014 Sep** senior responsible author. Quality of life in patients treated with stereotactic ablative body radiotherapy (SABR) for liver metastases. American Society for Radiation Oncology. San Francisco, California, United States. Presenter(s): Thibault I, Chu W, Chan KK, Erler D, Chow E, **Chung H**. (Trainee Presentation)

**Publication Details:**

Chung HT, D’Alimonte L, Loblaw A, Ravi A, Wronska M, Davidson M, Haider M, Morton G. Quality of Life (QOL) and Acute Toxicities of a Pilot Study of Focal Salvage High Dose Rate (HDR) Prostate Brachytherapy in Patients with Local Recurrence after Definitive External-beam Radiotherapy (XRT). J Clin Oncol. 2015 Feb;33(suppl 7):abstr 79. **Principal Author.**


2014 Apr 4 **Presenter.** Preliminary Results of a Pilot Study of Focal Salvage High-Dose-Rate Prostate Brachytherapy in Patients with Local Recurrence after Definitive External Beam Radiotherapy. American Brachytherapy
Hans Tse Kan CHUNG


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
2013 Apr  
*Publication Details:*  

2012 Nov 28  
*Publication Details:*  

2012 Feb  
**co-author.** Comparison of acute toxicity in patients treated with a 4-field box or IMRT to deliver elective pelvic nodal irradiation for localized high risk prostate cancer. American Society of Clinical Oncology, Genito-Urinary Cancer Symposium. San Francisco, California, United States. Presenter(s): Jain S, Cheung P, Loblaw DA, Morton G, Danjoux C, Szumacher E, Chu W, **Chung H**, Vesprini D, Sahgal A, Zhang L, Deabreu A.  
*Publication Details:*  

2011 Oct  
**senior responsible author.** Evaluation of patient immobilization for liver SBRT. American Society of Radiation Oncology (ASTRO). Miami, Florida, United States. Presenter(s): Korol RM, Davidson MTM, Karotki A, Lochray F, Chu W, **Chung H**.  
*Publication Details:*  

2011 May  
*Publication Details:*


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
**2010 May**


**Publication Details:**

**2008 Oct**

**Senior responsible author.** Internal audit of a comprehensive IMRT program for prostate cancer: a model for centers in developing countries? The Royal Australian and New Zealand College of Radiologists (RANZCR). Adelaide, Australia. Presenter(s): Koh WY, Ren W, Mukherjee RK, Chung HT. (Trainee Presentation)

**Publication Details:**

**2007 Oct**

**Presenter.** How much does experience add to IMRT planning? Final Results of an External Dosimetric Audit of IMRT for adjuvant chemoradiation for gastric cancer. American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): Chung HT, Lee B, Park E, Lu JJ, Xia P.

**Publication Details:**

**2007 Oct**

**Co-principal investigator.** Does IGRT improve the toxicity profile in whole pelvic-treated high-risk prostate cancer? A comparison between IGRT and non-IGRT IMRT. American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): Chan L, Chung HT, Xia P, Park-Somers E, Roach M.

**Publication Details:**

**2007 Oct**

**Senior responsible author.** 3D volumetric analysis of irradiated lung with adjuvant breast irradiation (ABR). American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): Park-Somers E, Teh AY, Shen L, Chung HT. (Trainee Presentation)

**Publication Details:**

**2007 Oct**

**Senior responsible author.** 3D volumetric analysis of irradiated lung with adjuvant breast irradiation (ABR). The Royal Australian and New Zealand College of Radiologists (RANZCR). Melbourne, Australia. Presenter(s): Teh AY, Park-Somers E, Shen L, Chung HT. Varian Prize Oral Presentation. (Trainee Presentation)

**Publication Details:**
Teh AY, Park-Somers E, Shen L, Chung HT. 3D volumetric analysis of irradiated lung with adjuvant breast irradiation (ABR). J Med Imag Radiat Oncol. 2007 Oct;51(suppl s3):A83. **Senior Responsible Author.**

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
2003 Nov;57(2):S379-80. **Principal Author.**


**Publication Details:**
**Chung HT** et al. Preliminary analysis of outcomes following linac-based stereotactic irradiation for acoustic neuroma. Radiother Oncol. 2002;65(Suppl 1):S2. **Principal Author.**

2002 **Presenter.** Percent positive cores in TRUS-guided biopsy is a significant independent predictor of cancer recurrence following prolonged neoadjuvant androgen suppression combined with curative external beam radiotherapy. European Society for Therapeutic Radiology and Oncology (ESTRO). Prague, Czech Republic. Presenter(s): **Chung HT,** Sidhu S, Pickles T, D’Yachkova Y, Morris WJ and the BCCA Prostate Cohort Outcomes Initiative.

**Publication Details:**
**Chung HT,** Sidhu S, Pickles T, D’Yachkova Y, Morris WJ and the BCCA Prostate Cohort Outcomes Initiative. Percent positive cores in TRUS-guided biopsy is a significant independent predictor of cancer recurrence following prolonged neoadjuvant androgen suppression combined with curative external beam radiotherapy. Radiother Oncol. 2002;64(Suppl 1):S287. **Principal Author.**


**Publication Details:**
**Newsom R,** **Chung HTK,** Harvey J, Oestreicher J. The Fasanella servat operation for blepharoptosis: indications, efficacy and complications in a large series. Ophthal Plast Reconstr Surg. 1997. **Coauthor or Collaborator.**


**Publication Details:**
**Newsom R,** **Chung HTK,** Harvey J, Oestreicher J. The Fasanella servat operation for blepharoptosis: indications, efficacy and complications in a large series. Plast Reconstr Surg. 1997. **Coauthor or Collaborator.**


**Publication Details:**
**Esmaeli B,** **Chung HTK,** Pashby RC. Long-term results of stored fascia lata frontalis slings for the correction of blepharoptosis. Ophthalmic Plast Reconstr. 1996. **Coauthor or Collaborator.**

**Session Chair**

2014 Apr 5 **Session Moderator Co-Chair.** Scientific Session: Prostate Proffered Papers II. American Brachytherapy Society (ABS). San Diego, California, United States. Presenter(s): **Chung HT,** Crook JM.

2013 Jun 17 **Chair.** International Stereotactic Radiosurgery Society. Toronto, Ontario, Canada. 11th International Stereotactic Radiosurgery Society Congress.

2013 Feb 14 **Chair.** General Session 1: Prostate Cancer: Active Surveillance and Screening. American Society of Clinical Oncology, Genito-urinary Cancer Symposium. Orlando, Florida, United States.
2. NATIONAL

Invited Lectures and Presentations


2006  Principles of Surgical and Medical Oncology, and Radiotherapy and Chemotherapy Interactions. Diploma in Radiation Therapy, Nanyang Polytechnic School of Health Sciences. Singapore.

2006  Prostate LDR Brachytherapy. 15th Annual Scientific Meeting of the Singapore Radiological Society. Singapore.

Presented Abstracts


2013 Sep  


2013 Sep  

**Senior Responsible Author.** Impact of immobilization on delivery precision for liver SBRT. Canadian Association of Radiation Oncologists. Montreal, Quebec, Canada. Presenter(s): Korol RM, Wronski M, Lochray F, Chu W, **Chung H**.

2013 Sep  

**Senior Responsible Author.** Interfractional variation during the treatment of pancreatic cancer using tomotherapy. Canadian Association of Radiation Oncologists. Montreal, Quebec, Canada. Presenter(s): Glick D, Vorauer E, Tonolete F, Hyde D, Chin L, **Chung H**. (Trainee Presentation).

2013 Sep  

**Senior Responsible Author.** Quality comparison of VMAT and IMRT treatment planning and delivery for liver SBRT. Canadian Association of Radiation Oncologists. Montreal, Quebec, Canada. Presenter(s): Wronski MM, Korol RM, Chu W, **Chung HT**.

2013 Mar  


2003  

**Presenter.** Evaluation of a radiotherapy protocol based on INT0116 for completely resected gastric adenocarcinoma. Canadian Association of Radiation Oncologists (CARO). Montreal, Quebec, Canada. Presenter(s): **Chung HT** et al.

2002  

**Presenter.** Preliminary analysis of outcomes following linac-based stereotactic irradiation for acoustic neuroma. Canadian Association of Radiation Oncologists (CARO). Toronto, Ontario, Canada. Presenter(s): **Chung HT** et al.

**Presented and Published Abstracts**

2016 Sep  


*Publication Details:*

SBRT in Metastatic NSCLC: for Oligometastases, Oligoprogression, and Local Control.

2016 Sep  


*Publication Details:*

Empowering patients through education – development and evaluation of a multimedia patient education tool to ensure patient preparedness for planning CT scan for prostate cancer (randomized study).

2016 Sep  


*Publication Details:*

Stereotactic Body Radiotherapy for Liver Metastases: Impact on Systemic Therapy?.

2016 Sep  

**Senior responsible author.** Acute Quality of Life Changes after Stereotactic Ablative Radiotherapy for Liver Metastasis: A Prospective Cohort analysis. Canadian Association of Radiation Oncology (CARO).

Publication Details:
Acute Quality of Life Changes after Stereotactic Ablative Radiotherapy for Liver Metastasis: A Prospective Cohort analysis.


Publication Details:
Acute Quality of Life Changes after Stereotactic Ablative Radiotherapy for Liver Metastasis: A Prospective Cohort analysis.


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Mamedov A, Deabreu A, Lylyk E, Loblaw A.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2004 Nov co-author. Dosimetric consequences to the pelvic lymph nodes due to the daily motion of the prostate. American Society for Therapeutic Radiology and Oncology (ASTRO). Atlanta, Georgia, United States. Presenter(s): Chen H, Xia P, Chung H, Verhey L, Roach M.

Publication Details:

2003 Presenter. Percent positive cores in TRUS-guided biopsy and androgen suppression are significant independent predictors of cancer recurrence following curative external beam radiotherapy using the Houston criteria. Canadian Association of Radiation Oncologists (CARO). Montreal, Quebec, Canada.

Publication Details:

2001 Presenter. Prolonged neoadjuvant hormone therapy in the treatment of high-risk, localized prostate cancer by radical external radiotherapy. Canadian Association of Radiation Oncologists (CARO). Quebec City, Quebec, Canada. Presenter(s): Chung HT, Morris WJ, Pickles T.

Publication Details:


Publication Details:


Publication Details:

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


Other Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


2014 Oct 29  Invited Speaker. Stereotactic Ablative Radiotherapy for Liver Metastases and HCC. Toronto East General Hospital Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): Chung HT.

2013 Oct 9  Invited Speaker. Selected topics in gastric and rectal cancer. Toronto East General Hospital Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): Chung HT.

2013 May 23  Invited Speaker. Focal Salvage HDR Prostate Brachytherapy for Prostate Cancer. University of Toronto
Department of Radiation Oncology Joint Rounds. Toronto, Ontario, Canada. Presenter(s): Chung H, Venugopal N, D’Alimonte L.


2010 Introduction of Liver Metastases Stereotactic Radiotherapy Program at OCC. GI Multidisciplinary Rounds, Odette Cancer Centre. Toronto.


2009 The Case of the Nanny. Research Ethics Rounds, Sunnybrook Health Sciences Centre. Toronto.

2009 The Role of Radiotherapy in Rectal Cancer. Toronto East General Hospital Grand Medical Rounds, Toronto East General Hospital. Toronto. (Continuing Education).


2006 Principles of Surgical and Medical Oncology, and Radiotherapy and Chemotherapy Interactions. Diploma in Radiation Therapy, Nanyang Polytechnic School of Health Sciences. Singapore.

2005 The Role of Adjuvant Hormonal Therapy and External-beam Radiotherapy. Resident Morning Rounds, Department of Radiation Oncology, University of California. San Francisco, United States.

2005 Testicular Seminoma: Clinical Decisions and Treatment Planning. Resident Morning Rounds, Department of Radiation Oncology, University of California. San Francisco, United States.

Presented Abstracts

2002 Percent positive cores in TRUS-guided biopsy is a significant independent predictor of cancer recurrence following prolonged neoadjuvant androgen suppression combined with curative external beam radiotherapy. The 17th Annual Resident’s Day, Department of Radiation Oncology, University of British
Columbia. Authors: Chung HT, Sidhu S, Pickles T, D’Yachkova Y, Morris WJ and the BCCA Prostate Cohort Outcomes Initiative.

1997 Retinal detachment: a psychosocial perspective. Determinants of Health Course in 2nd year undergraduate medicine, Univ of Toronto. Authors: Chung HTK, Howcroft M.

Presented and Published Abstracts

2001 May Prolonged neoadjuvant hormone therapy in the treatment of high-risk, localized prostate cancer by radical external radiotherapy. The Annual Resident's Day, Department of Radiation Oncology, University of British Columbia.

Publication Details:


Publication Details:

1998 Correlation of clinical lacrimal bone density and thickness with bone mineral densitometry testing. The 40th Annual Research Day, Department of Ophthalmology, University of Toronto.

Publication Details:

Other Lectures and Presentations


2010 Nov 10 "Introduction to Prostate Brachytherapy. Joint GU Oncology Meeting with TEGH. Toronto. (Continuing Education).

5. OTHER

Presented and Published Abstracts


Publication Details:
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Postgraduate MD


Continuing Education

Curriculum Vitae

Peter Chung
MB, ChB, MRCP, FRCR, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
Department of Radiation Oncology
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-6522
Email peter.chung@rmp.uhn.on.ca

1. EDUCATION

Degrees
1990 MBChB, School of Medicine, University of Sheffield, United Kingdom

Postgraduate, Research and Specialty Training

2001 - 2004 Clinical Fellow, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
1996 - 2001 Specialist Registrar, West Midlands Clinical Oncology Training Program, Birmingham, United Kingdom
1996 Senior House Officer, Oncology, Queen Elizabeth Hospital, Birmingham, United Kingdom
1995 - 1996 Senior House Officer, Genitourinary and HIV Medicine, Whittall Street Clinic, Birmingham, United Kingdom
1994 - 1995 Senior House Officer (Medical Rotation), The Royal Oldham Hospital, Oldham, United Kingdom
1992 - 1993 Senior House Officer, Elderly Medicine, East Birmingham Hospital, Birmingham, United Kingdom
1992 Senior House Officer, Accident and Emergency, West Middlesex University Hospital, London, United Kingdom
1991 - 1992 Locum Senior House Officer, General Medicine and Rheumatology, Chesterfield and North Derbyshire Royal Hospital, Chesterfield, United Kingdom
1991 House Surgeon, Vascular Surgery, General Surgery and Neurosurgery, Royal Hallamshire Hospital, Sheffield, United Kingdom
1990 - 1991 House Physician, Medicine, Gastroenterology and Haematology, Chesterfield and North Derbyshire Royal Hospital, Chesterfield, United Kingdom

Qualifications, Certifications and Licenses

2007 - present Certificate for Independent Practice, Radiation Oncology, College of Physicians and Surgeons of Ontario, Ontario, Canada, License / Membership #: 76790
2. EMPLOYMENT

Current Appointments

2004 - present  Assistant Professor, Radiation Oncology, University of Toronto
2004 - present  Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario

Previous Appointments

HOSPITAL

2000 - 2001  Senior Registrar (Chief Resident), Department of Clinical Oncology, Queen Elizabeth Hospital, Birmingham, West Midlands, United Kingdom

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

1988  Swann Morton Elective Prize, Association of Surgeons in Training (ASiT) Conference, Sheffield, United Kingdom. (Distinction)
Open competition for bursary to pursue medical student elective Zambia & Zimbabwe.

NATIONAL

Received

2013  Best Abstract in Clinical and Population-based Oncology, CARO-COMP Joint Scientific Meeting – Innovations in Imaging. (Distinction)

2002  Fellowship, Canadian Prostate Cancer Research Initiative. (Research Award)
Open competition for 2-year training grant (salary) for prostate cancer research.

2002  First Prize, Canadian Urologic Oncology Group/AstraZeneca Annual Research Grant Competition. (Research Award)
“Hypoxia-mediated mutation and faulty repair of DNA as a driving force in prostate cancer aggression and progression”. Total Amount: 10,000 CAD
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

- **Member**, American Society for Therapeutic Radiology and Oncology
- **Member**, American Society of Clinical Oncology
- **Member**, Canadian Association of Radiation Oncologists
- **Member**, College of Physicians and Surgeons on Ontario
- **Member**, Connective Tissue Oncology Society
- **Member**, Ontario Medical Association
- **Member**, Royal College of Physicians and Surgeons

Administrative Activities

**NATIONAL**

Royal College of Radiologists
2000 - 2001
- **Regional Representative**, Junior Radiologists Forum, United Kingdom.

**PROVINCIAL / REGIONAL**

West Midlands Region
2000 - 2001
- **Member**, Higher Specialist Training Committee, United Kingdom.

**LOCAL**

Princess Margaret Hospital
2006 - 2007
- **Secretary**, Executive Committee, Radiation Oncologists

University of Toronto
2006 - 2009
- **Member**, Executive Committee, Faculty of Medicine, Dept of Radiation Oncology

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

**Funded**

2014 Jul - 2015 Jul

2013 Jul - 2014 Jul

2013 Jul - 2014 Jul
- **Co-Investigator**. Development of a novel geometrically robust technique for diffusion tensor...

2008 - 2010


2007


2006


2006

Co-Investigator. A Phase I/II Study Of Dose Escalated Intensity Modulated Radiation Therapy For The Treatment of Pelvic Lymph Nodes and Primary Tumor in Patients with Carcinoma of the Prostate. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): Bayley A. 29,600 CAD. [Grants]

2006


2005 - 2006


2005 - 2006


2005


2004


2003

Co-Investigator. A randomized study of inter and intrafraction prostatic motion using two

NON-PEER-REVIEWED GRANTS

FUNDEN


2005 - 2009  Principal Investigator. Phase II Study of Effectiveness of Using Low-Dose CT in Patients Undergoing Surveillance for Clinical Stage I Testicular Cancer. 05-0436-CE. [Clinical Trials]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Commentaries

Journal Articles, Review

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Commentaries


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2009 Radiotherapy is the Preferred Treatment for Muscle Invasive Bladder Cancer. First Annual Princess Margaret Hospital Uro-Oncology Dialogue. Hollywood, Florida.


2006 Does Radiosensitivity of Myxoid Liposarcoma Translate into Improved Local Control? Connective Tissue Oncology Society (CTOS). Venice, Italy.

Presented Abstracts


Presented and Published Abstracts

2014 Apr MR-guided and tumor-targeted salvage HDR brachytherapy for locally recurrent prostate cancer. ESTRO 33. Vienna, Austria.


2013 Oct

Contemporary management of Stage 1 and Stage II seminoma. ASTRO Annual Meeting. Atlanta, Georgia.

Publication Details:

2013 Oct

Improved geometric performance of diffusion-weighted imaging for prostate tumour delineation using a readout-segmented echo-planar-imaging technique. ASTRO Annual Meeting. Atlanta, Georgia.

Publication Details:

2013 Oct

Dosimetric consequences of tumor volume changes during preoperative IMRT for lower extremity soft tissue sarcoma. ASTRO Annual Meeting. Atlanta, Georgia.

Publication Details:

2013 Feb


Publication Details:

2012 Jun

The use of model-based auto adaption and propagation to minimize intra-observer variability when delineating the normal urinary bladder on planning CT and pre-treatment cone-beam CT. ISRRRT World Congress. Toronto, Ontario.

Publication Details:

2012 May

Large retroperitoneal lymph nodes (RPLN) as a novel risk factor for venous thromboembolism (VTE) in germ cell tumor (GCT) patients (pts) receiving first-line chemotherapy (chemo). ASCO Annual Meeting. Chicago, Illinois.

Publication Details:

2011 Oct

A Comparison of Conventional and Hypofractionated Radiotherapy Schedules In the Treatment of Localized Prostate Cancer. ASTRO Annual Meeting. Miami, Florida.

Publication Details:
2011 Sep

Publication Details:

2010
Anxiety and Depression in Patients with Testicular Cancer: Surveillance vs. Radiation Treatment. International Psycho-Oncology Society/ Canadian Association of Psychosocial Oncology (IPOS/CAPO) Annual Meeting.

Publication Details:

2010

Publication Details:

2010

Publication Details:

2010

Publication Details:

2009

Publication Details:

2009

Publication Details:


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*

2008 Measuring Interfraction and Intrafraction Motion with Cone Beam Computed Tomography (CBCT) and an Optical Localization System (OLS) for Lower Extremity Soft Tissue Sarcoma Patients Treated with Preoperative Intensity Modulated Radiation Therapy (IMRT) (poster presentation). Proceedings for the American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Boston, Massachusetts.

*Publication Details:*


*Publication Details:*


2005

Publication Details:

2005

Publication Details:

2005

Publication Details:

2005
A randomised study to investigate the role of abdominal compression in prostate intrafraction motion. ECCO 13. Paris, France.

Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2013 Jun

2011 Jan
Skin Cancer. 16th Annual National Canadian Preparatory Course in Clinical and Radiation Oncology, Ottawa Cancer Centre. Ottawa, Ontario.

2010
Skin Cancer. 15th Annual National Canadian Preparatory Course in Clinical and Radiation Oncology, McGill University. Montreal, Quebec.

Presented and Published Abstracts

2013 Aug
Phase II study of low dose CT imaging for detection of relapse during surveillance in stage I testicular germ cell tumour. CARO COMP Annual Meeting. Montreal, Quebec.

Publication Details:

2013 Aug
Testicular seminoma: Elimination of unnecessary toxicity in early stage disease. CARO COMP Annual Meeting. Montreal, Quebec.
Publication Details:

2013 Aug
Dose accumulation to the bladder wall during image-guided, intensity modulated radiotherapy for prostate cancer. CARO COMP Annual Meeting. Montreal, Quebec.

Publication Details:

2013 Jun

Publication Details:

2013 Jun

Publication Details:

2013 Jun
Comparison of clinical stage I nonseminomatous germ cell tumours with retroperitoneal progression on active surveillance to patients initially presenting as stage II. Canadian Urological Association 68th Annual Meeting. Niagara Falls, Ontario.

Publication Details:

2013 Jun

Publication Details:

2011 Sep

Publication Details:

2011 Sep

Publication Details:

2009
Intensity Modulated Radiation Therapy (IMRT) for Skull based Chordomas and Chondrosarcomas: Outcomes in the image guided era. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2009
Spatial patterns of local recurrence after radiotherapy for prostate cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2009
Semi-automatic delineation of pelvic lymph node clinical target volume (CTV-PLN) for prostate cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2009
Prostate Cancer Hypoxia Predicts Early Biochemical Failure after Radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2008
Baseline MRI Measure of Prostate Motion Enables Patient-Specific Design of PTV Margin. Proceedings for the Canadian Association of Radiation Oncology (CARO). Quebec.

Publication Details:

2008
Dosimetry and Acute Toxicity in IG-IMRT Using a Consensus Prostate Bed CTV Following Prostatectomy. Proceedings for the Canadian Association of Radiation Oncology (CARO). Quebec.

Publication Details:

2008
Multiparametric MRI Response During Radiotherapy for Prostate Cancer. Proceedings for the Canadian Association of Radiation Oncology (CARO). Quebec.

Publication Details:

2008
Comparing the Clinical Performance of Conebeam CT (CBCT) During Radiotherapy to The Prostate Gland and Prostate Bed. Proceedings for the Canadian Association of Radiation Oncology (CARO). Quebec.

Publication Details:

2006
The Effect of Abdominal Compression on Prostate Inter and Intrafraction Motion During Conformal Radiotherapy of the Prostate. CARO Annual Meeting. Alberta.

Publication Details:

2006

Publication Details:

2006
Accurately Co-Registering Endorectal Coil Magnetic Resonance Images (ERC-MRI) Using a Multi-Organ Finite Element-Based Prostate Deformation Model. CARO Annual Meeting. Alberta.

Publication Details:

2006
Dose Escalated Radiotherapy for Localized Prostate Cancer: Initial Experience at Princess Margaret Hospital. CARO Annual Meeting. Alberta.

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Brampton, Ontario.


4. LOCAL

Invited Lectures and Presentations


2011 Dec  Prostate Cancer. Medical Grand Rounds, Toronto General Hospital. (Continuing Education).


2010  Image Guided Radiation Therapy in Prostate Cancer. IGRT Education Course, Princess Margaret Hospital. Toronto, Ontario.


2009  Clinical Case Presentation: Prostate Cancer. IMRT Education Course, Princess Margaret Hospital. Toronto, Ontario.


2003  High Precision Radiation Therapy in Prostate Cancer: Target Imaging. IMRT and Treatment Verification. University of Toronto, Department of Radiation Oncology Seminar. Toronto, Ontario.

5. OTHER

Presented and Published Abstracts

2011 Jun  Evaluation of low dose CT scans for surveillance in stage I testicular cancer.

Publication Details:


2011 Jan  Testicular cancer: seminoma.

Publication Details:


2010 Sep  Is maximum grade sufficient when reporting late GI toxicity after pelvic radiotherapy for prostate cancer?
Peter CHUNG

Publication Details:

2009 Nov 3 Image guided dose escalated prostate radiotherapy: still room to improve.

Publication Details:

2009 Apr Changes in Dynamic Contrast Enhanced MRI Paramters in the First 8 Weeks of Prostate Radiotherapy.

Publication Details:

2009 Validation of the clinical target volume for radiotherapy to the prostate bed after radical prostatectomy based on magnetic resonance imaging voxel probability of gross local recurrence.

Publication Details:

2009 Validation of the clinical target volume for radiotherapy to the prostate bed after radical prostatectomy based on magnetic resonance imaging voxel probability of gross local recurrence.

Publication Details:

2007 The use of XVI during Bladder Radiotherapy-Bony Anatomy or Soft Tissue Match?

Publication Details:

2007 Evaluating Daily Cone Beam CT Image-Guided RT after Prostatectomy: Can We Reduce the PTV Margin?

Publication Details:

2007 The Impact of Pre-Treatment Prostate Dimensions on Toxicity from Conformal Radiotherapy for Prostate Cancer – Does Size Matter?

Publication Details:

2007 Adverse Late Effects in a Prospective Phase I-II Trial of Hypofractionated Radiotherapy (66Gy/22 Fractions) for Localized Adenocarcinoma of the Prostate.
2007  
Bone Fractures Following External Beam Radiotherapy and Limb-Preservation Surgery for Extremity Soft Tissue Sarcoma: Relationship to Irradiated Bone Length, Volume and Dose. 

Publication Details:  

2007  
A Strategy for Image Guidance During Loco-Regional IMRT to Prostate, SV & Pelvic Lymph Nodes. 

Publication Details:  

2007  
Dose Escalated IMRT to Pelvic Lymph Nodes and Prostate/Seminal Vesicles for High Risk Prostate Cancer–Feasibility and Toxicity. 

Publication Details:  

2006  
The use of intra-prostatic fiducial markers during conformal and intensity modulated radiotherapy. 

Publication Details:  

2006  
Image-Guided Radiotherapy with Cone-Beam CT after Prostatectomy: Evaluating the Impact on PTV Margin. 

Publication Details:  

2006  
Testicular Cancer Surveillance: Comparison of Low-dose and Standard-dose Abdominal/Pelvic CT Using a 64-slice Multidetector Scanner. 

Publication Details:  

2005

A prospective study of localized prostate cancer treated to 75.6 Gy using 3D conformal radiotherapy.

Publication Details:

2005

Dose escalated intensity modulated radiation therapy to pelvic lymph nodes and prostate / seminal vesicles for high risk prostate cancer.

Publication Details:

2003

Inter-observer variation in delineating target volume for pelvic lymph nodes.

Publication Details:

2003

Radical radiotherapy for invasive bladder cancer.

Publication Details:

2002

The treatment of pelvic lymph nodes for bladder cancer using intensity modulated radiation therapy – a feasibility study.

Publication Details:

2002

Results of escalated dose 3D-conformal radiotherapy (3D-CRT) for intermediate risk prostate carcinoma – biochemical response and local control.

Publication Details:

2002

Hypofractionated intensity modulated radiotherapy for prostate cancer.

Publication Details:

2002

Results of a phase II trial of escalated dose 3D-conformal radiotherapy for localized cancer.

Publication Details:

2002

Publication Details:

2001
Can the NHS Cancer plan target for waiting times be achieved in rectal cancer?

Publication Details:

2001
Total skin electrons in the treatment of mycosis fungoides: the Coventry experience.

Publication Details:

2000
Does randomisation into the MRC CR07 trial delay surgery in operable rectal cancers?

Publication Details:
A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

Primary Office
Radiation Oncologist, Radiation Medicine Program, Princess Margaret Cancer Center
Assistant Professor, Department of Radiation Oncology, University of Toronto
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-4483
Fax 416-946-2227
Email jennifer.croke@rmp.uhn.ca

1. EDUCATION

Degrees
2016 May - 2018 Jun Masters of Health Professions Education (MHPE), Medical Education, School of Health Professions Education, Maastricht University, Maastricht, Netherlands
2004 - 2008 MD, Memorial University of Newfoundland
2000 - 2004 BSc, Memorial University of Newfoundland

Postgraduate, Research and Specialty Training
2013 - 2014 Clinical Fellow, Radiation Medicine Program, University of Toronto
2011 - 2012 Chief Resident, Department of Radiation Oncology, University of Ottawa
2008 - 2013 Resident in Radiation Oncology, University of Ottawa

2. EMPLOYMENT

Current Appointments
2015 Sep 8 - present Assistant Professor, Radiation Oncology, University of Toronto, University of Toronto, Ontario, Canada
2015 Sep 8 - present Radiation Oncologist, Radiation Medicine Program, Princess Margaret Cancer Center, Ontario, Canada

Previous Appointments
HOSPITAL
2014 Aug 11 - 2015 Sep 7 Radiation Oncologist, Cancer Care Program, Eastern Health, Newfoundland and Labrador, Canada

UNIVERSITY
2015 Jan 1 - 2015 Sep 7 Assistant Professor, Medicine, Memorial University of Newfoundland, Newfoundland and
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received

2015  Careers in Cancer Research Development Program New Principal Investigator award, Canada. (Research Award)
      Careers in Cancer Research Development Program New PI award: Sponsored by the Canadian Institutes of Health Research-Institute of Cancer Research (CIHR-ICR) and the Canadian Cancer Society Research Institute (CCSRI).

2014  Best Oral Presentation (Fellow), Annual CARO Meeting. (Distinction)

LOCAL
Received

2013  Academy of Medicine Resident of the Year, University of Ottawa. (Distinction)
2013  Peter Laurence Fenn Memorial Oncology Award, University of Ottawa. (Distinction)
2008  Dr. Robert B. Salter Award, Memorial University. (Distinction)
2008  Ford Hewlett Memorial Oncology Scholarship, Memorial University. (Distinction)
2006 - 2008 Millennium Scholarship, Memorial University. (Distinction)
2006  Dean’s List, Memorial University. (Distinction)
2006  Mary E. Pedersen MD Scholarship in Medicine, Memorial University. (Distinction)
2006  Prize in Pediatrics, Memorial University. (Distinction)

Teaching and Education Awards

LOCAL
Received

2014  Residents Award for Excellence in Clinical Teaching by a Fellow, University of Toronto Department of Radiation Oncology Graduation Ceremony.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2014 Jul 1 - present  Member, American Society for Radiation Oncology
2013 - present  Member, European Society for Radiotherapy and Oncology
2009 - present  Member, Canadian Association of Radiation Oncologists

Administrative Activities

NATIONAL

Canadian Association of Interns and Residents (CAIR)
PROVINCIAL / REGIONAL

Provincial Association of Interns and Residents of Ontario (PAIRO)

2009 - 2012  General Council Member
2009 - 2012  PAIRO Site Chair, University of Ottawa

LOCAL

Other Organizations

2015 Sep 15 - present  University of Toronto Department of Radiation Oncology Evening Journal Club, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Ontario, Canada.

Cancer Care Program, Eastern Health

2014  Chair, Breast Technical Site Group, Department of Radiation Oncology, Cancer Care Program
2014  Chair, Multidisciplinary Breast Oncology Journal Club
2014  Chair, Multidisciplinary Gynecologic Oncology Journal Club

Radiation Medicine Program

2015 Oct 15 - present  Radiation Medicine Program Mentorship Program, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development, Ontario, Canada.

University of Ottawa

2012  Member, CaRMs Interview Panel, Division of Radiation Oncology, Postgraduate MD
2011 - 2013  Resident representative, Radiation Oncology Training Program Committee
2011 - 2012  Resident representative, Academy Of Medicine Ottawa Executive Committee
2010 - 2011  Committee Lead, The Ottawa Hospital, Radiation Oncology retreat
2010 - 2011  Member, Faculty of Medicine Accreditation Committee
2010 - 2011  Member, Postgraduate Medical Education Committee, Postgraduate MD

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

D. Publications

1. PEER-REVIEWS PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWS PUBLICATIONS

Book Chapters

E. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


Presented and Published Abstracts


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  

2012 May Use of Pre-Op MRI and “3D Prostate Cancer Maps” to improve CTV Definition for Post-operative Prostate Radiation. ESTRO Annual Meeting. Barcelona, Spain. (Peer reviewed poster presentation).

*Publication Details:*  


*Publication Details:*  

Publication Details:

2011 Oct

Publication Details:

2011 Sep
Continuity clinics in Medical and Radiation Oncology training programs in Canada. International Conference for Residency Education Annual Meeting. Quebec City, Quebec, Canada. (Peer reviewed poster presentation).

Publication Details:

2010 Oct

Publication Details:

2010 Oct

Publication Details:

2. NATIONAL

Presented Abstracts

2014 Aug

2012 Sep

2012 Sep

2012 Sep

2011 Sep
Presented and Published Abstracts

2015 Sep

Publication Details:
Long term quality of life in cervical cancer patients treated with curative therapy. Senior Responsible Author.

2014 Sep
Vaginal dose and patient reported sexual adjustment with MR-guided brachytherapy for cervical cancer. ASTRO Annual Meeting. San Francisco, California, United States. (Peer reviewed poster presentations).

Publication Details:

2014 Aug

Publication Details:

2011 Sep
The Case of the Missing Target: Mystery Solved. CARO Annual Meeting. Winnipeg, Manitoba, Canada. (Peer reviewed poster presentation).

Publication Details:

2010 Oct

Publication Details:

2010 Oct

Publication Details:

2010 Sep

Publication Details:

2010 Sep
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


Presented Abstracts


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Undergraduate MD

Curriculum Vitae

CONTACT INFORMATION

Name: CUMMINGS, Bernard Joseph

Business Address: Department of Radiation Oncology
Princess Margaret Hospital
610 University Ave. 5-979
Toronto, ON M5G 2M9

Business Telephone #: 416-946-2129
Business Fax #: 416-946-4586
E-mail Address: bernard.cummings@rmp.uhn.on.ca

Date of Last Update: February 2016

EDUCATION:

University Education
1962 Victoria University, Wellington, New Zealand (premedical course)
1963-1967 University of Otago School of Medicine, Dunedin, New Zealand

Post-Graduate and Medical Training
1968 - 1969 House Physician, North Canterbury Hospital Board, New Zealand (two years)
1970 - 1972 Registrar, Radiotherapy Department, North Canterbury Hospital Board, New Zealand (two years, six months)
1972 - 1973 Resident, Radiation Oncology, Princess Margaret Hospital, Toronto (one year)
1973 - 1974 Registrar, Clinical Oncology, Royal Marsden Hospital, London, England (one year)

Scholarships and Awards
1966 M.R.C. of New Zealand, Junior Research Scholarship (awarded - declined).
1966 Distinction, Preventive and Social Medicine, University of Otago.
1972 Royal Australasian College of Radiologists Prize, Membership Examinations.
1995  Honorary Membership, European Society for Therapeutic Radiology and Oncology.
1997  Seventh Gilbert Fletcher Distinguished Professor Lecture, MD Anderson Cancer Center, Houston, Texas, February 1997.
2000  RS Bush Visiting Professor, Princess Margaret Hospital, Toronto, June 2000.
2004  Department of Radiation Oncology, University of Toronto, Award for Sustained Excellence in Research.
2005  University of Toronto Department of Radiation Oncology Residents’ Award for Excellence in Clinical Teaching.
2006-2007  University of Toronto, Wightman-Berris Academy, Award for Individual Teaching Excellence.
2007  Elected Fellow, American Society of Therapeutic Radiology and Oncology.
2009  Awarded Life Membership, Association of Radiation Oncologists of India.
2011  Cosbie Lecture (NCIC Clinical Trials Group/Canadian Oncology Societies/Cancer Care Ontario), Toronto, April 2011.
2011  Gold Medal, American Society for Radiation Oncology (ASTRO)
2013  Gastrointestinal Oncology Societies of Latin America (SLAGO) – International Oncologist Award for contributions to SLAGO.

BIOGRAPHICAL INFORMATION

Degrees
MB, ChB, 1967, Otago University, New Zealand
MRACR, 1972, Member, Royal Australasian College of Radiologists; Fellow FRACR, 1984; College title changed 1998 to Royal Australian and New Zealand College of Radiologists - FRANZCR
FRCR, 1974, Fellow of the Royal College of Radiologists, England
FRCP, 1974, Fellow of the Royal College of Physicians of Canada, Radiation Oncology

Hospital/Staff Appointments

1974 - Present  Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario
1985 - 1989  Deputy Chief, Department of Radiation Oncology, PMH
1991 – 2001  Chief, Department of Radiation Oncology, PMH
1996 - 2001  Chief, Radiation Medicine Program, PMH
1997 - 2001  Associate Director, Clinical Programs, Oncology Program, PMH
1975 - 1996  Consultant staff, Department of Medicine, Wellesley Hospital, Toronto
1975 - 1997  Consultant staff, Division of Radiological Services, Toronto Hospital, Toronto

Dr. Bernard Cummings
CV Format/U of T 2
1997 - 2001 Visiting staff, Department of Radiation Oncology, Sunnybrook and Women’s College Health Science Center, Toronto

**Academic Appointments**

- **1975 - 1979** Lecturer, Department of Radiology, University of Toronto
- **1979 - 1981** Assistant Professor, Department of Radiology, University of Toronto
- **1981 - 1986** Associate Professor, Department of Radiology, University of Toronto
- **1986 - 1991** Professor, Department of Radiology, University of Toronto
- **1991 - Present** Professor, Department of Radiation Oncology, University of Toronto
- **1991 - 2001** Chair, Department of Radiation Oncology, Faculty of Medicine, (Cross-appointment)
- **1986 - Present** Professor, Department of Otolaryngology, University of Toronto
- **1991 - 2001** Executive Committee, Interdepartmental Division of Oncology, Member
- **2002 - 2006** Chair, Board of Examiners, Radiation Sciences Program, University of Toronto

**Professional Affiliations and Activities**

Canadian Association of Radiation Oncologists
American Society for Radiation Oncology
European Society for Therapeutic Radiology and Oncology
Canadian Medical Association
Ontario Medical Association
International Society of Gastrointestinal Oncology

**Certifications and Licensures**

College of Physicians and Surgeons of Ontario No. 27611

**Administration and Committee Appointments**

**Local Committees**

- **1976 – 1981** Admissions and Discharge Committee, Member, Admissions Subcommittee, Chairman, Princess Margaret Hospital
- **1982 – 1984** Ambulatory Care Committee, Chair, Princess Margaret Hospital
- **1983 – 1984** ad hoc Committee for the Study of the Role of Surgical Services at OCI, Chair, Princess Margaret Hospital
- **1982 - 1985** Technical Procedures Committee, Member, Princess Margaret Hospital
- **1984 – 1985** Task Force Appointed by the Dean of the Faculty of Medicine to Review Oncology in the Faculty, Member, University of Toronto
- **1983 – 1985** Joint Planning Committee for Study of the Role of the OCTRF and OCI in the
Delivery of Cancer Services in Ontario, Member, Princess Margaret Hospital

1983 – 1985 ad hoc Committee for the Study of the Role of Radiation Oncology
Department of the OCI, Member, Princess Margaret Hospital

1976 - 1987 Radiation Oncology Resident Committee, Member, Princess Margaret Hospital


1994 – 1995 Re-engineering Project Steering Committee, Member, Princess Margaret Hospital

1994 – 1996 Site Group Steering Committee, Member, Princess Margaret Hospital


1991 – 2001 Chair, Department of Radiation Oncology, University of Toronto

1998 – 2001 Cancer Committee, UHN/PMH, Member

2002 - 2006 Board of Examiners, Radiation Sciences Program, Chair, University of Toronto

2009 – 2010 Organizer, International Teaching Course on Radiation Therapy, Mexico City

**National and Provincial Committees**

1976 - 1979 Scientific Program Committee, Vice Chair, (Radiation Oncology), Canadian Association of Radiologists

1976 – 1979 Annual Meetings Committee, Member, Canadian Association of Radiologists

1981 Site Review Committee NCI(C) Clinical Trials Unit, Kingston, Member, National Cancer Institute (Canada)

1982 Site Review Committee NCI(C) Cancer Co-ordinator Application, Saskatoon, Member, National Cancer Institute (Canada)


1980 – 1984 Clinical and Epidemiological Research Advisory Group (CERAG), Member, National Cancer Institute (Canada)

1982 – 1984 Royal College Specialty Committee in Radiation Oncology, Member, Royal College of Physicians and Surgeons of Canada

1979 - 1985 Advisory Council on Radiation Oncology, Member, Canadian Association of Radiologists

1983 – 1985 ad hoc Committee on TNM Staging for Gastrointestinal Tumours, Chair, National Cancer Institute (Canada)

1984 – 1986 Advisory Committee on Research (ACOR), Member, National Cancer Institute (Canada)

1986 Site Review of Section of Radiation Oncology and of Training Program in Radiation Oncology. University of Manitoba, and Manitoba Cancer Treatment
1986  Site Review of Radiation Therapy Facilities and Radiation Oncology Program at Jewish General Hospital, McGill University, Montreal, and Jewish General Hospital, Montreal
1986  Site Review of Resident Training Program in Radiation Oncology, University of Western Ontario, and London Clinic, OCTRF
1987  Site Review of Radiation Oncology Program, Kingston Regional Cancer Centre, OCTRF
1986 – 1987  Standing Committee on Training and Qualifications, Radiation Oncology, Chairman, Canadian Association of Radiologists
1987 – 1989  Committee on Manpower and Economics, Chair, Canadian Association of Radiation Oncologists
1985 – 1989  Examining Board in Medical Oncology, Member, Royal College of Physicians and Surgeons of Canada
1987 – 1989  Board of Directors, Member, Canadian Oncology Society
1990  ad hoc Working Group on Radiation Services, Member, Ontario Ministry of Health
1991  Site Review of Radiation Oncology Department, University of Ottawa, and Ottawa Regional Cancer Center, OCTRF
1989 – 1991  President, Canadian Association of Radiation Oncologists
1987 – 1992  Royal College Specialty Committee in Radiation Oncology, Chair
1987 – 1992  Royal College Specialty Committee in Hematology, Corresponding Member
1987 – 1992  Royal College Specialty Committee in Medical Oncology, Corresponding Member
1991 – 1992  Task Group on Major Equipment Acquisition, Member, Cancer Care Ontario
1991 – 1993  Past President, Canadian Association of Radiation Oncologists
1993  Site Review of Radiation Oncology Program, Kingston Regional Cancer Centre, OCTRF
1994  ad hoc Working Group on Recruitment and Retention of Radiation Oncologists, Member, Ontario Ministry of Health
1990 – 1995  ACB Research Initiative Program, External Reviewer, Alberta Cancer Board
1993 – 1996  Cancer Staging Committee, Gastrointestinal Cancers, Chair, National Cancer Institute (Canada)
1997 – 1998  Central East Community Cancer Center Review Committee, Member, Ontario Ministry of Health
1994 – 1998  Radiation Oncology Forum, Clinical Trials Group, Chair, National Cancer Institute (Canada)
2000  ad hoc Working Group on Funding for Radiation Treatment Equipment, Ontario Ministry of Health
1996 – 2001  Radiation Treatment Program Committee, Member, Cancer Care Ontario
1998 – 2001  Central East Regional Coordinator, Radiation Therapy, Cancer Care Ontario
1999 – 2001 ad hoc Working Group on Case-Costing for Radiation Treatment (Joint Policy and Planning Committee), Co-Chair, Ontario Ministry of Health

2000 – 2001 Cancer Human Resources Planning Committee, Member, Ontario Ministry of Health

1989 – 2004 National Cancer Institute (Canada) Clinical Trials Group, Gastrointestinal Tumour Site Committee, Clinical Trials Group, Member ;(1991 – 2002 Executive, (Member)

2004 External Review of Department of Radiation Oncology, Chair. Capital Health, Halifax

2004 – 2006 Clinical Council, Member, Cancer Care Ontario

1996 – 2007 Program for Evidence-Based Medicine, Gastrointestinal Tumor Site Committee (Member 1996-2002, Co-Chair 2002-2007), Cancer Care Ontario


2003 – 2008 Canadian Prostate Cancer Research Initiative. Board of Directors, Member (NCIC Board Representative)

2007 – 2008 Governance and Nominating Committee, Member, National Cancer Institute (Canada)

2009 External Review of Department of Radiation Oncology. The Ottawa Hospital

2000 – 2012 National Cancer Institute (Canada) Clinical Trials Group, Clinical Trials Committee, Member (NCIC Board Representative)

2011 External Review of Radiation Treatment Program, Windsor Regional Cancer Center (with Dr P. Craighead)

**International Committees**

1984 - 1991 Committee on Clinical-Pathological Staging of Large Bowel Cancer, Member, American Society of Colon and Rectal Surgeons


1989 - 1993 Executive, Assistant Secretary, International Society for Radiation Oncology

1993 - 1996 Constitution and Bylaws Committee, Member, American Society for Therapeutic Radiology and Oncology

1997 - 2001 President-Elect, International Society for Radiation Oncology

2001 – 2002 Expert Advisory Group on the Beatson Oncology Centre, Chair, Greater Glasgow NHS Board, Glasgow, Scotland

2001 - 2004 President, International Society for Radiation Oncology

2003 - 2004 Advisory Committee on Long-Term Care, Member, Government of Pakistan

1997 - 2012 International Cancer Technology Transfer Fellowships for Researchers and Clinicians, Review Panel Member, International Union against Cancer (UICC)

2001 - 2012 TNM Expert Advisory Panel on Gastrointestinal Tumors, Member, International Union Against Cancer (UICC)

2002 - 2016 International Relations Committee (Chair 2004-2008), American Society for Radiation Oncology
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 – 2010</td>
<td>Organizer, ASTRO Teaching Courses. Argentina 2006; Brazil 2007; Uruguay 2007 (ALATRO); China 2008 (SANTRO); Argentina 2008; Mexico 2009 (ALATRO); Brazil 2009; India 2009; Chile 2010.</td>
</tr>
<tr>
<td>2006 – 2010</td>
<td>Speaker ASTRO Teaching Courses. Philippines 2006; Argentina 2006; Chile, 2007; China 2008; Chile 2009; Brazil 2009; India 2009; Chile 2010.</td>
</tr>
</tbody>
</table>

**Grant Peer-Reviewed Responsibilities**

**Provincial/National**

<table>
<thead>
<tr>
<th>Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979 – 1981</td>
<td>Grant Review Panel for Medicine and Clinical Trials, Member, Cancer Care Ontario</td>
</tr>
<tr>
<td>1981 – 1983</td>
<td>Grant Review Panel for Pathology and for Studies with Clinical Components, Chair (1981-1983), National Cancer Institute (Canada)</td>
</tr>
<tr>
<td>1991</td>
<td>Grants Program, External Reviewer. Medical Research Council of Canada</td>
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<tr>
<td>1991</td>
<td>Health Care Systems Research Grants Panel, External Reviewer, Ontario Ministry of Health</td>
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**International**

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<tr>
<th>Date</th>
<th>Responsibility</th>
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<tbody>
<tr>
<td>2001 - 2002</td>
<td>Grants Program, External Reviewer, Netherlands Cancer Society</td>
</tr>
<tr>
<td>2006 - 2008</td>
<td>Grant Reviewer, Federal Ministry for Education and Research, Germany</td>
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</tbody>
</table>

**Journal Editorial and Peer-Review Responsibilities**

**Editorial Boards**

<table>
<thead>
<tr>
<th>Date</th>
<th>Journal</th>
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<tbody>
<tr>
<td>2011 – 2014</td>
<td>BMC Physics, Editorial Board Member.</td>
</tr>
<tr>
<td>1985 - 2013</td>
<td>International Journal of Colorectal Disease, Board of Consultants, Member.</td>
</tr>
<tr>
<td>2007 - 2011</td>
<td>Current Medical Literature – Colorectal Cancer, Advisory Board, Member.</td>
</tr>
<tr>
<td>2004 - 2008</td>
<td>Nature Clinical Practice Oncology, Editorial Advisory Board, Member.</td>
</tr>
<tr>
<td>1985 - 1987</td>
<td>Journal of Clinical Oncology, Editorial Board, Member.</td>
</tr>
<tr>
<td>1989 - 1996</td>
<td>Laryngoscope, Editorial Board, Member.</td>
</tr>
</tbody>
</table>
1975 - 1983  Canadian Association of Radiologists Journal, Editorial Committee, Member.

Manuscript Peer-Reviewer for:

<table>
<thead>
<tr>
<th>Years</th>
<th>Journal/Conference</th>
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<tbody>
<tr>
<td>1991 - 2014</td>
<td>Cancer</td>
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<tr>
<td>2012 – 2014</td>
<td>Current Oncology</td>
</tr>
<tr>
<td>2002 – 2014</td>
<td>International Literature Survey, McMaster University</td>
</tr>
<tr>
<td>1984 - 2012</td>
<td>Radiotherapy and Oncology</td>
</tr>
<tr>
<td>1985 - 2007</td>
<td>Journal of Clinical Oncology</td>
</tr>
<tr>
<td>1985 - 1987</td>
<td>Otolaryngology-Head and Neck Surgery</td>
</tr>
<tr>
<td>1990</td>
<td>American Journal of Clinical Oncology</td>
</tr>
<tr>
<td>1990 - 2001</td>
<td>European Journal of Cancer</td>
</tr>
<tr>
<td>1997 - 2009</td>
<td>Diseases of the Colon and Rectum</td>
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<tr>
<td>1997 - 1998</td>
<td>British Journal of Cancer</td>
</tr>
<tr>
<td>1998</td>
<td>Acta Oncologica</td>
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<tr>
<td>2003</td>
<td>Journal on Information Technology in Healthcare</td>
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<tr>
<td>2007</td>
<td>Journal of Pain and Symptom Management</td>
</tr>
<tr>
<td>2012</td>
<td>Science Translational Medicine</td>
</tr>
</tbody>
</table>

Research Grants

Previously Funded as Principal Investigator


**Cummings, B.J.** Rider WD. Grant for a Clinical Trials Secretary for the Princess Margaret Hospital Gastrointestinal Tumour Group. Ontario Cancer Treatment and Research Foundation (OCTRF). $20,200, 1980-1981.

**Cummings, B.J.** DeBoer D. Grant for a Clinical Trials Secretary for the Princess Margaret Hospital Gastrointestinal Tumour Group. Ontario Cancer Treatment and Research Foundation (OCTRF). $44,000, 1981-1983.

Previously Funded as Co-Investigator


PUBLICATIONS:

Refereed publications


Tannock I, Cummings B, Sorrenti V. Combined chemotherapy used prior to radiation therapy for locally advanced squamous cell carcinoma of the head and neck. Cancer Treat Rep 6:1421-1429, 1982. (Co-Principal)


Other Publications


Rectal Cancer Alliance of Canada (RCAC). QuickSilver: A Phase II study using magnetic resonance imaging criteria to identify “good prognosis” rectal cancer patients eligible for primary surgery. JMIR Res Protoc 4(2): e41, 2015.

Non-Refereed Publications


Cummings BJ. Squamous cell carcinoma of the anal margin (editorial) Oncology 10:1853-1854, 1996.


Book Chapters


PUBLISHED ABSTRACTS


Dr. Bernard Cummings
CV Format/U of T


**Cummings BJ**, O’Sullivan B, Keane T, Gullane P, and the Head and Neck Group. Larynx conservation in a randomized trial of hyperfractionated versus conventional once daily radiation:


Spayne J, Warde PR, O’Sullivan B, Payne D, Liu F-F, Waldron J, Cummings BJ. Carcinoma in situ of the glottic larynx – results of treatment with radiation therapy. Canadian Association of


Khalil AA, Bentzen SM, Bernier J, Saunders MI, Horiot JC, Van den Bogaert W. Cummings BJ, Dische S. Compliance to the prescribed overall treatment time in five randomized controlled trials of altered radiotherapy fractionation in patients with squamous cell carcinoma of the head.


Presentations

Refereed Scientific Presentations

Relative risk factors in the treatment of juvenile nasopharyngeal angiofibroma. Can Assoc Radiol, 43rd Annual Meeting, Montreal, 1980


Chordoma: The results of conventional and multiple daily fractionated radiation therapy. Amer Soc Ther Radiol, 22nd Annual Scientific Meeting, Dallas, USA. 1980

Risk factors in the treatment of juvenile nasopharyngeal angiofibroma. Amer Soc Ther Radiol, 22nd Annual Scientific Meeting, Dallas, USA. 1980


Neurotoxic radiosensitizers and head and neck cancer patients - how many will benefit? Poster session (with G.M. Thomas, A.M. Rauth, V. Sorrenti, B. Black, R.S. Bush), C.R.O.S. Conference on Chemical Modification: Radiation and Cytotoxic Drugs, Key Biscayne, Florida, USA. 1981


Curative external radiation for adenocarcinoma of the rectum. Amer Soc Ther Radiol, 23rd Annual Scientific Meeting, Miami, USA. 1981

Radical radiation therapy alone or plus chemotherapy for primary squamous cell carcinoma of the anal canal. Amer Soc Ther Radiol, 23rd Annual Scientific Meeting, Miami, USA. 1981

The results of the treatment of chordoma by radiation therapy. Can Assoc Radiol, 45th Annual Meeting, Winnipeg, 1982


Radiation therapy alone or with chemotherapy for anal canal carcinoma. Royal Coll Phys Surg Canada, 51st Annual Meeting, Quebec, 1982

Local radiation therapy in the management of sarcomas of the breast. Amer Soc Ther Radiol, 24th Annual Scientific Meeting, Orlando, USA. 1982

The treatment of advanced glomus tumors of the middle ear region by radiation therapy. Amer Soc Ther Radiol, 24th Annual Scientific Meeting, Orlando, USA. 1982

Should radiotherapy be given alone or with chemotherapy for anal canal carcinoma? Amer Soc Colon Rectal Surg, 82nd Annual Meeting, Boston, USA. 1983
Radiation treatment in juvenile nasopharyngeal angiofibroma. Can Assoc Radiol, 46th Annual Meeting, Quebec, 1983

The results and late toxicity of megavoltage radiation for juvenile nasopharyngeal angiofibroma. Amer Soc Ther Radiol, 25th Annual Scientific Meeting, Los Angeles, USA. 1983


The treatment of anal canal carcinoma by combined radiation and chemotherapy. Can Assoc Radiol, 47th Annual Meeting, Vancouver, 1984


The results of elective irradiation with/without chemotherapy of the inguinal lymph nodes in carcinoma of the anal canal. Amer Soc Colon Rectal Surg, 85th Annual Meeting, Houston, USA. 1986


Treatment of perianal carcinoma by radiation or radiation plus chemotherapy. Amer Soc Ther Radiol Oncol, 28th Annual Meeting, Los Angeles, USA. 1986


Epidermoid anal cancer: treatment by radiation alone, or by radiation and 5-FU with and without Mitomycin. Amer Soc Ther Radiol Oncol, 32nd Annual Meeting, Miami, USA. 1990


Preservation of anorectal function in advanced epidermoid anal cancer. 6th Annual Scientific Meeting, Can Assoc Radiat Oncol, Ottawa, 1992
Radiation treatment of glomus jugulare tumors. 6th Annual Scientific Meeting, Can Assoc Radiat Oncol, Ottawa, 1992

Management of squamous cell cancers of the rectum. 8th Annual Scientific Meeting, Can Assoc Radiat Oncol, Toronto, 1994

Treatment of angiofibroma by radiation therapy. 9th Annual Scientific Meeting, Can Assoc Radiat Oncol, Montreal, 1995

Treatment of angiofibroma by radiation therapy. 4th International Conference on Head and Neck Cancer, Toronto, 1996


Larynx conservation in a randomized trial of hyperfractionated versus conventional once daily radiation: A Subgroup analysis. European Cancer Conference, ECCO 9, Hamburg, Germany. 1997

Preservation of the larynx in a prospective randomized trial of hyperfractionated versus conventional radiation in locally advanced larynx cancer. 10th Annual Scientific Meeting Can Assoc Radiat Oncol, Vancouver, 1997

Larynx preservation in category T3 and T4 primary larynx cancer treated by hyperfractionated or conventional once daily radiation. Combined Meeting of American Society for Head and Neck Surgery and Society of Head and Neck Surgeons, Palm Beach, Florida, USA. 1998


A randomized trial of twice daily radiation. 14th Annual Scientific Meeting, Can Assoc Radiat Oncol, Edmonton, Alberta, 2000

A prospective randomized trial of hyperfractionated versus conventional once daily radiation for advanced squamous cell carcinoma of the larynx and pharynx – 5 year results. 42nd Annual Scientific Meeting, Amer Soc Ther Radiol Oncol, Boston, USA. 2000

Invited Presentations

Radiation treatment of axillary lymph nodes in breast cancer. NCI(C) Clinical Trials Group Annual Meeting, Toronto, 1976

Radiation therapy in rectal cancer. Canadian Association of General Surgeons, Toronto, May 1977

The treatment of anal canal carcinoma. Toronto Academy of Medicine, Section of Colorectal Surgery, 1980


Adjuvant therapy for colorectal cancer. Toronto Academy of Medicine, Section of Colorectal Surgery, 1981

Clinical staging of rectal carcinoma. Toronto Academy of Medicine, Section of Colorectal Surgery, Toronto, 1981


The role of radiotherapy in rectal cancer. Toronto General Hospital Clinical Day "Controversies in Cancer", June 1981


Clinical staging for rectal carcinoma. Dept of Radiation Therapy and Oncology, Auckland, New Zealand. 1981

Radical external radiation therapy for primary rectal carcinoma. Dept of Radiation Therapy and Oncology, Auckland, New Zealand. 1981

The treatment of cancer of the rectum and anal canal. Royal Australasian College of Radiologists, 32nd Annual Scientific Meeting, Christchurch, New Zealand. 1981


The treatment of anal canal carcinoma by combined radiation and chemotherapy. United Kingdom "51 Club" Radiation Therapists, Toronto, 1981


The treatment of anal and rectal carcinoma. Pfizer Lecture Series, Montreal General Hospital, Montreal, 1982

Symposium: The diagnosis and treatment of common cancers: Colorectal cancer. 51st Annual Meeting, The Royal College of Physicians and Surgeons of Canada, Quebec, 1982

Symposium: Soft tissue sarcomas: diagnosis and management - Radiotherapy. 51st Annual Meeting, The Royal College of Physicians and Surgeons of Canada, Quebec, 1982

The role of potential methods of clinical staging. Is there a role for primary radiotherapy? Panel on Carcinoma of the Colorectum, Amer Soc Ther Radiol, 24th Annual Scientific Meeting, Orlando, USA. 1982

Adjuvant radiation therapy for rectal carcinoma. 3rd Annual Symposium on Colon and Rectal Surgery, The Cleveland Clinic Educational Foundation, Cleveland, USA. 1982

The prevention of radiation injury to the intestine. 3rd Annual Symposium on Colon and Rectal Surgery, The Cleveland Clinic Educational Foundation, Cleveland, USA. 1982

The treatment of anal canal carcinoma using combined radiation therapy and chemotherapy. New York University Medical Center, New York, USA. 1982

The role of radiation therapy in metastatic melanoma. Malignant Melanoma - Current Controversies, University of Toronto, Toronto, 1983


Treatment of carcinoma of the anal canal. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983

The prevention of radiation bowel damage. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983

Radiation therapy for juvenile nasopharyngeal angiofibromas and glomus tumors. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983.

Treatment of chordoma by radiation therapy. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983.

Decision making in the management of rectal cancer. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983

The place of radiation therapy in the treatment of rectal carcinoma. Combined Oncology Rounds, Johannesburg Hospital, Johannesburg, South Africa. 1983

The treatment of primary and metastatic melanoma by radiation. Combined Oncology Rounds, Johannesburg Hospital, Johannesburg, March 1983.

The treatment of anal carcinoma by radiation and chemotherapy. Department of Surgery, Johannesburg Hospital, Johannesburg, South Africa. 1983

The response of juvenile angiofibroma and glomus tumours to radiation. Departments of Otolaryngology and Radiotherapy, Johannesburg Hospital, Johannesburg, South Africa. 1983

The treatment of carcinoma of the larynx. Departments of Otolaryngology and Radiotherapy, Johannesburg Hospital, Johannesburg, South Africa. 1983

The treatment of primary and metastatic melanoma by radiation. Department of Radiotherapy, Groote Schuur Hospital, Cape Town, 1983
The place of radiation in the treatment of rectal carcinoma. Department of Radiotherapy, Groote Schuur Hospital, Cape Town, 1983

The treatment of anal carcinoma by combined radiation and chemotherapy. Department of Radiotherapy, Groote Schuur Hospital, Cape Town, 1983

The response of glomus tumors and juvenile nasopharyngeal angiofibromas to radiation. Department of Radiotherapy, Groote Schuur Hospital, Cape Town, 1983

The treatment of melanoma by radiation. Department of Radiotherapy, Karl Bremer Hospital, Cape Town, 1983

The treatment of anal carcinoma. Departments of Radiotherapy and General Surgery, Port Elizabeth Hospital, Port Elizabeth, 1983


The case for radiation therapy for juvenile nasopharyngeal angiofibroma. Controversies in Laryngology, Sixth British Academic Conference in Otolaryngology, Bristol, England. 1983


Pre- and post-operative radiation therapy for rectal and anal carcinomas - is it established therapy? Symposium: The Treatment of Gastrointestinal Tumors - Progress or Standstill? Munich, West Germany. 1983

Squamous cancer of the anal canal - multimodality approach. Clinical Day in General Surgery, Toronto General Hospital, Toronto, 1984


Preoperative radiation for rectal carcinoma. University of Minnesota, Minneapolis, USA. 1984

The place for radical radiation in carcinoma of the rectum. University of Minnesota, Minneapolis, USA. 1984

Clinical staging of rectal carcinoma. University of Minnesota, Minneapolis, USA. 1984

The treatment of anal cancer. Mallinckrodt Institute of Radiology, Washington University Medical Center, St. Louis, USA. 1984

Radical radiation therapy for rectal cancer. Washington University, St. Louis, and St. Luke's Medical Center, St. Louis, USA. 1984

Combined modality therapy (infusion 5-FU, Mitomycin, radiation) for squamous cell cancers. Symposium on Continuous Infusion Chemotherapy and its Interactions with Radiation in the Treatment of Malignant Tumors. Downstate Medical Center, State University of New York, New York, USA. 1985


Does the addition of chemotherapy to radiation therapy improve the therapeutic ratio for anal canal carcinoma? XVI International Congress of Radiology, Hawaii, USA. 1985


Radiotherapy for carcinoma of the rectum. Mid-West Colon and Rectal Society, Toronto, 1985

The role of radiation therapy for vascular tumors of the head and neck. American Academy of Otolaryngology - Head and Neck Surgery, Atlanta, USA. 1985

The role of radiation therapy in the treatment of anal carcinoma. Thomas Jefferson University, Philadelphia, USA. 1985

The role of radiation and chemotherapy in the treatment of anal carcinoma. Department of Radiation Therapy, Gainesville, Florida, USA. 1986

The Princess Margaret Hospital experience in treating juvenile angiofibromas. Department of Radiation Therapy, Gainesville, Florida, USA. 1986

The role of adjuvant radiation therapy for rectal carcinoma. Department of Radiation Therapy, Gainesville, Florida, USA. 1986


Treatment of gastrointestinal malignancy. 14th Annual Clinical Day, "Update in the Management of Neoplastic Disease", The Mississauga Hospital, Mississauga, 1986

Combined modality management of soft tissue sarcoma - controversial issues. Panelist. NCI(C) Clinical Trials Group Meeting, Toronto, 1986

Combined radiation and chemotherapy for anal cancer, MD Anderson Hospital, Houston, USA. 1986
Principals of radiation therapy in tumor management. Symposium on Rectal and Anal Cancer, the Jewish Hospital of St. Louis at Washington University Medical Center, St. Louis, USA. 1986

The ideal utilization of radiation therapy for rectal cancer. Symposium on Rectal and Anal Cancer, the Jewish Hospital of St. Louis at Washington University Medical Center, St. Louis, USA. 1986

The management of anal canal cancer. Symposium on Rectal and Anal Cancer, the Jewish Hospital of St. Louis at Washington University Medical Center, St. Louis, USA. 1986

Squamous cell carcinoma of the anus - results of conservative management. Clinical Day in General Surgery, Toronto General Hospital, Toronto, 1986

The role of radiation in rectal cancer. Clinical Day in General Surgery, Toronto General Hospital, Toronto, 1986


The treatment of carcinomas of the rectum and anal canal. The National Cancer Institute of Brazil, Rio de Janeiro, Brazil, 1986

Recent advances in the treatment of anal cancer. The 1986 World Congress of Gastroenterology, Sao Paulo, Brazil. 1986

The role of radiation therapy in the treatment of primary carcinomas of the rectum. Clinical Day, St. Joseph's Hospital, Buffalo, USA. 1986

Applying Principals of radiation therapy to tumor management. Southwest Ohio Regional Cancer Symposium, University of Cincinnati, Cincinnati, USA. 1986.

The Princess Margaret Hospital experience with preoperative radiation for rectal carcinoma. Panel on Adjuvant Therapy for Rectal Cancer. Amer Soc Ther Radiol Oncol, 28th Annual Meeting, Los Angeles, USA. 1986 (delivered by TJ Keane)


Radiotherapeutic management of oro-facial tumours. The Role of the Primary Care Dentist and Physician in Oro-Facial Cancer, Mount Sinai Hospital, Toronto 1987

Radiation therapy for colorectal cancer. 27th Annual Refresher Course for General Surgeons, University of Toronto, Toronto. 1987


Prospective sarcoma trials in Canada. The radiation oncology viewpoint. The Toronto Symposium on Soft Tissue Sarcomas of the Extremities, Toronto, 1988

Radiation therapy for head and neck cancer. Continuing Dental Education Program, Faculty of Dentistry, University of Toronto, Toronto, 1988

Radiation therapy for esophageal cancer. 28th Annual Refresher Course for General Surgeons, University of Toronto, Toronto, 1988

The Princess Margaret Hospital experience with rectal and anal cancers, British Institute of Radiology, Glasgow, Scotland. 1988

Basic concepts of radiation therapy related to the management of rectal and anal cancer, American Society of Colon and Rectal Surgeons, Anaheim, USA. 1988.


The treatment of anal cancer by combined radiation and chemotherapy. The Netherlands Cancer Institute, Amsterdam. 1988

Radiation therapy for vascular tumors. Second International Conference on Head and Neck Cancer, Boston, USA. 1988


Treatment of advanced cancers of the larynx and hypopharynx. 39th Annual Meeting of the Royal Australasian College of Radiologists, Auckland, New Zealand. 1988

Radiation therapy and rectal cancer. 39th Annual Meeting of the Royal Australasian College of Radiologists, Auckland, New Zealand. 1988

Radiation therapy for vascular tumors of the head and neck. 39th Annual Meeting of the Royal Australasian College of Radiologists, Auckland, New Zealand. 1988

Rectal and anal cancer. The preservation of function and esthetics. 74th Scientific Meeting Radiological Society of North America, Chicago, USA. 1988

Results and toxicity of treatment of cancers of the anal canal, esophagus, and head and neck by combined radiation, 5-Fluorouracil, and Mitomycin C. Loyola University, Chicago, USA. 1988

Radiation therapy and rectal cancer. Laval University, Quebec City, 1989

Continuous infusional 5-Fluorouracil with radiation therapy for head and neck and gynecological malignancies. Second Conference on Clinical Applications of Concomitant Infusion Chemotherapy and Radiation. New York, USA. 1989
Radiation in rectal cancer. 29th Annual Refresher Course for General Surgeons, University of Toronto, Toronto, 1989

Is it possible to answer the question of potential benefit from adjuvant radiation with or without chemotherapy for curable rectal cancer? Controversies in Gastrointestinal Cancer, CME, University of Toronto, Toronto, 1989


Should the response to chemotherapy be used as an indication for radiation therapy? Eastern Great Lakes Head and Neck Oncology Association, Toronto, 1989

Rectal and anal cancer. Refresher course. 75th Scientific Meeting, Radiological Society of North America, Chicago, USA. 1989

Is chemoradiation equivalent to surgery for early stages of anal cancer? 7th Annual Advances in Cancer Treatment Research, Albert Einstein College of Medicine/Montefiore Medical Center, New York, USA. 1990

Altered fractionation regimens in radiation of cancers of the head and neck. 34th Cancer Symposium, University of Saskatchewan, Regina, 1990

Neoadjuvant chemotherapy in cancers of the head and neck. 34th Cancer Symposium, University of Saskatchewan, Regina, 1990

Radiation and chemotherapy for anal cancer. Symposium on the Radio-Surgical Treatment of Tumors of the Rectum and Anus, Lyon, France. 1990

Adjuvant radiation therapy for rectal cancer. Department of Radiation Therapy and 1st Surgical Clinic, University of Vienna, Austria. 1990

Combined radiation and chemotherapy for anal cancer. XIIIth Biennial Congress, International Society of University Colon and Rectal Surgeons, Graz, Austria. 1990

Role of radiation for primary colorectal cancer. Victoria Cancer Clinic, Victoria, British Columbia, 1990

Role of conventional radiation in neoplasms of the skull base. Symposium: Interdisciplinary approach for lesions of the cranial base. Toronto Western Hospital, Toronto, 1990

Radiotherapy for cancer of the rectum and anus. Eleventh Annual Symposium on Colorectal Surgery. Cleveland Clinic, Cleveland, USA. 1990

Radiotherapy and chemotherapy for epidermoid cancer of the anal canal. 26th Annual San Francisco Cancer Symposium, San Francisco, USA. 1991
How real are the benefits from adjuvant radiation therapy for rectal cancer? Henry Ford Hospital, Detroit, USA. 1991


The role of the fourth year of residency training. International Symposium on Education of Residents in Radiation Oncology. ASTRO-SCAROP. Philadelphia, USA. 1991

Is irradiation of the paraaortic nodes necessary? Workshop on Rectal Cancer, A.Z. Maria Middelaars, Ghent, Belgium. 1991

Late effects of radiation on the function of the bladder and rectum. Workshop on Rectal Cancer, A.Z. Maria Middelaars, Ghent, Belgium. 1991

Should chemotherapy be given concurrently with radiation? Workshop on Rectal Cancer, A.Z. Maria Middelaars, Ghent, Belgium. April 1991


From caecum to anus: an overview of radiation therapy. Eeuwfeestkliniek, Antwerp, Belgium. 1991


Radiation therapy for chemodectomas around the skull base. Eighth British Academic Conference in Otolaryngology, Dublin, Ireland. 1991

Clinical results of treatment of squamous cell cancers by combined mitomycin C, 5-Fluorouracil and radiation therapy. Workshop in Bioreductive Drugs, Sensitizers, Oxygen and Radiotherapy, Vienna, Austria. 1991

What has been learned from the combined modality treatment of anal cancer? Manitoba Cancer Foundation, Winnipeg, 1992


How real are the gains with adjuvant therapy for rectal cancer? University of Florida at Gainesville, Florida, 22nd Annual Radiation Oncology Clinical Research Seminar, Gainesville, USA. 1992


Should response to chemotherapy be used to select patients for head and neck radiation? University of Florida at Gainesville, Florida, 22nd Annual Radiation Oncology Clinical Research Seminar, Gainesville, USA. 1992


Should the response to chemotherapy be used as an indication for radiation therapy? OCTRF Kingston Regional Cancer Centre, Kingston, 1992

Management of anal cancer. OCTRF Kingston Regional Cancer Centre, Kingston, 1992

Is progress with radiation and chemotherapy for anal cancer real or imaginary? McGill University Department of Radiation Oncology, Montreal, 1992

The role of radiation for recurrent rectal cancer. Workshop on Multimodality Management of Anorectal Cancer, Washington University, St. Louis, USA. 1992


Radiation therapy in crisis. Workshop: Cancer Treatment Under Pressure. NCI Canada, Edmonton, 1992

Can function be preserved in advanced anal cancer? 25 Years of Radiation Oncology, University of Toronto Department of Radiation Oncology Alumni Day, Toronto, 1992 (poster).

Adjuvant radiation therapy for colorectal cancer. Controversies in Colorectal Cancer. Ontario Cancer Institute/University of Toronto Interdepartmental Division of Oncology CME Program, Toronto, 1992

Does tumor response to chemotherapy predict for response to radiation treatment? Wayne State University, Combined Head and Neck Rounds, Detroit, USA. 1993

Treatment of anal cancer by combined radiation and chemotherapy. Wayne State University Department of Radiation Oncology, Detroit, USA. 1993

Invited commentary (with B. O'Sullivan) on John M et al: Is mitomycin C necessary in the cheoradiation regimen for anal canal carcinoma? Interim results of a Phase III randomized


Why chemotherapy is not an established component of treatment of larynx cancer. Second World Congress on Laryngeal Cancer. Sydney, Australia. 1994

Commentary on salvage treatments for early glottic cancer failure. Second World Congress on Laryngeal Cancer. Sydney, Australia. USA. 1994

Should every patient with rectal cancer receive radiation therapy? Chattanooga Regional Oncology Association, Chattanooga, USA. 1994

Management of advanced epidermoid cancer of the anal canal. Memorial Hospital, Chattanooga, USA. 1994

Resource requirements for radiation oncology in Ontario. OMA Section for Radiation Oncology, Toronto, 1994

Chemoradiation in anal cancer - the paradigm revisited. Clinical Aspects of Radiation Biology, University of Toronto, Department of Radiation Oncology, CME Course, Toronto, 1994

Radiation oncology in the 21st century. Clinical Aspects of Radiation Biology, University of Toronto, Department of Radiation Oncology, CME Course, Toronto, 1994

Anal preservation in rectal and anal cancer. Symposium: Curable Cancers - Survivorship Challenges - Organ Preservation Program. SUNY Health Science Center - American Cancer Society, Brooklyn, USA. 1994


Anal canal carcinoma - have we come full circle? The CARO Lecture, 8th Annual Scientific Meeting, Can Assoc Rad Oncol, Toronto, 1994

Adjuvant radiotherapy for colorectal cancer. 10th World Congresses of Gastroenterology, Los Angeles, USA. 1994


Matching radiation resources to needs. Royal Australasian College of Radiologists, 45th Annual Scientific Meeting, Christchurch, New Zealand. 1994 Guest Professor.

Should the response to chemotherapy be used as the indication for radiation therapy in head and neck cancer? Royal Australasian College of Radiologists, 45th Annual Scientific Meeting, Christchurch, New Zealand. 1994 Guest Professor.

What are the objectives of registrar (residency) training? Royal Australasian College of Radiologists, 45th Annual Scientific Meeting, Christchurch, New Zealand. 1994 Guest Professor.

Where to next with anal cancer? Royal Australasian College of Radiologists, 45th Annual Scientific Meeting, Christchurch, New Zealand. 1994 Guest Professor.


Radiation Oncology - towards the year 2000. Symposium: New Developments in Oncology. The Peter MacCallum Cancer Institute, Melbourne, Australia. 1994

Radiation therapy for colorectal cancer in the 90s. Seminar: Partners in Care of the Cancer Patient. The Peter MacCallum Cancer Institute, Melbourne, Australia. 1994

The role of radiation therapy for rectal cancer. Auckland Regional Oncology Centre, Auckland, New Zealand. 1994

Radiotherapy for head and neck cancer. Hurley Medical Center, Flint Michigan, USA. 1995

Conservative management of tumours of the anus and rectum. Symposium on Clinical Radiation Therapy, Department of Clinical Oncology, University of Edinburgh, Scotland. 1995

Adjuvant therapy for rectal cancer: is less better? Department of Radiation Therapy and Oncology, St. Thomas’s Hospital, London, England. 1995


Combining radiation and chemotherapy in the treatment of cancers of the anus and rectum. Third Walter T. Murphy Memorial Lecture, Roswell Park Cancer Institute, Buffalo, USA. 1995

Defining the extent of primary colorectal cancer. Oncodiagnosis Panel, 81st Annual Scientific Meeting, Radiological Society of North America, Chicago, USA. 1995

Management of anal cancer. 6th International Congress on Anti-Cancer Treatment, Paris, France. 1996

Indications for and benefits of adjuvant radiation therapy for rectal cancer. Canadian Society of Surgical Oncology, Toronto, 1996

Debate: “That this house believes that fractionation schedules such as accelerated fractionation and hyperfractionation are superior to conventional fractionation for head and neck cancer.” For: Dr. J. Parsons (Gainesville, Florida), Dr. T. Keane (Vancouver, BC); Against: Dr. K.K. Ang (Houston, Texas), Dr. B. Cummings (Toronto). The 1996 University of Toronto Department of Radiation Oncology Debate, Toronto, 1996


Directions for future research in anal cancer. A. Maxwell Evans Clinic, British Columbia Cancer Agency, Vancouver BC, 1996
Interim results of a prospective randomized trial of hyperfractionated versus conventional once daily radiation for advanced squamous cell cancers of the larynx and pharynx. 15th Annual Meeting Eur Soc Ther Radiol Oncol, Vienna, Austria. 1996

Radiation therapy for benign tumours of the head and neck. 15th Annual Meeting Eur Soc Ther Radiol Oncol, Vienna, Austria. 1996


Combined modality treatment of anal canal cancer - what have we learned? The 1997 Gilbert Fletcher Lecture, MD Anderson Cancer Center, Houston, USA. 1997

A randomized trial of hyperfractionated radiation for advanced cancer of the larynx and pharynx. Department of Radiation Therapy, MD Anderson Cancer Center, Houston, USA. 1997

Predicting response to radiation after chemotherapy. Department of Radiation Therapy, MD Anderson Cancer Center, Houston, USA. 1997

Four week fractionated radical radiation for head and neck cancer. International Congress of Radiation Oncology, Beijing, China. 1997

Anal cancer: Strategies for cure. 3rd Jaffar Oncology Conference, Providence Cancer Center, Detroit, USA. 1997


Anal canal cancer. How can we do better? Department of Radiation Oncology, Wayne State University, Harper Hospital, Detroit, USA. 1997

Hyperfractionation for advanced cancer of the larynx and pharynx. Auckland Regional Oncology Centre, Auckland, New Zealand. 1997

Should response to neoadjuvant chemotherapy determine which patients with advanced cancers of the larynx or hypopharynx are eligible for organ preservation protocols? 8th International Congress on Anti-Cancer Treatment, Paris, France. 1998

Reduction of dysfunction in pelvic organs following the treatment of epidermoid cancer of the anal canal by radiation and chemotherapy. 8th International Congress on Anti-Cancer Treatment, Paris, France. 1998


The treatment of cancer of the anal canal and perianal skin. North East Ontario Regional Cancer Center, Sudbury, 1998

Treatment of anal cancer in North America. 6th World Congress of Endoscopic Surgery, Rome, Italy. 1998

Strategies for improving outcome in the treatment of anal canal cancer. Instituto Di Radiologia, Università Cattolica Del Sacro Cuore, Rome, Italy. 1998

Introduction to clinical considerations. Workshop – Variability in the radiosensitivity of normal cells and tissues. 17th Annual Meeting, European Society for Therapeutic Radiology and Oncology, Edinburgh, Scotland. 1998


Radiation therapy for primary or unresectable rectal cancer. Symposium – Progress in Gastrointestinal Disease, Mt. Sinai Hospital, Toronto, 1998

Combined modality treatment of anal cancer – more questions than answers. Department of Radiation Oncology, University of Michigan, Ann Arbor, USA. 1998

Should the clinical response to chemotherapy be used as an indication for radiation treatment for advanced head and neck cancer? Royal Victoria Hospital, McGill University, Montreal, 1998

What is the future for adjuvant radiation treatment for rectal cancer? Montreal General Hospital, McGill University, Montreal, 1998

How can we improve the management of anal cancer? The Annual “Advances in Oncology” Lecture, McGill University and University of Montreal, 1998

Postoperative radiation treatment for rectal cancer: what is the standard? Hôpital Maisonneuve-Rosemont, University of Montreal, Montreal, 1998

Improving the therapeutic ratio in anal cancer. Hôpital Maisonneuve-Rosemont, University of Montreal, Montreal, 1998

Neo-adjuvant chemotherapy and its implication for radiotherapy management in head and neck cancer. Hôpital Notre-Dame, University of Montreal, Montreal, 1998

An overview of the management of anal cancer. 9th International Congress on Anti-Cancer Treatment, Paris, France. 1999

How should adjuvant chemotherapy and radiation therapy for rectal cancer be combined? 9th International Congress on Anti Cancer Treatment, Paris, France. 1999

Debate: “That this house believes that cancer treatment will be individualized for each patient by 2010”. For: Dr. I. Tannock (Toronto), Dr. W. Mackillop (Kingston). Against: Dr. B. Cummings (Toronto), Dr. R. Bristow (Toronto). The 1999 University of Toronto Department of Radiation Oncology Debate, Toronto, 1999

Are radiation oncologists over-treating rectal cancer? Department of Radiotherapy, University Clinic, Freiburg, Germany. 1999

The role of hypoxia and anemia in cancer treatment. Introduction to Symposium, 1st International Conference: Erythropoietin in Radiation Oncology, Freiburg, Germany. 1999

The evolution of the treatment of anal cancer. Department of Radiation Oncology, Barrett Cancer Center, University of Cincinnati, Ohio, USA. 1999
Contemporary head and neck cancer: should we change fractionation or add chemotherapy? Symposium: Head and Neck Cancer Advances and Controversies, University of Cincinnati, Ohio, USA. 1999

Radiotherapy – pre, intra- or post op? Symposium: Management of Rectal Carcinoma as We Approach the Millenium. Canadian Society of Colon and Rectal Surgeons Annual Scientific Meeting, Montreal, 1999

The clinical response to cytotoxic chemotherapy as a predictor of response to radiation. Department of Clinical Oncology, St. Thomas’ Hospital, London, England. 1999
Combined radiation and chemotherapy for rectal and anal cancers. Department of Oncology, Beatson Cancer Center, Glasgow, Scotland. 1999


Future directions in radiation therapy of colorectal cancer. NCI Canada Gastrointestinal Clinical Trials Committee: Colorectal Cancer at the Millenium – Directions in Multimodality Therapy, Banff, Alberta, 1999

The Compleat Oncologist Revisited. The 2000 RS Bush Visiting Professor Lecture, Princess Margaret Hospital, Toronto, 2000

Radiation for benign tumors of the head and neck. 5th International Conference Head and Neck Cancer, San Francisco, USA. 2000

Debate: “Modern surgical techniques for rectal cancer have made adjuvant radiation redundant”. For-Professor R. Heald (England); Against- Dr. B. Cummings (Toronto), Symposium-Progress in Gastrointestinal Disease, University of Toronto, Toronto, 2000

Latest advances in the treatment of lower gastrointestinal malignancies. 7th Annual Conference: The Science and Art of Pain and Symptom Management, University of Toronto, Toronto, 2000


The contributions of radiation therapy to cancer control. Plenary Session Lecture. 6th International Congress of Radiation Oncology. Melbourne, Australia. 2001

Dose-intensification for anal cancer. Department of Radiation and Cellular Oncology, University of Chicago, USA. 2001


The future of adjuvant therapy for rectal cancer. Cancer Congress. Santiago, Chile. 2001

The integration of radiation and chemotherapy in the treatment of anal canal cancer. Cancer Congress, Santiago, Chile. 2001
Progress, or lack of progress, in the treatment of anal cancer? Christie Hospital, Manchester, England. 2002


Improving the outcome of the treatment of anal cancer. Addenbrooke’s Hospital, Cambridge, England. 2002

Integrating radiation and chemotherapy in the management of anal cancer. 7th International Meeting on Progress in Radio-Oncology, ICRO/OGRO, Salzburg, Austria. 2002

Best practice with limited resources. 1st Polish Cancer Congress, Gliwice, Poland. 2002

Head and neck cancer. Defining the target volume. Introduction to a Poster Workshop, 21st Annual Scientific Meeting, Eur Soc Ther Radiol Oncol, Prague, Czech Republic. 2002

Colorectal cancer: current role for adjuvant radiation therapy. 8th Annual General Meeting, Ontario Association of General Surgeons, Toronto, 2002

Management of cancer of the pharynx. 8th Annual Canadian Radiation Oncology Residents Refresher Course, Ottawa, 2003


Principles of Best Practice. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Principles of Combined Modality Treatment. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Management of Head and Neck Cancer. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Cancer of the Nasopharynx and Oropharynx. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Cancer of the Larynx and Hypopharynx. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Adjuvant treatment of Rectal Cancer. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Cancer of the pharynx and larynx. 9th Annual Canadian Radiation Oncology Residents Refresher Course, London, Ontario, 2004

Cancer of the anal region. 9th Annual Canadian Radiation Oncology Residents Refresher Course, London, Ontario, 2004

Rethinking the GTV for adjuvant radiation for rectal cancer. Department of Radiation and Cellular Oncology, University of Chicago, Chicago, USA. 2004
Debate: “This house believes that by 2014, treatment of head and neck cancer will be based on molecular pathology”. For – Dr. B. O’Malley (Philadelphia), Dr. F.F. Liu (Toronto) against – Dr. B. Cummings (Toronto), Dr. D. Brown (Toronto). The Sixth Annual Wharton Day, Toronto, 2004

Current management of anal cancer. 2004 International Society of Gastrointestinal Oncology, Washington DC, 2004

Radiation Oncology in Canada. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Principles of combining radiation and chemotherapy. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Principles of radiation treatment of head and neck cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the larynx and hypopharynx. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Demonstration cases of larynx and hypopharynx cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the oropharynx and oral cavity. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Demonstration cases of oropharyngeal and oral cavity cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the nasopharynx – a North American perspective. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cervical node metastasis from an occult primary site. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the esophagus. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Adjuvant radiation therapy for gastric adenocarcinoma. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004
Adjuvant radiation treatment for rectal cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Determining the CTV for adjuvant radiation for rectal cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the anal region. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Demonstration cases of rectal and anal cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Clinical Practice Guidelines and the Academic Health Services Centre. Department of Internal Medicine Grand Rounds, Taichung Veterans General Hospital, Taichung, Taiwan. 2004

Modern management of rectal cancer. Department of Surgery General Rounds, Taichung Veterans General Hospital, Taichung, Taiwan. 2004

Clinical Practice Guidelines and the Academic Health Science Centre. Department of Internal Medicine Grand Rounds, National Cheng Kung University and Hospital, Tainan, Taiwan. 2004

Modern management of anal cancer. A happy convergence of science and empiricism. Department of Radiation Oncology Rounds, National Cheng Kung University and Hospital, Tainan, Taiwan. 2004

Cancer of the Pharynx. 10th Annual National Canadian Fellowship Examination Preparatory Course in Clinical and Radiation Oncology, Ottawa, 2005

Workshop on Head and Neck Cancer Treatment Planning. 10th Annual National Canadian Fellowship Examination Preparatory Course in Clinical and Radiation Oncology, Ottawa, 2005

Rethinking the CTV for adjuvant radiation for rectal cancer. CRILA Congress 2005, Lima, Peru. 2005

Indications for adjuvant radiation for gastric cancer, and Panel Discussion on Gastric Cancer. CRILA Congress 2005, Lima, Peru. 2005

Collaboration Strategies for Radiotherapy Societies. CRILA Congress 2005, Lima, Peru. 2005

Standards of Care in Radiation Therapy. How high should the bar be set? CRILA Congress 2005, Lima, Peru. 2005


Adenocarcinoma of the rectum. Current Standards and Best Practice. ASTRO Teaching Course, Manila, Philippines, January 2006.
Cancers of the oropharynx and nasopharynx. ASTRO Teaching Course, Manila, Philippines, January 2006.

Cancers of the larynx and hypopharynx. ASTRO Teaching Course, Manila, Philippines, January 2006.

Cancer of the Pharynx. 11th National Canadian Preparatory Course in Clinical and Radiation Oncology, Montreal, 2006.


Cancers of the esophagus and stomach. Current Standards and Best Practice. ASTRO Teaching Course, Buenos Aires, Argentina. 2006.


Multimodality therapy in rectal cancer. Latin American Symposium in Gastrointestinal Malignancies, Santiago, Chile. 2007.


Debate: Adjuvant chemotherapy alone is the proper treatment in resectable pancreatic cancer. Latin American Symposium in Gastrointestinal Malignancies, Santiago, Chile. 2007.

Cancer of the anal canal. Ninth Congress of the Radiotherapy Society of Brazil, Gramado, Brazil. 2007.


ASTRO and the international community. First SANTRO (Sino-American Network of Therapeutic Radiologists and Oncologists) Symposium, Beijing, China. 2008.


Gastric Cancer: Background to the North American approach. First SANTRO (Sino-American Network of Therapeutic Radiologists and Oncologists) Symposium, Beijing, China. 2008.

Progress in Anal Canal Cancer: the contributions of chance and systematic research.  Fudan University Cancer Hospital, Shanghai, China. 2008

International outreach education programs of ASTRO. Symposium: ASTRO and the International Community.  50th Annual Scientific Meeting, ASTRO, Boston, USA. 2008

Chemoradiation for anal canal cancer. Early luck but slow progress.  8th Princess Margaret Hospital Conference: Developments in Cancer Management.  Toronto, 2008


ASTRO international programs and the IAEA.  IAEA Headquarters, Vienna, Austria. 2009

Radiation and chemotherapy for rectal cancer: Before or after surgery? Second Latin American Symposium on Gastrointestinal Malignancies, Vina del Mar, Chile. April 2009

Perisurgical treatment for pancreas cancer. Second Latin American Symposium on Gastrointestinal Malignancies, Vina del Mar, Chile. April 2009

Cancers of the esophagus and stomach. Limits and advantages of perioperative treatment. Second Latin American Symposium on Gastrointestinal Malignancies, Vina del Mar, Chile. April 2009

Cancer of the esophagus. Best Practice in Radiation Oncology.  ASTRO International Education Program.  11th Annual Scientific Meeting of the Society of Radiation Oncologists of Brazil, Brazil. 2009

Cancer of the stomach. Best Practice in Radiation Oncology.  ASTRO International Education Program.  11th Annual Scientific Meeting of the Society of Radiation Oncologists of Brazil, Brazil. 2009

Cancer of the rectum. Best Practice in Radiation Oncology.  ASTRO International Education Program.  11th Annual Scientific Meeting of the Society of Radiation Oncologists of Brazil, Brazil. 2009

ARRO Conference.  ASTRO International Education Programs.  ASTRO Scientific Meeting, Chicago, USA. 2009

Dr. Solomon Padam Singh Oration. “The changing role of radiation treatment for cancer of the rectum.”  31st Annual Congress of the Association of Radiation Oncologists of India (AROI), Hyderabad, India. 2009

Using evidence-based guidelines. Princess Margaret Hospital Radiation Medicine Education Program: Current Strategies in Radiation Therapy, Mexico City, Mexico. 2010

Rectal cancer. Princess Margaret Hospital Radiation Medicine Education Program: Current Strategies in Radiation Therapy, Mexico City, Mexico. 2010

Case based teaching – gastrointestinal cancers. Princess Margaret Hospital Radiation Medicine Education Program: Current Strategies in Radiation Therapy, Mexico City, Mexico. 2010

Dr. Bernard Cummings
CV Format/U of T
Radiation treatment of metastases from colorectal cancer. Colorectal Cancer Association of Canada, Montreal. 2010

When change is progress. Reflections on 38 years of Head and Neck Radiation Oncology. Wharton/Elia Day, Annual Meeting, Princess Margaret Hospital, Toronto. 2010

Radiation therapy in Pancreas Cancer. ASTRO International Education Program. Annual Meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

Radiation therapy in Rectal Cancer: Short or long course? ASTRO International Education Program. Annual Meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

Conservative treatment of low rectal cancer. ASTRO International Education Program. Annual Meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

Radiation therapy in Rectal Cancer: Short or long course? ASTRO International Education Program. Annual meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

The development of treatment for anal cancer: from conventional to conformal. 32nd Annual Congress of the Association of Radiation Oncologists of India (AROI), Patna, India. 2010

Radiation Therapy, Rectal Cancer and Clinical Trials: Lessons and Opportunities. The Cosbie Lecture, NCIC Clinical Trials Group Spring Meeting, Toronto, 2011

Ontario Provincial Evidence-Based Guidelines for Preoperative Chemoradiation. Cancer Care Ontario Colorectal Cancer Champion Meeting, Toronto. 2011


Kuwait Cancer Control Centre Radiation Treatment Program, Kuwait, 2012

- Target volume delineation in head and neck cancer.
- Unknown primary cancer in lymph nodes.
- Management of T1 glottic cancer.


Fourth Latin American Symposium on Gastrointestinal Malignancies, Vina del Mar, Chile, 2013.

- Is there a role for adjuvant radiation for pancreas cancer?
- Which patients with rectal cancer do not need preoperative radiation and chemotherapy?


Visiting Professorships

1982  New York University Medical Center, Dept. of Radiation Therapy, New York, USA.

1983  University of the Witwatersrand, Dept. of Radiation Therapy, Johannesburg, South Africa.

1984  Mallinckrodt Institute of Radiology, at Washington University Medical Center, St. Louis, USA.

1985  Thomas Jefferson University, Department of Radiation Therapy, Philadelphia, USA.

1986  University of Florida, Department of Radiation Therapy, Gainesville, USA.

1988  Loyola University, Department of Radiation Therapy, Chicago, USA.

1991  Henry Ford Hospital, Department of Radiation Oncology, Detroit, USA

1992  Manitoba Cancer Foundation Clinic, Winnipeg, Manitoba.

1992  University of Florida at Gainesville, Department of Radiation Therapy, Gainesville, USA.


1992  McGill University, Department of Radiation Oncology, Montreal, Quebec.

1993  Wayne State University, Department of Radiation Oncology, Detroit, USA

1994  Christchurch Hospital Department of Oncology, Christchurch, New Zealand.

1994  Wellington Regional Cancer Centre, Wellington, New Zealand.

1994  Auckland Regional Cancer Centre, Auckland, New Zealand.


1997  MD Anderson Cancer Center, Houston, USA.
1997    Wayne State University, Department of Radiation Oncology, Detroit, USA
1998    Università Cattolica Del Sacro Cuore, Rome, Italy.
1998    University of Michigan, Department of Radiation Oncology, Ann Arbor, USA.
1998    University of Montreal and McGill University, Visiting Professor in Oncology, Montreal, Quebec.
1999    Cleveland Clinic Department of Radiation Oncology, Cleveland, USA.
1999    University of Cincinnati, Department of Radiation Oncology, Cincinnati, USA.
1999    University of Glasgow, Beatson Cancer Centre, Department of Clinical Oncology, Glasgow, Scotland.
2001    University of Chicago, Department of Radiation and Cellular Oncology, Chicago, USA.
2002    Mount Vernon Hospital, Department of Clinical Oncology, London, England.
2002    Christie Hospital, Department of Clinical Oncology, Manchester, England.
2002    Addenbrooke’s Hospital, Department of Clinical Oncology, Cambridge, England.
2004    University of Chicago, Department of Radiation and Cellular Oncology, Chicago, USA.
2007    London Regional Cancer Center, University of Western Ontario, London, Ontario.
2011    London Regional Cancer Center, University of Western Ontario, London, Ontario.
Curriculum Vitae

Gregory Jan Czarnota
Clinician Scientist and Radiation Oncologist

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-6128
Fax 416-480-6002
Email gregory.czarnota@sunnybrook.ca

1. EDUCATION

Degrees
2000 - 2005 F.R.C.P.C, Radiation Oncology, University of Toronto, Ontario, Canada
1996 - 2000 MD, Medicine, Faculty of, University of Toronto, Canada
1991 - 1995 PhD, Structural States of the Nucleosome, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1987 - 1991 B. Sc. Hons. Biochemistry/Biotechnology and Genetic Engineering, McMaster University, Canada

Postgraduate, Research and Specialty Training

1996 - 2000 Research Associate, Division of Medical Physics, Ontario Cancer Institute and Department of Medical Biophysics, University of Toronto, Canada
1995 - 1996 Postdoctoral Fellow, Division of Molecular and Structural Biology, Ontario Cancer Institute and Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1991 - 1996 Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1990 Biochemistry, McMaster University, Ontario, Canada
1989 Biochemistry, McMaster University, Ontario, Canada

Qualifications, Certifications and Licenses

2005 Specialist Certificate, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
2005 Certificate of Registration for Independent Practice, CPSO, College of Physicians and Surgeons of Ontario, Canada, License / Membership #: #75024
2001 Licentiate, LMCC, Medical Council of Canada, Canada, License / Membership #: #90046
2. EMPLOYMENT

Current Appointments

2013 - present  Head, Radiation Treatment Program, Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2013 - present  Chief, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2011 - present  Associate Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
2011 - present  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2011 - present  Senior Scientist, Physical Sciences Platform, Imaging Research, Sunnybrook Research Institute, Toronto, Ontario, Canada
2011 - present  Program Research Director, Odette Cancer Research Program, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2009 - present  Adjunct Professor, Department of Computer Science, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
2009 - present  Adjunct Professor, Department of Physics, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
2008 - present  Active Staff, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2008 - present  Full Member, Graduate Studies, University of Toronto, Toronto, Ontario, Canada
2005 - present  Mentor, Excellence in Radiation Research in the 21st Century Programme, University of Toronto, Canadian Institute of Health Research, Ontario, Canada
2005 - present  Clinician Scientist, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2013 - 2018  Chair in Breast Cancer Imaging and Ablation, University of Toronto, James and Mary Davie Chair, Ontario, Canada

Previous Appointments

2010 - 2011  Interim Program Research Director, Odette Cancer Research Program, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2009 - 2013  Chair in Imaging and Experimental Therapeutics, Cancer Care Ontario, Ontario, Canada
2008 - 2009  Acting Chair, Breast Radiation Oncology Site Group, Radiation Oncology, Sunnybrook Health Sciences Centre, Ontario, Canada
2005 - 2011  Assistant Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
2005 - 2011  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2005 - 2011  Scientist, Physical Sciences Platform, Imaging Research, Sunnybrook Research Institute, Toronto, Ontario, Canada
2005 - 2008  Associate Member, Graduate Studies, University of Toronto, Toronto, Ontario, Canada
2005 - 2007  Provisional Active Staff, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2002 - 2009  Adjunct Professor, Math, Physics and Computer Science, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
1999 - 2002  Adjunct Professor, Math, Physics and Computer Science, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
1999 - 2002  Adjunct Professor, Chemistry, Biology and Chemical Engineering, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
1996 - 2001  Lecturer, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1996 - 2001  Fundamentals in Molecular and Cellular Biology II MBP 1008H
1994 - 1995  System Administrator (Part-Time), Medical Biophysics, University of Toronto

Research Computing: Ontario Cancer Institute
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2005  
Clinical Trials Workshop Award, American Association of Cancer Research/American Society of Clinical Oncology, United States. (Research Award)  
Total Amount: 3,000 USD

2003  
Scholar-In-Training Award, American Association of Cancer Research/Aventis, United States. (Research Award)  
Total Amount: 3,000 USD

1998  
Annual Meeting Travel Award, Radiation Research Society. (Distinction)  
Total Amount: 2,000 CAD

1993  
Presidential Scholarship, Microscopy Society of America, United States. (Research Award)

NATIONAL

Received

2003  
Jean Roy Memorial Award, Canadian Association of Radiation Oncologists Annual Scientific Meeting, Canada. (Research Award)

1996  
Annual Meeting, Presentation Award, Protein Engineering Network Centres of Excellence. (Research Award)

1995  
Travel Award, Merck Frosst - Canadian Society of Biochemistry and Molecular Biology, Canada. (Research Award)

1994  
Steve Fonyo Research Fellowship, National Cancer Institute of Canada, Canada. (Research Award)  
Total Amount: 15,000 CAD

1993  
Connaught Scholarship, Canada. (Research Award)

1989  
Undergraduate Research Scholarship, Natural Sciences and Engineering Research Council of Canada (NSERC), Canada. (Research Award)

PROVINCIAL / REGIONAL

Received

2016  
Natural Sciences and Engineering Research Council of Canada Postdoctoral Fellowship, Supervisor, Awardee Name: Seyed Reza Mousavi. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
Personnel/Trainee Award. Total Amount: 45,000 CAD

2014 - 2016  
Natural Sciences and Engineering Research Council of Canada Postdoctoral Fellowship, Supervisor, Awardee Name: Mehrdad Gangeh. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
Personnel/Trainee Award. Total Amount: 90,000 CAD

2013 - 2015  
Banting Postdoctoral Fellowship, Supervisor, Awardee Name: Ali Sadeghi-Naini.
Canadian Institute of Health Research (CIHR), Ontario, Canada  
**Personnel/Trainee Award. Total Amount: 140,000 CAD**

2012

**Alexander Graham Bell Canada Graduate Scholarship,** Supervisor, Awardee Name: Hadi Tadayyon. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
**Personnel/Trainee Award. Total Amount: 70,000 CAD**

2012

**NSERC Award,** Supervisor, Awardee Name: Stephanie Zhou. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
**Personnel/Trainee Award. Total Amount: 5,000 CAD**

2011

**ICR Travel Awards,** Supervisor, Awardee Name: Golnaz Farhat. Canadian Institute of Health Research (CIHR), Ontario, Canada  
**Personnel/Trainee Award. Total Amount: 1,000 CAD**

2010

**Fellowship Award,** Supervisor, Awardee Name: Omar Falou. Canadian Breast Cancer Foundation, Ontario, Canada  
**Personnel/Trainee Award. Total Amount: 141,000 CAD**

2010

**Fellowship Award,** Supervisor, Awardee Name: Ali Sadeghi-Naini. Canadian Breast Cancer Foundation, Ontario, Canada  
**Personnel/Trainee Award. Total Amount: 141,000 CAD**

2009 - 2014

Cancer Care Ontario, Ontario, Canada. (Research Award)  
**Research Chair in Imaging and Experimental Therapeutics. Total Amount: 500,000 CAD**

2009 - 2014

**Early Researcher Award,** Ministry of Research and Innovation (MRI), Ontario, Canada. (Research Award)  
**Total Amount: 150,000 CAD**

2009

**Undergraduate Summer Research Award,** Supervisor, Awardee Name: Christina Kim. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
**Personnel/Trainee Award. Total Amount: 5,000 CAD**

2008

**Excellence in Radiation Research in the 21st Century Award,** Supervisor, Awardee Name: Justin Lee. Canadian Institutes of Health Research, Ontario, Canada  
**Novel Ultrasound-Microbubble Radiosensitization of Prostate Cancers. Personnel/Trainee Award. Total Amount: 102,200 CAD**

2008

**Undergraduate Summer Research Award,** Supervisor, Awardee Name: Shawn Ranieri. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
**Personnel/Trainee Award. Total Amount: 5,000 CAD**

2007

**Research Summer Studentship Award,** Supervisor, Awardee Name: Shawn Ranieri. Sunnybrook Health Sciences Centre, Ontario, Canada  
**Ultrasound Imaging of Cancer Therapy Effects. Personnel/Trainee Award. Total Amount: 1,600 CAD**

2006

**Research Summer Studentship Award,** Supervisor, Awardee Name: Shawn Ranieri. Sunnybrook Health Sciences Centre, Ontario, Canada  
**Ultrasound Imaging of Cancer Therapy Effects. Personnel/Trainee Award. Total Amount: 1,600 CAD**

2005

**Excellence in Radiation Research in the 21st Century Award,** Supervisor, Awardee Name: Roxana Vlad. Canadian Institutes of Health Research, Ontario, Canada  
**Quantitative Ultrasound for Monitoring Cancer Therapy Effects. Personnel/Trainee Award. Total Amount: 51,000 CAD**

LOCAL

**Received**

2016

**Academic Performance Award,** Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2015

**Academic Performance Award,** Sunnybrook Health Sciences Centre, Toronto, Ontario,
Canada. (Academic, Specialty: Radiation Oncology)

2014
**Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2014
**Excellence in Research Leadership Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Department of Radiation Oncology)
*Terry Fox New Frontiers Program Project Grant Team at Odette Cancer Centre.*

2013 - 2018
**James and Mary Davie Chair**, University of Toronto, Toronto, Ontario, Canada. (Research Award)
Chair in Breast Cancer Imaging and Ablation. Total Amount: 1,000,00 CAD

2013
**Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2013
**Department of Radiation Oncology**, University of Toronto, Toronto, Ontario, Canada. (Distinction)

2012
**Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2012
**Research Leadership Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Department of Radiation Oncology)

2011
**Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2010
**Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2009
**Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2009
**Outstanding Research Potential Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)

2008
**Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Radiation Oncology)

2004
**Best Rounds Award**, Princess Margaret Hospital, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Medicine Programme)

2002
**Faculty of Medicine and Research Award**, Supervisor, Awardee Name: David Spurrell. University of Toronto, Toronto, Ontario, Canada
*Ultrasound Imaging of Apoptosis in Mouse Mammary Involution. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2002
**Faculty of Medicine and Research Award**, Supervisor, Awardee Name: Matthew Butler. University of Toronto, Ontario, Canada
*Ultrasound Imaging of Different Red Blood Cell Morphologies. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2001
**W.J. Simpson Research Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Department of Radiation Oncology)

2001
**Faculty of Medicine and Research Award**, Supervisor, Awardee Name: Matthew Butler. University of Toronto, Ontario, Canada
*Ultrasound Imaging of Different Red Blood Cell Morphologies. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2001
**Faculty of Medicine and Research Award**, Supervisor, Awardee Name: Michael Levesque. University of Toronto, Ontario, Canada
*Ultrasound Imaging of Apoptosis in Different Cell Culture Lines. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2001
**Faculty of Medicine and Research Award**, Supervisor, Awardee Name: Peter Darby Ph.D. University of Toronto, Ontario, Canada
*Ultrasound Imaging of the Cell Cycle. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2001
**NCIC Young Investigator Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Department of Radiation Oncology)
2000 Faculty of Medicine and Research Award, Supervisor, Awardee Name: Michael Levesque. University of Toronto, Ontario, Canada. 
Ultrasound Imaging of Apoptosis in an Animal Tumour System. Personnel/Trainee Award. Total Amount: 4,000 CAD

2000 Faculty of Medicine and Research Award, Supervisor, Awardee Name: Mohammed Hussain. University of Toronto, Ontario, Canada. 
The Role of Nuclear Structure in Ultrasonic Detection of Apoptosis. Personnel/Trainee Award. Total Amount: 4,000 CAD

2000 Faculty of Medicine and Research Award, Supervisor, Awardee Name: James Warrington. University of Toronto, Ontario, Canada. 
Spectral Analyses of Ultrasound Backscatter Signals from Apoptotic Tissues and Cells. Personnel/Trainee Award. Total Amount: 4,000 CAD

1999 Faculty of Medicine and Research Award, University of Toronto, Ontario, Canada. (Research Award) 
Ultrasound Imaging of Apoptosis. Total Amount: 4,000 CAD

1998 Faculty of Medicine Research Scholarship, University of Toronto, Toronto, Ontario, Canada. (Research Award) 
Total Amount: 4,000 CAD

1997 Faculty of Medicine Research Scholarship, University of Toronto, Ontario, Canada. (Research Award) 
(with funds from the Medical Research Council of Canada). Total Amount: 4,000 CAD

1992 Open Master’s Fellowship, University of Toronto, Canada. (Research Award)

1988 Senate Scholarship, McMaster University, Canada. (Distinction)

1987 Chancellor’s Scholarship, McMaster University, Canada. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2005 - present Fellow, Royal College of Physicians and Surgeons of Canada
2000 - present Member, American Association for Cancer Research
1998 - present Member, Ontario Medical Association
2002 - 2011 Member, Canadian Association of Radiation Oncologists
2001 - 2005 Resident, Royal College of Physicians and Surgeons of Canada
2000 - 2015 Member, American Institute for Ultrasound in Medicine
1998 - 2011 Member, Canadian Medical Association
1998 - 2000 Member, Radiation Research Society
1996 - 2000 Member, Microscopy Society of Canada
1995 - 2000 Member, American Association for the Advancement of Science
1992 - 1996 Member, Microscopy Society of America

Administrative Activities

INTERNATIONAL

American Institute of Ultrasound in Medicine
2008 - present Member, Bioeffects Committee, United States.
2015 Session Chair, Annual Scientific Symposium, United States.
2013 - 2015 Chair, Bioeffects Committee, United States.
2013 Session Chair, Annual Scientific Symposium, United States.
2011 - 2013 Vice Chair, Bioeffects Committee, United States.
2010 Session Chair, Annual Scientific Symposium, United States.
2010 Chair, High-Frequency Ultrasound Section, United States.
2008 - 2009 Vice Chair, High-Frequency Ultrasound Section, United States.
2008 Session Chair, Categorical Course: Intravascular Ultrasound – Annual Meeting
2007 - 2008 Secretary, High-Frequency Ultrasound Section, United States.
2007 Session Chair, High-Frequency Ultrasound Imaging – Annual Meeting

International Symposium of Ultrasonic Imaging and Tissue Characterization
2016 Session Chair, United States.
2015 Session Chair, United States.
2014 Session Chair, United States.
2013 Session Chair, United States.
2012 Session Chair, United States.

Microscopy Society of America
1996 Session Chair, Macromolecular Microscopy, United States.

Research in Biological Sciences and Treatment Planning, University of Toronto
2008 Session Chair, Annual Research Day, Toronto, Ontario, Canada.

NATIONAL

Canadian Institutes of Health Research

PROVINCIAL / REGIONAL

Ontario Association of Radiation Oncology
2015 Chair, Clinician Scientist Appointments and Review Committee, Toronto, Ontario, Canada.
2011 - 2014 Member, Clinician Scientist Appointments and Review Committee, Toronto, Ontario, Canada.

Ontario Cancer Institute

LOCAL

Department of Radiation Oncology, University of Toronto
2006 - 2011 Member, Academic Communications Committee, Toronto, Ontario, Canada.

Sanofi
2008 - 2009 Mentor (1st place Toronto Championships), Aventis Bio Talent Challenge, Toronto,
Ontario, Canada.

Sunnybrook Health Sciences Centre
2011 - present Coordinator, Radiation Oncology, Cancer Research Rounds (bi-weekly), Toronto, Ontario, Canada.
2015 Member, Medical Oncology Search Committee, Toronto, Ontario, Canada.
2015 Member, Radiation Oncology Search Committee, Toronto, Ontario, Canada.
2015 Member, Radiation Oncology Scientist Search Committee, Toronto, Ontario, Canada.
2014 Member, Radiation Oncology Search Committee, Toronto, Ontario, Canada.
2014 Member, VP Odette Cancer Centre Search Committee, Toronto, Ontario, Canada.
2013 Member, Radiation Oncology Search Committee, Toronto, Ontario, Canada.
2010 Member, Campbell Research Chair Search Committee, Toronto, Ontario, Canada.
2008 - 2012 Chair, Radiation Oncology Associates, Toronto, Ontario, Canada.
2008 - 2009 Acting Chair, Breast Radiation Oncology Site Group, Department of Radiation Oncology, Toronto, Ontario, Canada.
2007 - 2008 Secretary, Radiation Oncology Associates, Toronto, Ontario, Canada.
2005 - 2011 Coordinator, Radiation Oncology, Radiobiology and Radiation Physics (R3) Rounds & Imaging Research Rounds (weekly), Toronto, Ontario, Canada.
2005 - 2010 Imaging Representative, Animal Care Committee, Toronto, Ontario, Canada.

Sunnybrook Research Institute
2015 Member, Scientist Search Committee, Toronto, Ontario, Canada.
2012 Member, Biological Sciences Director Search, Toronto, Ontario, Canada.

Technology in Cancer Research and Treatment (TCRT)
2008 - present Member, Editorial Board

Ultrasonic Imaging
2011 - present Member, Editorial Board, Canada.

University of Toronto
2011 Chair, Farqueson Research Chair Search Committee, Toronto, Ontario, Canada.
2009 - 2012 Member, Fellowship Selection Committee Member, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2008 Session Chair, Research in Biological Sciences and Treatment Planning – Annual Research Day, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2008 Member, Organizing Committee, Target Insight III Radiation Oncology Conference, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2008 Moderator, Annual Research Day, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2006 - 2010 Member, CaRMS Applicant Review, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2006 Judge, James Lepock Memorial Student Research Symposium, Faculty of Medicine, Dept of Medical Biophysics, Toronto, Ontario, Canada.
1998 Associate Editor, University of Toronto Medical Journal, Toronto, Ontario, Canada.
1993 - 1994 Vice President, Medical Biophysics Graduate Students Association, Toronto, Ontario, Canada.
Gregory Jan CZARNOTA

1993 - 1994  Treasurer, Medical Biophysics Graduate Students Association, Toronto, Ontario, Canada.
1992 - 1993  Member of Student Executive and Treasurer, Medical Biophysics Graduate Students Association, Toronto, Ontario, Canada.
1991 - 1992  Graduate Student Union Representative, Graduate Students Union, Toronto, Ontario, Canada.

University of Toronto, Department of Radiation Oncology

University of Toronto, Research in Biological Sciences and Treatment Planning
2009  Session Chair, Annual Research Day, Toronto, Ontario, Canada.

Peer Review Activities

GRANT REVIEWS
Reviewer/Panel Member
2015  Natural Sciences and Engineering Research Council of Canada (NSERC)
2015  Terry Fox Programme
2014  AIHS Collaborative Research and Innovations Opportunities
2014  CCSRI Innovations Grant Panel
2014  Natural Sciences and Engineering Research Council of Canada (NSERC)
2014  Prostate Cancer Canada, Rising Star Awards
2014  UK Cancer Agency
2013  Alberta Innovates Health Care, Grant Panel
2013  CCSRI Innovations Grant Panel
2013  Komen Foundation, Breast Cancer Investigator initiated committee panel
2013  Prostate Cancer Canada, CDMRP, Investigator initiated pre-review committee panel
2013  Prostate Cancer Canada, Rising Star Awards
2012  Komen Foundation, Breast Cancer Investigator initiated committee panel
2012  Komen Foundation, Breast Cancer Investigator initiated pre-review committee panel
2011  Alberta Cancer Board, Research Grants Competition
2011  Canadian Cancer Society Research Institute, Biophysics, Imaging and Radiobiology Panel
2011  Department of Defense, U.S. Army Medical Research and Materiel Command, Congressionally Directed Medical Research Programs (CDMRP), Prostate Cancer, Imaging and Radiation Oncology Panel
2011  Komen Foundation, Breast Cancer Investigator initiated pre-review committee panel
2011  OICR High-Impact Clinical Trials, ONTRECT Grants Panel
2011  OICR High-Impact Clinical Trials, Small projects panel
2011  Prostate Cancer Canada, Grants Competition
2010  Alberta Cancer Research Institute, Alberta Cancer Board, Operating Grant Competition
2010  Canadian Cancer Society Research Institute, Grants Panel
2010  Department of Defense, U.S. Army Medical Research and Materiel Command, Congressionally Directed Medical Research Programs, Breast Cancer Clinical and Experimental Therapeutics Panel
2010  Department of Defense, U.S. Army Medical Research and Materiel Command, Congressionally Directed Medical Research Programs, Prostate Cancer Imaging Panel
C. Academic Profile

1. RESEARCH STATEMENTS

Research Statement.
My research goal is to develop our ultrasound imaging and treatment methods to improve cancer therapies and improve outcomes of cancer therapy.

We plan to continue developing our quantitative ultrasound tumour-response-imaging methods further and to fine tune them using preclinical scenarios, clinical evaluations, and to combine them with new therapies. The overarching goal is to transform conventional ultrasound, which is non-invasive, inexpensive and portable, such that it can be used to quantitatively to assess cancer therapies through functional imaging, in which tumour cell death is detected. By detecting cell death early in a treatment on the order of hours to days, rather than traditional anatomical assessments that take place weeks to months after the completion of therapy, ineffective therapies could be switched to more efficacious treatments. This has the potential of improving survival in addition to sparing patients unnecessary side effects of treatments that may span weeks to months. We will use these quantitative methods to evaluate standard cancer treatments and also more novel ultrasound based therapeutics.

In terms of ultrasound therapy we plan on further developing our new ultrasound-based radiation enhancing therapy. We have recently demonstrated that using microbubble-based ultrasound treatments the effects of radiation can be significantly enhanced leased to 70-80% tumour volume ablation when combined with a single low (2Gy) dose of radiation.

Cell Death Detection by Ultrasound

Accomplishments:
Quantitative ultrasound methods have been used in a research context since being developed to map out tissue types in the human eye, the heart, to differentiate prostate cancer from non-malignant prostate tissue, and most recently differentiate breast tumour types These are frequency dependent spectral analyses which can be used to generate parameters that may be related to acoustic properties of tissues including the scatterer size, the concentration of acoustic scatterers, and higher-order parameters.

We demonstrated the applicability of these methods in the detection of cell death, in vitro and in situ starting with high-frequency ultrasound. That initial research indicated that ultrasound spectroscopic changes were detectable in response to chemotherapy and photodynamic therapy in vitro with AML cell culture samples and in situ in excised tissues consisting of brain and skin exposed to photodynamic therapy. This was followed by the application of quantitative ultrasound analyses to assessments of cell death in vitro and then linking the changes detected to the cell’s nucleus and the changes it undergoes during cell death. Our current appreciation of ultrasound scattering theory, supported by experimental data from a number of systems, indicates that the nuclear condensation associated with pyknosis of necrotic cells, the nuclear condensation and fragmentation of apoptotic cells, and the disintegration of the cell nucleus seen in late stages of cell death are key features of cellular morphology permitting cell death to be detected and monitored in a longitudinal manner. Recent data indicates that different forms of cell death may be detected and differentiated in vitro under well controlled conditions with high-frequency ultrasound. These results have also been extended in preclinical tumour models and in tests from the high to lower clinical range ultrasound frequencies setting the stage for the research presently being carried out at clinical frequencies.

There are now four interrelated projects proposed which complement each other and are critical to bringing these technologies ultimately to the clinic. The first sees the continued development of quantitative ultrasound methods for the detection of tumour responses to cancer therapies at high and low frequency, for preclinical and clinical applications, respectively. The second focuses on correlative analyses which will be integrated with the quantitative ultrasound approaches and focuses on correlating dynamic contrast enhanced MRI tumour data, and whole mount three-dimensional histopathological data, with the ultrasound data. We are integrating these into our analyses as they are rapidly becoming clinical standards. A third project is centred about evaluating quantitative ultrasound data
from patients receiving cancer therapy and will draw on background established methods in quantitative ultrasound and be guided by ongoing developments from the first two projects. That project now couples previous work with new directions in photoacoustics imaging which brings together ultrasound and optical imaging. A last project will further develop recent innovations in using ultrasound as an enhancing agent for cancer therapy based on our discovery of bubble enhanced ultrasound potentiation of tumour response and as targeting method to deliver radiosensitizers.

Clinical Significance:
We have also initiated clinical evaluations of using these quantitative ultrasound methods to monitor treatment effects. We are currently conducting a pilot study to evaluate clinical-frequency quantitative ultrasound methods to monitor the efficacy of neoadjuvant chemotherapy in women with locally advanced breast cancer. Preliminary data indicate treatment effects on cell death may be detected as early as one week after the administration of chemotherapy. Ultrasound results will be correlated to whole mount histopathology of mastectomy samples from the women enrolled in this study using deformable registration methods. Having demonstrated the feasibility of this technique in monitoring tumour responses we are conducting a larger clinical study. We are using our quantitative ultrasound methods to further assess the effects of neoadjuvant chemotherapy in a prospective cohort of women (N=150) who are receiving neoadjuvant chemotherapy for large locally advanced breast cancer. We are collecting quantitative ultrasound data throughout their treatment course and correlate our findings to pertinent clinical outcome measures (tumour response, locoregional control, survival) as well as pathologic response. Complementary test dynamic contrast enhanced MRI data will also be collected for correlational analyses. This research has the potential to change clinical practice by permitting the customization of chemotherapy delivery on a personal basis. By detecting ineffective therapies changes can be made to give more effective treatments. We have already undertaken such work by using optical imaging methods which we will be incorporating with our ultrasound methods.

Novel Ultrasound-Based Radiation Enhancing Cancer Treatment

Accomplishments:
We have recently developed novel ultrasound-based and microbubble therapy methods in which microbubbles are infused to enhance the effects of radiation. We are continuing to develop these techniques as a complementary therapeutic arm to our response detection projects and we will adapt our quantitative imaging studies above to evaluate their efficacy in addition to standard assays. There are two broad avenues of study here which include anti-vascular ultrasound therapy and a novel uses of microbubbles to improve radiotherapy efficacy.

Present Research:
We have recently discovered that ultrasound activated microbubbles may be used to enhance the effects of radiation. In this novel application by pretreating the vasculature to perturb endothelial cells biophysically the effects of radiation may be enhanced by more than 10-fold. Here, exposure of endothelial cells to microbubbles given intravenously causes vascular destruction which is enhanced further by combining the treatments with radiation. Our working hypothesis here is that the activation of the ceramide pathway by microbubble perturbation of endothelial cells on its own does not lead to significant cell death. Similarly at low doses radiation on its own causes negligible increases in ceramide and very little endothelial cell death. However, when microbubbles and radiation are combined we observe that significant tumour volumes are destroyed within 24 hours of treatment. For instance a 2Gy treatment which yields 5% cell death being combined with ultrasound vascular disruption increases the radiation response to yield near 50% tumour cell death within 24 hours after treatment. We have also recently conducted experiments demonstrating that such treatments may be monitored non-invasively using our quantitative ultrasound methods. In addition we have demonstrated that such treatments of bubbles alone can also lead to significant
endothelial cell apoptosis putatively through the activation of the ceramide pathway as a novel technique in which tumours may be treated in the absence of radiation.

Clinical Significance:
The method above has great potential to make radiation treatments more efficacious and improve cancer outcomes. In a second collaborative application novel microbubble based cell permeation techniques is being used to deliver radiosensitizing gold-nanoparticles to cells and tissues. These are new radiosensitizers whose effects can be potentially significantly enhanced by the improved delivery offered by such microbubble techniques. By spatially targeting the ultrasound treatment to tumours we anticipate that normal tissues will be spared significant treatment-related side effects. We are coupling this research with quantitative ultrasound methods may be used to monitor the response of such treatments. This research is in publication and discussions are taking place with Phillips Medical towards commercializing this work.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2016 - present  
**Co-Principal Investigator.** Symposium on Imaging for Personalized Cancer Therapy: Tumor Response Monitoring. Canadian Institutes of Health Research (CIHR). PI: Kolios, Michael; Czarnota, Gregory. 10,000 CAD. [Grants]

2014 - 2018  
**Principal Investigator.** The Image Guided Therapy Cluster; Sub Project: Quantitative Ultrasound for Diagnosis and Therapy Response ($20,000,000 Total Funding). Federal Economic Development Agency for Southern Ontario (FedDev). Investing in Commercialization Partnerships. 2,025,700 CAD. [Grants]

2014 - 2018  
**Co-Investigator.** The Image Guided Therapy Cluster; Sub Project: Gamma Knife Technologies ($20,000,000 Total Funding). Federal Economic Development Agency for Southern Ontario (FedDev). Investing in Commercialization Partnerships. PI: Sahgal, Arjun. 1,057,500 CAD. [Grants]

2014 - 2018  
**Principal Investigator.** The Image Guided Therapy Cluster; Sub Project: Tumor Cell Death ($20,000,000 Total Funding). Federal Economic Development Agency for Southern Ontario (FedDev). Investing in Commercialization Partnerships. 1,057,500 CAD. [Grants]

2014 - 2018  
**Co-Principal Investigator.** Odette Cancer Program Clinical Research Infrastructure Funding. Ontario Institute for Cancer Research (OICR), Canadian Cancer Clinical Trials Network (3CTN). PI: Czarnota, Gregory; McCann, Claire. 894,348 CAD. [Grants]

2014 - 2018  

2014 - 2017  
**Co-Principal Investigator.** Terry Fox New Frontiers Program Project Grant in Ultrasound and MRI for Cancer Therapy. Terry Fox Research Institute (TFRI). Terry Fox New Frontiers
Program Project Grant. PI: **Czarnota, Gregory**; Kolios, Michael; Stanisz, Greg. Collaborator(s): Haider M, Hynynen K, Yaffe M. 2,009,488 CAD. [Grants]
*Co-Investigators: Cunningham C, Loblaw A, Martel A, Pritchard K, Trudeau M.*

**2014 - 2017**


**2013 - 2018**

*Co-Investigators: Liu FF, Kolios MC.*

**2013 - 2017**

**Co-Investigator.** Evaluation of MR Chemical Exchange Saturation Transfer Imaging as Marker of Tumor Environment and pH. Canadian Institutes of Health Research (CIHR). PI: Stanisz, Gregory. 540,084 CAD. [Grants]

**2013 - 2016**

**Co-Investigator.** Chemical Exchange Saturation Transfer MRI as a Marker of Cancer Therapy. Canadian Cancer Society Research Institute (CCSRI). Innovations Grant. PI: Stanisz, Gregory. 198,156 CAD. [Grants]

**2013 - 2015**

*Co-Investigators: Enepekides D, Hynynen K, Poon I, Yeung R.*

**2013 - 2015**

**Principal Investigator.** Prostate Cancer Microbubble Antivascular Enhancement of Radiation. Prostate Cancer Canada (PCC). Movember Discovery Grant. 198,600 CAD. [Grants]
*Co-Investigators: Hynynen K, Kolios M, Vesprini D.*

**2013 - 2014**

**Principal Investigator.** Non-Invasive Diagnosis and Characterization of Breast Cancer Using Quantitative Ultrasound Techniques. MaRS Innovation - MSc PoP. 410002541. 25,000 CAD. [Grants]

**2012 - 2017**

**Principal Investigator.** Biophysical Fundamentals of Ultrasound Bioeffects. Natural Sciences and Engineering Research Council of Canada (NSERC). Discovery Grant. 160,000 CAD. [Grants]

**2012 - 2016**

**Co-Investigator.** Smarter Imaging Program - MRI Imaging of LABC Tumor Response. Ontario Institute for Cancer Research (OICR). PI: Fenster, Aaron; Stanisz, Greg; Yaffe, Martin. 293,250 CAD. [Grants]

**2012 - 2015**


**2012 - 2015**

**Co-Investigator.** Smarter Imaging Program - Combined US and Optical Methods for LABC Care ($670,000 Total Funding). Ontario Institute for Cancer Research (OICR). PI: Fenster, Aaron; Yaffe, Martin. 120,000 CAD. [Grants]

**2012 - 2015**

**Co-Investigator.** A Multicentre Randomized Controlled Clinical Trial for the Reduction of Acute Skin Reaction in Adjuvant Breast Radiation in Large Breasted Women Using a Prone Technique. Canadian Breast Cancer Foundation (CBCF). PI: Vesprini, Danny. 312,978 CAD.
2012 - 2014  
**Co-Principal Investigator.** Photoacoustic Monitoring of Novel Ultrasound Microbubble-Potentiated Ceramide Enhancement of Hyperthermia. Canadian Cancer Society Research Institute (CCSRI). PI: **Czarnota, Gregory**; Kolios Michael. 195,000 CAD. [Grants]

2012 - 2014  
**Co-Investigator.** Technology Development Program in Image Guided Therapeutics ($6,910,563 Total Funding). Federal Economic Development Agency for Southern Ontario (FedDev). Technology Development Program. PI: Hynynen, Kullervo. 1,000,000 CAD. [Grants]  
Co-Investigators: **Chopra R, Martel A, Peters T, Stanisz G, Wright G.**

2011 - 2014  

2011 - 2013  
**Principal Investigator.** Combined Ultrasound and Optical Methods for Personalizing Care in Locally Advanced Breast Cancer. Cancer Care Ontario (CCO). Cancer Imaging Network of Ontario (CINO) Competition. 70,000 CAD. [Grants]  

2011 - 2013  
**Co-Principal Investigator.** Ultrasound Spectroscopy and Analysis Suite for Clinical Detection of Cancer Response. MaRS Innovation. MI MSc PoP Funding. PI: **Czarnota, Gregory**; Kolios Michael. 175,000 CAD. [Grants]

2011 - 2012  
**Co-Principal Investigator.** Elastography Detection of Cancer Treatment Effects: Advanced Analytical Tools and Methods for Treatment Evaluation and Diagnosis. MaRS Innovation. MI MSc PoP Program. PI: **Czarnota, Gregory**; Kolios Michael. 50,000 CAD. [Grants]

2011 - 2012  
**Principal Investigator.** One-Time Infrastructure Funding for CCO Research Chairs. Cancer Care Ontario (CCO). 37,500 CAD. [Grants]

2011 - 2012  
**Co-Investigator.** In Vivo Radiosensitization of Prostate Cancer Using Ultrasound and Microbubble Therapy in Combination with Chemotherapy. Canadian Association of Radiation Oncology (CARO). PI: Karshafian, Raffi. 13,000 CAD. [Grants]

2011 - 2012  

2011 - 2012  
**Principal Investigator.** Towards Personalized Cancer Therapy: Tumour Response Monitoring Using Quantitative Ultrasound. Canadian Institutes of Health Research (CIHR). Meetings, Planning and Dissemination (MPD) Grant. 15,250 CAD. [Grants]  
Co-Investigators: **Brock K, Kolios M, Pignol JP, Rakovitch E, Stanisz G.**

2010 - 2013  
Co-Investigators: **Burns PN, Wong CS.**

2010 - 2013  
**Principal Investigator.** Optical Spectroscopy for Improving Chemotherapy. Canadian Breast...
Cancer Foundation (CBCF). Research Project Grant Program. 302,990 CAD. [Grants]

2010 - 2013
Principal Investigator. Ultrasound for Cancer Therapy. Canadian Institutes of Health Research (CIHR). Terry Fox New Frontiers Program in Cancer. 2,704,743 CAD. [Grants]

2010 - 2011

2010 - 2011

2010 - 2011

2009 - 2015

2009 - 2012
Principal Investigator. Microbubble Anti-Vascular Treatment for Prostate Cancer. Prostate Cancer Research Foundation of Canada. 50,000 CAD. [Grants]
Co-Investigator: Karshafian R.

2009 - 2012
Co-Investigators: Morton G, Sugar L, Yaffe M, Nam R.

2009 - 2012
Co-Principal Investigator. High-Frequency Ultrasound and Spectroscopy for Cancer Treatment Monitoring. Canadian Institutes of Health Research (CIHR). Operating Grant. PI: Czarnota, Gregory; Kolios Michael. 240,000 CAD. [Grants]

2009 - 2011
Co-Investigator: Wong CS.

2008 - 2014
Co-Investigator. Centre for Research in Image-Guided Therapeutics. Canadian Foundation for Innovation (CFI). PI: Hynynen, Kullervo. 143,000,000 CAD. [Grants]

2008 - 2012
Co-Investigators: Burns P, Karshafian R, Wong CS.

2008 - 2012
Co-Principal Investigator. Novel Microbubble Radiosensitization for Prostate Cancer.
Gregory Jan CZARNOTA

Canadian Association of Radiation Oncology (CARO). Acura Grant Programme. PI: Czarnota, Gregory; Lee, Justin. 22,000 CAD. [Grants]

2008 - 2009  Principal Investigator. Diffuse Optical Spectroscopy Tomographic Device for Monitoring Neoadjuvant Chemotherapy. Sunnybrook Health Sciences Centre Foundation. 300,000 CAD. [Grants]
Co-Investigator: Yaffe M.

Co-Investigator: Kolios MC.

Co-Investigator: Karshafian R.


Co-investigators: Burns P, Wong S.

Co-Investigators: Burns P, Foster S, Kolios M, Wong S.

Co-Investigators: Brade A, Kolios M.

Co-Investigators: Burns PN, Wong CS.

2007 - 2008  Principal Investigator. Ultrasound Equipment for Microbubble-Activated Radiosensitization. Sunnybrook Health Sciences Centre Foundation. 175,000 CAD. [Grants]

2007 - 2008  Principal Investigator. VEVO-770 for High-Frequency Ultrasound Imaging of Tumour Responses to Cancer Therapy. Ontario Institute for Cancer Research (OICR). 225,000 CAD.
[Grants]
Co-Investigators: Foster S, Martel A, Stanisz G.

2007 - 2008
Principal Investigator. New Imaging Method to Detect Ultrasound Microbubble-Potentiated Enhancement of Breast Cancer Responses to Radiation. Ontario Institute for Cancer Research (OICR). Seed Funding. 60,000 CAD. [Grants]
Co-Investigators: Burns PN, Hynynen K, Kolios M.

2007 - 2008
Co-Investigator: Stanisz G.

2007
Co-Investigator. Ultrasound Gastrointestinal and Endoscopic Research Programme. Sunnybrook Health Sciences Centre Foundation. PI: Cohen, Lawrence. 800,000 CAD. [Grants]
Co-Investigators: Wong CS, Yong E.

2006 - 2013
Co-Principal Investigator. Advanced Biomedical Ultrasound and Spectroscopy Laboratory: From 1 to 1000 MHz. Canadian Foundation for Innovation (CFI). PI: Kolios Michael. 980,562 CAD. [Grants]
Co-Investigators: Whelan B, Yang V.

2006 - 2009
Co-Investigator: Whelan B.

2006 - 2009
Co-Investigators: Hunt JW, Kumaradas C.

2006 - 2007
Co-Investigator: Lemor R.

2006 - 2007
Principal Investigator. Ultrasound Probe for Ultrasound Imaging and Spectroscopy as Early Indicators of Response. Toronto-Sunnybrook Health Sciences Centre. Locally Advanced Breast Cancer Programme. 5,200 CAD. [Grants]

2006 - 2007
Principal Investigator. Ultrasound Imaging Device for Parametric Delineation and Monitoring of Prostate Cancer Response. Toronto-Sunnybrook Health Sciences Centre. GU Funding Award. 10,000 CAD. [Grants]
Co-Investigators: Cheung P, Loblaw A, Nam R, Sugar L.

2005 - 2007
Co-Investigators: Foster FS, Kolios MC.

2005 - 2006
2003 - 2005  
**Principal Investigator.** High-Frequency Ultrasound Imaging for Assessing Radiosensitivity and Monitoring Radiation Therapy Responses. American Institute of Ultrasound in Medicine (AIUM). 14,000 CAD. [Grants]

2002 - 2005  
**Co-Investigator.** High Frequency Ultrasound for Non-Invasive Detection and Quantification of Apoptosis. Canadian Institutes of Health Research (CIHR). PI: Sherar, Michael; Kolios, Michael; Hunt, John. 352,688 CAD. [Grants]

2002 - 2005  
**Co-Investigator.** Ultrasound Imaging of Apoptosis in Organ Preservation for Transplant. Whitaker Foundation. Biomedical Research Engineering Research Grant. PI: Kolios, Michael; Sherar, Michael. 173,000 CAD. [Grants]

2001 - 2004  

2000  
**Co-Investigator.** Computational Infrastructure Facilities for Light and Ultrasound Research. Ryerson University (Toronto, ON). PI: Kolios, Michael. 30,000 CAD. [Grants]

2000  
**Co-Investigator.** A High Frequency Ultrasound Instrument for Monitoring Apoptosis. Canadian Foundation for Innovation (CFI). PI: Kolios, Michael. 180,000 CAD. [Grants]

1999 - 2002  
**Co-Investigator.** Ultrasound Biomicroscopy for Monitoring Apoptosis. Canadian Institutes of Health Research (CIHR). PI: Sherar, Michael. 231,000 CAD. [Grants]

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2014 - present  

2014 - present  

2011 - present  

2007 - present  
**Principal Investigator.** Pilot Investigation of Ultrasound Imaging and Spectroscopy and Ultrasound Imaging of Prostate Cancer. Collaborator(s): Chung H, Morton G, Burns PN. 60,000 CAD. [Clinical Trials]

2006 - present  
**Co-Principal Investigator.** Non-Invasive Assessment of Lymph Circulation Disorders with...
Three-Dimensional Magnetic Resonance Imaging and Mid- to High- Frequency Ultrasound: A Pilot Study. PI: Dinniwell, Robert. Collaborator(s): Czarnota GJ; Catton P, Levin W, Haider M, Kolios MC. 60,000 CAD. [Clinical Trials]

2006 - present  

2006 - present  

2012 - 2017  
**Principal Investigator.** Novel Therapies for Locally Advanced Breast Cancer. Breast Cancer Society of Canada (BCSC). 1,000,000 CAD. [Grants]  
Co-Investigators: Chopra R, Stanisz G, Goertz D, Hynynen K.

2012 - 2014  
**Co-Investigator.** Radiosensitization with Bevacizumab for Stereotactic Body Radiotherapy for Colorectal Liver Metastasis. Hoffmann-la Roche Limited, Canada. PI: Ko, Yoo-Joung. Collaborator(s): Chung H, Milot L, Czarnota GJ. 63,830 CAD. [Clinical Trials]

2010 - 2015  
**Principal Investigator.** Magnetic Resonance-Guided High Intensity Focused Ultrasound (HIFU) for Palliation of Painful Skeletal Metastases - A Pilot Study. Philips Electronics Ind. Ltd. Collaborator(s): Chow E, Hynynen K, DeAngelis C, Dennis K, Pasetka M, Law C. [Clinical Trials]

2006 - 2007  
**Principal Investigator.** Dynamic Breast MRI in Assessing Locally Advanced Breast Cancer (LABC). Collaborator(s): Plewes D, Dent R, Causer P, Martel A. 20,000 CAD. [Clinical Trials]

2005  
**Principal Investigator.** Radiobiology Laboratory Research Start-Up Funding. Sunnybrook and Women’s College Health Sciences Centre. 600,000 CAD. [Grants]

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   This manuscript deals with technical details regarding the optimization of ultrasound-stimulated microbubble radiation enhancement. This work follows on from most significant publication # 4 which demonstrated, for the first time, the enhancement of radiation response by acoustical stimulation of the vasculature.

This manuscript details new texture-based methods, combined with quantitative ultrasound imaging to detect therapy responses within one week of patients starting new adjuvant chemotherapy. This research demonstrates the potential of using this methodology in the future to make decisions within weeks of the start of therapy as to its efficacy enabling personalization of patient medicine. The innovation here deals with the novel application of texture methods to quantitative ultrasound.


This manuscript demonstrated for the first time the use of quantitative ultrasound in detecting cell death response in women with locally advanced breast cancer receiving neoadjuvant chemotherapy. This work demonstrated that within one to four weeks’ time, lack of response or responsiveness to chemotherapy could be detected in patients non-invasively using quantitative ultrasound methods. These methods were developed in Dr. Czarnota’s laboratory along with Dr. Michael Kolios over the past ten years.


This manuscript details the novel use of ultrasound stimulation of microbubbles, intravascularly, to enhance tumor responses to radiotherapy. The amount of enhancement of radiation response is unprecedented, with a 50-60 fold increase in cell death 24 hours after one combined treatment of ultrasound stimulated microbubble and external beam radiotherapy.


This contribution represents work in optical imaging for therapy response monitoring. This is a new avenue of research which is not being coupled with ultrasound imaging in the form of photoacoustic research.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Book Chapters**


**Monographs**


**3. NON-PEER-REVIEWED PUBLICATIONS**

**Book Chapters**


F. Intellectual Property

1. PATENTS

Invention Disclosure; SB390.

Invention Disclosure; SB301.

Invention Disclosure; SB320.


External Reference: SB249.

External Reference: SB248.

1999 Method for Apoptosis Detection Using High Frequency Ultrasound. Granted. Patents #: 2,351,545, Canada. Joint Holder Name(s): Czarnota GJ.
External Reference: SB248.

2. DISCLOSURES

Invention Disclosure; SB018.

Invention Disclosure; SB015.

2015 Prediction Of Breast Tumor Response To Neoadjuvant Chemotherapy Using Pre-treatment Diffuse Optical Spectroscopy Texture Parameters. Applied. Joint Holder Name(s): Czarnota GJ.
Invention Disclosure; SB016.

2014 Ultrasound Activated Microbubbles and Hyperthermia as an Anti-cancer Treatment Approach. Applied. Joint Holder Name(s): Czarnota GJ.
Invention Disclosure.

2014 Prediction of Breast Tumor Response to Neoadjuvant Chemotherapy Using Pre-treatment
Quantitative Ultrasound Backscatter Parameters. Applied. Joint Holder Name(s): Czarnota GJ. Invention Disclosure; SB390.


Name(s): Czarnota GJ, Kolios MC, Hunt JW, Sherar MD, Tunis A.
Invention Disclosure: SHSC016.

Invention Disclosure: SHSC015.

**G. Presentations and Special Lectures**

1. **INTERNATIONAL**

**Invited Lectures and Presentations**

2016  **Lecturer.** Cancer Informatics and Imaging. Department of Biochemistry and Molecular & Cellular Biology, Georgetown University. DC, Washington, United States.

2016  **Presenter.** Monitoring and Predicting Chemotherapy Response Using Novel Methods in Quantitative Ultrasound. MD Anderson Cancer Center. Houston, United States. Presenter(s): Czarnota GJ.

2016  **Presenter.** Microbubble-based Enhancement of Tumour Radiation Responses. The Center for Radiation Oncology Research Seminar Series - MD Anderson Cancer Center. Houston, United States. Presenter(s): Czarnota GJ.

2015  **Presenter.** Ultrasound-Stimulated Microbubble Enhanced Low-Dose SRS. International Stereotactic Radiosurgery Society Congress. Japan. Presenter(s): Czarnota GJ.


2014  **Presenter.** Ultrasound Biomechanical Enhancement of Radiation Effects: Sphingolipid Importance. International Workshop on Molecular Medicine of Sphingolipids. Kloster Banz, Germany. Presenter(s): Czarnota GJ.


2013  **Presenter.** Ultrasound-Stimulated Microbubble Enhanced Low-Dose SRS. International Stereotactic Radiosurgery Society Congress. Toronto, Canada. Presenter(s): Czarnota GJ.

2013  **Presenter.** Enhancement of Radiation Treatments by Vascular-Perturbation. The Johns Hopkins Hospital Grand Rounds. Baltimore, United States. Presenter(s): Czarnota GJ.

2013  **Presenter.** Ultrasound for Cancer Therapy: Monitoring and Enhancements of Cancer Therapy. The Johns Hopkins Cancer Center and the Engineering School. Baltimore, United States. Presenter(s): Czarnota GJ.
Gregory Jan CZARNOTA


2012 **Presenter.** High- and Conventional-frequency Ultrasound for the Detection of Cell Death. International Conference on Ultrasonic Biomedical Microscanning (UBM). St-Paulin, Canada. Presenter(s): Czarnota GJ.


2011 **Presenter.** Ultrasound High-and Low-dose Radiation and Apoptosis. Annual Scientific Meeting of the Society for Neuro-Oncology. Orange County, United States. Presenter(s): Czarnota GJ.


2011 **Presenter.** Microbubble Radiosensitization of Prostate Cancer. IMPaCT Innovation Minds in Prostate Cancer Today. Orlando, United States. Presenter(s): Czarnota GJ.

2010 **Presenter.** Low to Very High Frequency Ultrasound Biomicroscopy of Cell Death. Microscopy and Microanalysis Annual Meeting. Los Angeles, United States. Presenter(s): Czarnota GJ.

2010 **Presenter.** Monitoring Cancer Responses to Treatment from Mice to Humans with Ultrasound and Light. Bioacoustics Research Laboratory Seminar, Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign. Urbana, United States.

2009 **Visiting Professor.** Quantitative Ultrasound of Cell Death. Bioacoustics Research Laboratory Seminar, Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign. Urbana, United States.

2009 **Presenter.** Novel Anti-vascular Combined Ultrasound and Radiation Therapy. Bioacoustics Research Laboratory Seminar, Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign. Urbana, United States. Presenter(s): Czarnota GJ.


Imaging and Tissue Characterization (UITC) Annual Meeting. Arlington, United States. Presenter(s): Czarnota GJ.

2008  

2007  
**Presenter.** Imaging Radiation Responses Using High-frequency Ultrasound. Fraunhofer Institute for Biomedical Engineering. Sankt Ingebert, Germany. Presenter(s): Czarnota GJ.

2007  

2006  
**Presenter.** High- and Mid-frequency Spectroscopic Ultrasound Imaging of Tumour Responses to Cancer Therapy. Preclinical and Small-Imaging Categorical Course, American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. Washington, United States. Presenter(s): Czarnota GJ.

2006  
**Presenter.** Imaging Radiation Responses Using High-frequency Ultrasound. Veronique Benk Visiting Professorship. Presenter(s): Czarnota GJ.

2006  
**Presenter.** Imaging Cell Death. Target Insight II: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio. Presenter(s): Czarnota GJ.

2004  

2003  
**Presenter.** Ultrasound Imaging of Apoptosis: Role of the Cell Nucleus and Membrane. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting in vivo Imaging of Apoptosis Symposium. Montreal, United States. Presenter(s): Czarnota GJ.

2002  

2002  
**Presenter.** UBM Monitoring of Tissue Death and Remodelling: Treatment of Melanoma with PDT and Mammary Involution. International Conference on Ultrasound Biomicroscopy. Rotterdam, Netherlands. Presenter(s): Czarnota GJ.

2001  
**Presenter.** Quantitative Assessment of Apoptosis with High Frequency Ultrasound. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting - Categorical Meeting: High-frequency Imaging - From Mouse to Man. United States. Presenter(s): Czarnota GJ.

1997  

1993  
**Presenter.** Conformational Characterization of Nucleosome Structure by Electron Microscopy. Microscopy Society of America (MSA) Annual Meeting. Cincinnati, United States. Presenter(s): Czarnota GJ.

Presented and Published Abstracts

2016  

*Publication Details:*  
Dinniwell R, Tran WT, Czarnota GJ. Quantitative Ultrasound Measures of Lymphedema. International
Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2016 Breast Tumour Visualization Using 3-D Quantitative Ultrasound Methods. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. (Trainee Presentation)

Publication Details:

2016 Response Monitoring Using Quantitative Ultrasound Methods and Supervised Dictionary Learning in Locally Advanced Breast Cancer. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. (Trainee Presentation)

Publication Details:
2016

**Publication Details:**

2016
Low-frequency Ultrasound Radiosensitization and Therapy Response Monitoring of Tumors: An In Vivo Study. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. France.

**Publication Details:**
Sadeghi-Naini A, Stanisz M, Tadayyon H, Taank J, Czarnota GJ. Low-frequency Ultrasound Radiosensitization and Therapy Response Monitoring of Tumors: An In Vivo Study. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Coauthor or Collaborator.

2015
Advanced Machine Learning and Textural Methods in Monitoring Cell Death Using Quantitative Ultrasound Spectroscopy. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Taiwan, Province Of China.

**Publication Details:**

2015

**Publication Details:**

2015
WE-EF-210-02: Ultrasound innovations in therapy response monitoring.

**Publication Details:**

2015
Computed Consensus Contouring via Fast Barcode Retrieval. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Taiwan, Province Of China.

**Publication Details:**
Tizoosh H, Czarnota GJ. Computed Consensus Contouring via Fast Barcode Retrieval. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Co-Principal Author.

2015
Texton-based Approach in Response Monitoring for Locally Advanced Breast Cancer. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Taiwan, Province Of China. (Trainee Presentation)

**Publication Details:**
Gangeh MJ, Liu S, Tadayyon H, Czarnota GJ. Texton-based Approach in Response Monitoring for
Locally Advanced Breast Cancer. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**


**Publication Details:**


**Publication Details:**
Tran WT, Childs C, Probst H, **Czarnota GJ.** Correlates of Cell Death and Tumor Morphology in Breast Tumors Using Quantitative Ultrasound and Diffuse Optical Spectroscopy Imaging. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**


**Publication Details:**
Tadayyon H, Sadeghi-Naini A, Sannachi L, Gangeh M, Trudeau M, **Czarnota GJ.** Quantitative Ultrasound as a Predictor of Tumour Response Prior to Treatment. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**


**Publication Details:**
Sannachi L, Al-Mahrouki A, Tran WT, **Czarnota GJ.** Quantitative Ultrasound Monitoring of Tumor Cell Death Responses. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**


**Publication Details:**
Tadayyon H, Sannachi L, Gangeh M, Sadeghi-Naini A, Trudeau M, **Czarnota GJ.** Early Prediction of Breast Tumor Response to Chemotherapy using Multiparametric Quantitative Ultrasound. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**


**Publication Details:**
Pasternak M, Giles A, **Czarnota GJ.** A Quantitative Ultrasound Analysis of Paclitaxel-induced Mitotic Catastrophe in Breast Cancer Cells. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

*Publication Details:*


*Publication Details:*
Pasternak M, Giles A, **Czarnota GJ.** A Quantitative Ultrasound Analysis of Paclitaxel-induced Mitotic Catastrophe of MDA-MB231 Cells by High Frequency Ultrasound. American Association for Cancer Research (AACR) Annual Meeting. **Senior Responsible Author.**


*Publication Details:*
Pasternak M, Wirtzfeld L, Kolios M, **Czarnota GJ.** Quantification of Cell Death in MDA-MB-231 Cell Samples with High Frequency Ultrasound. American Association for Cancer Research (AACR) Annual Meeting. **Senior Responsible Author.**


*Publication Details:*

2015 Mechanical Radiosensitization of Endothelial Cells is Dependent on Sphingomyelinase. American Association for Cancer Research (AACR) Annual Meeting. Philadelphia, United States. (Trainee Presentation)

*Publication Details:*
El Kaffas A, Hashim A, Al Mahrouki, Giles A, **Czarnota GJ.** Mechanical Radiosensitization of Endothelial Cells is Dependent on Sphingomyelinase. American Association for Cancer Research (AACR) Annual Meeting. **Senior Responsible Author.**


*Publication Details:*

Publication Details:

2015

Publication Details:

2015

Publication Details:

2014
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High-frequency Ultrasound Analysis of Photodynamic Therapy Treatment Effectiveness in vivo. London Health Sciences Centre and University of Western Ontario Annual Canadian Student Conference on Biomedical Computing (CSCBC). London, Canada.

Publication Details:
Debeljevic B, Papanicolau N, Sadeghian A, Czarnota GJ. High-frequency Ultrasound Analysis of Photodynamic Therapy Treatment Effectiveness in vivo. London Health Sciences Centre and University of Western Ontario Annual Canadian Student Conference on Biomedical Computing (CSCBC). Coauthor or Collaborator.

2005

Publication Details:

2005

Publication Details:

2005

Publication Details:

2004

Publication Details:

2003

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:

1998 Family and Parenting Issues When One Parent has Leukemia. Canadian Association of Psychosocial Oncology (CAPO) Annual Conference. Toronto, Canada.

Publication Details:
Czarnota GJ, Elliott M, Bunston T, Fitch M. Family and Parenting Issues When One Parent has Leukemia. Canadian Association of Psychosocial Oncology (CAPO) Annual Conference. Principal Author.


Publication Details:


Publication Details:

1995 Reconstructing Eukaryotic and Prokaryotic Ribosomal RNA. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Saskatoon, Canada.

Publication Details:
Beniac DR, Czarnota GJ, Ottensmeyer FP, Harauz GH. Reconstructing Eukaryotic and Prokaryotic Ribosomal RNA. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Co-author or Collaborator.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

1995 Novel Conformations and Structural Changes of the Nucleosome. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Saskatoon, Canada.

Publication Details:
Czarnota GJ, Ottensmeyer FP. Novel Conformations and Structural Changes of the Nucleosome. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Principal Author.


Publication Details:
Ottensmeyer FP, Farrow NA, Andrews DW, Czarnota GJ. Image Analysis, Molecules and Three-dimensions. Microscopical Society of Canada (MSC) Annual Meeting. Coauthor or Collaborator.
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2013 **Presenter.** Why 50 Years of Radiobiology is Wrong. University of Toronto, Department of Medical Biophysics, Annual Retreat. Orillia, Canada. Presenter(s): Czarnota GJ.

2012 **Presenter.** Translational Oncology Research. CIHR Strategic Training Program in Cancer Research and Technology Transfer and the Panel Greenaway-Kohlmeier Translational Breast Cancer Research Unit, Western University. Ontario, Canada. Presenter(s): Czarnota GJ.

2009 **Presenter.** Novel Anti-vascular Ultrasound and Radiation Cancer Treatment. London Health Sciences Centre (LHSC). London, Canada. Presenter(s): Czarnota GJ.

2005 **Presenter.** Ultrasound Imaging and Spectroscopy of Cell Death: A Novel Method for Cancer Therapy Assessment. Department of Medical Biophysics, University of Toronto, Annual Retreat. Geneva Park, Canada. Presenter(s): Czarnota GJ.


2002 **Presenter.** Ultrasound Imaging of Cancer Therapy Effects. Northwestern Ontario Regional Cancer Centre. Canada. Presenter(s): Czarnota GJ.

2002 **Presenter.** Ultrasound Imaging of Cancer Therapy Effects - Updated. University of Ottawa, Department of Radiation Oncology and Ottawa Regional Cancer Centre. Ottawa, Canada. Presenter(s): Czarnota GJ.

2002 **Presenter.** Ultrasound Imaging of Cancer Therapy Effects. University of Ottawa, Department of Radiation Oncology and Ottawa Regional Cancer Centre. Canada. Presenter(s): Czarnota GJ.

Presented and Published Abstracts

2016
In Vivo Measurements of Cest MRI Signal in Breast Cancer Xenografts at 7T. Terry Fox Research Institute’s (TFRI) Annual Scientific Meeting. Vancouver, Canada. (Trainee Presentation)

Publication Details:
Klein J, Lam W, Tarapacki C, Stanisz, Czarnota GJ. In Vivo Measurements of Cest MRI Signal in Breast Cancer Xenografts at 7T. Terry Fox Research Institute’s (TFRI) Annual Scientific Meeting. Senior Responsible Author.

2016
Cancer Therapy Assessment Using Multiview Learning and Quantitative Ultrasound Methods. Terry Fox Research Institute’s (TFRI) Annual Scientific Meeting. Vancouver, Canada. (Trainee Presentation)

Publication Details:
Gangeh MJ, Fung B, Tadayyon H, Tran WT, Czarnota GJ. Cancer Therapy Assessment Using Multiview Learning and Quantitative Ultrasound Methods. Terry Fox Research Institute's (TFRI) Annual Scientific Meeting. Senior Responsible Author.

2015
State-of-the-Art Texture Methods in Clinical Cancer Response Monitoring. Terry Fox Research Institute’s (TFRI) Annual Scientific Meeting. St. John’s, Canada. (Trainee Presentation)

Publication Details:

2015
Early Detection of Ultimate Response to Chemotherapy in Breast Cancer Patients using a Multi-modal Imaging Strategy. Terry Fox Research Institute’s (TFRI) Annual Scientific Meeting. St. John’s, Canada. (Trainee Presentation)

Publication Details:

2015

Publication Details:

2015

Publication Details:

2013
Quantitative Ultrasound Monitoring of Breast Cancer Cell Death In-vivo Using the Gaussian Form Factor - A Preclinical Study. Imaging Network Ontario Meeting (IMNO) Symposium. Toronto, Canada. (Trainee Presentation)

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2010 Ultrasound and Microbubble Potentiated Enhancement of Chemotherapy in Vitro: Effect of Cell Line and
Acoustic Pressure. 2010 Canadian Association of Physicists Meeting.

Publication Details:

2009
Spectroscopic Optical Coherence Tomography Techniques for Monitoring Cell Death. Canadian Optical Coherence Tomography Symposium. Toronto, Canada. (Trainee Presentation)

Publication Details:

2009
Low Frequency Ultrasound: Detection and Differentiation of Apoptosis and Necrosis During Cancer Therapy. Queen's Health Sciences Research Competition. Kingston, Canada. (Trainee Presentation)

Publication Details:
Kim HC, Ranieri S, Czarnota GJ. Low Frequency Ultrasound: Detection and Differentiation of Apoptosis and Necrosis During Cancer Therapy. Queen's Health Sciences Research Competition. Senior Responsible Author.

2008
Combining High Frequency Ultrasound and Optical Coherence Tomography for Monitoring Cell Death. Imaging Network Ontario Meeting (IMNO) Symposium. Toronto, Canada. (Trainee Presentation)

Publication Details:

2007

Publication Details:

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Publication Details:

2004

Publication Details:

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Publication Details:

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Publication Details:

1999

Publication Details:

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Publication Details:

1994

Publication Details:

4. LOCAL

Invited Lectures and Presentations

2016
**Presenter.** Quantitative Ultrasound Making Chemotherapy Better. Odette Cancer Centre Patient Family Advisory Council (PFAC). Toronto, Ontario, Canada. Presenter(s): Czarnota GJ.

2015
**Lecturer.** MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2014

2014
**Presenter.** Personalized Medicine: Adaptive Image-Guided Neoadjuvant Chemotherapy for Locally Advanced Breast Cancer. Princess Margaret Hospital Breast Rounds. Toronto, Canada. Presenter(s): Czarnota GJ.

2014
**Lecturer.** MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2013
**Lecturer.** MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.


2012 Lecturer. MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2011 Lecturer. MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.


2011 Presenter. Changes in and Changing the Biological Target During Cancer Therapy. IMRT Insight: On Target, On Track. Toronto, Canada. Presenter(s): Czarnota GJ.


2010 Coordinator and Lecturer. MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2009 Coordinator and Lecturer. MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.


2009 Presenter. Novel Anti-vascular and Radiation Cancer Treatment. Target Insight III, University of Toronto. Toronto, Canada. Presenter(s): Czarnota GJ.


2008 Lecturer. Molecular Oncology and Basic Sciences Review. Department of Medicine, Division of Medical Oncology. Niagara on the Lake, Ontario, Canada.


2006 **Lecturer.** PBL - Brain and Behaviour BRB 111S. Department of Medicine, University of Toronto. Toronto, Ontario, Canada.

2006 **Lecturer.** Frontiers of Radiation Medicine Research MSC1501H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.


2001 **Presenter.** Ultrasound Imaging of Cancer Therapy. Radiation Oncology Medicine Programme Rounds, Princess Margaret Hospital University Health Network. Ontario, Canada. Presenter(s): *Czarnota GJ.*

2001 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2000 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2000 **Presenter.** Ultrasound Imaging of Apoptosis: Biological Implications. Ryerson Polytechnic University. Toronto, Canada. Presenter(s): *Czarnota GJ.*

2000 **Presenter.** Ultrasound Imaging of Apoptosis: Detection of Cancer Therapy effect in vitro, in situ, and in vivo. Protein Engineering Network of Centres of Excellence Seminar Series Presentation, University of Toronto. Toronto, Canada. Presenter(s): *Czarnota GJ.*

1999 **Presenter.** Ultrasound Imaging of Apoptosis: Clinical Evaluation and Perspectives. Lymphoma Rounds, Princess Margaret Hospital. Toronto, Canada. Presenter(s): *Czarnota GJ.*

1999 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

1998 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

1997 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

1996 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

1996 **Presenter.** Three-dimensional Imaging of Biological Macromolecules. Protein Engineering Network of Centres of Excellence Seminar Series Presentation, University of Toronto. Toronto, Canada. Presenter(s): *Czarnota GJ.*

1991 **Teaching Assistant.** General Introductory Chemistry. Department of Chemistry, McMaster University.
Presented and Published Abstracts

2016 A New Large Animal Model to Assess Secondary Tumour Cell Death After Ultrasound Microbubble Activation to Enhance External Beam Radiotherapy. RTi3, University of Toronto Radiation Therapy Conference. Toronto, Canada. (Trainee Presentation)

Publication Details:

2016 Disruption of the Tumor Vasculature Using Combined Radiation and Ultrasound-stimulated Microbubbles: Preliminary Preclinical Results in Human Prostate Xenografts. RTi3, University of Toronto Radiation Therapy Conference. Toronto, Canada. (Trainee Presentation)

Publication Details:
Cumal A, Tarapacki C, McKay S, Law N, Tran W, Czarnota GJ. Disruption of the Tumor Vasculature Using Combined Radiation and Ultrasound-stimulated Microbubbles: Preliminary Preclinical Results in Human Prostate Xenografts. RTi3, University of Toronto Radiation Therapy Conference. Senior Responsible Author.

2014 Design and Characterization of Gold Nanoparticle Brachytherapy Seeds for PBSI. University of Toronto Department of Radiation Oncology (UT DRO) Research Day. Toronto, Canada. (Trainee Presentation)

Publication Details:


Publication Details:

2012 Effects of Biophysical Parameters in Radiosensitizing Prostate Tumours with Ultrasound-stimulated Microbubbles. James Lepock Memorial Student Research Symposium: Princess Margaret Hospital. Toronto, Canada. (Trainee Presentation)

Publication Details:

2011 Optimization of Experimental Parameters in Radiosensitizing Prostate Tumours with Microbubbles. Medical Biophysics Student Seminar of University of Toronto. Toronto, Canada. (Trainee Presentation)

Publication Details:
Kim HC, Al-Mahrouki A, Karshafian R, Gorjizadeh A, Czarnota GJ. Optimization of Experimental Parameters in Radiosensitizing Prostate Tumours with Microbubbles. Medical Biophysics Student Seminar of University of Toronto. **Senior Responsible Author.**

2011 Changes in and Changing the Biological Target During Cancer Therapy. Target Insight III. Toronto, Canada.

**Publication Details:**  
Czarnota GJ. Changes in and Changing the Biological Target During Cancer Therapy. Target Insight III. **Principal Author.**

2010 Ultrasound Microbubble Enhancement of Bladder Cancer Treatment. RTi3, University of Toronto Radiation Therapy Conference. Toronto, Canada. (Trainee Presentation)

**Publication Details:**  
Tran WT, Iradji S, **Czarnota GJ.** Ultrasound Microbubble Enhancement of Bladder Cancer Treatment. J Med Imaging Radiat Sci. **Senior Responsible Author.**

2009 Detecting of Breast Cancer Cell Death in Cancer Therapy with Low Frequency Ultrasound (LFUS). Summer Research Project Competition at Sunnybrook Health Science Center. Toronto, Canada. (Trainee Presentation)

**Publication Details:**  
Kim HC, Ranieri S, Doss L, **Czarnota GJ.** Detecting of Breast Cancer Cell Death in Cancer Therapy with Low Frequency Ultrasound (LFUS). Summer Research Project Competition at Sunnybrook Health Science Center. **Senior Responsible Author.**


**Publication Details:**  
Soliman H, Clarke G, Gunasekara A, Rycroft M, Yaffe M, **Czarnota GJ.** Monitoring Treatment Response in Locally Advanced Breast Cancer Using Pulsed Time-domain Diffuse Optical Spectroscopy. University of Toronto Department of Radiation Oncology Research Day (UTDRO) Annual Symposium. **Senior Responsible Author.**


**Publication Details:**  
Lee J, Karshafian R, Banihashemi B, Caissie A, **Czarnota GJ.** Ultrasound Microbubble Potentiated Enhancement of Tumour Response to Radiation: Preliminary Results. University of Toronto Department of Radiation Oncology Research Day (UTDRO) Annual Symposium. **Senior Responsible Author.**


**Publication Details:**  
Czarnota GJ. High- and Conventional-frequency Spectroscopic Ultrasound Imaging of Apoptotic Tumour Cell Responses to Cancer Therapy. Target Insight II: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio Conference. **Principal Author.**

Publication Details: Chu W, Czarnota GJ. Ultrasound Imaging and Spectroscopy of Cancer Therapy Effects. University of Toronto Department of Radiation Oncology Research Day (UTDRO) Annual Symposium.  **Senior Responsible Author.**


Publication Details: Czarnota GJ, Kolios MC, Sherar MD, Hunt JW. Ultrasound Imaging of Cancer Therapy Effects. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. **Co-Principal Author.**

2000 Ultrasound Imaging for Predicting and Monitoring Radiation Responses. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. Toronto, Canada.

Publication Details: Czarnota GJ. Ultrasound Imaging for Predicting and Monitoring Radiation Responses. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. **Principal Author.**

2000 Ultrasound Imaging of Apoptosis: Role of Cell Nucleus and Membrane. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. Toronto, Canada.

Publication Details: Czarnota GJ. Ultrasound Imaging of Apoptosis: Role of Cell Nucleus and Membrane. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. **Principal Author.**

1993 The Nucleosome as Shape Shifter. Annual Gull Lake Meeting, Department of Medical Biophysics at the University of Toronto. Toronto, Canada.
Publication Details:
Czarnota GJ. The Nucleosome as Shape Shifter. Annual Gull Lake Meeting, Department of Medical Biophysics at the University of Toronto. Principal Author.

Academic Retreat
2015 Department of Radiation Oncology, Site Group Leaders Retreat. Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.
2015 Department of Radiation Oncology. Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.
2014 Department of Radiation Oncology. Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.
2013 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
2010 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
2009 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
2008 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
2006 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
1994 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
1993 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Gull Lake, Haliburton, Ontario, Canada.
1992 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Gull Lake, Haliburton, Ontario, Canada.
1991 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Gull Lake, Haliburton, Ontario, Canada.

Scientific Workshop
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2015  Primary Supervisor. Andrew Harris. Supervisee Institution: Department of Physics, Ryerson University. Non-thesis Project. Awards: NSERC Undergraduate Student Research Award.
2015  Primary Supervisor. Alexander Koven. Supervisee Institution: Faculty of Medicine, University of Toronto. Non-thesis Project.
2012 - 2014 Primary Supervisor. Emily Wong. Supervisee Institution: Department of Biology, Queens University.
2012  Primary Supervisor. Sai Bala. Supervisee Institution: Department of Computer Science, Queens University.
2012  Primary Supervisor. Stephanie Zhou. Supervisee Institution: Faculty of Science, Queens University.
2012  Primary Supervisor. Ian Leith. Supervisee Institution: Department of Physics, Cambridge University, UK.
2012  
**Primary Supervisor.** Judy Duan. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.

2011  
**Primary Supervisor.** Alborz Gorjizadeh. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.

2011  
**Primary Supervisor.** Sameera Prematilake. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.

2009 - 2010  

2009 - 2010  

2009 - 2010  
**Primary Supervisor.** Firas Almasri. Supervisee Institution: Department of Physics, Ryerson University. *Non-thesis Project.*

2009  
**Primary Supervisor.** Christina Kim. Supervisee Institution: Department of Medical Biophysics, University of Toronto. *Non-thesis Project.* Awards: NSERC Undergraduate Student Research Award.

2008 - 2010  
**Primary Supervisor.** Joris Nofiele. Supervisee Institution: Department of Physics, Ryerson University. *Non-thesis Project.*

2008 - 2009  
**Co-Supervisor.** Han Tee, Ontario Sanofi Aventis Biotechnology Challenge. Supervisee Institution: St. Elizabeth High School, Toronto. *Non-thesis Project.*

2008 - 2009  

2008 - 2009  

2008 - 2009  

2008  
**Primary Supervisor.** Christina Kim. Supervisee Institution: Department of Medical Biophysics, University of Toronto. *Non-thesis Project.*

2008  
**Primary Supervisor.** Melissa Furukawa. Supervisee Institution: Faculty of Science, McMaster University. *Non-thesis Project.*

2008  
**Primary Supervisor.** Shawn Ranieri. Supervisee Institution: Department of Medical Biophysics, University of Toronto. *Non-thesis Project.* Awards: NSERC Undergraduate Student Research Award.

2006 - 2007  
**Primary Supervisor.** Lillian Doss. Supervisee Institution: Institute of Medical Sciences, University of Toronto.

2006 - 2007  
**Primary Supervisor.** Shawn Ranieri. Supervisee Institution: Department of Medical Biophysics, University of Toronto. *Non-thesis Project.*

2006 - 2007  
**Primary Supervisor.** Karen Wong. Supervisee Institution: Faculty of Engineering, University of Toronto. *Non-thesis Project.*

2006 - 2007  
**Primary Supervisor.** Max Gong. Supervisee Institution: Faculty of Engineering, University of Toronto. *Non-thesis Project.*

2000  
**Primary Supervisor.** Darina Frieder. Supervisee Institution: Arts & Science, University of Toronto. *Non-thesis Project.*

1999  
**Primary Supervisor.** Kiran Devraj. *Non-thesis Project.*

**Graduate Education**

2015 - present  
**Primary Supervisor.** MSc. Jonathan Klein. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014 - present  
**Co-Supervisor.** MSc. Maurice Pasternak. Supervisee Institution: Department of Laboratory Medicine and Pathology, University of Toronto.

2013 - present  
**Co-Supervisor.** PhD. William Tran. Supervisee Institution: Sheffield Hallam University, UK.
2007 - present  **Primary Supervisor.** PhD. Golnaz Farhat. Supervisee Institution: Department of Medical Biophysics, University of Toronto. (2 pregnancies with extended leave).

2013  **Primary Supervisor.** MSc. Ahmad El Falou (withdrawn to pursue employment in industry). Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2012 - 2015  **Co-Supervisor.** MSc. Priscilla Lai. Supervisee Institution: Department of Medical Biophysics, University of Toronto (switched laboratories due to the departure of primary supervisor).

2011 - 2012  **Co-Supervisor.** MSc. William Tran. Supervisee Institution: Sheffield Hallam University, UK.

2010 - 2015  **Primary Supervisor.** PhD. Hadi Tadayyon. Supervisee Institution: Department of Medical Biophysics, University of Toronto. Awards: NSERC CGS D Award (May 2012 - May 2014).

2010 - 2012  **Primary Supervisor.** PhD. Naum Papanicolau (withdrawn to PhD continued at Ryerson University). Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2009  **Co-Supervisor.** PhD. Shawn Stapleton. Supervisee Institution: Department of Medical Biophysics, University of Toronto (withdrawn to pursue other research interests in alignment with career goals - see letter in supporting documentation).

2008 - 2013  **Primary Supervisor.** PhD. Ahmed El-Kaffas. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2008 - 2009  **Primary Supervisor.** MSc. Christina Kim. Supervisee Institution: Department of Medical Biophysics, University of Toronto (changed research focus to gold nanoparticle work to align with career goals - see letter in supporting documentation).

2007 - 2010  **Primary Supervisor.** MSc. Ervis Sofroni. Supervisee Institution: Department of Computer Science, Ryerson University.

2007 - 2010  **Primary Supervisor.** MSc. Justin Lee. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2007 - 2009  **Primary Supervisor.** MSc. Clinton Hupple. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2006 - 2010  **Primary Supervisor.** MSc. Naum Papanicolaou. Supervisee Institution: Department of Computer Science, Ryerson University.

2006 - 2008  **Primary Supervisor.** MSc. Branislav Debeljevic (withdrawn to pursue employment in industry). Supervisee Institution: Department of Computer Science, Ryerson University.

2005 - 2008  **Primary Supervisor.** PhD. Roxana Vlad. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

**Undergraduate MD**

2015  **Primary Supervisor.** McKenzie Lim. Supervisee Institution: Royal College of Surgeons, Ireland.

2015  **Primary Supervisor.** Kristin Engeland. Supervisee Institution: Faculty of Medicine, Western University.

2012  **Primary Supervisor.** Kaleigh Briggs. Supervisee Institution: Royal College of Surgeons, Ireland.

2001 - 2002  **Primary Supervisor.** Matthew Butler. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

2001  **Primary Supervisor.** David Spurrell. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

2001  **Primary Supervisor.** David McAlduff. Supervisee Institution: Faculty of Medicine, University of Western Ontario. *Non-thesis Project.*

2000 - 2001  **Primary Supervisor.** Michael Levesque. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

2000 - 2001  **Primary Supervisor.** Peter Darby. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

2000  **Primary Supervisor.** Mohammed Hussain. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*
2000

**Primary Supervisor.** James Warrington. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

1999

**Primary Supervisor.** C. Tam. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

1999

**Primary Supervisor.** A. Xuan. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

1999

**Primary Supervisor.** Lana Tan. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

**Postgraduate MD**

2014 - present

**Primary Supervisor.** Vivian Yau. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

2008 - 2010

**Primary Supervisor.** Hany Soliman. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

2007 - 2010

**Primary Supervisor.** Amanda Caissie. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

2007 - 2009

**Primary Supervisor.** Justin Lee. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

2007 - 2008

**Primary Supervisor.** Elisa Chan. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

2006 - 2007

**Primary Supervisor.** Charles Cho. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

2006 - 2007

**Primary Supervisor.** Behzad Banihashemi. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

2005 - 2007

**Primary Supervisor.** William Chu. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

**Postdoctoral Research Fellow (PhD)**

2013 - present

**Primary Supervisor.** Lakshmanan Sannachi. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013 - present

**Primary Supervisor.** Mehrdad Gangeh. Supervisee Institution: Department of Medical Biophysics, University of Toronto. Awards: NSERC Postdoctoral Fellowship Award.

2015

**Primary Supervisor.** Deepa Sharma. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014

**Primary Supervisor.** Ahmed El-Kaffas. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2012 - 2015

**Primary Supervisor.** Ali Sadeghi-Naini. Supervisee Institution: Department of Medical Biophysics, University of Toronto. Awards: CIHR Banting Fellow.

2011 - 2012

**Primary Supervisor.** Omar Falou. Supervisee Institution: Department of Medical Biophysics, University of Toronto. Awards: CBCF Fellowship Award.

2004 - 2006

**Co-Supervisor.** Sebastian Brand. Supervisee Institution: Ryerson University.

**Clinical Research Fellow (MD)**

2015 - present

**Primary Supervisor.** Jonathan Klein. Supervisee Institution: Department of Radiation Oncology, University of Toronto.

2013 - 2015

**Primary Supervisor.** Tomas Merino. Supervisee Institution: Department of Radiation Oncology, University of Toronto.

2011 - 2012

**Primary Supervisor.** Margriet Sattler. Supervisee Institution: Department of Radiation Oncology, University of Toronto.

2010 - 2011

**Primary Supervisor.** Hany Soliman. Supervisee Institution: Department of Radiation
2. OTHER SUPERVISION

Graduate Education

Secondary Supervisor

2008 - 2010  MSc. Shawn Ranieri. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

Thesis Committee Member

2011 - present  MSc. Mohammad Peikari. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2011 - 2014  PhD. Nicholas Ellens. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2011 - 2013  MSc. Joris Nofiele. Supervisee Institution: Department of Physics, Ryerson University.

2011 - 2013  MSc. Laxman Subedi. Supervisee Institution: Department of Physics, Ryerson University.

2011 - 2013  MSc. Amanda Tran. Supervisee Institution: Department of Physics, Ryerson University.

2010 - 2013  MSc. Nicole Fichtner. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2010 - 2013  MSc. Carolyn Latimer. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2010 - 2013  MSc. Anna Maeva. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2010 - 2011  MSc. Nicholas Ellens. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2009 - 2012  MSc. Firas Moosvi. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2008 - 2015  PhD. Mike Sattarivand. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2008 - 2013  PhD. Melissa Hill (Nock). Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2008 - 2011  PhD. Colleen Bailey. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2008 - 2010  MSc. Jelena Drazic. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2006 - 2014  PhD. Huan Yu. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2006 - 2007  MSc. Colleen Bailey. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2006 - 2007  MSc. Melissa Nock. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
Thesis Examiner

2015  PhD. Hadi Tadayyon. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014  PhD. Nicholas Ellens. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014  PhD. Ahmed El-Kaffas. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014  MSc. Christina Kim. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013  PhD. Melissa Hill (Nock). Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013  MSc. Nicole Fichtner. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013  MSc. Anna Maeva. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013  MSc. Joris Nofiele. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2012  MSc. William Tran. Supervisee Institution: Sheffield Hallam University, UK.

2011  MSc. Anthony Lausch. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2010  PhD. Deanna Langer. Supervisee Institution: Institute of Medical Science, University of Toronto.

2010  MSc. Jelena Drazic. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2010  MSc. Shawn Ranieri. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2010  MSc. Ervis Sofroni. Supervisee Institution: Department of Computer Science, Ryerson University.

2010  MSc. Justin Lee. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2009  PhD. Roxana Vlad. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2009  PhD. Adam Smith. Supervisee Institution: Institute of Medical Science, University of Toronto.

2009  PhD. Kristin McLarty. Supervisee Institution: Department of Pharmacy, University of Toronto.

2009  MSc. Eric Strohm. Supervisee Institution: Department of Physics, Ryerson University.

2009  MSc. Clinton Hupple. Supervisee Institution: Department of Medical Biophysics, University of Toronto.


2007  PhD. Kevin Graham. Supervisee Institution: Department of Medical Biophysics, University of Western Ontario.

2007  MSc. Toby Lam. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2007  MSc. Sherman Yin. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2007  MSc. Shawn Stapleton. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2006  MSc. Kevin Cheung. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2006  MSc. Alina Mihai. Supervisee Institution: Institute of Medical Science, University of Toronto.
I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

ULTRASOUND IMAGING.
I discovered (along with Dr. Michael Kolios) that high-frequency ultrasound can be used to detect apoptotic cell death. This research has been extensively evaluated in vitro, and in animal models of cancer. Further, this discovery has now been adapted to clinically used low-frequency ultrasound, and is in clinical trials in breast cancer patients working towards its use in customizing cancer chemotherapy. For instance, women with locally advanced breast cancer receive many months of chemotherapy that may be ineffective, as no quantitative methods are routinely used to evaluate chemotherapy efficacy. This research has the potential to permit changes in chemotherapy, to be made as early as one to four weeks, after the start of therapy from an ineffective treatment to one that is efficacious. This research represents a conceptual leap in which ultrasound can be used to detect biologically active forms of cell death. This is a clear world first achievement in ultrasound and cancer research. Evidence of impact are grants totaling over $171,000,00 over the past
10 years, as PI or co-PI in addition to publications in high impact journals. The research efforts in my laboratory have received international reputation with international grants, and a history of over $7,000,00 of currently active research funding as principal investigator per annum from the Canadian Institutes of Health Research, Canadian Cancer Society and the Terry Fox Foundation and others, and a lifetime of $21,000,000 of total research funding as PI. Participation in a number of international grants panels has also resulted. There are also invited visiting professorships at the University of Illinois, numerous invited talks (86 invited, 292 peer reviewed proffered) and the research has been the topic of several invited book chapters (9). We have also recently expanded this research to optics using diffuse optical spectroscopy as a complementary method.

ULTRASOUND THERAPY.
I discovered that microbubbles given intravenously and stimulated by ultrasound in vivo can radiosensitize tumours. This is new research which can result in over 70% of tumour volume being destroyed within 24 hours of a single low dose of radiation. This has the potential to make radiation treatments 50 to 100 fold more effective. Evidence of impact includes recently two subsequent Terry Fox/CIHR Programme Project Grants in Ultrasound and MRI for Cancer Therapy, invited presentations and work submitted for publication. Publication of the initial discovery was in P.N.A.S. U.S.A. Recent efforts have focussed on fine tuning the physical parameters related to this research, and scaling up the technology to larger animal models.

The method above has great potential to make radiation treatments more efficacious and improve cancer outcomes. In a second collaborative application, novel microbubble based cell permeation techniques is being used to deliver radiosensitizing gold-nanoparticles to cells and tissues. These are new radiosensitizers, whose effects can be potentially significantly enhanced by the improved delivery offered by such microbubble techniques. By spatially targeting the ultrasound treatment to tumours, we anticipate that normal tissues will be spared significant treatment-related side effects. We are coupling this research with quantitative ultrasound methods which may be used to monitor the response of such treatments. This research is in publication and discussions are taking place with Phillips Medical and Elekta towards commercializing this work.

RESEARCH CAPACITY BUILDING.
Research Training:
I have recruited research personnel into my laboratory to build capacity in this field (graduate student, residents) in addition to building a team of over 100 researchers in five laboratories as a team centred around our Terry Fox Programme Project Grants in Ultrasound and MRI for Cancer Therapy. Our research into cell death detection has lead to a resurgence in quantitative ultrasound with invited talks and collaborative research underway now with other pioneers in quantitative ultrasound.

Research Rounds:
Further, I was the first clinician scientist appointed in the Division of Imaging Research as a scientist at Sunnybrook Health Sciences Centre. Activities there include instituting R3 “Radiation Oncology, Radiation Biology and Radiation Physics rounds” which has created a weekly academic focus for the Department of Radiation Oncology and Imaging Research for the presentation and academic discussion of matters of research interest.

I have also mentored Dr. William Chu during his fellowship in hyperpolarized MRI MRI-imaging of Tumour Response and as supervisor for Dr. Justin Lee during his M.Sc. studies in Imaging Research at Sunnybrook and the Department of Medical Biophysics at the University of Toronto. Both Dr. Chu and Dr. Lee continue to carry out collaborative imaging studies in MRI and ultrasound respectively thus giving the Department of Radiation Oncology at Sunnybrook Health Sciences Centre a strong imaging presence. These individuals are among a strong cadre of students that Dr. Czarnota has mentored and who have received awards. Dr. Czarnota and Dr. Hynynen are also carrying out planned collaborative clinical trials in using high intensity focussed ultrasound to treat bone metastases (Czarnota PI),
breast metastases (Czarnota PI), head and neck tumours, liver tumours and brain tumours in conjunction with a team of radiation oncologists at Sunnybrook Health Sciences Centre. This will serve as a prelude to patient tests of our microbubble radiosensitization in patients. My more established research in imaging of apoptosis is already undergoing patient tests and we anticipate clinical trials demonstrating its use in customizing chemotherapy within one to two years. More recently though my role as Chief of the Department of Radiation Oncology and Head of the Radiation Treatment Programme we have established two scientist positions in Sunnybrook Research Institute which are funded through the Department. One position is in quantitative ultrasound and multi-modal imaging and the other in MRI methodology and oncologic applications. The former has been filled by Dr. Sadeghi-Naini who was a CIHR Banting Fellow in my laboratory. He and the other scientist will continue to be mentored.

Departmental Infrastructure Building:
As Chief, Department of Radiation Oncology and Head, Radiation Treatment Programme I have fostered along with Dr. Arjun Sahgal (Deputy Chief) a large $30,000,000 capital investment programme in image-guided ablative radiotherapy. This includes investments in a world first MRI-brachytherapy suite with full shielding for in-MR-device treatment, new Perfexion-plus gamma knife technology for CNS treatment, and an Elekta MRI-Linac. The latter will be one of the first units in Canada and presents a new opportunity for new treatment development with high-precision MRI-guided radiotherapy.

We have been recently building a research programme in MRI and image guided non-invasive treatments. This further expands what is already one of North America’s largest radiation oncology departments which is composed of 30 radiation oncologists, 25 medical physicists, and 140 radiation therapists served by 14 radiation treatment units and Canada’s largest brachytherapy programmes.

This research expansion has resulted in a $30M investment in the Department of Radiation Oncology in 2015. This will facilitate the acquisition and implementation of three new key technologies: (i) MR-Guided Brachytherapy and Radiation Planning, (ii) Image-Guided Gamma-Knife Treatments, and (iii) MR-Linac

MR-Guided Brachytherapy and Radiation Planning: We are constructing a world first MR-brachytherapy suite. This will double brachytherapy capacity at the Odette Cancer Centre, already Canada’s largest brachytherapy centre and provide a new imaging-based treatment programme with full in-suite lead shielding to permit real-time MRI imaging during therapy with full anaesthetic support.

Image-Guided Gamma-Knife Treatments: We have obtained a new Perfexion-plus gamma knife treatment unit. This is a first for Toronto with this imaging-enabled gamma-knife representing local technology implemented in a commercially available treatment device. This will facilitate a major expansion of the CNS oncology program in the department and in Toronto. We are planning major research and development into the use of this technology that spans software, hardware and clinical innovations.

MR-Linac: We are obtaining Canada’s first integrated MR-based linear accelerator in collaboration with Elekta. This device features an MRI with an integrated linear accelerator for real-time MR-based imaging, treatment guidance and therapy response monitoring. This technology represents a new paradigm of research and development in radiation response that can change fundamental concepts of dose fractionation. Real-time MR imaging will be able to provide feedback on radiation treatment efficacy and enable changes to conventional treatment to improve efficacy. These activities have increased the research capacity and output of the Department of Radiation Oncology at the Odette Cancer Centre, Sunnybrook Health Sciences Centre.

IDEA DISSEMINATION. The ideas and methods we have generated have been widely disseminated through
publications in peer review journals, book chapters and abstracts. In addition, scientific talks and invited professorships and leadership committee positions have also aided in the dissemination of the ideas being pursued. There has also been media based attention of the work being conducting in imaging and therapy. The ideas and findings have been disseminated worldwide for adoption. The methods developed are being adopted and commercialized.

PROCESS INNOVATIONS.
The research being conducted is in the stages of initial adoption. Our imaging research has lead to ongoing clinical adaptations in the treatment in locally advanced breast cancer with every such patient at the Odette Cancer Centre, being offered participation in our imaging trials of therapy monitoring. The ongoing efforts will soon resolve in Phase-I/II evaluations of using this type of imaging technology, and methods to change clinical practice. In terms of our therapy research, we are also taking steps toward implementing it on clinically approved MRI-guided high-intensity focused ultrasound systems, to be able to offer it as a world-first clinical evaluation for patients with locally-advanced breast cancer, and other cancers where aggressive disease requires aggressive treatment. The ideas and findings have been disseminated worldwide for adoption. The methods developed are being adopted and commercialized.
Curriculum Vitae

Cyril E. Danjoux

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

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Fax (416) 480-6002
Email cyril.danjoux@sunnybrook.ca

1. EDUCATION

Degrees
1962 - 1970 MD, Hadassah Medical School, The Hebrew University of Jerusalem, Jerusalem, Israel, Supervisor(s): Dr. R. R. Stern (Thesis)

Postgraduate, Research and Specialty Training
1976 - 1977 1976-1977 Clinical Fellow, Radiation Oncology, Ottawa Civic Hospital, Ottawa, Ontario, Canada
1975 - 1976 Research Fellow, Radiation Oncology, (Half Body Radiotherapy), Princess Margaret Hospital, Toronto, Ontario, Canada, Supervisor(s): Dr. W. Rider, Dr. P. Fitzpatrick
1972 - 1975 Residency, Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1971 - 1972 Residency, Internal Medicine and Radiation Oncology, Dalhousie University, Halifax, Nova Scotia, Canada
1970 - 1971 Rotating Internship, Dalhousie University, Halifax, Nova Scotia, Canada
1969 - 1970 Rotating Internship, Asaf Harofe Hospital, Israel

Qualifications, Certifications and Licenses
1977 FRCPC, Royal College of Physicians and Surgeons of Canada, Canada, License / Membership #: 276
1975 DMRT, University of Toronto, Canada
1975 ABR, Therapeutic, American Board of Radiology, Canada
1975 Licence, CPSO, College of Physicians and Surgeons of Ontario, Canada, License / Membership #: 27801
1971 LMCC, Medical Council of Canada, Canada, License / Membership #: 32170
1969 ECFMG, Educational Council of Foreign Medical Graduates, License / Membership #: 117
2. EMPLOYMENT

Current Appointments

2004 - present  Associate Professor, Radiation Oncology, University of Toronto, Canada
1991 - present  Staff Radiation Oncologist, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

CONSULTING
1991 - 1997  Consultant, The Hospital for Sick Children, Toronto, Ontario, Canada

HOSPITAL
2008 - 2013  Staff Radiation Oncologist, Branson Site, North York General Hospital, Toronto, Ontario, Canada
1987 - 1991  Head, Radiation Oncology, Ottawa Regional Cancer Centre, Canada
1986 - 1991  Head, Radiation Oncology, Civic Division, Ottawa Regional Cancer Centre, Canada
1986 - 1989  Acting Chief, Department of Radiation Oncology, Ottawa Civic Hospital, Canada
1977 - 1991  Active Attending Staff Radiation Oncologist, Ottawa Regional Cancer Centre, Canada

UNIVERSITY - RANK
1990 - 1991  Associate Professor, Radiology, Faculty of Health Sciences, University of Ottawa, Canada
1983 - 1990  Assistant Professor, Radiology, Faculty of Health Sciences, University of Ottawa, Canada
1977 - 1983  Lecturer, Radiology, Faculty of Health Sciences, University of Ottawa, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
1962 - 1969  Fellowship, World Health Organization (Hadassah Medical School), Jerusalem, Israel. (Distinction)

PROVINCIAL / REGIONAL
Received
2008  Quality Award for the Rapid Response Radiotherapy Program, Cancer Care Ontario, Canada. (Distinction)
2007  Co-op Student of the Year Employer Award, Education at Work Ontario, Canada. (Distinction)
1972 - 1973  I. W. Killam Scholarship, Dalhousie University, Nova Scotia, Canada. (Distinction)
Teaching and Education Awards

LOCAL
Received
2006 - 2007 Teaching Award for Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, Peters-Boyd Academy, Canada
2004 DRO Continuing Medical Education Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada
2001 - 2002 Award for Excellence in Innovation in Continuing Education at the Sunnybrook and Women’s College Health Sciences Centre, Dept of Radiation Oncology, Faculty of Medicine, Peters-Boyd Academy Faculty, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society of Therapeutic Radiology and Oncology
Canadian Association of Radiation Oncologists
Canadian Medical Association
European Society for Therapeutic Radiology and Oncology
Ontario Medical Association

Administrative Activities

INTERNATIONAL

Eastern Cooperative Oncology Group
1982 - 1983 Co-Chair, Lung Committee Principal Investigator
1981 - 1983 Member, Radiation Oncology Committee
1981 - 1983 Member, Lung Protocol Committee
1981 - 1983 Member, Radiation Committee
1980 - 1983 Member, Clinical Trials Committee

MDS Nordion
2000 Member, Advisory panel on the future of Cobalt, Boston, United States.
1999 Co-Chair, Customer Advisory panel on the future of Cobalt Teletherapy, Ottawa, Ontario.

Radiation Therapy Oncology Group
1997 - 2005 Member, Principal Investigator TSRCC
1996 - 2005 Principal Investigator, Clinical Trials Committee

NATIONAL

Other Organizations
1999 - 2003 Member, Healing Arts Radiation Protection Commission
Canadian Association of Medical Radiation Technologists

1988 Chairman, Accreditation Survey Team for Radiation Technology Program, Winnipeg, Regina, Saskatoon
1987 Chairman, Accreditation Survey Team for Radiation Technology Program, Montreal and Quebec City Cancer Centres
1986 Chairman, Accreditation Survey Team for Radiation Technology Program, Nova Scotia Cancer Treatment and Research Foundation New Brunswick Cancer Centre
1984 - 1992 Member, Radiation Technology Workload Committee
1983 Chairman, Accreditation Survey Team for Radiation Technology Program, Montreal Cancer Centre
1982 Chairman, Accreditation Survey Team for Radiation Technology Program, Manitoba Cancer Centre

Canadian Association of Radiation Oncologists

2000 - 2004 Web Master, CARO Board provincial member
1999 - 2003 Ontario Director, CARO Board provincial member
1989 - 1991 Member, CARO Board of Directors
1989 - 1991 Co-Chair, CARO Scientific Committee

Canadian Cancer Society

1980 - 1991 Medical Advisor, Eastern District

Canadian Oncology Society

1987 - 1993 Member, Advisory Board

Canadian Prostate Cancer Research Foundation

1997 - 1999 Chair, Medical Advisory Board

Health Canada

1984 - 1991 Member, Health and Welfare Federal Task Force

National Cancer Institute of Canada

1984 - 1991 Member, Radiation Oncology Committee
1984 - 1991 Member, Radiation Committee
1984 - 1988 Member, Ovarian Writing Committee

Prostate Cancer Research Foundation of Canada

1999 - 2002 Member, Grant review panel, Scientific and Advisory Committee
1997 - 1998 Chair, Scientific Committee

Royal College of Physicians and Surgeons of Canada

1997 Chair, Accreditation Survey of Residency program in Radiation Oncology (McGill University)
1997 Chair, CMA Accreditation Survey Radiation Therapy. Dawson College and McGill University, Department of Radiation Oncology
1993 Chair, Accreditation Survey of Residency program in Radiation Oncology and Neurosurgery (University of Montreal)
PROVINCIAL / REGIONAL

**OCTRF (Ontario Cancer Treatment and Research Foundation)**
1989 - 1990  **Member**, Ontario Commission on Radiation Oncology, Canada.

**OCTRF Ontario Cancer Treatment and Research Foundation**
1990 - 1991  **Member**, Professional Advisory Committee, Radiation Oncology, Canada.

**Ottawa Civic Hospital**
1982 - 1986  **President**, Research Club

**Ottawa Regional Cancer Centre**

LOCAL

**Odette Cancer Centre**
2007  **Member**, External Review Process for Psychosocial & Behaviour Research Unit
2002 - 2004  **Secretary**, Radiation Oncology Associates of TSRCC
1999 - 2007  **Site Leader**, Rapid Response Radiotherapy Program
1997  **Chair**, Medical staff
1996  **Member**, Medical and Radiation Oncology PSU Committee
1995  **Member**, Durham RCC Planning Committee
1995  **Member**, Process Review - Follow up and Discharge
1993  **Member**, Radiation Oncology - Therapist Liaison Committee
1993  **Member**, Radiotherapy Working Group - Strategic Planning
1993  **Member**, Preventive Oncology Strategic Planning Committee
1993  **Member**, CQI - Dept. Radiotherapy Analysis and Management
1992 - 1999  **Deputy Head**, Department of Radiation Oncology
1991 - 1996  **Site Leader**, Lung Site Committee

**Ottawa Regional Cancer Centre**
1983 - 1991  **Chairman**, Ottawa Regional Hyperthermia Committee, Ontario, Canada.
1982 - 1991  **Member**, Head and Neck Site Committee
1982 - 1991  **Member**, Urology Site Committee
1982 - 1991  **Member**, Gynaecology-Oncology Committee
1982 - 1986  **Chairman**, Clinical Trials Committee

**Sunnybrook Health Sciences Centre**
1991 - 1997  **Member**, Research Ethics Board

**University of Toronto**
2001 - 2004  **Chair**, Web Site Committee. Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2001 - 2004  **Webmaster**, DRO website, Faculty of Medicine, Dept of Radiation Oncology
2000 - 2007  **Member**, CME Course - Pain and Symptom Management Annual Meeting, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

2000 - 2006  **Member**, Educational Committee, Faculty of Medicine, Dept of Radiation Oncology

1999 - 2004  Chair of design and implementation committee, Toronto, Ontario, Canada.

1996  **Member**, CME Course: Clinical Aspects of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

1996  **Member**, CME Course: Paediatric Workshop, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

1992 - 1995  **Member**, Committee for Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology

1992  **Member**, Senior Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology

1992  **Member**, Organization Committee - Radiation Oncology Alumni Day, Faculty of Medicine, Dept of Radiation Oncology

**Peer Review Activities**

**EDITORIAL BOARDS**

**Editor**

1999 - present  HOT SPOT – Quarterly Palliative Newsletter of the Rapid Response Radiotherapy Program at TSRCC distributed to Community Referring physicians and Health Care professionals

**Reviewer**

1998 - 2007  Canadian Medical Association Journal

2004 - present  Oncology Exchange, Expert Advisory Panel

**MANUSCRIPT REVIEWS**

**Reviewer**

2014 Jan - 2014 Dec  Journal of Supportive Care in Cancer, Number of Reviews: 2

2014 Jan  Biomed Central Cancer, Number of Reviews: 2

2014 Jan  Expert Review of Anticancer Therapy, Number of Reviews: 4

**ADVISORY BOARD**

**Member**

2012  Cyprus Medical Journal

**OTHER**

**Member**

2013 - present  OCC aEMR Steering Committee
C. Academic Profile

1. RESEARCH STATEMENTS

1991 Jul - present
Research Interest at Odette Cancer Centre.
GU Oncology
Involved in research and education in collaboration with the GU oncology site group.
Special areas of interest include the side effects of radiotherapy and hormone therapy - fatigue, erectile function and changes in bone mineral density.

Palliative Radiation Oncology
As leader of the (RRRP) Rapid Response Radiotherapy Program 1999-2007, initiated the academic focus for the RRRP, the quarterly publication of the RRRP newsletter "HOT SPOT", monthly research video conference rounds with other Canadian centres, and participated in palliative radiotherapy studies and educational projects.

Multimedia Educational
Produced educational CR-ROMS to explain difficult concepts in radiotherapy such as cranio-spinal irradiation and prostate brachytherapy.

1984 - 1990
Hyperthermia Research.
In 1981 in collaboration with Dr. L. Gerig (Medical Physics) we initiated a proposal for Hyperthermia Research in Ottawa. We organized a National Conference and established a bench to bedside research program in Ottawa. The Hyperthermia Research received peer reviewed grant support (NCIC) and involved collaboration with the National Research Council, University of Ottawa, Carleton University, and Atomic Energy of Canada. For the development of computerized Thermometry System.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED
2015 Aug - 2017 Jul

2013 - 2014

2006
Co-Investigator. Effect of radiation for bone metastases in patients with prostate cancer on

2005 - 2006

**Principal Investigator.** Education CD-ROM – Imaging for Radiation Oncology. Siemens Co. Collaborator(s): Mah K. 35,000 USD. [Grants]

2004 - 2013


2004 - 2006


2002 - 2004

**Co-Investigator.** Can 18FDG-PET images provide the 3D extent of lung tumour motion for individualized radiation targeting. National Cancer Institute of Canada (NCIC). Collaborator(s): Mah K, Caldwell C, Danjoux C. 125,124 CAD. [Grants]

2002 - 2003

**Co-Investigator.** A feasibility study for a phase III clinical trial of standard treatment against restricted treatment (START) for localized, favourable risk prostate carcinoma. Canadian Institutes of Health Research (CIHR). Collaborator(s): Klotz L, Choo R, Danjoux C, Fleshner N, Morton G, DeBoer G. 50,000 CAD. [Grants]

2002


2001


2001


2000


2000


1999


1997  Co-Investigator. A phase III double blind randomized study to compare the effectiveness in pain control for bony metastasis using combined intravenous bolus and Bisphosphonates (Pamidronate) and radiotherapy versus radiotherapy and placebo. Toronto Sunnybrook Regional Cancer Centre. Department of Radiotherapy Oncology Research Fund. Collaborator(s): Wong R, Hoegler D, Danjoux C, Chow E, Szumacher E, Franssen E. 61,000 CAD. [Grants]


1996 Jun  Co-Investigator. Watchful observation with delayed radical radiation therapy for T1b, Ts, N0, M0, favourable grade adenocarcinoma of prostate. Canadian Prostate Cancer Research Fund. Collaborator(s): Choo R, Danjoux C, Klotz L. 30,000 CAD. [Grants]


NON-PEER-REVIEWED GRANTS

FUNDED

Grant from De Sanctis drug company for study of Lonidamine.

1989  Pharmacology. De Sanctis. PI: Raaphorst GP. Collaborator(s): Danjoux C. 1,700 CAD. [Industrial Grants]
Grant from De Sanctis drug company for pharmacology.

Grant from De Sanctis drug company for laboratory investigation of Lonidamine.


1985 - 1986 Principal Investigator. Hyperthermia research and clinical programme. OCTRF. Collaborator(s): Gerig L, Raaphorst G. 50,000 CAD. [Grants]

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters

Editorials

Letters to Editor

Theses

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

Book Chapters


Editorials

Commentaries

Letters to Editor

Multimedia

3. SUBMITTED PUBLICATIONS

Journal Articles
Letters to Editor


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts

2011 Oct 2 Double-blinded, Placebo-controlled randomized study evaluating the efficacy of riseronate to prevent the loss of bone mineral density in non-metastatic prostate cancer patients undergoing radiotherapy plus 2-3 years of androgen ablation therapy. ASTRO. Miami, Florida. Lukka H, Kiss A, Danjoux C. October 2 – 6, 2011.


2004 Oct 4 Review of eight years experience with the Rapid Response Radiotherapy Program at Toronto Sunnybrook Regional Cancer Centre. ASTRO. Atlanta, United States. Danjoux C, Chow, E, Drossos A, Holden L.

2004 Jun  Prospective assessment of quality of life following whole brain radiotherapy for brain metastases. MASCC/ISOO 16th International Symposium Supportive Care in Cancer. Miami Beach, United States.


1988 Aug Randomization phase 3 study of radiotherapy with or without Lonidamine used as a radiopotentiator in stage 3 Non Small Cell Lung Cancer. International Lung Cancer Conference. Interlaken, Switzerland. Maroun J, **Danjoux C**.

1988 Aug Randomized phase III study of radiotherapy with or without Lonidamine used as a radiopotentiator in stage III non small cell lung cancer. 5th World Conference on Lung Cancer. Switzerland. Maroun J, **Danjoux C**.

1988 Aug Randomized phase 3 study of radiotherapy with or without Lonidamine used as a radiopotentiator in stage 3 non-small cell lung cancer. International Lung Cancer Conference. Interlaken, Switzerland. Maroun J, **Danjoux C**.


1986 Aug The use of catheters on in vivo temperature mapping. 14th International Cancer Congress. Budapest, Hungary. Presenter(s): Gerig LH, Raaphorst GP, Hauderowicz Z, **Danjoux C**.


**Presented and Published Abstracts**


*Publication Details:*


*Publication Details:*

2014  Minimal clinically important differences in the brief pain inventory in patients with bone metastases.

*Publication Details:*


*Publication Details:*


*Publication Details:*

2000  Fusing18Flourodeoxyglucose (FDG)-Hybrid PET to CT images significantly alters treatment planning in the radical treatment of non-small cell carcinoma of the lung. ASTRO.

*Publication Details:*


2000 Interobserver variation in contouring gross tumour volume in carcinoma of the lung: the impact of 18fdg-hybrid pet fusion: Toronto Sunnybrook. ASTRO.

Publication Details:

2000 New technology on radiation therapy treatment units... does it make a difference? ASTRO 2000.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
1988 Phase II study of Lonidamine and radiotherapy for advanced squamous cell cancers of the head and neck. AACR. New Orleans, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Poster presentation


Cyril E. DANJOUX


2. NATIONAL

Invited Lectures and Presentations


2002 May 25 50th anniversary of Co60 Bomb: A Canadian contribution. Canadian Society of History of Medicine Scientific Meeting, University of Toronto.

1990 Apr Living with Cancer Education Program. Canadian Cancer Society: Radiotherapy and Surgery in Cancer Management.


1986 Apr Women and Cancer. Women’s Auxiliary of CHEO. Almonte.


Presented Abstracts


Hyofractionation using a concomitant intensity modulated radiotherapy (IMRT) boost for localized high risk prostate cancer: acute toxicity results. Canadian Association of Radiation Oncologists, 2005 Annual


1998 Sep  Watchful observation of asymptomatic favourable grade, prostate carcinoma with selective delayed intervention based on the rate of PSA increase and/or clinical progression. CARO and Royal College

1997 Jul  

1996 May 29  

1996 Mar 13  

1996 Mar 13  

1996 Mar 13  

1996 Mar 13  

1987 Jun  
A study of perfusional response to thermal insulin porcine muscle. Canadian Association of Radiologists. Riding M, Gerig L, Raaphorst GP, **Danjoux C**, Forester G.

**Presented and Published Abstracts**

2000  
Evaluation of the effect of radiotherapy for localized prostate cancer on femoral and pubic bone density using quantitative computerized tomography. Toronto Sunnybrook Regional Cancer Centre, University of Toronto, Toronto, Ontario. CARO. Edmonton, Alberta.

*Publication Details:*

2000  
How does histologic grade change over time in untreated localized prostate cancer? Toronto Sunnybrook Regional Cancer Centre, University of Toronto, Toronto. CARO. Edmonton.

*Publication Details:*

1999 Sep  
Effect of hemoglobin on radiotherapy response in children with medullablastoma. Should patients with a low hemoglobin be transfused? CARO and Royal College Physicians Surgeons of Canada Annual meeting. Toronto, Ontario, Canada.

*Publication Details:*

Publication Details:

1999 Impact of new technology on radiation therapy treatment deviations at TSRCC. CARO Annual Meeting. Montreal, Quebec.

Publication Details:


Publication Details:


Publication Details:

1999 Watchful observation of asymptomatic favourable grade, prostate carcinoma with selective delayed intervention based on PSA, histologic, and/or clinical progression. CARO Annual Meeting. Montreal, Quebec.

Publication Details:


Publication Details:

1987 A study of perfusional response to thermal insult in porcine muscle.

Publication Details:
Poster presentation


Other Presentations


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2001 Apr Who Took my Sim Out? CT Simulation for Palliative RT; CCO CT SIMposium, Holiday Inn. Toronto.


1999 Jul Virtual Simulation for Prostate Cancer. Thunder Bay Regional Cancer Centre. Thunder Bay.


Cyril E. DANJOUX

1986 Apr  Radiotherapy. Lecture to Surgical Residents University, University of Ottawa: Civic Hospital. Ottawa.


Presented Abstracts


2007  The effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for three-dimensional radiotherapy for prostate cancer (3D-CRT). 13th Ottawa Conference in Medical Education. Szumacher E, Crook J, Danjoux C, Barker R, Woo M, Mah K, Ackerman I, Dubrowski A, Harnett N, Kelly V, Rose S.


1987 Sep 28 The response of rodent cells and human cells to Lonidamine, radiation and hyperthermia. 11th Clinical


1987 Sep The modification of response to radiation and chemotherapeutic agents by hyperthermia in human malignant glioma cell lines. 11th Clinical Cancer Research Conference, OCTRF. Lake Couchiching. Raaphorst GP, DaSilva VF, Feeley MM, Danjoux C, Gerig LH.


**Presented and Published Abstracts**


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*

**Poster presentation**

2011 Apr 10 Fatigue in advanced cancer patients attending an out-patient palliative radiotherapy clinic as screened by the edmonton symptom assessment system. Annual Hospice Palliative Care Conference. Toronto,
Cyril E. DANJOUX


2009 Apr 19 The palliative performance scale: examining its inter-rater reliability in an outpatient palliative radiation oncology clinic. 19th Annual Ontario Provincial Conference on Palliative and End-of-Life Care
2009 Apr 19  

4. LOCAL

Invited Lectures and Presentations


2014 Sep 2  Chair. RRRP Student Accomplishments: A Ten Year Review. RRRP/BMC Research Rounds. Toronto, Ontario, Canada. Presenter(s): Rachel McDonald.

2010 Mar 5  Prevalence of vitamin D insufficiency in prostate cancer patients. GU Rounds.


Cyril E. DANJOUX

2002 Jun 18  Overview of Cancer Treatment. Pain Preceptorship Program, Toronto Sunnybrook Regional Cancer Centre.


2002 Jun 11  Retirement at 50: History of Cobalt 60 in Canada. DRO Rounds, TSRCC.

2002 May 22  What’s new in Radiotherapy. Palliative Care rounds, Scarborough Grace Hospital.


2000 Feb  Rapid Response Palliative Care Clinic. 6th Annual Palliative Awareness Day, Sunnybrook and Women’s College Health Sciences Centre. Toronto.

1999 Nov  2nd RN/RT Collaborative Conference in Radiotherapy in Cancer Care, Rapid Response Radiotherapy Program. TSRCC. Toronto.


1999 Sep  Craniospinal Irradiation CD ROM. Palliative Rounds, TSRCC. Toronto.

1999 Aug  Internet for Radiation Technologists (Presentation and hands-on computer session for Radiation Technologists). TSRCC. Toronto.


1999 Mar  Surfing the Net for Cancer Information. Grand Rounds, TSRCC. Toronto.

1999 Mar  Creating a Supportive Mentoring Environment for Academic Activity. DRO Rounds, PMH. Toronto.


1998 Apr
Pediatric Tutorial for Radiation Residents (Acute Leukemia, Neuroblastoma, Rhabdomyosarcoma). PMH. Toronto.

1998 Apr
Pediatric Tutorial for Radiation Residents (Retinoblastoma, Ewing’s, Hodgkin’s). PMH. Toronto.

1997 Apr

1996 Nov
Radiation Therapy Educators’ Workshop - Computers in Education. TSRCC.

1996 Feb
Results of TSRCC Survey. GU Rounds, TSRCC. Toronto.

1995 Dec
Follow-up in Cancer Care. Grand Rounds, TSRCC. Toronto.

1995 May
Paediatric Workshop for Residents. TSRCC. Toronto.

1994 Mar
Management of Pediatric Malignancies. RTT Pediatric Oncology Course.

1994 Feb
Management of Medulloblastoma. Neuroblastoma Ewing’s Sarcoma – RTT Palliative Oncology Course.

1993 Sep

1993 Feb
Management of Neuroblastoma - Medulloblastoma and Acute Leukaemia RTT Paediatric Oncology Course. Dept. Radiation Oncology.

1992 Feb
Management of Acute Leukaemia. Medulloblastoma and Neuroblastoma. RTT Paediatric Oncology Hyperthermia - Ottawa Experience. DRO Radiation Oncology Rounds, TSRCC. Toronto.

1989 Jun
Hyperthermia. Continuing Nurses Education. (Continuing Education).

Presented Abstracts

2010 May 8

1985 Sep

Poster presentation

2014 Oct 17

2010 Oct 28

2010 Oct 28

2010 Oct 28


5. OTHER

Presented and Published Abstracts

2014 Karnofsky performance status and change in overall survival over five years.

Publication Details:

2014 Karnofsky performance status and change in overall survival over five years.

Publication Details:


Publication Details:


Publication Details:

2013

Minimal important differences in the EORTC QLQ-C15-Pal to determine meaningful change in palliative advanced cancer patients.

Publication Details:

2013


Publication Details:

2013

Palliative radiotherapy in the treatment of lung metastases or advanced lung cancer.

Publication Details:

2013

Content validation of the brain symptom and impact questionnaire (BASIQ) in patients and health-care professionals to assess quality of life in patients with brain metastases.

Publication Details:

2007

A multidisciplinary bone metastases clinic at Toronto Sunnybrook Regional Cancer Centre - a review of the experience from 1999 to 2005.

Publication Details:

2007

Dexamethasone for the prophylaxis of radiation-induced pain flare following palliative radiotherapy for bone metastases: a pilot study.

Publication Details:

2005 Jun

Individualized tumor motion from PET for radiation therapy targeting.

Publication Details:
2005 Jun  Individual target volume definition in NSCLC using PET.

*Publication Details:*

2004 Sep  Can Positron Emission Tomography (PET) provide individualized Internal Target Volumes (ITV)?: a physiological phantom study and clinical validation.

*Publication Details:*

2002  Efficacy of post-operative adjuvant radiotherapy (RT) for pathological T3 (PT3) and/or positive resection margin (RM) prostate adenocarcinoma with undetectable post-operative PSA following radical prostatectomy (RP).

*Publication Details:*

2002  Patient’s decisional preferences in palliative radiotherapy for bone metastases (preliminary results).

*Publication Details:*

2002  Defining internal target volume (ITV) of moving targets: Limitations of spiral CT and potential of PET imaging.

*Publication Details:*

2002  Change in Gleason Score (GS) on repeat biopsy in untreated, low to intermediate grade, clinically localized prostate adenocarcinoma (CLPA).

*Publication Details:*

2002  A randomized double blind placebo controlled trial of radiotherapy +/- single dose pamidronate for pain relief in patients with painful bone metastases.

*Publication Details:*

2001  Feasibility of a watchful observation protocol with selective delayed intervention in localized, favorable grade, prostate adenocarcinoma.
Publication Details:

2000 Is spiral CT Too fast for radiation therapy planning of thoracic neoplasms?

Publication Details:

2000 Exploring the information needs of patients living with advanced cancer.

Publication Details:


Publication Details:

1995 ICE chemotherapy in infants with brain tumours <36 months of age - results of a pilot study to delay or avert irradiation.

Publication Details:

1989 Aug Lymphoblastic radiosensitivity in cancer patients.

Publication Details:

1989 Aug Hyperthermia and radiation in repair of damage in human glioma cells.

Publication Details:
1981 Jun  Treatment of limited stage small cell carcinoma of the lung.

*Publication Details:*  

1981 Jun  Bone marrow reserve testing in patients following radiotherapy and/or chemotherapy.

*Publication Details:*  
Hirte W, Danjoux C, Bormanis J, Tulloh M. Bone marrow reserve testing in patients following radiotherapy and/or chemotherapy. Annals RCPSC. 1981 Jun;14(13):213. **Coauthor or Collaborator.**

## G. Research Supervision

### 1. OTHER SUPERVISION

**Undergraduate Education**

**Supervisor**

Curriculum Vitae

Phillip Davey

A. Date Curriculum Vitae is Prepared: 2013 July 9

B. Biographical Information

Primary Office  Odette Cancer Centre, Department of Radiation Oncology
               Sunnybrook Health Sciences Centre
               2075 Bayview Avenue T2-164
               Toronto, Ontario, Canada
               M4N 3M5
Telephone  416-480-5329
Fax  416-480-6002
Email  phil.davey@sunnybrook.ca

1. EDUCATION

Degrees
1975  MB ChB, (Honours) Medicine, University of Manchester, Manchester, England, United Kingdom
1972  BSc, (Honours) Pharmacology, University of Manchester, Manchester, England, United Kingdom

Postgraduate, Research and Specialty Training
1987 - 1989  Clinical Fellow, Toronto Regional Cancer Centre (Odette Cancer Centre), North York, Ontario, Canada
1986 - 1987  Clinical Fellow, Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1979 - 1982  Registrar Radiotherapy, West Berkshire AHA, Royal Berkshire Hospital, Reading, United Kingdom
1979  SHO Otohinolaryngology, Liverpool AHA (T), Royal Liverpool Hospital, Liverpool, United Kingdom
1978 - 1979  SHO Neurosurgery, Wandsworth and East Merton Teaching District, Atkinson Morley’s Hospital, Wimbledon, London, United Kingdom
1978  SHO General Medicine, Cheshire AHA, Leighton Hospital, Crewe, United Kingdom
1976 - 1977  SHO Radiotherapy, Newcastele AHA (T), Regional Radiotherapy Centre, Newcastle-upon-Tyne, United Kingdom
1976  HO General Medicine, North West Durham Health District, Shotley Bridge General Hospital, Consett, United Kingdom

Qualifications, Certifications and Licenses
1990  Specialist Certification, American Board of Radiology
Phillip DAVEY

1990    FRCP(C), Royal College of Physicians
1987    LMCC, Medical Council of Canada
1983    FRCR, Royal College of Radiologists
1980    MRCP, Royal College of Physicians, United Kingdom
1975    ECFMG, Educational Commission for Foreign Medical Graduates

2. EMPLOYMENT

Previous Appointments

UNIVERSITY
1981 - 1985 Lecturer, Radiation Oncology, University of Edinburgh, Western General Hospital and Royal Infirmary, Edinburgh, United Kingdom
1977 - 1978 Assistant Lecturer, Medical Oncology, University of London, St. Bartholomew’s Hospital, London, United Kingdom

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL
Received
1975 Distinction in Community Medicine, University of Manchester. (Distinction)
1974 Prize ‘Cystic Fibrosis in Paediatrics, University of Manchester. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1991 - present Member, American Society of Therapeutic Radiology and Oncology
1991 - present Member, Canadian Association of Radiation Oncologists
1981 - present Member, British Institute of Radiology

Administrative Activities

NATIONAL
Canadian Association of Radiation Oncologists
1998 Chair, Scientific Program Committee

LOCAL
University of Toronto
1992 - 1994 Organizer, Department of Radiation Oncology, Organization of Oncology Rounds
C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Abstracts


6. Sahgal A, Miller HAB, Mihai A, Arenovich T, Q-L Yi, Davey P. What is the optimal number of nodes to be surgically sampled to predict pathologic nodal status following neoadjuvant concurrent chemotherapy and radiotherapy for operable esophageal cancer? Radiother Oncol. 2006; 80 (Suppl 1); pS31.


29. Davey P, Phillips I, Choo R. Effects of the 4-hydroxybutyrate (DH) receptor antagonist 6,7,8,9-tetrahydro-5H-benzcycloheptene-5-ol-4-ylidine acetic acid (NCS382) on DH radioprotection using an epilation assay. Br J Cancer. [abstract], 1994; 70:XXII (suppl 1);p.31.
D. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers

1999  Borderline elevated CEA predicts for earlier relapse in patients with rectal cancer receiving post-operative therapy. American Radium Society, annual meeting. Authors: Dawson LA, Franssen E, Davey P.


2. NATIONAL

Other Lectures and Presentations


3. PROVINCIAL / REGIONAL

Abstracts and Other Papers


4. LOCAL

Other Lectures and Presentations


2006 Mar 10 ‘Radiobiology’. University of Toronto Neurosurgery Residency Training Program.

2004 Nov 26 ‘What is the Scientific Basis for the Radiosurgical Treatment of Brain Metastases?’. University of Toronto Neurosurgery Residency Training Program.


2001 Sep 14 ‘The role of radiosurgery in the management of brain metastases’. University of Toronto Neurosurgery Residency Training Program.

1997 May ‘This house believes that surgery is no longer essential in the primary management of carcinoma of the esophagus’. University of Toronto, Department of Radiation Oncology Annual Debate.


1994 May 12 Normal tissue complications and retreatment. University of Toronto, Department of Radiation Oncology. Refresher Course.


1993 Feb 10 The radiobiology of radiosurgery. University of Toronto, 1993 Keith Professorship meeting.

1992 Nov 20 Getting back to basics. University of Toronto, Department of Radiation Oncology Alumni Day.

Curriculum Vitae

Laura Ann Dawson

A. Date Curriculum Vitae is Prepared: 2016 August 9

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Hospital
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2127
Fax 416-946-4442
Email laura.dawson@rmp.uhn.on.ca

1. EDUCATION

Degrees
1989 Sep - 1993 May MD, Dept of Medicine, University of Toronto, Canada
1987 Sep - 1989 May BSc, Faculty of Science, University of Toronto, Canada

Postgraduate, Research and Specialty Training
1998 Jan - 1999 Dec Fellowship, Conformal Radiation, Department of Radiation Oncology, University of Michigan, Ann Arbor, Michigan, United States
1997 Jan - 1998 Dec Chief Resident, Department of Radiation Oncology, University of Toronto, Canada
1993 Jan - 1998 Dec Residency, Radiation Oncology, University of Toronto, Canada

Qualifications, Certifications and Licenses
2003 Jan - present Medical License, College of Physicians and Surgeons of Ontario, Canada
1998 Jan - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1999 Jan License, Therapy, American Board of Radiology, United States
1998 Sep - 2003 Apr Physician License, Board of Medicine, State of Michigan, Michigan, United States
1998 Jan - 2003 Dec Controlled Substance License, State of Michigan, Michigan, United States
USMLE I,II, United States Medical Licensure Examination, United States
USMLE III, United States Medical Licensure Examination, United States

2. EMPLOYMENT

Current Appointments
2010 Jan - present Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2005 Jan - present Associate Member, Institute of Medical Science, University of Toronto, Toronto, Ontario,
Laura Ann DAWSON

2003 Feb - present
Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario, Canada

2016 Sep
ASTRO Fellow (FASTRO) inductee, American Society of Radiation Oncology (ASTRO), United States

Previous Appointments

HOSPITAL
1999 Jan - 2003 Jan
Staff Radiation Oncologist, University of Michigan Hospitals and Health System, Ann Arbor, Michigan, United States

1999 Jan - 2003 Jan
Staff Radiation Oncologist, The Veterans Administration Hospital, Ann Arbor, Michigan, United States

1999 Jan - 2003 Jan
Staff Radiation Oncologist, Foote Hospital, Jackson, Michigan, United States

1999 Jan - 2003 Jan
Staff Radiation Oncologist, Alpena General Hospital, Alpena, Michigan, United States

UNIVERSITY - RANK
2005 Jan - 2010 Dec
Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

2003 Jan - 2005 Dec
Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

2000 Jan - 2003 Jan
Assistant Professor, Department of Radiation Oncology, University of Michigan, Ann Arbor, Michigan, United States

1999 Jan - 2000 Dec
Lecturer, Department of Radiation Oncology, University of Michigan, Ann Arbor, Michigan, United States

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2016
ASTRO Fellow Award, American Society for Radiation Oncology (ASTRO). (Research Award)

2008 Jan
RTOG Next Generation Investigator Award, RTOG 40th year anniversary meeting. (Distinction)

2007 Jan
Invited speaker, Presidential Symposium, ASTRO annual meeting, United States. (Distinction)

2006 Sep
Discussant for physics plenary presentation, American Society for Therapeutic Radiology and Oncology (ASTRO) Meeting, United States. (Distinction)

2006 Jan
Accuray Award and plenary presentation, European Society for Therapeutic Radiation Oncology (ESTRO) Annual Meeting. (Research Award)

2004 Jan
Travel Grant, European Society for Therapeutic Radiation Oncology (ESTRO) Annual Meeting. (Distinction)

2002 Jan
Basic Science Travel Grant, 44th Annual American Society for Therapeutic Radiology and Oncology (ASTRO) Meeting, United States. (Distinction)

2002 Jan
Clinical Research Career Development Award, American Society of Clinical Oncology, United States. (Research Award)

1997 Jan
Cancer Clinical Trials Workshop Scholarship, American Society of Clinical Oncology/American Association of Clinical Research, United States. (Research Award)

1991 May - 1991 Sep
International Health Summer Research Scholarship, University of Toronto. (Research Award)

1987 Jan - 1987 Dec
Scholarship to Dr. Bessie Lawrence Science Research Program, Weizmann Institute of Science, Rehovot, Israel. (Distinction)
Teaching and Education Awards

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2001 - present American Society for Clinical Oncology
1998 - present European Society for Therapeutic Radiology and Oncology
Laura Ann DAWSON

1997 - present American Association for Women Radiologists
1996 - present American Society for Therapeutic Radiology and Oncology
2007 - 2012 International Liver Cancer Association
2000 - 2003 Michigan Society for Therapeutic Radiation Oncology
1997 - 2004 Radiation Research Society
1995 - 2012 Canadian Association of Radiation Oncologists
1995 - 2003 American College of Radiologists

Administrative Activities

INTERNATIONAL

15th International Congress of Radiation Research

American Society of Therapeutic Radiation Oncology (ASTRO)

2017 Member, Gastrointestinal Cancers Symposium Steering Committee
2016 Sep - 2017 Sep Member, Conflict of Interest Review Committee, Arlington, Virginia, United States.
2015 May 25 - 2015 Nov 30 Member, Conflict of Interest Review Committee, ASTRO, United States.
2015 - 2016 GI Resource Panel, Faculty of Medicine, Dept of Radiation Oncology, United States.
2015 - 2016 Member, Conflict of Interest Review Committee, United States.
2014 - 2016 GI Resource Panel-Member, ASTRO, United States.
2014 - 2015 Member, Steering Committee, 2015 Gastrointestinal Cancers Symposium
2013 - 2016 Member, Annual Meeting Track-GI
2012 - 2014 Member, Nominating Committee, United States.
2012 - 2013 Member, Clinical Affairs and Quality Committee, United States.
2012 - 2013 Member, Annual Meeting St erring Committee, United States.
2011 - 2014 Chair, Education Council
2011 - 2014 Member, Annual Meeting Abstract Review Committee
2011 - 2013 Member, International Task Force, United States.
2011 Chair, ASTRO IGRT/IMRT/SBRT State of the Art Symposium
2010 - 2014 Member, ASTRO State of the Art Symposium
2010 - 2014 Member, Board of Directors
2010 - 2012 Vice Chair, Education Council
2010 - 2011 Member, IGRT Q/A White Paper, United States.
2009 - 2011 Member, International Conference on Metastases, United States.
2009 - 2010 Vice Chair, Practical Radiation Oncology Editor Selection Task Force
2008 - 2013 Member, ASCO/ASTRO 2011 GI Cancers Symposium Program Committee, San Francisco
2008 - 2010 Vice Chair, Annual Meeting Education Sessions, Education Council
2008 - 2010 Chair, ASTRO IGRT Symposium
2008 - 2010 Member, Emerging Technology Monitoring Subcommittee, United States.
2008 Co-Chair, ASCO/ASTRO GI Cancers Symposium Fellows Luncheon
2007 - 2010 Member, Monitoring Subcommittee for Emerging Technology, Health Policy Council
2007 - 2008 Member, ASCO/ASTRO 2008 GI Cancers Symposium Program Committee
2006 - 2011 Member, Membership Committee
2006 - 2008 Member, ASTRO IGRT Symposium Organizing Committee
Laura Ann DAWSON

2004 - 2011  | Member, Education Committee
2004 - 2009  | Annual Meeting Education Committee, ASTRO, United States.
2004 - 2008  | Member, Education Sessions Sub-Committee of the Education Council
2003 - 2010  | Vice Chair, Journal Committee, Education Council
2003 - 2009  | Member, Publications Committee
2003 - 2006  | Member, Scientific Committee, Annual Meeting
2003 - 2006  | Member, Annual Meeting Abstract Review Committee

American Society of Therapeutic Radiation Therapy
2016 - 2017  | Member, GI Resource Panel, Virginia, United States.

International Atomic Energy Agency (IAEA)
2014        | Consultant, SBRT, Expert Mission to Brazil

International Conference on Translational Research in Radiation Oncology (ICTR)
2009 - 2012 | Member, Organizing Committee, Geneva, Switzerland. *March 2009.*
2006        | Member, Organizing Committee, Lugano, Switzerland. *March 2009.*

National Cancer Institute (NCI)
2006 - present  | Member, RTOG Representative, GI Intergroup Hepatobiliary Task Force
2008          | Member, State of the Science Hepatocellular Carcinoma Workshop, Bethesda.
2006          | Member, Biomedical Informatics Infrastructure for Clinical Trials Cooperative Cancer Group Imaging Workshop, Bethesda.

National Cancer Institute (NCI)/ National Science Foundation (NSF)

Radiation Therapy Oncology Group (RTOG)/NRG
2007 - present | Member, GI Translational Research Committee (TRP) Committee
2006 - present | Member, GI Steering Committee
2016 Jan - 2019 Jan | Member, GI Committee
2016 Jan - 2019 Jan | Member, CRC Core Committee
2016 Jan - 2019 Jan | Member, Non CRC Core Committee
2011 - 2013    | Member, RTOG executive committee
2006 - 2013    | Member, Advanced Technology Integration (ATI) Steering Committee

NATIONAL

Canadian Association of Radiation Oncologists (CARO)
2009 - 2010    | Member, Canadian Radiation Oncology Foundation (CROF) Research Advisory Council
Laura Ann DAWSON

2004 - 2006 Chair, History and Archives Committee
2003 - 2007 Member, History and Archives Committee

Canadian Institutes of Health Research
2006 - present Mentor, Excellence in Radiation Research for the 21stCentury (EIRR21), CIHR Strategic Training in Health Research

National Cancer Institute of Canada/Clinical Trials Group (NCIC CTG)
2006 - 2007 Member, Medical Physics Working Group
2005 - 2008 Member, Audit and Monitoring Executive Committee
2004 - 2007 Member, Radiation Oncology Quality Assurance Committee

PROVINCIAL / REGIONAL
Cancer Care Ontario
2015 Nov - 2017 Mar 31 Interventional Radiology Steering Committee, CCO Focal Committee Member, Canada.

Cancer Care Ontario Clinical Council / Ontario PET Steering Committee Provincial Meeting
2013 - 2014 Member, Focal Ablation for Liver cancer, Advisory Committee
2008 Member, Pancreas Cancer Subcommittee

LOCAL
Princess Margaret Cancer Center
2016 Jun - present Leader, Physician Super team 4, Toronto, Ontario, Canada.
2015 Dec - present Member, Research Committee, Ontario, Canada.

University Health Network
2004 - 2008 Member, Research Ethics Board (Oncology), Princess Margaret Hospital, Toronto, Toronto, Ontario, Canada.

University of Michigan
2002 - 2003 Member, Data and Safety Monitoring Committee for Multi-institutional Pancreas Cancer Study
2002 - 2003 Member, Intensity Modulated Radiotherapy (IMRT) Clinical Implementation Committee, Radiation Oncology
2001 - 2003 Member, Comprehensive Cancer Center Protocol Review Committee
2000 - 2003 Chair, Data and Safety Monitoring Committee for Liver Cancer
1999 - 2003 Member, Residency Selection Committee, Radiation Oncology
1999 - 2003 Member, Fellow Selection Committee, Head and Neck Oncology
1999 - 2003 Member, International Health Program, Medical School

University of Toronto
2014 Dec - present Reviewer, Medical School Candidate Review, Faculty of Medicine, Dept of Medicine
2016 Aug 24 Examiner - Year 2 Medical Physicists, Toronto, Ontario, Canada.
2015 - 2015 Jul 30 Medical School Admission Committee, Ontario, Canada.
2010 Examiner, Ontario Physics Residency oral exams, Ontario, Canada.
2009 - 2012 Chair, Radiation Medicine Program Quality Assurance Monitoring Committee
Laura Ann DAWSON

2009 - 2010  Member, Department of Radiation Oncology Strategic Plan Group, Faculty of Medicine, Dept of Radiation Oncology
2007 - 2008  Core Faculty Member, Master's in Health Science, Medical Radiation Sciences for Radiation Therapists, Faculty of Medicine, Dept of Radiation Oncology
2004 - 2012  Member, Radiation Medicine Program Quality Assurance Monitoring Committee
2004 - 2006  Examiner, Physics Residency oral exams, Faculty of Medicine, Dept of Radiation Oncology
2004 - 2006  Member, Physics Residency Selection Committee, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2004 - 2005  Member, Radiation Medicine Program Partnership Executive Committee
2003 - 2006  Member, External Beam Process Committee, Faculty of Medicine, Dept of Radiation Oncology
2003 - 2005  Member, Residency Selection Committee, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2003 - 2004  Judge, Annual University of Toronto Radiation Oncology Resident, Fellow and Physics Research Rounds, Faculty of Medicine, Dept of Radiation Oncology
1997 - 1998  Chief Resident, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD
1997 - 1998  Chair, Radiation Oncology Resident Meetings, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD
1996 - 1998  Member, Education Committee, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD
1992 - 1993  Member, Student Advisory Committee, Faculty of Medicine, Undergraduate MD
1992 - 1993  Athletic Representative, Faculty of Medicine, Undergraduate MD
1992 - 1993  Advisor, Faculty of Medicine, Undergraduate MD

OTHER

Radiation Medicine Program-PMH
2015 Dec 15 - 2016  RMP Research Committee, Canada.

Peer Review Activities

EDITORIAL BOARDS

Member
2014 Jul - 2016 Jul  Journal of Clinical Oncology
Journal of GI Oncology
The Cancer Journal- The Journal of Principles and Practice of Oncology
World Journal of Gastrointestinal Surgery

GRANT REVIEWS

External Grant Reviewer
2014 Dec - 2015 Jan  National Medical Research Council (NMRC) - Ministry of Health, Singapore
2009  French National Research Agency
2009  National Health Institutes, American Recovery and Reinvestment Act (ARRA): NCI Clinical Trials and Translational Research Grant Opportunities (RC2) Panel
2008  Danish Council for Strategic Research
2008  Pancreatic Cancer Research Fund, United Kingdom
Laura Ann DAWSON

2006 Research Grants Council of Hong Kong
2006 Swiss Group for Clinical Cancer Research
2004 Dutch Cancer Society

Chair
2010 - 2011 Canadian Radiation Oncology Foundation / Sanofi – Aventis Research Innovation Award (CROF-CASARIA) for GI and GU research

Member
2009 - 2010 Advanced Clinical Research Award (ACRA) in Colorectal Cancer Review Subcommittee, ASCO
2009 - 2010 CROF-CASARIA grant review committee
2008 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Breast Cancer Program (Clinical and Experimental Therapeutics#5) – Concept Panel
2006 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Breast Cancer Program (Imaging) - Grant Review Committee, Washington, DC
2005 - 2006 National Health Institutes, Grant Review Panel - In Vivo Imaging and Bioengineering Research
2005 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Prostate Cancer Program (Imaging) - Grant Review Committee, Washington, DC
2003 - 2004 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Breast Cancer Program (Concept Applications) - Grant Review Committee
2003 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Prostate Cancer Program (Clinical and Experimental Therapeutics) - Grant Review Committee, Washington, DC
2001 - 2002 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Prostate Cancer Program (Imaging) - Grant Review Committee, Washington, DC
2001 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Breast Cancer Program (Imaging) - Grant Review Committee, Washington, DC

MANUSCRIPT REVIEWS
Reviewer
2013 Jul - 2013 Jul 30 ASCO education book 2013, Number of Reviews: 2
Atca Oncologica
Biomedical Central- Cancer
British Journal of Cancer
British Journal of Radiology
Cancer
Cancer Control Journal
Cancer Treatment Reviews
Central European Journal of Biology
Clinical Cancer Research
Clinical Oncology
Expert Review of Anticancer Therapy
Gut
Hepatology
International Journal of Radiation Oncology Biology, Physics
Journal of Clinical Oncology
Journal of Interventional Radiology
The application of high precision radiation for the treatment of liver cancer. Primary liver cancer is one of the top causes of cancer fatality globally (5 year survival < 10%), and it is the most rapidly increasing cancer in North America. Liver metastases are also a large source of global cancer morbidity. Radiation therapy has not traditionally been used to treat liver cancers due to the low whole liver tolerance to radiation and challenges associated with irradiating a moving liver tumor that is difficult to see at the time of radiation. My research has demonstrated that reduction in organ motion using breath hold radiation and image guided radiotherapy, in conjunction with high precision radiation therapy planning, permit far higher doses to be safely delivered to focal liver cancers than previously possible.

In 2003, I developed an active clinical research program at the University of Toronto where these technical advances were translated to the clinic. The active clinical liver research program involves use of a novel hypofractionated radiation schedule for the treatment of unresectable liver cancers, which allows potentially curative doses of radiation therapy to be delivered in few treatments to patients. This research program is the first in Canada to use radiation therapy to treat patients with liver cancers. In this program, the treatments are highly individualized, as the individual tumor characteristics, organ motion and underlying normal tissue function all contribute to the optimal individualized dose and plan for each patient. Patients with far larger tumors that those previously treated with stereotactic body radiation therapy are eligible for this novel individualized therapy, as these are the patients unsuitable for other possible therapies.

Phase I and phase II studies of individualized hypofractionated radiation therapy have been completed and my research team has shown that this strategy is safe for patients with both primary and metastatic liver cancer. Randomized trials of this treatment strategy are planned.

The translation of technological developments in high precision radiotherapy to the clinic. The application of advanced technologies to the clinic for liver cancer, made it clear that
novel roles and benefits of radiation therapy are possible, if such advances are implemented in a safe and careful manner. Thus, in addition to liver cancers, outcomes of patients with other cancers can be improved with such translation of technologies to the clinic. In general, with more accurate radiation delivery, local control, survival and quality of life are improved while the risks of complications following therapy are reduced. Technological developments also allow for more efficient treatment, as radiation therapy can now be delivered in fewer fractions, leading to improved patient access, convenience, resource utilization and potentially improved tumor control.

My technological research focus includes the study of organ motion and geometric uncertainties during radiotherapy, image guidance during radiotherapy to allow more accurate treatment, advanced precision radiation planning and avoidance of normal tissue toxicity following high precision radiotherapy. Implementation of efficient technological advances to the clinic has been a goal in all my research, applied to liver cancer, and across many tumor sites. Specifically, my involvement in the application of image guided radiation therapy, has been emulated internationally by many radiation oncology centers, to improve the accuracy of radiation therapy delivery.

In addition, I have studied the partial volume tolerance of normal tissues to radiation (e.g. liver, kidney, and parotid, prostate), as the full potential of high precision intensity modulated radiation will not be met until there is a better understanding of the dose-volume tolerances for normal tissue toxicity. My research has been pioneering in developing a much improved understanding of the tolerance of the liver to radiation. This liver partial volume tolerance understanding has allowed others to deliver higher dose upper abdominal radiation safely for many tumor types.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2015 - 2018 Principal Investigator. A Phase III Study of Palliative Radiotherapy for Symptomatic Hepatocellular Carcinoma and Liver Metastases. Canadian Cancer Society Research
Laura Ann DAWSON


300,000 CAD. [Grants]

2015 - 2016

Principal Investigator. "Toxicity Prediction Using Delivered Dose Reconstruction to Enable Evidence-Based Adaptive SBRT". Collaborator(s): Mike Velec, Tim Craig, Jean Pierre Bissonnette. 50,000. [Grants]

Adaptive Radiotherapy IDEAS Grant Recipients.

2011 - 2012


2009 - 2015


Strategic Training Initiative in Health Research Training Program.

2009 - 2013


2009 - 2012


357,495 CAD. [Grants]

(CIHR $357,495, partner Bayer HealthCare Pharmaceuticals $572,000).

2009 - 2010


2008 - 2012


2007 - 2010


159,594 CAD. [Grants]

2007 - 2008


2006 - 2010


2002 - 2005  **Principal Investigator.** Extracranial Stereotactic Radiotherapy for Unresectable Intrahepatic Malignancies from American Society of Clinical Oncology (ASCO) Career Development Award.


NON-PEER-REVIEWED GRANTS

Funded

2009 - present  **Co-Investigator.** Randomized Phase III Study of Sorafenib followed by SBRT versus Sorafenib in Hepatocellular Carcinoma (in development). Radiation Therapy Oncology Group. RTOG#: 1112. Collaborator(s): Krishnan S, Guha C, Craig T, Winter K. [Clinical Trials]

2007 - present  **Principal Investigator.** Phase II Trial of Highly Conformal Radiotherapy for Unresectable Colorectal Cancer Liver Metastases (COLD 3). National Cancer Institute of Canada (NCIC). REB#: 07-0348-C. Collaborator(s): Kim J, Dinniwell R, Ringash J, Eccles C, Bissonnette JP. [Clinical Trials]


2005 - 2010  **Principal Investigator.** IV Contrast Cone Beam CT for Liver Cancer Companion Study to REB protocol 03-0295-C (Phase I/II Trial of Highly Conformal Radiotherapy for Unresectable Liver Metastases and Hepatobiliary Carcinoma). University of Toronto. Radiation Medicine Program. REB#: 05-0499-CE. Collaborator(s): Jaffray D, Haider M. [Clinical Trials]


2003 - 2010  **Principal Investigator.** Phase I/II trial of Stereotactic Radiotherapy for Unresectable Colorectal Cancer Liver Metastases and Hepatobiliary Carcinoma. University of Toronto. [Clinical Trials]

2003 - 2008  **Principal Investigator.** Phase I/II Trial of Highly Conformal Radiotherapy for Unresectable Liver Metastases and Hepatobiliary Carcinoma. REB#: 03-0295-C. Collaborator(s): Ringash J, Kim J, Brierley J, Jaffray D, Haider M, Lockwood G. [Clinical Trials]
E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Editorials**

1. Brade AM, **Dawson L**. To RCT or Not to RCT: How to Change Practice for Rare Cancers? J Clin Oncol. 2016 Jan 20;34(3):203-4. **Senior Responsible Author.**

Commentaries


Letters to Editor


2. Eccles C, Haider M, **Dawson LA.** In reply to letter to the editor by Dr Willems et al re: Change in diffusion weighted MRI during liver cancer radiotherapy: preliminary observations. Acta Oncol. 26: 1-10, by Eccles et al. **Senior Responsible Author.**

3. Ten Haken RK, Lawrence TS, **Dawson LA.** Prediction of radiation-induced liver disease by Lyman normal-tissue complication probability model in three-dimensional conformal radiation therapy for primary liver carcinoma: In regards to Xu et al. Int J Radiat Oncol Biol Phys. 2006; 65: 189-195. **Senior Responsible Author.**


Magazine Entries


Invited Abstract

1. **Dawson L.** Therapeutic procedures in liver metastases: SBRT for which patients? European Cancer Congress 2013 Abstract Book. 2013 Sep;49(S2). September 2013. In Press. **Principal Author.**

Invited Editorials


Invited Extended Abstract


Invited Grand Rounds


Invited Journals/Lay Media


Invited Publications


Journal Articles, Multicenter Study


Other Publications


2. NON-PEER-REVIEWED PUBLICATIONS

Books Edited


Book Chapters


Commentaries

Magazine Entries

Newspaper Articles

Online Resources

Invited Abstract

Invited Publications


Newsletter


Web Manuscript


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2015 Oct 27 **Visiting Professor.** Emerging Role For Stereotactic Radiotherapy For Primary and Metastatic Liver Cancer. Peter MacCallum Cancer Centre. Melbourne, Australia.


2015 Jul 1 **Invited Speaker.** Session XIV: Multimodality Therapy for Rectal Cancer. Stereotactic radiotherapy: Liver Cancer. European Society of Medical Oncology (ESMO) 17th World Congress on Gastrointestinal Cancer. Barcelona, Spain.


2015 Apr 22 **Keynote Speaker.** Stereotactic Body Radiation Therapy Safety and Quality. 11th Annual Scientific Meeting of Medical Imaging and Radiation Therapy (ASMMIRT). Brisbane, Australia.

2015 Apr 22 **Keynote Speaker.** Advances in Image Guided Radiation Therapy. 11th Annual Scientific Meeting of Medical Imaging and Radiation Therapy (ASMMIRT). Australia. Presenter(s): Dawson LA.

2015 Apr 16 **Invited Speaker.** Stereotactic Body Radiation Therapy (SBRT) for oligometastases from colorectal cancer. Simposio Latinoamericano de Gastroenterología Oncológica (SLAGO) 2015. San Diego, Chile.

2015 Apr 15 **Presenter.** The idea is to present the result or possibilities of Radiation Therapy in Hepatocellular Carcinoma, palliative and “curative”. Simposio Latinoamericano de Gastroenterología Oncológica (SLAGO) 2015. Chile.


2015 Jan 22 **Invited Speaker.** Current Role for Radiation Therapy for Liver Cancer. Eastern & Western Association Liver Tumors (EWALT) - 1st International meeting. Italy.

2015 Jan 21 **Visiting Professor.** Evolving role of radiation therapy for primary and metastatic liver cancer. Proton Therapy Center. Trento, Italy.


2014 Oct 24  **Invited Speaker.** IGRT and new practices in radiation oncology: what we should know and how to use it after a decade of investigation. XIV Course of Latest Developments in Radiation Oncology. Teaching and Research Institute of Sirio-Libanes Hospital. São Paulo, Brazil.

2014 Oct 23  **Invited Speaker.** Implementation of Advanced Technologies in Radiation Therapy IMRT/IGRT/Adaptive RT. XIV Course of Latest Developments in Radiation Oncology. Teaching and Research Institute of Sirio-Libanes Hospital. São Paulo, Brazil.


2014 Jun 3  **Visiting Professor.** Expanding Role of Radiation Therapy in Liver Cancer. Rutgers Cancer Institute of New Jersey. New Jersey, United States.


2013 Oct  **Invited Speaker.** Recent Advances in Radiation Oncology. JASCO. Kyoto, Japan. October 2013.


2012  **Invited Speaker.** Treatment of liver metastases with SBRT. Integration of New Radiation Technologies in the Multi-modality Treatment Approaches in Cancer Therapy, McGill University. Montreal, Ontario.


2012  **Invited Speaker.** Stereotactic body radiotherapy for liver, kidney and retroperitoneal upper abdominal malignancies. ASTRO IGRT Conference. Las Vegas, Nevada, United States.


2012  **Invited Speaker.** The evolving role of radiation therapy in hepatocellular carcinoma. Associazione Nazionale Di Interventistica E Chirurgia Ecoguidata. Amalfi Coast, Ravello, Italy.

2012  **Invited Speaker.** Status of body stereotactic RT. International Symposium on MRI in Radiotherapy. Geertekerk, Utrecht, Netherlands.


2012  **Invited Speaker.** Management Paradigms for Hepatocellular Carcinoma: Current and Future. Institute of Liver and Biliary Sciences. New Delhi, India.

2012  **Invited Speaker.** Highlights of GI Cancer Symposium 2012. ASCO Live Webinar.

2012  **Invited Speaker.** Stereotactic radiation therapy for hepatocellular carcinoma. ICTR meeting. Geneva, Switzerland.


2011 Sep 23  **Invited Speaker.** Stereotactic radiotherapy for liver metastases. 16th ECCO-36th ESMO Multidisciplinary Cancer Congress. Stockholms län [SE-01], Sweden.


2011  **Invited Panelist.** Fellows and Junior Faculty Networking Luncheon. ASCO/ASTRO 2011 Gastrointestinal Cancers Symposium. San Francisco, California, United States.


2011  **Program Chair.** State of the Art Techniques: IMRT, IGRT, and SBRT. ASTRO IGRT Conference. Las Vegas, Nevada.


2011  **Invited Speaker.** Modern Abdominal Treatment Planning and Delivery Paradigms in the Era of IMRT. American College of Radiation Oncology (ACRO). San Diego, California.


2011  **Invited Speaker.** Radiosurgery for Abdominal Tumours (Liver, Pancreas, etc.). LINAC Radiosurgery Meeting, Universities of Iowa and Florida. Orlando, Florida.


2011  **Visiting Professor.** Stereotactic Radiotherapy for Primary and Metastatic Liver – A New Treatment Option. UWCCC Grand Rounds, University of Wisconsin. Madison, United States.

2011  **Visiting Professor.** Stereotactic Radiotherapy for Primary and Metastatic Liver – A New Treatment Option? Tom Baker Centre Grand Rounds, University of Calgary. Calgary, Alberta.
2010  **Invited Speaker.** Liver Metastases Radiation Therapy. International Conference on Metastases, American Society of Therapeutic and Radiation Oncology (ASTRO). San Diego, California, United States.


2009  **Co-chair.** Multidisciplinary Treatment: Hepatobiliary Cancer. ASCO GI Meeting. San Francisco, California, United States.


2009  **Panelist.** Unresectable Hepatocellular Carcinoma. American Society of Clinical Oncology (ASCO) GI Meeting. San Francisco, United States.


2009  **Invited Speaker.** Evolving Role of Radiation Therapy for Hepatocellular Carcinoma. Fourth International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR). Geneva, Switzerland.


2009  **Invited Speaker.** Abdominal IGRT. American Society for Therapeutic and Radiation Oncology (ASTRO) Image Guided Radiation Therapy (IGRT) Symposium. Miami, United States.

2009  **Invited Speaker.** External and Internal Radiotherapy for Liver Metastases. ESMO Conference: 11th World Congress on Gastrointestinal Cancer. Barcelona, Spain.

2009  **Invited Speaker.** Image Guided Radiation Therapy in Hepatocellular Carcinoma. 4th International Symposium of Yonsei Liver Cancer Special Clinic. Seoul, Korea, Republic Of.

2009  **Invited Speaker.** Image Guided Radiotherapy-Clinical Perspective. CT / Nuclear Medicine / Radiotherapy Conference. Melbourne, Australia.

2009  **Visiting Professor.** Progress in Radiation Therapy for Hepatocellular Carcinoma. Montefiore Medical Center. New York, United States.


2009  **Invited Speaker.** Technical Advances in Liver Cancer SBRT. Mayo Clinic, Radiation Oncology Grand
Rounds. Rochester, United States.

2009


2009

**Invited Speaker.** IGRT for GI Cancers. Advances in Radiotherapy Planning and Delivery. The San Francisco Radiation Oncology Conference. San Francisco, United States.

2009

**Chair, moderator.** Multiple sessions. American Society for Therapeutic and Radiation Oncology (ASTRO) Image Guided Radiation Therapy (IGRT) Symposium. Miami, United States.

2009

**Invited Speaker.** Liver Cancer Radiotherapy. CT / Nuclear Medicine / Radiotherapy Conference. Melbourne, Australia.

2009

**Invited Speaker.** Stereotactic Body Radiotherapy. CT / Nuclear Medicine / Radiotherapy Conference. Melbourne, Australia.

2009

**Invited Speaker.** IGRT and Adaptive Radiotherapy for Head and Neck Cancer. CT / Nuclear Medicine / Radiotherapy Conference. Melbourne, Australia.

2009


2009

**Chair and panelist.** International Conference on Radiation Therapy for Liver Metastases Panel. Educational Course, American Society of Therapeutic and Radiation Oncology (ASTRO). Chicago, United States.

2009

**Visiting Professor.** Advances in Head and Neck Cancer Radiotherapy. Grand Rounds, Department of Oncology, National Taiwan University Hospital. Taipei, Taiwan, Province Of China.

2009

**Visiting Professor.** SBRT for Primary Liver Cancer and Liver Metastases. Alta Bates Comprehensive Cancer Center. Berkley, United States.

2009

**Visiting Professor.** Radiation Therapy for Primary and Metastatic Liver Cancer. Tufts University. Boston, United States.

2009


2008 Nov 8

**Presenter.** Stereotactic Body Radiation Therapy (SBRT) for Liver Tumors. 3rd Annual Moffitt Interdisciplinary GI Tumor Conference. Clearwater Beach, Florida, United States.

2008


2008

**Invited Speaker.** IGRT debate: Volumetric IGRT is required for IGRT. Image Guided Radiation Therapy (IGRT) American Society for Therapeutic and Radiation Oncology (ASTRO) Symposium. Newport Beach, United States.

2008

**Moderator.** Image Quality is the Limiting Factor in IGRT. Image Guided Radiation Therapy (IGRT) American Society for Therapeutic and Radiation Oncology (ASTRO) Symposium. Newport Beach, United States.

2008

**Invited Speaker.** Hands on Teaching. IGRT for head and neck cancer. Image Guided Radiation Therapy (IGRT) American Society for Therapeutic and Radiation Oncology (ASTRO) Symposium. Newport Beach, United States.

2008

**Invited Speaker.** Systemic Therapy for Hepatocellular Carcinoma. Sino-American Network for Therapeutic Radiology and Oncology (SANTRO). Beijing, China.

2008 **Invited Speaker.** Motion Management in IMRT Panel. American Society for Therapeutic and Radiation Oncology (ASTRO) IMRT Symposium. Orlando, United States.

2008 **Invited Speaker.** Liver Image Guided Radiation Therapy (IGRT) at PMH. Elekta Synergy Research Consortium Meeting. Crawley, United Kingdom.


2008 **Invited Speaker.** Image Registration Educational Session. American Society for Therapeutic and Radiation Oncology (ASTRO). Boston, United States.


2008 **Invited Speaker.** Advances in Imaging in Radiation Oncology. The Eli Glatstein, MD Transitional Research Conference: New Paradigms In Radiation Oncology, University of USA. United States.


2008 **Leader.** Regional Therapy Panel. Hepatocellular Carcinoma, State of the Science Meeting, NIH. Washington, United States.

2007 **Invited Speaker.** Image Guided Radiotherapy for Hepatocellular Carcinoma: Western Experience. Fifth International Meeting on Hepatocellular Carcinoma. Houston, United States.

2007 **Invited Speaker.** Technical Advances in High Precision Radiotherapy of Moving Tumors. Radiation Oncology Rounds, The Methodist Hospital and Baylor College of Medicine Grand Rounds. Houston, United States.


2007 **Keynote Speaker.** Evolution from IMRT to IGRT. ASTRO IMRT Symposium. San Francisco, United States.


2007 **Invited Speaker.** Highly Individualized SBRT for Primary and Metastatic Liver Cancer. Cleveland Clinic’s First International Symposium on Stereotactic Body Radiation Therapy and Stereotactic Body Radiosurgery. Orlando, United States.

2007  **Invited Speaker.** Transitioning from 3D/IMRT to 4D/IGRT: Thorax and Abdominal Malignancies. ASTRO Image Guided Radiotherapy Meeting II. Tampa, United States.

2007  **Invited Speaker.** Image Guided Radiotherapy. Chicago Radiological Society, Rush University Medical Center. Chicago, United States.


2007  **Invited Speaker.** Image Guidance in Liver Cancer. 3rd European Elekta Users Meeting. Sitges, Spain.


2007  **Invited Speaker.** High Precision Radiation Therapy in Hepatocellular Carcinoma. Radiation Oncology Grand Rounds, Department of Oncology, National Taiwan University Hospital. Taipei, Taiwan, Province Of China.

2007  **Chair.** Multidisciplinary Treatment: Esophageal and Gastric Cancer. ASCO GI Meeting. Orlando, United States.

2007  **Visiting Professor.** Iso-Toxicity based Stereotactic Radiotherapy for Primary and Metastatic Liver Cancer. The Methodist Hospital and Baylor College of Medicine Grand Rounds. Houston, United States.

2007  **Visiting Professor.** Individualized Stereotactic Radiotherapy for Primary and Metastatic Liver Cancer. MD Anderson. Houston, United States.

2007  **Visiting Professor.** Stereotactic Radiotherapy for Primary and Metastatic Liver Cancer. MD Anderson Orlando. Orlando, United States.

2007  **Visiting Professor.** Individualized Stereotactic Radiotherapy for Hepatic Malignancies. Yonsei University. Seoul, Korea, Republic Of.


2007  **Invited Speaker.** Technical Advances in Radiotherapy: The Liver Cancer Example. CT / Nuclear Medicine / Radiotherapy July 07 Conference. Gold Coast, Australia.

2007  **Invited Speaker.** Adaptive Radiotherapy for Head and Neck Cancer. CT / Nuclear Medicine / Radiotherapy July 07 Conference. Gold Coast, Australia.

2007  **Invited Speaker.** Motion Management in High Precision Radiotherapy. CT / Nuclear Medicine / Radiotherapy July 07 Conference. Gold Coast, Australia.


2007  Invited Speaker. Motion Management in Radiotherapy. VII Last Generation Radiotherapy Course. São Paulo, Brazil.


2006  Invited Speaker. Individualizing and Adapting Treatment Delivery: the Liver Model. Third International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR). Lugano, Switzerland.


2006 **Invited Speaker.** Clinical Outcomes Following SBRT. American Association of Medical Physicists (AAPM). Orlando, United States.


2006 **Invited Speaker.** The Clinical Rationale and Basis for IGRT in Liver Radiotherapy. International Image guided Radiation Therapy (IGRT) Symposium, ESTRO. Leipzig, Germany.


2006 **Invited Speaker.** Improving inter-and intra-fraction reproducibility. Third International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR). Lugano, Switzerland.

2006 **Co-Chair.** Adaptive Treatment. Third International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR). Lugano, Switzerland.


2006 **Invited Speaker.** Clinical Workshop in Radiotherapy for Hepatocellular Carcinoma. 1st Lui Hac Minh International Hepatoma Symposium in 2006. Hong Kong.


2006 **Invited Speaker.** Multimodality Imaging – Fusion and Registration (MRI/CT and PET/CT) Educational Symposium. American Society for Therapeutic Radiation and Oncology (ASTRO) Annual General Meeting. Philadelphia, United States.


2006 **Visiting Professor.** Hepatocellular Carcinoma Radiation Therapy: PMH Experience. Tung General Hospital. Taichung, Taiwan, Province Of China.


2006 Visiting Professor. Highly Individualized, Image Guided, Iso-Toxicity Based Liver Cancer SBRT. University of South Western. Dallas, United States.


2006 Visiting Professor. Advances in Liver Cancer High Precision Radiotherapy. Montefiore Medical Center, The University Hospital for the Albert Einstein School of Medicine. New York, United States.


2004 Invited Speaker. Reducing Organ Motion. Seventh International Conference on Dose, Time and Fractionation in Radiation Oncology –Physical, Chemical and Biological Targeting in Radiation Oncology. Madison, United States.


2004  **Invited Speaker.** Cone Beam CT Guided Stereotactic Radiosurgery for Isolated Lung Cancers. Princess Margaret Hospital Proposal. Elekta Synergy Symposium. Crawley, United Kingdom.


2003  **Invited Speaker.** Liver Radiosurgery: Where we are and where do we need to go? 6th International Stereotactic Radiosurgery Congress. Kyoto, Japan.


2003  **Moderator.** “Head and Neck Cancer” Oral Presentations. American Society for Therapeutic Radiology and Oncology annual meeting. Salt Lake City, United States.


2002  **Invited Speaker.** High Precision Radiotherapy for Unresectable Liver Cancer. 27th American Association of Medical Dosimetrists. Dearborn, United States.

2002  **Invited Speaker.** Introduction to Contouring and Virtual Simulation. The First Asian Medical Center Workshop on Conformal Radiotherapy. Seoul, Korea, Republic Of.

2002  **Invited Speaker.** Clinical Importance of Setup Uncertainty in High Precision Radiotherapy. Treatment Verification Symposium, American Association of Medical Physicists (AAPM). Montreal, Quebec.


2002  **Discussant.** Prostate Cancer Contouring and Virtual Simulation. The First Asian Medical Center Workshop on Conformal Radiotherapy. Seoul, Korea, Republic Of.


2001 Invited Speaker. Vignettes in Organ Motion During Radiotherapy. Department of Radiology, Hokkaido University School of Medicine. Sapporo, Japan.


2000 Visiting Professor. Re-irradiation of Head and Neck Recurrent or Second Primary Cancers. Visiting Professor Lecture, Head and Neck Tumor Board Conference. South Bend, United States.


Presented Abstracts


2012 Phase I Study of Sorafenib and SBRT for Advanced Hepatocellular Carcinoma. American Society for

2012

2010

2009

2009

2008
Cone beam CT Evaluation of Baseline Shifts in Liver Position. American Society for Therapeutic Radiation Oncology (ASTRO). Boston, United States.

2007

2007

2007

2007

2006 Oct
Phase I Study of Stereotactic Radiotherapy for Unresectable Primary and Metastatic Liver Cancer. European Society for Therapeutic Radiation Oncology (ESTRO). Leipzig, Germany. (ESTRO Accuray Award).

2006

2005

2005
Correlation of late rectal toxicity with dose-volume histograms following high-dose radiation therapy for prostate cancer. ASCO Inaugural Prostate Symposium. Skala M, Dawson L, Catton C, Divanbeigi L, Lockwood G, Rosewall T, Warde P.

2005

2005 Image guidance for liver cancer stereotactic radiotherapy. Proceedings for the fourth annual conference on stereotactic body radiotherapy. Dallas, United States. Dawson LA.


Presented and Published Abstracts

2014 Sep Treatment Dilemmas for Synchronous and Metachronous Prostate and Rectal Cancers. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

Publication Details:

2014 Sep Prospective Longitudinal Assessment of Quality of Life for Liver Cancer Patients Treated With Stereotactic Body Radiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

Publication Details:


Publication Details:


2013 Sep 23 A Randomized Controlled Trial of Lorazepam to Reduce Organ Motion in Patients Receiving Upper Abdominal Radiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO) 55th Annual Meeting. Atlanta, Georgia, United States.


2013 Sep 23 Interobserver Variability in Target Definition for Hepatocellular Carcinoma (HCC) with and without Portal Vein Thrombus: Radiation Therapy Oncology Group (RTOG) HCC Consensus Panel. American Society for Therapeutic Radiology and Oncology (ASTRO) 55th Annual Meeting. Atlanta, Georgia, United States.


**Abstract Presentations**

2004 Three Dimensional Motion of Liver Tumors using Cine MRI Compared to Liver Motion Assessed at Fluoroscopy. European Society for Therapeutic Radiation Oncology (ESTRO). Amsterdam, Netherlands.

2003 Differences between MRI and CT to Define Gross Tumor Volumes to be Used for Radiation Planning of Unresectable Intrahepatic Malignancies. American Society for Clinical Oncology Annual Meeting. Salt Lake City, United States.


1999 Patterns of Local-Regional Failure Following Parotid Sparing Conformal and Multisegmental Intensity Modulated Radiotherapy for Head and Neck Cancer. American Society for Therapeutic Radiology and Oncology.
2. NATIONAL

Invited Lectures and Presentations


2014 Jun Invited Speaker. “Palliative Radiation Therapy: When does it become curative?”. Annual Meeting of the Quebec Association of Radiation Oncologists (AROQ). Quebec City, Quebec, Canada.

2014 Apr Speaker. Stereotactic Body Radiation Therapy (SBRT) for Hepatocellular Carcinoma and Liver Metastases. 6ième Symposium sur la personnalisation du traitement des cancers digestifs. Montreal, Quebec, Canada.


2013 Oct Invited Speaker. Radiation Treatment of Liver Mets from Colorectal Cancer. Eastern Canada Colorectal Cancer Consensus Conference. Montreal, Quebec, Canada. Presenter(s): Dawson L.


2013 Apr Visiting Professor. The Why’s and How’s of Stereotactic Body Radiotherapy for Treatment of Liver Cancer, Grand Rounds (combined with Dr Tim Craig). Cross Cancer Institute, University of Alberta. Edmonton, Alberta, Canada.


Laura Ann Dawson


Presented Abstracts


2002 Principal Author. High precision radiotherapy for unresectable liver cancer. American Association of Medical Dosimetrists. Dawson LA.

2002 Principal Author. Parotid-sparing radiation for head and neck cancer – What have we learned? 27th American Association of Medical Dosimetrists. Dawson LA.


Presented and Published Abstracts


Publication Details:


Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

2012 Oct 28 Invited Speaker. Outcomes of intensity-modulated radiotherapy versus conventional radiotherapy for hypopharyngeal cancer. 54th Annual American Society for Therapeutic Radiation Oncology (ASTRO) meeting. and the 26th Annual Canadian Association of Radiation Oncology meeting. Ottawa, Ontario, Canada.

Publication Details:

4. LOCAL

Invited Lectures and Presentations


2016 Apr 7  **Presenter.** Session 1: Setting the Scene. Introduction to Liver Cancer, Liver Radiation Therapy & the Course. Accelerated Education Program (AEP), Image Guided Radiation Therapy (IGRT) Princess Margaret Cancer Center. Toronto, Ontario, Canada.


2016 Mar 21  **Presenter.** Hepatobiliary Radiation Therapy. Princess Margaret Cancer Center. Ontario, Canada.


2015 Nov 20  **Speaker.** “Hepatocellular carcinoma – Optimizing the therapeutic ratio.”. Ontario Cancer Institute, University Health Network Research-Princess Margaret Cancer Centre.


2015 Mar 11  **Invited Lecturer.** The Cancer Clinical Research Unit (CCRU) Investigator Retreat. Princess Margaret Cancer Centre. Toronto, Ontario, Canada.


Laura Ann DAWSON

Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Dawson LA, Seco P, Stanescu T.

2015 Mar 5  Presenter. Session 1: Setting the Scene. Introduction to Liver Cancer & the Course. Accelerated Education Program (AEP), Image Guided Radiation Therapy (IGRT) Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Dawson LA.


2014 May 26 Invited Speaker. Stereotactic body radiation therapy for Hepatocellular Carcinoma (HCC) and liver metastases. Huntsville, Ontario, Canada. 5th Annual Faculty Retreat Deerhurst Resort.

2014 Feb Invited Speaker. Stereotactic body radiation therapy (SBRT) for hepatocellular carcinoma and liver metastases. Regional Cancer Program. New Market, Ontario, Canada. Stronach Regional Cancer Centre Oncology Rounds.


2011 Invited Speaker. The Moving Liver Target. IMRT Insight: On Target on Track, Metropolitan Hotel. Toronto.


2011 Moderator. Multiple sessions. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.

2011 Liver Planning and Interactive Demonstration. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.

2011 Simulation in Liver IGRT. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.


2011 Overview of Liver Cancer RT. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.

2011 Liver Planning and Interactive Demonstration. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.


2003 Stereotactic Radiation for Unresectable Primary and Metastatic Liver Cancer. Toronto-Sunnybrook Regional Cancer Center, University of Toronto. Ontario.

2002 Invited Speaker. Partial Volume Effects in Radiotherapy. Princess Margaret Hospital, University of Toronto. Toronto, Ontario.

2000 The Past, Present and Future of High Precision Radiotherapy. Princess Margaret Hospital, University of Toronto. Toronto, Ontario.
Presented Abstracts


5. OTHER

Web Manuscript

2011 May  **Invited Speaker.** e-grand rounds and e-oncoreviews. European School of Oncology.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

**Graduate Education**

2009  **Primary Supervisor.** MSc candidate. A. Swaminath. *Dose Response Relationship for Liver Metastases Radiotherapy Tumor Control Probability.*


2006  **Primary Supervisor.** MSc candidate. R. Case. *Respiratory sorted cone beam CT for liver cancer radiotherapy.*

2. OTHER SUPERVISION

**Graduate Education**

**Thesis Examiner**


**Committee Member**


2008  **MSc.** M. Taremi. *Dose Volume Characteristics of Rib Fractures Post Lung Cancer SBRT.*

2005  **MSc candidate.** K. Franks. *Lung Stereotactic Body Radiotherapy: Optimizing Radiation Planning and Delivery to Improve Outcomes.*
Other

Thesis Examiner

2015 Sep  
Dr. Farhang Zangneh, Medical Science. Supervisee Institution: University of Toronto. 
*Cost-Effectiveness analysis of hepatocellular carcinoma surveillance in patients with hepatitis C related cirrhosis after sustained virological response.*

2015 Sep  
Luis Alberto De La Maza Borja, Medical Science. Supervisee Institution: University of Toronto. 
*The Immunogenic effect of Local Radiation Therapy in a mouse model of Mesothelioma.*

2015 Jul  
Matthew Wu, Medical Science. 
*HMGB-1 Release and the CD8+ T Cell response Elicited by Radiation Treatment in Malignant Pleural Mesothelioma.*
A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Radiation Medicine Program
Princess Margaret Hospital/University Health Network
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
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1. EDUCATION

Degrees

2014 - present MEd, Leadership, Higher and Adult Education, Ontario Institute for Studies in Education, University of Toronto, Toronto, Canada
2012 - 2014 MScCH, Health Practitioner Teacher Education, Dalla Lana School of Public Health, University of Toronto, Toronto, Canada
2010 MSc, Institute of Medical Science, University of Toronto, Toronto, Canada
1998 MD, Queen’s University at Kingston, Kingston, Canada
1993 BA, Psychology, McMaster University, Hamilton, Canada
1992 Honours BSc, Biology, McMaster University, Hamilton, Canada

Postgraduate, Research and Specialty Training

2014 - present Fundamentals in Leadership and Management in Education (FLAME), Certificate in Medical Education, Association for Medical Education in Europe
2012 Aug - present Diagnostic Medical Ultrasound, Sonography Principles and Instrumentation, The Burwin Institute, Ontario, Canada
2012 May - present Health Professional Teacher Education, Dalla Lana School of Public Health, University of Toronto, Ontario, Canada
2012 Essential Skills in Computer-Enhanced Learning, Certificate in Medical Education. Association for Medical Education in Europe, Lyon, France
2010 - 2012 Education Scholars Program, University of Toronto, Ontario, Canada
2006 Royal College Clinician Investigator Program, University of Toronto, Toronto, Canada
2003 - 2005 Radiation Oncology Research Fellow in Gynecologic Oncology, Princess Margaret Hospital/University of Toronto, Toronto, Canada
2003 - 2004 Magnetic Resonance Imaging Theory Advanced Diploma, Michener Institute for Applied Health Sciences, Toronto, Canada
2001 - 2003 Resident in Radiation Oncology, University of Toronto, Toronto, Canada
Robert Edward DINNIWELL

1999 - 2001 Resident in Internal Medicine, Western University, London, Canada
1999 - 2001 Resident in Radiation Oncology, McMaster University, Hamilton, Canada
1998 - 1999 Internal Medicine Residency, McMaster University, Hamilton, Canada

Qualifications, Certifications and Licenses

2003 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2000 Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments

2011 - present Staff Physician, Sunnybrook Health Sciences Centre, Toronto, Canada
2009 - present Staff Physician, St. Michael's Hospital, Toronto, Canada
2005 - present Assistant Professor, Radiation Oncology, University of Toronto
2005 - present Staff Physician, Dept of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2006 Cum Laude, Radiological Society of North America. (Distinction)
Awarded at 2006 Annual Meeting.

2005 Certificate of Merit with an Award for Excellence in Design, Radiological Society of North America. (Distinction)
Awarded at 2005 Annual Meeting.

2004 Excellence in Design Citation, Radiological Society of North America. (Distinction)
Awarded at 2004 Annual Meeting.

1994 Summer Medical Student Scholarship Award, American Society of Hematology. (Distinction)

PROVINCIAL / REGIONAL

Received

2002 Chief Resident, University of Toronto. (Distinction, Specialty: Radiation Oncology)
2000 Chief Resident, McMaster University. (Distinction, Specialty: Radiation Oncology)
1995 Ivan H. Smith Memorial Studentship Scholarship in Oncology. (Distinction)
1991 Ontario Scholar, Ontario Ministry of Education. (Distinction)

LOCAL

Received

2005 Chair’s Award, University of Toronto. (Distinction)
For Academic Excellence in Research by a Postgraduate Trainee.
2005 Honourable Mention, Institute of Medical Science’s Scientific Day, University of Toronto. (Distinction)
2003 Chief Fellow, University of Toronto. (Distinction, Specialty: Radiation Oncology)
2003  **Chief’s Award**, Princess Margaret Hospital. (Distinction)
*For best rounds in the PMH Radiation Medicine Program.*

1991 **Varey Scholarship**, McMaster University. (Distinction)

1988 **Canada Scholarship**, McMaster University. (Distinction)

1988 **McMaster University Chancellor’s Scholarship**, McMaster University. (Distinction)

### Teaching and Education Awards

**LOCAL**

**Received**

2012 **Educational Innovation**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto, Ontario, Canada. (Multilevel Education)
*In recognition of his leadership within the Radiation Medicine Program.*

2012 **Postgraduate Mentorship**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. (Multilevel Education)

2010 **Teaching Activity Award, PMH Radiation Medicine Program**, Princess Margaret Hospital

### 4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

#### Professional Associations

- American Society for Therapeutic Radiology and Oncology
- Association for Medical Education in Europe
- Canadian Association of Radiation Oncology
- Canadian Medical Association
- European Society of Therapeutic Radiology and Oncology
- National Lymphedema Network
- Ontario Medical Association
- Radiological Society of North America
- Royal College of Physicians and Surgeons of Canada

#### Administrative Activities

**LOCAL**

**Centre for the Evaluation of Health Professionals Educated Abroad (CEHPEA)**

2014 - present  Advisor in education program for specialty trainees

**Ministry of Health / Ontario Association of Radiation Oncologists**

2013 - present  Provincial Oncology AFP (POAFP) Working Group

**Ministry of Health / Ontario Medical Association**

2014 - present  OMA/MOH Virtual Healthcare Working Group

**Ontario Association of Radiation Oncologists**

2012 - present  **Secretary / Treasurer**
Ontario Medical Association

2012 - present  Section Vice-Chair, Radiation Oncology

University Health Network / Princess Margaret Hospital

2013 - present  Chairman, Radiation Oncology Partners
2013 - present  UHN Research Ethics Board, Oncology REB Review Panel Member
2010 - present  Imaging Committee, PMH Radiation Medicine Program
2009 - present  Protocol Review Committee, PMH Radiation Medicine Program
2012 - 2013  Vice-Chairman, Radiation Oncology Partners
2011 - 2012  Treasurer, Radiation Oncology Partners

University of Toronto

2012 - present  Department of Radiation Oncology Residency Program Committee, Postgraduate Medical Education
2011 - present  Medical Oncology Program Co-ordinator for Radiation Oncology, Postgraduate Medical Education
2005 - 2007  Member, External Relations Committee, Department of Radiation Oncology
2003 - 2004  Chief Fellow in Radiation Oncology, Department of Radiation Oncology
2002 - 2003  Chief Resident in Radiation Oncology, Department of Radiation Oncology

Peer Review Activities

Reviewer

Annals of Surgical Oncology
Canadian Breast Cancer Foundation
Clinical Breast Cancer
Clinical Oncology
Nature Oncology
Radiotherapy and Oncology

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


A double-blind, placebo-controlled, two way, cross over study of topical
phenylephrine for passive fecal incontinence following radiotherapy in men with prostate cancer.
Abbott ACURA Uro-Oncologic Radiation Award. $20,000 2012.


Principal Investigator. Locally Advanced Breast Cancer Imaging Fund. Princess Margaret Hospital Foundation (The). 75,000. [Grants]

NON-PEER-REVIEWED GRANTS

FUNDED

2010 - present Principal Investigator. Impact of Magnetic Resonance Imaging on Consistency of Seroma Delineation in Post Operative Breast Irradiation. REB#: 10-0040-CE. [Clinical Trials]

2009 Jul - present Principal Investigator. A Feasibility Study of MRI in Assessment of Primary Tumor During Chemoradiation for Anal Canal and Perianal Cancer. [Clinical Trials]


2008 Jul - present Principal Investigator. A Pilot Study of Diffusion Weighted Imaging (DWI) and Dynamic Contrast Enhanced (DCE) MR imaging as Early Indicators of Response in Women with Locally-Advanced Breast Cancer Treated with Neoadjuvant Therapy. REB#: 07-0709-CE. Collaborator(s): RMP Co-Investigators: Czarnota G, Clemons M, Fitzgerald B, Levin W, Manchul L, Sharpe M. [Clinical Trials]

2008 Jul - present Principal Investigator. Optimization of Target Volume Delineation and Radiotherapy Treatment Planning in Women with Locally Advanced Breast Cancer Receiving Neoadjuvant or Primary Radiotherapy. REB#: 07-0772-CE. Collaborator(s): RMP Co-Investigators: Lee G. [Clinical Trials]

2008 Jul - present  **Principal Investigator**. Optimization of Lymphatic Target Volume Delineation in Carcinoma of the Anal Canal. REB#: 08-0177-CE. Collaborator(s): RMP Co-Investigators: Kim J. [Clinical Trials]

2004 Jul - present  **Principal Investigator**. A Pilot Study of MR Imaging with Ultra-Small Superparamagnetic Iron Oxide for Pelvic Lymph Node Target Definition. REB#: 03-0838-C. [Clinical Trials]


2005 Jul - 2008 Jun  **Principal Investigator**. Non-Invasive Assessment of Lymph Circulation Disorders with Three-Dimensional Magnetic Resonance Imaging and Mid-to-High Frequency Ultrasound: A Pilot Study. REB#: 05-0486-CE. [Clinical Trials]


D. Publications

1. **PEER-REVIEWED PUBLICATIONS**

Journal Articles


5. Lee G, Rosewall T, Fyles A, Harnett N, **Dinniwell RE**. Anatomic features of interest in women at risk of cardiac exposure from whole breast radiotherapy. Radiother Oncol. 2015 Jun 1;115(3):355-60. **Senior Responsible Author**.


Letters to Editor

Evaluation Studies, Journal Articles

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

In Preparation

2. Lee G, Clemons M, Czarnota GJC, Dinniwell R. Nodal clinical target volume delineation in women with locally advanced breast cancer receiving neoadjuvant or primary radiotherapy. Senior Responsible Author.


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts


2013 Sep  
Feasibility of an IR camera system for surface mapping and volume measurements in lymphedema of the head and neck, torso and extremity. 24th I.S.L. Congress. Rome, Roma, Italy.

*Publication Details:*  

### Other Lectures and Presentations

#### 2010

#### 2008

#### 2005

### 2. NATIONAL

#### Invited Lectures and Presentations

#### 2006

#### 2004
Royal College Exam Review: What you should know. 9th Annual National Canadian Preparatory Course in Clinical and Radiation Oncology. London, Canada. Presenter(s): Dinniwell, Robert Edward.

#### Other Lectures and Presentations

#### 2009
Inguinal nodal clinical target volume delineation: Validation of a class solution for precision radiotherapy. 22nd Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Montreal. Presenter(s): Dinniwell, Robert Edward.

#### 2005
Magnetic resonance lymphography with Ferumoxtran-10 for pelvic lymph node delineation in radiotherapy treatment planning. 19th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Victoria. Presenter(s): Dinniwell, Robert Edward.

#### 2005
Lymphatic target volume delineation using magnetic resonance imaging with ultrasmall particles of superparamagnetic iron oxide in carcinoma of the prostate. 19th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Victoria. Presenter(s): Dinniwell, Robert Edward.

#### 2005
Pelvic and inguinal lymphatic target volume delineation: analysis of the visible human high resolution anatomic data sets. 19th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Victoria. Presenter(s): Dinniwell, Robert Edward.

#### 2002
Abdomino-pelvic radiotherapy (APRT) following surgery and carboplatin/paclitaxel chemotherapy for epithelial ovarian cancer. 16th Annual Scientific Meeting of the Canadian Association of Radiation
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2006  Magnetic Resonance Lymphography. Target Insight II Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio, Imaging the Lymph Nodes. Toronto, Canada. Presenter(s): Dinniwell, Robert Edward.


4. LOCAL

Invited Lectures and Presentations


5. OTHER

Presented and Published Abstracts


2014 Jun  Characteristics of Women Requiring Active Breathing Control for Heart Sparing in Whole Breast Radiotherapy.


2013 Mar The Relationship between Patterns of Recurrence and Radiotherapy Field Design in Women with Locally Advanced Breast Cancer.


2013 Feb Development of quantitative parameters to assess in-vivo optical coherence tomography images of late oral radiation toxicity patients. SPIE BIOS. San Francisco, United States.


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD


Postdoctoral Research Fellow (PhD)

2008 Primary Supervisor. O. McArdle. CT/MRI Fusion Significantly Reduces the Risk of Geographic Miss During Radiotherapeutic Ovarian Ablation.

Other

2010 Primary Supervisor. G. Lee. Optimization of Target Volume Delineation in Women with Locally Advanced Breast Cancer Receiving Neoadjuvant Radiotherapy. Awards: George Reason Memorial Award, 2010 AGC CAMRT Exhibit Competition This award is presented for the most outstanding technical or scientific exhibit on procedures in radiography, radiation therapy, or nuclear medicine.


Radiotherapy.
Curriculum Vitae

Mary Doherty

A. Date Curriculum Vitae is Prepared: 2016 August 4

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Hospital
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-4834
Fax 416-480-6002
Email mary.doherty@sunnybrook.ca

1. EDUCATION

Degrees
1981 D.M.R.T. Medical Radiotherapy, Royal Infirmary of Edinburgh, Edinburgh, Scotland, United Kingdom
1977 M.B. Queen’s University of Belfast, Belfast, North Ireland, United Kingdom
1977 B.Ch, Queen’s University of Belfast, Belfast, North Ireland, United Kingdom
1977 B.A.O, Queen’s University of Belfast, Belfast, North Ireland, United Kingdom

Postgraduate, Research and Specialty Training
1986 - 1987 Clinical Fellow, Paediatric Oncology, Toronto-Bayview Regional Cancer Centre, Toronto
1985 - 1986 Clinical Fellow, Head and Neck, Breast, Genitourinary and Lung Cancer, Princess Margaret Hospital, Toronto
1983 - 1984 Senior Registrar, Radiation Oncology Department, Western General Hospital and Royal Infirmary, Edinburgh, Scotland, United Kingdom
1981 - 1983 Establishment Registrar, Radiation Oncology Department, Western General Hospital and Royal Infirmary, Edinburgh, Scotland, United Kingdom
1979 - 1981 Trainee Registrar, Radiation Oncology Department, Western General Hospital and Royal Infirmary, Edinburgh, Scotland, United Kingdom
1978 - 1979 Senior House Officer, Medicine, Royal Infirmary, Perth, Scotland, United Kingdom
1978 House Officer, General Surgery and Urology, Royal Infirmary, Edinburgh, Scotland, United Kingdom
1977 - 1978 House Officer, General Medicine and Toxicology, Royal Infirmary, Edinburgh, Scotland, United Kingdom
Qualifications, Certifications and Licenses

1986 Fellow, F.R.C.P.(C), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Toronto, Ontario, Canada, License / Membership #: 353547

1986 Licentiate, L.M.C.C, Medical Council of Canada, Toronto, Ontario, Canada

1983 Fellow F.R.C.R, Royal College of Radiology, London, England, United Kingdom
Fellow, Royal College of Physicians and Surgeons of Ontario, Ontario, Canada, License / Membership #: 55069

2. EMPLOYMENT

Current Appointments

1987 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1987 - present Staff Radiation Oncologist, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
Disease Sites: Breast, Lymphoma, Melanoma

C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


**D. Presentations and Special Lectures**

**Presented and Published Abstracts**

**2015**


*Publication Details:*

**2015**


*Publication Details:*
Acute Toxicity and Quality of Life of Hypofractionated Radiation Therapy for Breast Cancer. **Coauthor or Collaborator.**

**E. Creative Professional Activities**

**1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES**

**2013 Nov 7**

ESOR ASKLEPIOS Course. Multidisciplinary Approach to Cancer Imaging. ESOR (European School of Radiology).
CURRICULUM VITAE

Name          Dr. Louis L. Fenkell

Business Address  Stronach Regional Cancer Centre at Southlake Regional Health Centre
                  596 Davis Drive, Newmarket, Ontario L3Y 2P9

Business Telephone  905 895 4521 ext. 6595
Business Fax        905 952 2818
Email               Ifenkell@southlakeregional.org

Last Updated 19 October 2015

EDUCATION

Degrees and College Membership
2009   Fellow of the Royal College of Physicians and Surgeons of Canada (FRCPC) - Radiation Oncology
2006   Licentiate of the Medical Council of Canada
2000   B.Sc.

Postgraduate Radiation Oncology Education
2005 – 2009   Resident, Department of Radiation Oncology
              University of Toronto, Toronto, Ontario

Postgraduate Surgical Education
2004 – 2005   Resident, Department of General Surgery
              University of Toronto, Toronto, Ontario

Medical Education
2000 – 2004   Doctor of Medicine
              Queen’s University, Kingston, Ontario

Undergraduate Education
1996 – 2000   Bachelor of Science
              McGill University, Montreal, Quebec

Professional Affiliations
• Canadian Association of Radiation Oncologists
• American Society for Radiation Oncology

Licensures
• College of Physicians and Surgeons of Ontario
CURRENT APPOINTMENTS:

08/2009 - Present  Staff Radiation Oncologist,  
Stronach Regional Cancer Centre at Southlake Regional Health Centre  
Newmarket, Ontario  

08/2009 - Present  Staff Radiation Oncologist,  
Princess Margaret Hospital  
Toronto, Ontario  

Administration and Committee Appointments

3/2012-Present  Stronach Regional Cancer Centre Prostate Cancer Patterns of Care Project,  
Cancer Care Ontario: Project Co-Lead  

2009 - Present  Radiation Oncology Prostate Cancer Champion, Cancer Care Ontario  

07/2008 – 06/2009  Resident Representative, Postgraduate Medical Education Committee,  
University of Toronto  

01/2007 – 03/2007  Resident Representative, Radiation Oncology Residency Program, University of  
Toronto, Admissions Committee  

03/2001 – 04/2001  Queen’s University School of Medicine, Kingston, Admissions Committee  

SCHOLARSHIPS AND AWARDS

1996/97/99  St. Michael’s Hospital Summer Student Scholarship

1999  JW McConnell Award,  
McGill University – awarded to students ranking in the top 5% of their faculty.

1999  Dorothy Osborne Xanthaky Scholarship,  
McGill University – awarded on the basis of distinguished academic standing.

1997  John D. Schultz Science Student Scholarship,  
Heart and Stroke Foundation of Ontario.

1998-2000  Dean’s Honour List,  
McGill University.

2002  Ivan Smith Memorial Scholarship in Oncology,  
Cancer Care Ontario.

2002  Murphy Memorial Scholarship,  
Queen’s University – awarded for the highest overall standing at the end of the first medical year.

2002  Sylvanus Joy Scholarship,  
Queen’s University – awarded for the highest standing in Pharmacology.

2002  Isaac Cohen Scholarship,  
Queen’s University – awarded for the highest standing in Microbiology and Immunology.

2002/03  Franklin and Helene Bracken Scholarship in Medicine,  
Queen’s University – awarded on the basis of academic excellence.

2002/03/04  Edgar Forrester Scholarship,  
Queen’s University – awarded for the highest overall standing in each year of medical studies.
2003  
**Sir John C. Schultz Memorial Scholarship**, Queen’s University – awarded for the highest overall standing in the second and third medical years.

2003  
**Victor Lyall Goodwill Memorial Scholarship in Internal Medicine**, Queen’s University – awarded at the end of the third medical year for the highest standing in Internal Medicine.

2003  
**Thomas Gibson Scholarship**, Queen’s University – awarded for the highest overall standing in Pharmacology.

2003  
**Stanley F. Leavine Scholarship**, Queen’s University – awarded for the highest standing in Pathology.

2003  
**MDS Prize in Laboratory Medicine**, Queen’s University – awarded for the highest aggregate standing in Pathology and Microbiology and Immunology.

2003  
**Rattray Scholarship in Special Pathology**, Queen’s University – awarded for the highest standing in the evaluation of Special Pathology.

2003  
**Canadian Association for Ileitis and Colitis Book Prize**, Queen’s University – awarded for the highest standing in Gastroenterology.

2004  
**W.W. Near and Susan Near Prize**, Queen’s University – awarded for the highest overall standing throughout four years of medical studies.

2004  
**Dean Fowler Prize**, Queen’s University – awarded for the highest standing in the final year of medical studies.

2004  
**University Medal in Surgery**, Queen’s University – awarded for the highest overall standing in Surgery.

2004  
**Professor’s Prize in Surgery**, Queen’s University – awarded for the highest standing in surgical subjects in the final year of medical studies.

2004  
**Austin-Roberts Award**, Queen’s University – awarded in the final year to the Medalist in Surgery.

2004  
**Hannah Washburn Polson Prize**, Queen’s University – awarded for the highest overall standing in the final year in Medicine, Surgery, and Obstetrics.

2008  
**PSI Resident Research Award**, University of Toronto – awarded for excellence for papers written by residents on clinically related subjects.

---

**CLINICAL TRIALS**

2010-present  
A Randomized Trial of a Shorter Radiation Fractionation Schedule for the Treatment of Localized Prostate Cancer (PROFIT)  
Sponsor: Ontario Clinical Oncology Group (OCOG)  
Principal Investigators:  Catton C, Lukka H  
Local Investigator (Stronach Regional Cancer Centre):  Fenkell, L  
REB # 280-2011 (SRHC)
2011-present  Survey of Anti-cancer and non Anti-cancer Drug cost and Adherence: Multi-centre Study between UHN, St Michaels Hospital, and SRHC  
Principal Investigator: Kassam, Z  
REB # 0011-1112 (SRHC)

2011-present  Patient Preferences for Completing Epidemiology Questionnaires Incorporated into Cancer Clinical Trials  
(Collaboration between UHN, St Michaels Hospital, and SRHC)  
Principal Investigator: Kassam, Z  
REB # 0022-1213 (SRHC)

2012-present  The Influence of Social Determinants of Health, Physical Activity, and Supplement Use on Smoking Cessation and Recidivism in Cancer Patients (Collaboration between UHN and SRHC)  
Principal Investigator: Kassam, Z  
REB # 0022-1213 (SRHC)

2013-present  Ontario Health Study  
Principal Investigator: Kassam, Z  
REB # 0039-1314 (SRHC)

2013-present  Complementary and Alternate Medicine for Patients undergoing treatment at SRCC  
Principal Investigator: Kassam, Z  
REB # 0018-1314 (SRHC)

2014-present  Patient Preferences for Research Access to Administrative Data In Ontario  
Principal Investigator: Kassam, Z  
REB # 0020-1415 (SRHC)

2014-present  Prospective Evaluation and Data mining to predict and minimize Individual Clinical Toxicity in Breast cancer radiotherapy (PREDICT – Bre)  
Principal Investigator: Ruschin M  
Local Principal Investigator: Fenkell L  
REB # 0012-1415 (SRHC)

2015-present  A Multicentre Randomized Controlled Clinical Trial for the Reduction of Acute Skin Reaction in Adjuvant Breast Radiation in Large Breasted Women using a Prone Technique  
Principal Investigators: Vesprini D  
Local Principal Investigators: Fenkell L and Comsa D  
REB # 0005-1516 (SRHC)
PUBLICATIONS

Peer-Reviewed Publications


Published Abstracts


PRESENTATIONS:

Peer Reviewed Abstracts (Podium Presentations at Scientific Meetings)

Study involving Treatment Planning and Assessment of Patients Receiving Palliative Radiotherapy for Bone Metastases. RTi3 2014

Peer Reviewed Abstracts (Poster Presentations at Scientific Meetings)


Curriculum Vitae

Marisa Finlay

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

1. EDUCATION

Degrees
2000 MD, Dept of Medicine, Queen’s University at Kingston, Kingston, Ontario

Postgraduate, Research and Specialty Training
2006 May Resident, Radiation Oncology, University of Toronto, Toronto, Ontario

Qualifications, Certifications and Licenses
2006 May Fellow (FRCPSC), Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2007 Jun 1 - present Staff Radiation Oncologist, Credit Valley Hospital
Lecturer (Adjunct), Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received

2004 Best Oral Presentation, Canadian Association of Radiation Oncologists. (Distinction)

PROVINCIAL / REGIONAL
Received

1997 Summer Medical Student Scholarship, Heart and Stroke Foundation of Ontario. (Distinction)
LOCAL

Received

2005  Chief Resident, Radiation Oncology, University of Toronto. (Distinction)
1996 - 1997  Award of Merit, Aesculapian Society. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Therapeutic Radiology and Oncology

Administrative Activities

NATIONAL

Royal College of Physicians and Surgeons of Canada

2006  Member, Scholars Advisory Committee
2005  Member, Maintenance of Certification/CanMEDS Working Group for Sections 4 & 6

LOCAL

Other Organizations

Member, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology
Member, Education Awards Committee, Faculty of Medicine, Dept of Radiation Oncology
Member, CME Committee, Faculty of Medicine, Dept of Radiation Oncology

Credit Valley Hospital

Leader, Lung Cancer Team
Radiation Oncologist Lead, Palliative Group
Member, Peel Radiation Oncologists

C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


D. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


2. NATIONAL

Presented Abstracts


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2009 Grays and Anatomy; What is Radiation and why does it work? Trillium Health Centre Oncology Education Rounds. Mississauga.


Presented Abstracts

Other Lectures and Presentations


2009 The Sun, Superhero or Villain. Jennifer Harper’s Grade 1 Class, Upper Canada College (UCC). Toronto.


2007 Long Term Follow-up of the Cancer Patient. Regional Oncology Day. Mississauga.

4. LOCAL

Presented Abstracts


Other Lectures and Presentations

2008 Grays and Anatomy; What is Radiation and why does it work? Credit Valley Hospital, Nursing Lunch and Learn. Mississauga.
Curriculum Vitae

Anthony William Fyles

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
Department of Radiation Oncology
610 University Avenue, Room 5-984
Toronto, Ontario, Canada
M5G 2M9
Telephone (416) 946-6522
Email anthony.fyles@mmp.uhn.on.ca

1. EDUCATION

Degrees
1975 - 1979 MD, University of Toronto

Postgraduate, Research and Specialty Training
1987 Jan - 1987 Sep Clinical Fellow, Department of Radiotherapy and Oncology, The Royal Marsden Hospital, Surrey, United Kingdom
1986 Jul - 1986 Dec Clinical Assistant Fellow, Princess Margaret Hospital, Toronto, Ontario
1983 - 1986 Resident, Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
1980 - 1981 Resident, Internal Medicine, Winnipeg Health Sciences Centre, Manitoba
1979 - 1980 Straight Internship in Medicine, Winnipeg Health Sciences Centre, Manitoba

Qualifications, Certifications and Licenses
1986 Diplomate, American Board of Radiology
1986 Fellow, Royal College of Physicians, Canada
1980 Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2015 Jul - present Consulting Physician, St. Michael's Hospital, Canada
2004 - present Professor, Obstetrics and Gynaecology, University of Toronto (cross appointment)
2004 - present Professor, Radiation Oncology, University of Toronto
1987 - present Staff Physician, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
Previous Appointments

**HOSPITAL**

2006 - 2014  
Breast Site Group Leader, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario

1997 - 2000  
Breast Site Group Leader, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario

1996 - 2008  
Gynecologic Cancer Site Group Leader, Princess Margaret Hospital, Toronto, Ontario

1992 - 1997  
Gynecologic Cancer Site Group Leader, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario

**UNIVERSITY**

2002 - 2013  
Associate Member, Institute of Medical Science, Graduate Faculty, University of Toronto

2002 - 2009  
Director of Research, Radiation Oncology, University of Toronto

**UNIVERSITY - CROSS APPOINTMENT**

1998 - 2003  
Associate Professor, Obstetrics and Gynaecology, University of Toronto

1994 - 1998  
Assistant Professor, Obstetrics and Gynaecology, University of Toronto

**UNIVERSITY - RANK**

1998 - 2003  
Associate Professor, Radiation Oncology, University of Toronto

1991 - 1998  
Assistant Professor, Radiation Oncology, University of Toronto

1988 - 1990  
Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

**Distinctions and Research Awards**

**INTERNATIONAL**

**Received**

2013 Nov  
**Annual Meeting Best of ASTRO Award**, American Society for Radiation Oncology, San Diego, United States. (Research Award)  

2005  
**Excellence in Design and Certificate of Merit**, The Radiological Society of North America. (Research Award)  

2004  
**Excellence in Design Award**, The Radiological Society of North America. (Research Award)  
With Dr. R. Dinniwell, Dr. M. Haider, Dr. P. Chan, Dr. M. Milosevic, Dr. D. Jaffray. RSNA Scientific Assembly and Annual Meeting.

**NATIONAL**

**Received**

2003  
**Best Abstract**, Canadian Association of Radiation Oncologists. (Research Award)  
In the category of Clinical and Population-based Oncology, CARO Annual Scientific Meeting, Montreal.

2001  
**Best Abstract**, Canadian Association of Radiation Oncologists. (Research Award)
Anthony William FYLES

In the category of Basic Science & Applied Technology Research, CARO Annual Scientific Meeting, Quebec City.

1986 - 1987  
**Gordon Richards Fellowship**, Canadian Cancer Society. (Research Award)

PROVINCIAL / REGIONAL

Received

2004 - present  
**Clinician-Scientist Award**, Ontario Association of Radiation Oncologists. (Research Award)

2013  
**Innovation Award**, Cancer Quality Council of Ontario (CQCO). (Research Award)

“QuickStart Program: Same-Day Radiotherapy for Early Stage Breast Cancer.” Dr. Anthony Fyles (Radiation Oncology Breast Site Leader), Dr. Tom Purdie (Clinical Physicist), Grace Lee (Clinical Specialist Radiation Therapist).

LOCAL

Received

2014 Jul - 2015 Jun  
**Postgraduate Research Supervision Award**, University of Toronto - Department of Radiation Oncology. (Research Award)

2004  
**Research Leadership Award**, University of Toronto. (Distinction)

Debt of Radiation Oncology.

Teaching and Education Awards

LOCAL

Received

2007  
**Postgraduate Research Supervision Award**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

Student/Trainee Awards

LOCAL

Received

2011  
**Whiteside Award**, Awardee Name: Dr. Karen Lim. University of Toronto

*From the Institute of Medical Science to a graduating IMS Master of Science student for outstanding scholarly contribution.*

2008  
**Whiteside Award**, Awardee Name: Dr. Barbara Bachtiary. University of Toronto

*From the Institute of Medical Science to a graduating IMS Master of Science student for outstanding scholarly contribution.*

1998  
**R. S. Bush Award for Academic Excellence in Research by a Fellow**, Awardee Name: Dr. Katrien De Jaeger. University of Toronto

*Does hypoxia predict for metastatic potential?*.

1997  
**R. S. Bush Award for Academic Excellence in Research by a Fellow**, Awardee Name: Dr. R. Wong. University of Toronto

*Interstitial fluid pressure measurements in lymph node metastases from head and neck cancers.*
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

- American Brachytherapy Society
- American Society of Clinical Oncology
- American Society of Therapeutic Radiology and Oncology
- Canadian Association of Radiation Oncologists
- Canadian Medical Association
- European Society of Therapeutic Radiology and Oncology
- International Gynecologic Cancer Society
- Ontario Medical Association
- Radiation Research Society
- Royal College of Physicians and Surgeons of Canada

Administrative Activities

INTERNATIONAL

American Board of Radiology
- 2001 - 2003 Examiner, Radiation Oncology Board

International Union Against Cancer (UICC)
- 2002 - present Member, Expert Advisory Panel on Gynecologic Tumours

National Cancer Institute
- 2007 - 2014 Member, Gynecologic Cancer Steering Committee, Cervical Cancer Task Force

National Institutes of Health
- 2009 Reviewer, NCI P01 Clinical Studies Special Emphasis Panel
- 2000 Reviewer, Radiation Study Section

NRG Oncology
- 2013 - present Member, Cervix Committee

Radiation Therapy Oncology Group (RTOG)
- 2008 - 2014 Member, Gyn Working Group Executive

NATIONAL

Alberta Cancer Board
- 2006 - 2008 Member, Breast Cancer Review Committee

Canadian Association of Radiation Oncologists
- 2005 Member, Translational Radiobiology Advisory Committee

National Cancer Institute of Canada/Clinical Trials Group
<table>
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<tr>
<th>Year</th>
<th>Role</th>
<th>Organization</th>
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<tbody>
<tr>
<td>2008 - present</td>
<td>Member, Gynecologic Site Group Executive Committee</td>
<td>Gynecologic Site Group Executive Committee</td>
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<tr>
<td>2008 - present</td>
<td>Representative, GCIG Site Group</td>
<td>GCIG Site Group</td>
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<tr>
<td>1991 - present</td>
<td>Member, Gynecologic Cancer Site Committee</td>
<td>Gynecologic Cancer Site Committee</td>
</tr>
<tr>
<td>2008 - 2014</td>
<td>Co-Chair, Cervix Cancer Working Group</td>
<td>Cervix Cancer Working Group</td>
</tr>
<tr>
<td>2006 - 2008</td>
<td>Member, Grant Review Panel I, Clinical Trials</td>
<td>Grant Review Panel I, Clinical Trials</td>
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<tr>
<td>2001 - 2007</td>
<td>Member, Cervix Cancer Working Group</td>
<td>Cervix Cancer Working Group</td>
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<tr>
<td>2001 - 2007</td>
<td>Member, Investigational New Drug Committee</td>
<td>Investigational New Drug Committee</td>
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<td>2001 - 2005</td>
<td>Member, Grant Review Panel E, Biophysics, Imaging and Radiobiology</td>
<td>Grant Review Panel E, Biophysics, Imaging and Radiobiology</td>
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<tr>
<td>1998 - 2006</td>
<td>Member, Endometrial Cancer Working Group</td>
<td>Endometrial Cancer Working Group</td>
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<td>Society of Gynecologic Oncology of Canada</td>
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<td>2009 - 2011</td>
<td>Member, Executive Council</td>
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<td>PROVINCIAL / REGIONAL</td>
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<tr>
<td>Cancer Care Ontario</td>
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<tr>
<td>2016 - present</td>
<td>Member, Endometrial Cancer Pathways Group, Ontario, Canada.</td>
<td>Endometrial Cancer Pathways Group, Ontario, Canada.</td>
</tr>
<tr>
<td>1996 - present</td>
<td>Member, Gynecologic Cancer Provincial Practice Guidelines Committee</td>
<td>Gynecologic Cancer Provincial Practice Guidelines Committee</td>
</tr>
<tr>
<td>2004</td>
<td>Member, Ovarian Cancer Surgery Indicator Panel</td>
<td>Ovarian Cancer Surgery Indicator Panel</td>
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<tr>
<td>1999</td>
<td>Member, Translational Research Committee</td>
<td>Translational Research Committee</td>
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<td>Ontario Association of Radiation Oncology</td>
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<td>2005</td>
<td>Representative, PMH Executive Committee</td>
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<td>2001</td>
<td>Member, Academic Funding Committee</td>
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<td>LOCAL</td>
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<tr>
<td>Princess Margaret Hospital</td>
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<tr>
<td>2016 Mar - present</td>
<td>Member, External Bean Committee, Toronto, Ontario, Canada.</td>
<td>External Bean Committee, Toronto, Ontario, Canada.</td>
</tr>
<tr>
<td>2016 - present</td>
<td>Chair, RMP Cancer Research Program, Ontario, Canada.</td>
<td>RMP Cancer Research Program, Ontario, Canada.</td>
</tr>
<tr>
<td>2015 - present</td>
<td>Member, Research Ethics Board, Ontario, Canada.</td>
<td>Research Ethics Board, Ontario, Canada.</td>
</tr>
<tr>
<td>2007 - present</td>
<td>Member, Surgical Services Committee</td>
<td></td>
</tr>
<tr>
<td>2005 - 2010</td>
<td>Chair, Radiation Medicine Program Quality Committee</td>
<td>Radiation Medicine Program Quality Committee</td>
</tr>
<tr>
<td></td>
<td>University of Toronto</td>
<td></td>
</tr>
<tr>
<td>2001 - present</td>
<td>Member, Academic Promotions Committee, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development</td>
<td>Academic Promotions Committee, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development</td>
</tr>
<tr>
<td>2002 - 2009</td>
<td>Member, EIRR Executive Committee, Faculty of Medicine, Dept of Radiation Oncology</td>
<td>EIRR Executive Committee, Faculty of Medicine, Dept of Radiation Oncology</td>
</tr>
<tr>
<td>2002 - 2009</td>
<td>Chair, Research Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology</td>
<td>Research Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology</td>
</tr>
<tr>
<td>2001 - 2015</td>
<td>Member, Fellowship Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD</td>
<td>Fellowship Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD</td>
</tr>
<tr>
<td>1997 - 2009</td>
<td>Member, Postgraduate Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD</td>
<td>Postgraduate Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD</td>
</tr>
<tr>
<td></td>
<td><em>Subspecialty Program in Gynecologic Oncology.</em></td>
<td><em>Subspecialty Program in Gynecologic Oncology.</em></td>
</tr>
<tr>
<td>1996 - 2002</td>
<td>Member, Research Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology</td>
<td>Research Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology</td>
</tr>
</tbody>
</table>
**Peer Review Activities**

**GRANT REVIEWS**

**External Grant Reviewer**

- 2005: National Cancer Institute, CTEP Concept Reviews
- 2005: Cancer Research UK
- 2004: Alberta Cancer Board
- 2004: British Columbia Cancer Agency
- 2004: Canadian Institutes of Health Research

**MANUSCRIPT REVIEWS**

**Reviewer**

- BMC Cancer
- Clinical Cancer Research
- Gynecologic Oncology
- International Journal of Radiation Oncology Biology and Physics
- Journal of Clinical Oncology
- Journal of the National Cancer Institute
- New England Journal of Medicine
- Radiation Research
- Radiotherapy Oncology

**Associate Editor**

- 2010: BMC Cancer

**C. Research Funding**

**1. GRANTS, CONTRACTS AND CLINICAL TRIALS**

**PEER-REVIEWED GRANTS**

**Funded**


- **2013**: Co-Principal Investigator. OCOG LUMINA Trial. Ontario Clinical Oncology Group. [Clinical Trials]

- **2013**: Co-Principal Investigator. NRG Oncology OUTBACK Trial. NRG Oncology. [Clinical Trials]

**Anthony William FYLES**

**Fyles, J. Kwon, N. Mittmann, G. Stuart, D. Tu.** 2,740,463 CAD. [Clinical Trials]

*To determine if simple hysterectomy is non-inferior to radical hysterectomy with respect to pelvic relapse-free survival in patients with previously untreated, low-risk, early-stage cervical cancer.*

---

**2012 Jul - 2013 Jun**

**Co-Principal Investigator.** Optimizing MRI-guided brachytherapy in cervical cancer: target delineation, accessibility, and clinical efficacy. RSNA. RSNA Research Fellowship Program. PI: Kathy Han, M. Milosevic, A. Fyles. 75,000. [Research Fellowships]

---

**2012 - 2015**

**Co-Principal Investigator.** Prospective cohort Study Evaluating Risk of Local Recurrence Following Breast Conserving Surgery Alone in Low Risk Luminal A Breast Cancer. Canadian Breast Cancer Foundation (CBCF). Ontario Region Research Project Grant Program. 444,752 CAD. [Grants]

---

**2012**

**Co-Principal Investigator.** NCIC CX.5. National Cancer Institute of Canada (NCIC). [Clinical Trials]

---

**2011 - 2016**


*Goals: To determine if APBI using 3D CRT is as effective as whole breast irradiation following breast conserving surgery in women with ductal carcinoma in situ or invasive breast cancer with axillary lymph nodes.*

---

**2011 - 2014**


*The goal of this project is to identify a micro-RNA signature predictive of outcome for cervix cancer.*

---

**2011**

**Collaborator.** Targeting the Hedgehog pathway as a strategy to overcoming resistance to chemoradiation in cervical cancer. Canadian Association of Radiation Oncologists (CARO). RAZCER Award. Collaborator(s): Milosevic M (Co-PI), MacKay H (Co-PI), Hill RP (Co-PI), Chaudary N, Hedley D, Oza A, Dhani N, Fyles A. 22,700 CAD. [Grants]

*This project will explore the importance of Hedgehog signaling in cervical cancer, and the potential role of Hedgehog inhibition as a modulator of radiation response.*

---

**2010 - 2013**

**Principal Site Investigator.** Vulvar Carcinoma: A Population Based Analysis. Canadian Cancer Society. PI: Gien, Lilian. Collaborator(s): Barbera, Lisa; Elit, Laurie; Covens, Al; Rakovitch, Eileen; Thomas, Gillian; Khalifa, Mahmoud, Fyles A. 352,243 CAD. [Grants]

---

**2010**

**Co-Principal Investigator.** RTOG 0918 Phase II IMRT for Cervix Cancer. National Cancer Institute of Canada/Clinical Trials Group. [Clinical Trials]

---

**2010**

**Study Co-Chair.** OCOG PETLACE PET Staging in Cervical Cancer. Ontario Clinical Oncology Group. [Clinical Trials]

---

**2009 - 2015**


*200301STP Competition.*

2008 - 2013 **Co-Investigator.** Early Clinical Trials of New Anti-Cancer Agents with Phase I Emphasis (U01). National Cancer Institute (USA). U01 CA132123-01. PI: Siu, Lillian. Collaborator(s): Fyles A (investigator) et.al. 3,141,916 USD. [Clinical Trials]

2008 **NCIC Co-Chair.** EN7 Concurrent Chemo-RT in Endo Ca. National Cancer Institute of Canada (NCIC). [Clinical Trials]

2007 - 2010 **PMH Principal Investigator.** TARGIT IORT in Early Breast Cancer. [Clinical Trials]

2007 - 2008 **PMH Principal Investigator.** RTOG 0418 Phase 2 IMRT Post-operative Trial in Gynecologic Cancer. [Clinical Trials]


The objective of this award is to investigate novel strategies for using high-precision, image-guided radiotherapy to treat women with cervix cancer, through a combination of anatomic and biologic tumor targeting. $250,000 annually for 3 years.


2001 - 2004 **Co-Principal Investigator.** A Phase I-II trial of the Cyclooxygenase-2 inhibitor Celecoxib in patients with locally advanced carcinoma of the cervix. [Clinical Trials]
2000 - 2004  **Principal Investigator.** Clinical and molecular studies of the tumour suppressor gene PTEN in endometrial cancer. [Clinical Trials]


A Fyles, **Principal Investigator of Project 3:** Multi-modality treatment in patients with high risk cervix cancer.

1999 - 2002  **Principal Investigator.** IND 126 Phase II Study of Letrozole in Patients with Endometrial Cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials]

1999 - 2001  **Principal Investigator.** A Phase I trial of the hypoxia detection agent EF5 (NSC 684681) in patients with cervix, breast and prostate carcinomas, and high grade soft tissue sarcomas. [Clinical Trials]

1999 - 2001  **Co-Investigator.** A Phase I-II trial of prolonged administration of Lovastatin in patients with recurrent or metastatic squamous cell carcinoma of the head and neck (HNSCC) or of the cervix. [Clinical Trials]


1996 - 2004  **Member, Trial Committee.** EN5 Phase III randomized trial comparing TAH BSO versus TAH BSO plus adjuvant pelvic irradiation in Stage I intermediate risk carcinoma of the endometrium. National Cancer Institute of Canada (NCIC). [Clinical Trials]


Fyles A, **Principal Investigator of Project 3:** Clinical Evaluation of Hypoxia in Patients with Cervix Cancer - $253,911, (individual NCIC operating grant funding declined).


1995 - 2003  **PMH Principal Investigator.** EN4 Phase III randomized study of pelvic radiation therapy as
adjuvant treatment in uterine sarcomas. National Cancer Institute of Canada Clinical Trials Group. [Clinical Trials]

1995
Principal Investigator. Predictive assays in cervix cancer: assessment of hypoxia, interstitial fluid pressure and GSH levels. Princess Margaret Hospital Foundation (The). Collaborator(s): Milosevic M, Hedley D, Hill R. 45,460 CAD. [Grants]

1993 - 2002
Principal Investigator. A randomized controlled trial to assess the need for breast radiation in addition to Tamoxifen in women 50 years of age and over with node negative breast cancer. Ontario Ministry of Health and Long-Term Care. Collaborator(s): Manchul L, McCready D, and Trudeau M. 475,356 CAD. [Clinical Trials]

NON-PEER-REVIEWED GRANTS

FUNDDED

2012 Jul - 2014 Jun

To prognosticate local relapse risk and predict response to RT as a function of breast cancer molecular subtypes.

2002 - 2003
Principal Investigator. Hypoxia-Induced Gene Expression and its Correlation to Human Papillomavirus. GlaxoSmithKline. 69,000 CAD. [Industrial Grants]

1992
Principal Investigator. A phase II trial to assess the effect of recombinant human granulocyte colony stimulating factor (R-METHUG-CSF) on neutropenia induced by whole abdominal radiation therapy. Amgen Canada Inc (Mississauga, ON). Collaborator(s): Manchul L. 60,000 CAD. [Clinical Trials]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Anthony William FYLES


123. Wong CS, Tsang RW, Cummings BJ, **Fyles AW**, Couture J, Brierley JD, Pintilie M. Proliferation parameters in epidermoid carcinomas of the anal canal. Radiother Oncol. 2000;56:349-53. **Coauthor or Collaborator.**


130. Irwin C, Levin W, **Fyles A**, Pintilie M, Manchul L, Kirkbride P. The role of adjuvant radiotherapy in carcinoma of the endometrium – results in 550 patients with pathologic stage I disease. Gyn Oncol. 1998;70(2):247-254 (Trainee publication, Dr. C. Irwin). **Senior Responsible Author.**


137. Rakovitch E, **Fyles A**, Pintilie M, Leung PMK. Role of mitomycin C in the development of late bowel toxicity following chemoradiation for locally advanced carcinoma of the cervix. Int J Rad Onc Biol Phys. 1997;38(5):979-987 (Trainee publication, Dr. E. Rakovitch). **Senior Responsible Author.**


140. Irwin C, **Fyles A**, Wong CS, Cheung M, Zhu Y. Late renal function following whole abdominal irradiation. Radiother Oncol. 1996;38:257-261 (Trainee publication, Dr. C. Irwin). **Senior Responsible Author.**


Comment, Letters to Editor


Congress


Journal Articles, Multicenter Study, Randomized Controlled Trial


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


**Commentaries**


**Multimedia**


**3. SUBMITTED PUBLICATIONS**

**Journal Articles**


**E. Presentations and Special Lectures**

**1. INTERNATIONAL**

**Invited Lectures and Presentations**


2013 Nov  **Invited Lecturer.** Cardiac Sparing for Breast Patients. Kuwait Cancer Control Center. Kuwait, Kuwait. Presenter(s): Dr. **Anthony Fyles.**


2013 Sep  Invited Speaker. Biologic Subtyping in Early-Stage Disease. ASCO Breast Cancer Symposium. San Francisco, California, United States. Presenter(s): Dr. Anthony Fyles.


2012 Nov  Invited Lecturer. Role of locoregional irradiation in metastatic breast cancer cases. Kuwait Cancer Control Centre. Kuwait, Kuwait. Presenter(s): Dr. Anthony Fyles.


2010 Nov 3  "Variability in Clinical Target Volume Delineation for Intensity Modulated Radiotherapy in Three Challenging Cervix Cancer Scenarios". Scientific Session Presentation at the 52nd Annual ASTRO Meeting. San Diego, California.


Manchester, United Kingdom.


2006 Nov 6  A Randomized Trial of Tamoxifen With or Without Radiation in Women Over 50 Years of Age With T1/2 N0 Breast Cancer. American Society for Therapeutic Radiology and Oncology 48th Annual Meeting.

2006 Oct 16 A Randomized Trial of Tamoxifen With or Without Radiation in Women Over 50 Years of Age With T1/2 N0 Breast Cancer. 11th Biennial International Gynecologic Cancer Society Meeting. Santa Monica, California.

2006 Mar 14 Long-Term Performance Of Hypoxia And IFP as Prognostic Factors In Cervix Cancer. International Conference on Translational Research. Lugano, Switzerland.


2006 Jan 18 Early Breast Cancer. ASTRO Teaching Course Current Standards and Future Directions in Radiation Oncology. Manila, Philippines.

2006 Jan 18 Gynecological Cancer, Cases and Issues. ASTRO Teaching Course Current Standards and Future Directions in Radiation Oncology. Manila, Philippines.

2006 Jan 17 Uterine Cancer. ASTRO Teaching Course Current Standards and Future Directions in Radiation Oncology. Manila, Philippines.


Presented Abstracts

2012 Nov  

2011 Oct 5  

2010 Oct 23  

2010 Oct 23  

2007 Dec 13  

2007 Nov  

2007 Nov  

2007 Jun  

2007 Jul  

2006 Mar 14  
Long-Term Performance Of Hypoxia And IFP as Prognostic Factors In Cervix Cancer. International Conference on Translational Research. Lugano, Switzerland. Fyles A.

2005 Nov  
Radiotherapy treatment Planning Atlas for Intensity Modulated Radiotherapy Treatment Planning in Genitourinary and Gynecological Malignancies: Three-dimensional Renderings of Nodal Topography and
Anthony William FYLES


2005 Nov

2003 Aug

2003 Aug

2003 Aug
A randomized trial of Tamoxifen with or without breast radiation in women over 50 years of age with T1/2N0 disease. 12th International Congress of Radiation Research Meeting. Brisbane, Australia. Fyles A.

2003

2003

2003

2002 May

2002

2001 May

2001 Apr

2000 Oct
Tumor Oxygenation is an independent predictor of radiation treatment outcome in node negative patients with cervix cancer. 11th International Conference of Tumor Physiology and Cancer Treatment. Banff, Alberta. Fyles A, Milosevic M, Pitson G, Pintilie M, Syed A, Manchul L, Levin W, Hill RP.

1999 Jul
The relationship between IFP, oxygen tension, and survival following radiation in cervix cancer. 11th International Congress of Radiation Research. Dublin, Ireland. Milosevic M, Fyles A, Hill R.

1999
The influence of tumor-to-tumor heterogeneity on the relationship between interstitial fluid pressure (IFP) and blood flow (poster). International Congress of Radiation Research. Belfast, United Kingdom. Milosevic


1992  Treatment time and pelvic control in cervix cancer - analysis of treatment interruptions. Radiation


1990 The effect of treatment time on local control in cervix cancer treated by radical radiation therapy. European Society of Therapeutic Radiology and Oncology Annual Meeting. Montecatini, Italy. Fyles A, Barton M, Gadalla F, Keane T.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

**Publication Details:**

2014 Sep **Invited Speaker.** Vaginal Dose and Patient Reported Sexual Adjustment with MR-Guided Brachytherapy for Cervical Cancer. ASTRO Annual Meeting. California, United States.

**Publication Details:**


**Publication Details:**

2014 Sep **Invited Speaker.** A Phase 1/2 Study of the Angiogenesis Inhibitor Sorafenib in Cervical Cancer Patients Treated With Radiation Therapy. ASTRO Annual Meeting. California, United States.

**Publication Details:**

2014 Sep **Invited Speaker.** The relationship between circulating CD34+ cells with mental fatigue and insomnia during adjuvant breast cancer radiation therapy (RT). ASTRO Annual Meeting. California, United States.

**Publication Details:**

2014 Sep **Invited Speaker.** Predictors of breast radiotherapy plan modifications: quality assurance rounds in a large cancer centre. ASTRO Annual Meeting. California, United States.

**Publication Details:**
2. NATIONAL

Invited Lectures and Presentations


2005 Sep 23 Can We Avoid Breast Radiotherapy in Some Patients? Western Canada Breast Cancer Consensus Conference. Banff, Alberta.


Presented Abstracts


Presented and Published Abstracts


*Publication Details:*


*Publication Details:*

2015 Sep  **Invited Speaker.** The role of PET-CT in treatment decision making for women with locally advanced cervical cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. British Columbia, Canada.

*Publication Details:*


*Publication Details:*

2015 Sep  **Invited Speaker.** Measurement of tumour hypoxia in patients with locally advanced cervical cancer using positron emission tomography (PET) with 18F-Fluorozomycin Arabinoside (18F-FAZA). Canadian Association of Radiation Oncology (CARO) Annual Meeting. British Columbia, Canada.

*Publication Details:*


*Publication Details:*

2014 Aug  **Invited Speaker.** Vaginal dose and patient reported sexual adjustment with MR-guided brachytherapy for...

**Publication Details:**
Croke J, **Fyles A**, Carlone M, Han K, Levin W, Manchul L, Williamson D, Xie J, Milosevic M. Vaginal dose and patient reported sexual adjustment with MR-guided brachytherapy for cervical cancer. Radiother Oncol. 2014 Aug;112 (Suppl 1)(S6). **Coauthor or Collaborator.**

**2014 Aug**  
**Invited Speaker.** The relationship between circulating CD34+ cells with mental fatigue and insomnia during adjuvant breast cancer radiation therapy (RT). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Newfoundland and Labrador, Canada.

**Publication Details:**

**2014 Aug**  

**Publication Details:**

**2014 Aug**  

**Publication Details:**

**Media Appearances**

2007 Jun 20  
Intraoperative Radiation Therapy. Television Interview CBC Newsworld.

### 3. PROVINCIAL / REGIONAL

#### Invited Lectures and Presentations

**2013 Jun**  
**Invited Speaker.** Imaging for Cervix Brachytherapy and Moving Towards CT/MRI Access. Gynae Community of Practice Workshop. Toronto, Ontario, Canada. Presenter(s): Dr. **Anthony Fyles.**

**2013 Jun**  
**Invited Speaker.** Change Management and Next Steps. Gynae Community of Practice Workshop. Toronto, Ontario, Canada. Presenter(s): Dr. **Anthony Fyles.**

**2011 Sep**  
Ontario Ride to Conquer Cancer Rider Recognition Event.

**2011 Mar**  
Clinical disease management for breast patients, Contouring and clinical disease challenges. Sudbury Regional Hospital Site Visit to PMH.

**1994**  

**1994**  
4. LOCAL

Invited Lectures and Presentations


2005 Sep 16 Intra vs. Intertreatment Movement in Gynae Cancer. IGRT Review Sessions, Princess Margaret Hospital. Toronto, Ontario.


1999 Jun  Combined chemotherapy and radiation therapy: gynaecologic cancer. Future Directions in Radiation Oncology, University of Toronto. (Continuing Education).

1997 May  Workshop: Treatment decisions in early stage ovarian cancer. Ovarian cancer: Prevention, genetics and treatment challenges, University of Toronto CME. (Continuing Education).
1996 Jan  The role of local regional radiation after surgery for primary breast cancer. The Toronto Hospital Breast Rounds.


1993 Sep 30  Radiation Through the Looking Glass. Spectrum Breast Cancer Symposium, University of Toronto CME. (Continuing Education).


1992  Treatment Time in Cervix Cancer. Princess Margaret Hospital Refresher Course in Radiation Oncology, University of Toronto CME. (Continuing Education).

1990  Controversies in Ovarian Cancer. Princess Margaret Hospital Post-Graduate Lecture Series.


1988 May  Controversies in Borderline Ovarian Cancer. Annual Review Course in Obstetrics and Gynecology, University of Toronto CME. (Continuing Education).

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2004 Jan - present  Frontiers in Radiation Medicine Research, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Dr. J. Siewerdsen and myself had major responsibility in course design and teaching.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


2003 - 2005  Primary Supervisor. MSc. Dr. Barbara Bachtiary. Hypoxia induced gene expression and its correlation to HPV in cervix cancer. Awards: Fellowship in the Research Excellence in Radiation Medicine Program ($50,000); CARO Trainee Travel Award (Annual Scientific Meeting, Halifax, NS - September 2004); Whiteside Award from the Institute of Medical Science for outstanding scholarly contribution to a graduating IMS Master of Science student.
Postgraduate MD

2013 - 2014  Co-Supervisor. Dr. Jenn Croke. Radiotherapy QA.
2010 - 2011  Co-Supervisor. Dr. Lorraine Walsh. MR-guided Brachytherapy for Cervix Cancer; Concomitant Hypofractionated Breast Boost. Awards: Chairs Award for Academic Excellence in Research by a postgraduate trainee.
2010 - 2011  Co-Supervisor. Dr. Marita Morgia. VMAT for Breast Boost; MR-guided Brachytherapy.
2009 - 2010  Co-Supervisor. Dr. Audrey Li. MR-guided Brachytherapy for Cervix Cancer.
2009 - 2010  Primary Supervisor. Dr. Fleur Huang. IMRT Boost for Gynecologic cancer; Cyp2D6 and Tamoxifen Metabolism.
2005 - 2007  Primary Supervisor. Dr. Fernanda Herrera.
2002 - 2003  Primary Supervisor. Dr. Carol McGibney.
2001 - 2006  Primary Supervisor. Dr. Philip Chan.
2000 - 2001  Primary Supervisor. Dr. Corinne Doll.
1995 - 1997  Primary Supervisor. Dr. R. Wong. Awards: 1997 Awardee of the R.S. Bush Award for Academic Excellence in Research by a Fellow for his paper, "Interstitial fluid pressure measurements in lymph node metastases from head and neck cancers".
1993 - 1994  Primary Supervisor. Dr. C. Irwin.
2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2016 May - present  PhD. Tori Sopik. Supervisor(s): S Narod.


Curriculum Vitae

Meredith Elana Giuliani

A. Date Curriculum Vitae is Prepared: 2016 July 29

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Cancer Centre
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2983
Fax 416-946-6561
Email Meredith.Giuliani@rmp.uhn.on.ca

1. EDUCATION

Degrees
2008 - 2010 MEd, Education, Health Professional Specialization, University of Toronto, Ontario, Canada
2002 - 2007 MBBS, Medicine and Surgery, University of London, London, United Kingdom

Postgraduate, Research and Specialty Training
2012 - 2013 Core Foundations in Education Research Diploma, University of Toronto, Ontario, Canada
2012 Integrated Course in Clinical Epidemiology and Biostatistics, Harvard University, United States
2010 - 2011 Chief Resident, Department of Radiation Oncology, University of Toronto, Ontario, Canada
2009 - 2010 Senior Resident, Odette Cancer Centre, University of Toronto, Ontario, Canada
2007 - 2012 Resident in Radiation Oncology, University of Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2016 Jan - present CaRMS Interview Panel Member, University of Toronto, Ontario, Canada
2013 Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS 2: CORE), Tri-Council Policy Statement, Canada
2010 Clinical Trials Group Certificate in Good Clinical Practice, National Cancer Institute of Canada (NCIC), Canada
2010 Certificate in Protecting Human Research Participants, National Institutes of Health (NIH)

2. EMPLOYMENT

Current Appointments
2016 May - present Medical Director of Cancer Education, Princess Margaret Cancer Center/University Health Network, Toronto, Ontario, Canada
Meredith Elana GIULIANI

2014 - present Director of Undergraduate Medical Education, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2014 - present Associate Director, Postgraduate Medical Education, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2014 - present Program Director, Personalized Learning Program, Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada
2014 - present Program Director: UICC-CACA Fellowship Program, Princess Margaret Cancer Centre
2013 - present Smoking Cessation Champion for Toronto Central South, Cancer Care Ontario, Toronto, Ontario, Canada
2013 - present Associate Member, ELLICSR, Toronto, Ontario, Canada
2012 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2011 - present General Member, The Wilson Centre for Research in Education, Ontario, Canada
2016 Jul 1 - 2018 Jun 30 Specialty Committee Region 3 Representative, Adolescent and Young Adult (AYA) Oncology, Ontario, Canada
2014 - 2016 Interim Director, Cancer Education, Princess Margaret Cancer Centre, Toronto, Ontario, Canada

Previous Appointments

RESEARCH
2015 Sep - 2016 May Course Co-Director, April 4-6 2016, 121 International participants. ESTRO-CARO Teaching Course on Image-guided cervix

OTHER
2013 - 2015 MCC Provincial Leadership Team Radiation Oncology representative, Cancer Care Ontario, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received
2015 Apr  
ESTRO Best Clinical Poster Award, 3rd ESTRO Forum (24-28 April 2015, Barcelona, Spain), Barcelona, Spain. (Distinction)  
ESTRO Best Clinical Poster Award for “Predictors and patterns of regional recurrence following lung SBRT: A report from the Elekta Lung Research Group”.

2011 Jun  

2011 Jun  
OICR Fellowship Grant, Ontario Institute for Cancer Research, Waldhaus Flims, Switzerland. (Distinction)  
Fellowship grant to attend 13th joint ECCO-AACR-EORTC-ESMO Workshop ‘Methods in Clinical Cancer Research’.

NATIONAL

Received
2016 Mar  
Canadian Medical Association (CMA) Award for Young Leaders, Canadian Medical Association (CMA), Ontario, Canada. (Distinction)  
This “Award for Young Leaders” goes to those who have demonstrated exemplary dedication, commitment and leadership in one of the following domains: political; clinical;
2014 **Best Abstract in Survivorship Research**, CARO, St. John’s, Newfoundland and Labrador, Canada. (Distinction)

2014 **El Hood Award**, CAMRT. (Distinction)
*Team-based clinical simulation in Radiation Medicine: value to attitudes and perceptions of inter-professional collaboration.*

2013 **CCSRI Junior Investigator travel grant award**. (Distinction)

2013 **Future Leaders in Oncology Award**. (Distinction)

2009 **Best Poster Presentation**, Canadian Association of Radiation Oncology. (Distinction)
*Award for Best Poster Presentation by a resident.*

2007 **Edinburgh EAR Congress Essay Prize**, Royal College of Radiologists. (Distinction)
*For an essay on a topic relevant to clinical oncology.*

2007 **Student Prize**, Royal College of Paediatrics and Child Health. (Distinction)

2006 **Cancer Research UK Elective Bursary**, Cancer Research UK. (Distinction)
*National award to one medical student in 2006 to promote research activities in oncology on elective. Total Amount: 1,000 GBP*

**PROVINCIAL / REGIONAL**

**Received**

2011 Jun **Fellowship Grant**, Ontario Institute for Cancer Research. (Distinction)

2010 **Resident Research Prize**, 5th Annual Ontario Thoracic Cancer Conference, Ontario, Canada. (Distinction)
*Awarded for the top abstract submitted by a resident.*

2009 **Resident Research Prize**, 4th Annual Ontario Thoracic Cancer Conference. (Distinction)
*Awarded for the top abstract submitted by a resident.*

**LOCAL**

**Received**

2016 Jun **Top Clinical Trial Accrual Investigator**, Radiation Medicine Program, Princess Margaret Cancer Centre. (Research Award)

2016 **Novartis Oncology Young Canadian Investigator Awards (NOYCIA)**. (Research Award)
*Abstract: Cancer patients’ interest and preferences of an inpatient smoking cessation program (SCP).*
*Co-supervisor with Geoffrey Liu.*

2015 May **Top Clinical Trial Accrual Investigator**, Radiation Medicine Program, Princess Margaret Cancer Centre. (Research Award)
*Top Clinical Trial Accrual Investigator for 2014/15 within the Radiation Medicine Program.*

2014 **Best Academic Half Day Teaching Award**, University of Toronto, Department of Radiation Oncology. (Distinction)

2013 **Clinical Teaching Award**, University of Toronto, Department of Radiation Oncology. (Distinction)

2011 **Best poster award**, University of Toronto, Department of Radiation Oncology. (Distinction)
*For annual departmental research day.*

2010 **Ellen Epstein Rykov Memorial Prize**, University of Toronto. (Distinction)
*For excellence in postgraduate research.*

2010 **Joseph M. West Family Memorial Fund**, University of Toronto. (Distinction)
For excellence in postgraduate research.

2010  
**Timeposters Fellowship**, University of Toronto. (Distinction)  
*For excellence in postgraduate research.*

2010  
**W.J. Simpson Award**, University of Toronto, Department of Radiation Oncology.  
(Distinction)  
*For Academic Excellence in Research by a Resident.*

2009  
**Postgraduate Medical Trainee Leadership Award**, University of Toronto. (Distinction)

2007  
**Kate Charles Prize**, University of London, St. George’s, United Kingdom. (Distinction, Specialty: Obstetrics and Gynaecology)  
*For top mark in written examinations and OSCEs.*

2007  
**Kathleen Valles Prize**, University of London, St. George’s, United Kingdom. (Distinction, Specialty: Renal and Transplantation Medicine)  
*Awarded based on results of a special examination.*

2007  
**Reshmi Varma Prize**, University of London, St. George’s, United Kingdom. (Distinction, Specialty: Obstetrics and Gynaecology)  
*Awarded to top student based on an essay and viva voce examination.*

2007  
**Sir Theo Crawford Prize**, University of London, St. George’s, United Kingdom. (Distinction, Specialty: Pathology)  
*Awarded for top performance on written and viva voce examinations.*

2006  
**Elective prize**, University of London, St. George’s. (Distinction)  
*Awarded to 4 students in the final year to assist funding of elective. Total Amount: 450 GBP*

2004  
**William Brown and Devitt-Pendlebury Exhibition**, University of London, St. George’s, United Kingdom. (Distinction)  
*For outstanding achievement in second year MBBS examinations.*

**OTHER**

**Received**

2006  
**Convocation Trust Elective Award**. (Distinction)  
*To assist funding of research elective. Total Amount: 750 GBP*

**Student/Trainee Awards**

**INTERNATIONAL**

**Received**

2016 Jan  
**ASCO Merit Award (2016)**, Resident, Awardee Name: Lawson Eng. American Society of Clinical Oncology (ASCO) - Conquer Cancer Foundation, San Francisco, California, United States  
*Awarded for meritorious research in the form of high quality abstracts submitted to ASCO Annual and Thematic meetings; primarily awarded to senior residents and fellows. This is for the latest abstract “Elimination of second-hand smoke (SHS) exposure after a lung or head and neck (HN) cancer diagnosis and subsequent patient smoking cessation”.*

2016 Jan  
**Board of Directors Merit Scholarship Travel Award (2015)**, Resident, Awardee Name: Lawson Eng. International Society for Pharmacoepidemiology (ISPE), Boston, Massachusetts, United States  
*Awarded for meritorious research to be presented as an abstract at the ISPE 2015 Annual conference. This is for the abstract “Access to Drug Benefit Plans Among Canadian Cancer Survivors.”.*

2015 May  
**ASCO Merit Award (2015)**, Resident, Awardee Name: Lawson Eng. American Society of Clinical Oncology (ASCO) - Conquer Cancer Foundation, Chicago, Illinois, United States  
*Awarded for meritorious research in the form of high quality abstracts submitted to ASCO*
Annual and Thematic meetings; primarily awarded to senior residents and fellows. This is for the abstract “Cancer patients’ attitudes, knowledge, and preferences for smoking cessation (SC).”.

NATIONAL
Received

2014 Ontario Medical Students Association (OMSA) Conference Grant to attend CARO 2014, Awardee Name: Jennifer Kwan
Not Just an Add-on Subject: Integrating Oncology into the Heart of Undergraduate Medical Education.

2014 POPC and Survivorship Travel Grant, Awardee Name: Robin Milne

2013 Mach-Gaensslen Foundation Research Program, Awardee Name: Jennifer Kwan
For Determining Survivorship Needs of Lung Cancer Patients.

LOCAL
Received

2016 Comprehensive Research Experience for Medical Students (CREMS), Resident, Awardee Name: Steven Wang. University of Toronto – Department of Medicine, Toronto, Ontario, Canada
Survivorship care needs in patients with head and neck cancer: A prospective cohort study. Total Amount: 5,500 CAD

2016 W.J. Simpson Award For Academic Excellence in Research by a Resident., Resident, Awardee Name: Jenna Adleman. University of Toronto – Department of Medicine, Toronto, Ontario, Canada

2015 UHN/MSH Charles Hollenberg Competition, 3rd Place (2015), Resident, Awardee Name: Lawson Eng. University of Toronto – Department of Medicine, Toronto, Ontario, Canada
Awarded to residents and fellows supervised by a member of the Department of Medicine UHN/MSH for meritorious clinical epidemiology or clinical investigative projects. This is for the manuscript “The Role of Second-Hand Smoke Exposure on Smoking Cessation in Non-Tobacco Related Cancers”. Total Amount: 250 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Society for Therapeutic Radiology and Oncology (ASTRO)
Member, Canadian Association of Radiation Oncology (CARO)

Administrative Activities

INTERNATIONAL
American Society of Radiation Oncology (ASTRO)
2013 - 2014 Member, Education Committee SAM Task Force
2012 - 2013 Member, Education Committee of the Education Council
NATIONAL

Canadian Association of Internes and Residents (CAIR)
2009 - 2011 Member, Education & Professionalism Committee
2009 - 2010 Member, Work hours working group committee

Canadian Association of Radiation Oncology (CARO)
2014 - present Chair, CARO Resident Refresher Course Committee
2013 - present Member, Annual Scientific Meeting Committee
2013 - present Chair, Education Committee
2013 - 2014 Co-Chair, CARO Resident Refresher Course Committee
2007 - 2012 Resident representative, Education Committee

Canadian Oncology Education Working Group
2013 - present Co-Lead, Undergraduate Medical Education

Canadian Partnership Against Cancer
2016 Jun - 2017 Jun Member, Smoking Cessation in Cancer Settings Working Group, Ontario, Canada.

Centre for the Evaluation of Health Professionals Educated Abroad
2011 - present OSCE Examiner

Lung Cancer Canada
2014 Jun - present Radiation Oncology representative, Medical Advisory Committee

Pan Canadian Project
2014 - present Member, Improving Patient Experience and Health Outcomes Collaborative (iPEHOC)

Royal College of Physicians and Surgeons of Canada
2011 Canadian Association of Internes and Residents (CAIR) representative, Education Committee
2010 - 2011 Canadian Association of Internes and Residents (CAIR) representative, Evaluation Committee
2009 - 2012 Canadian Association of Internes and Residents (CAIR) representative, External Reviewer

PROVINCIAL / REGIONAL

Cancer Care Ontario
2016 - present Member, Thoracic Cancers Advisory committee, Ontario, Canada.

Ontario Cancer Research Ethics Board (OCREB)
2012 Jul - 2014 Member, Ontario, Canada.
  Radiation Oncology Representative.

Professional Association of Internes and Residents of Ontario (PAIRO)
2008 - 2011 Member, General Council
LOCAL

Other Organizations
2016 Jan 29 Member, CaRMS Interview Panel

Princess Margaret Cancer Centre
2013 - present Chair, Smoking Cessation Working Group
2015 - 2016 Princess Margaret Cancer Conference Planning Committee
2014 Education Representative, Princess Margaret Cancer Centre Cancer Committee

Princess Margaret Cancer Centre Executive Committee
2014 - present Education Representative, Princess Margaret Cancer Centre Executive Committee

Radiation Medicine Program
2014 Jun - present Member, iPEHOC Working Group
2014 Member, Bonus Metrics Working Group
2013 Member, Competency to Practice Exam Committee
2012 Exam Invigilator, Residency Program Planning, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2011 - 2012 Resident representative, Radiation Medicine Program External Beam Process Committee
2010 - 2012 Member, Postgraduate Medical Education Committee – Evaluation Subcommittee, Department of Radiation Oncology
2010 - 2012 Member, Postgraduate Medical Education Committee – Curriculum Subcommittee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2010 - 2012 Member, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2010 - 2011 Member, Postgraduate Medical Education Committee – Resident Research Subcommittee, Department of Radiation Oncology
2010 - 2011 Member, Academic Communications Committee –Department of Radiation Oncology
2010 - 2011 Chief Resident, Department of Radiation Oncology
2010 Member, CaRMS Interview Panel, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2009 - 2010 Senior Resident representative, Postgraduate Medical Education Committee - Department of Radiation Oncology
2008 - 2009 PAIRO representative, Postgraduate Medical Education Committee - Department of Radiation Oncology
2007 - 2009 PG-CorEd website coordinator, Department of Radiation Oncology
2007 - 2008 PGY1 resident representative, Postgraduate Medical Education Committee - Department of Radiation Oncology

Sunnybrook Health Sciences Centre
2009 - 2010 Member, Resident Liaison Committee
2009 - 2010 Senior Resident, Sunnybrook Odette Cancer Center

Toronto Cancer Conference
2012 Mar 1 - 2012 Nov 23 Member, Executive Planning Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
Univeristy Health Network
2016 May - present Member, Interprofessional Care and Education Leader-Search Committee, Ontario, Canada.

University Health Network
2015 Nov - present Co-Chair, Smoking Cessation Executive Committee, Toronto, Ontario, Canada.
2015 - present Education Leadership Council, Toronto, Ontario, Canada.
2014 - present Princess Margaret Cancer Centre Representative, UHN Education Leadership Council

University of Toronto
2016 Feb 27 - present Medical School Admissions Interviewer, Radiation Oncology, Toronto, Ontario, Canada.
2015 Jan - present Chair, Postgraduate Medical Education Committee - Evaluation Subcommittee Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2015 - present Member, Undergraduate Medical Education Admissions File Reviewer, Toronto, Ontario, Canada.
2014 Jun - present Member, Postgraduate Board of Examiners, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 Jun - present Member, Postgraduate Internal Review Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 - present Member, Undergraduate Medical Electives Committee
2014 - present Member, Executive Committee, Department of Radiation Oncology
2014 - present Member, Medical Education Transition to Residency Committee
2015 Apr 18 - 2015 Apr University of Toronto Undergraduate Medical School Admission Interviewer
2015 Feb Coordinator, Competency to Practice Exam Co-Organizer, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 Dec Coordinator, Competency to Practice Exam Co-Organizer, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 Oct 31 Exam Co-Organizer, OSCE, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 Mar 1 Competency to Practice Exam Co-Organizer, Competency to Practice Exam Committee
2014 Co-Chair, Education Awards Committee, Faculty of Medicine, Dept of Radiation Oncology
2014 Leader, CaRMS Interview Panel, Department of Radiation Oncology
2014 Member, UT-DRO Roadmap to 2017 - Strategic Planning Committee
2013 - 2015 Member, Faculty Council Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2012 Nov 3 Examiner, OSCE, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2012 Member, Medical Physics Residency Program interview panel, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2012 Member, Medical Radiation Sciences, Nuclear Medicine Curriculum Redesign Committee
2012 Exam Co-Organizer with Dr. BA Millar, OSCE Co-Organizer, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2012 Member, CaRMS Interview Panel, Department of Radiation Oncology
2012 Member, Nuclear Medicine Curriculum Redesign Committee, Medical Radiation Sciences
2011 - 2012 Resident Participant, Search committee for Chair of Department of Radiation Oncology
2011 Resident Participant, Search committee for Associate Dean, Postgraduate Medical Education, Admissions and Evaluation
2010 Resident Participant, Faculty of Medicine’s External Review
2009 - 2012       Internal Reviewer
2008 - 2012       Resident representative, Internal Review Committee
2008 - 2011       Resident representative, Postgraduate Medical Education Advisory Committee

OTHER
University of Toronto
2015 Jan - present       UTDRO Fellowship Application Committee Member
2015 Jun 19            Member, UTDRO Physics Residency Interview Panel
2012 Nov 13            UTDRO Physics Residency Interview Panel

Peer Review Activities

EDITORIAL BOARDS
Resident Member
2010       Canadian Association of Medical Education

GRANT REVIEWS
Reviewer
2014       CARO Radiation Oncology Fellowship position, $75,000.00 annual award to a postgraduate trainee to support further training.

Co-Chair
2014 - present       CARO-CROF Summer Studentship Grant Committee, This grant provides 7 $2,100.00 studentships to Canadian Undergraduate Medical Students to undertake clinical placements in Radiation Oncology across the country.
2015       Radiation Medicine Program Summer Studentship Grant Committee, This grant provides 4 $5,000.00 studentships to students to undertake a summer research project in the radiation medicine program at Princess Margaret Cancer Centre.
2014       Radiation Medicine Program Summer Studentship Grant Committee, This grant provides 4 $5,000.00 studentships to students to undertake a summer research project in the radiation medicine program at Princess Margaret Cancer Centre.
2013 - 2014       CARO-CROF Summer Studentship Grant Committee, This grant provides 5 $4,000.00 studentships to Canadian Undergraduate Medical Students to undertake clinical placements in Radiation Oncology across the country.
2013       Radiation Medicine Program Summer Studentship Grant Committee, This grant provides 4 $5,000.00 studentships to students to undertake a summer research project in the radiation medicine program at Princess Margaret Cancer Centre.

MANUSCRIPT REVIEWS
Reviewer
2016 Feb - present       CARO Annual Scientific Meeting Abstract Reviewer, Canadian Association of Radiation Oncology (CARO)
2012 - present       Clinical Oncology
2012 - present       International Journal of Radiation Oncology Biology and Physics
2012 - present       Journal of Thoracic Oncology
2012 - present       The Oncologist

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CONFIDENTIAL DOCUMENT
PRESENTATION REVIEWS

Abstract Reviewer
2015 Canadian Association of Radiation Oncology Annual Meeting
2014 Canadian Association of Radiation Oncology Annual Meeting
2013 Canadian Association of Radiation Oncology Annual Meeting
2012 Toronto Cancer Conference

Moderator
2014 Aug 27 Canadian Association of Radiation Oncology Annual Meeting, Education & Survivorship Session

Poster Presentation Judge
2014 University of Toronto, Department of Radiation Oncology Research Day

Resident Oral Competition Judge
2014 Sep 27 Canadian Association of Radiation Oncology Annual Meeting

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED

2016 May - present Principal Investigator. The role of prostate cancer survivors in managing survivorship care: a cross-sectional descriptive study. CARO-SANOFI Award, Canadian Association of Radiation Oncology, Ontario, Canada. 24,000 CAD. [Grants]


In this project, we propose to perform dose accumulation for selected HNC patients to explore the dosimetric impact on both toxicity and disease control and to use these data to develop a prospective trial on adaptive radiotherapy in HNC. Use of the actual delivered radiation dose (accumulated dose based on daily imaging) compared with the planned dose will allow more accurate estimates of the correlations between radiation dose and treatment outcomes for oropharynx, hypopharynx and larynx patients. This information will directly inform the design of prospective adaptive treatment protocols to maximize treatment outcome (HPV-) and minimize toxicity (HPV+) in radiation treatment for HNC.


Cancer Care Ontario has mandated that all new cancer patients be screened for smoking status, advised to quit, and assisted with quitting. However, routine screening and referral to smoking cessation treatment has not been widely implemented in the cancer setting. This project aims to implement and evaluate the adoption and impact of a patient-driven decision support system (Smoking Cessation e-referral System or CEASE) to promote smoking
screening and referral. CEASE is an innovative tool, consisting of three key elements, to improve smoking screening and allows for implementation in both a time- and cost-effective manner which promotes sustainability. This intervention could have significant impact on patient's immediate and long term outcomes.


NON-PEER-REVIEWED GRANTS

FUNDING

2014 Jul **Principal Investigator.** Piloting the Feasibility of FLT-PET/CT Non-Small Cell Lung Cancer Managed with SBRT. [Clinical Trials]

2014 **Principal Investigator.** VOLUMES: Treatment of Larger Tumor Volumes or 2 Lung Tumors Simultaneously in Lung Cancer Patients using SBRT in a Mean-Lung Dose Escalation Study. [Clinical Trials]

2013 **Principal Investigator.** EORTC 1219. [Clinical Trials]

1) **EORTC 1219:** A blind comparison multicenter study of accelerated fractionated chemo-radiation with or without the hypoxic radiosensitizer nimorazole (Nimoral), using a 15 gene signature for hypoxia in the treatment of HPV/P16 negative squamous cell carcinoma of the head and neck.

D. Publications

1. **PEER-REVIEWED PUBLICATIONS**

Journal Articles


Meredith Elana GIULIANI


24. Huang S, Xu W; Waldron J; Siu L; Shen X; Tong L; Ringash J; Bayley A; Kim J; Hope A; Cho J; Giuliani M; Hansen A; Irish J; Gilbert R; Gullane P; Perez-Ordonez B; Weinreb I; Liu F; O’ Sullivan B. Refining American Joint Committee on Cancer/Union for International Cancer Control TNM Stage and Prognostic Groups for Human Papillomavirus–Related Oropharyngeal Carcinomas. J Clin Oncol. 2015 Mar 10;33(8):836-845. Coauthor or Collaborator.


Manuscript


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Guidelines


3. SUBMITTED PUBLICATIONS

Journal Articles


Book Chapters


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2014 Mar 20  Thyroid Carcinoma Treatment Planning and Delivery: Oncologist’s perspective. Kuwait Cancer Control Centre. Kuwait.


2014 Mar 20  Laryngeal Carcinoma Treatment Planning and Delivery: Oncologist’s perspective. Kuwait Cancer Control Centre. Kuwait.


2014 Mar 19  Problem Based Learning Session: Issues from the front lines. Kuwait Cancer Control Centre. Kuwait. Presenter(s): Giuliani M, McNiven A, Holwell M.


2014 Mar 18  Nasopharyngeal Carcinoma Treatment Planning and Delivery: Oncologist’s perspective. Kuwait Cancer
**Presented Abstracts**


2015 Jun 29 **Developing Canadian Oncology Goals and Objectives for Medical Students: A National Delphi Study.** American Society of Clinical Oncology (ASCO). Chicago, Illinois, United States. Presenter(s): Tam, VC; Inglewed, P; Berry, S; Verma, S; **Giuliani, ME**.


2015 Jun **Prediction models of smoking cessation in lung and head and neck cancer patients: Role of second-hand...**

2015 Jan Prediction Models of Smoking Cessation in Lung and Head and Neck Cancer Patients: Role of Second-Hand Smoke (SHS) Exposure. American Society of Clinical Oncology (ASCO). Chicago, Illinois, United States. Presenter(s): Liu, G; Song, Y; Alton, D; Yoannidis, T; Milne, R; Sarabia, S; Merali, Z; Habbous, S; Brown, MC; Vennettilli, A; Hope, A; Howell, D; Jones, J; Selby, P; Goldstein, DP; Giuliani, ME; Xu, W; Eng, L.

2015 Jan Cancer Patients’ Attitudes, Knowledge, and Preferences for Smoking Cessation (SC). American Society of Clinical Oncology (ASCO). Chicago, Illinois, United States. Presenter(s): Eng, L; Alton, D; Yoannidis, T; Kong, QQ; Milne, R; Sarabia, S; Merali, Z; Murphy, L; Brown, MC; Waldron, J; Pierre, A; Bezjak, A; Hope, A; Howell, D; Jones, J; Selby, P; Xu, W; Goldstein, DP; Giuliani, ME; Liu, G.

2015 Jan Cessation of Second-Hand Smoke Exposure After A Lung and Head and Neck Cancer Diagnosis and Subsequent Patient Smoking Cessation. American Society of Clinical Oncology (ASCO). Chicago, Illinois, United States. Presenter(s): Eng, L; Alton, D; Yoannidis, T; Song, Y; Milne, R; Sarabia, S; Merali, Z; Habbous, S; Brown, MC; Vennettilli, A; Shepherd, F; Leighl, N; Hope, A; Howell, D; Jones, J; Selby, P; Xu, W; Goldstein, DP; Giuliani, ME; Liu, G.

2015 Jan Outcomes Following Unilateral Neck Irradiation for Oropharyngeal Cancer Stratified by HPV Status. Presenter(s): Waldron, J; Huang, SH; Kim, J; Bayley, A; Ringash, J; Hope, A; Giuliani, ME; Cho, J; Tong, L; O'Sullivan, B.

2015 Jan ‘Cure’ is a Realistic Goal in HPV-related Oropharyngeal Cancer with Oligometastasis. Presenter(s): Huang, SH; Waldron, J; Xu, W; Ringash, J; Bayley, A; Hope, A; Kim, J; Cho, J; Giuliani, ME; Tong, L; O'Sullivan, B.

2015 Jan Refining UICC TNM Stage and Prognostic Groups for Non-metastatic HPV-related Oropharyngeal Carcinomas. Presenter(s): O'Sullivan, B; Huang, SH; Waldron, J; Ringash, J; Bayley, A; Kim, J; Hope, A; Cho, J; Giuliani, ME; Xu, W;.

2014 Oct Second-Hand Smoke (SHS) and Smoking Cessation in Non-Tobacco Related Cancers. American Association of Cancer Research. Chicago, Illinois, United States. Presenter(s): Eng, L; Qiu, X; Wu, J; Brown, MC; Irwin, M; Pringle, D; Niu, C; Mahler, M; Naik, H; Hon, H; Tiessen, K; Charow, R; Thai, H; Ho, V; Pat, V; Herzog, L; Ho, A; Jones, JM; Howell, DS; Goldstein, DP; Giuliani, ME; Xu, W; Selby, P; Liu, G.


2013 Oct 27 Late radiographic changes after lung stereotactic body radiotherapy: Piloting a synoptic reporting and recurrence predication scale. World Conference on Lung Cancer. Sydney, Australia. Presenter(s): Raziee
Meredith Elana GIULIANI


Presented and Published Abstracts

2016 Apr 29  Invited Speaker. Impact of Comorbidity, Polypharmacy and HPV status in Elderly Patient with Oropharyngeal Cancer. ESTRO - European Society for Radiotherapy & Oncology. Turin, Piemonte, Italy. Presenter(s): Caparrotti F.

Publication Details:

2016 Apr 29  Invited Speaker. The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. Poster (PO-0631). 2016 European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Turin, Italy. Presenter(s): Huang SH.

Publication Details:


Publication Details:


Publication Details:

Publication Details:

2015 Oct 18

Publication Details:

2015 Oct 18

Publication Details:

2015 Oct 18

Publication Details:

2015 Oct 18

Publication Details:

2015 Oct 18

Publication Details:

2015 Oct
Global Radiation Oncology Elective in Teaching CanMEDS Competencies. American Society for Therapeutic Radiation and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States.
Publication Details:

2015 May 29
Developing oncology goals and objectives for medical students: A national Delphi process. American Society of Clinical Oncology (ASCO).

Publication Details:
Developing oncology goals and objectives for medical students: A national Delphi process. 2015 May 29. Coauthor or Collaborator.

2015 Apr 25

Publication Details:
Predictors and patterns of regional recurrence following lung SBRT: A report from the Elekta Lung Research Group.

2015 Feb
Refining UICC TNM stage and prognostic groups for non-metastatic HPV-related oropharyngeal carcinomas. International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:

2015 Feb
Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status. International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:

2015 Feb
‘Cure’ is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis. International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:

**Publication Details:**

2013 Nov Incidental prophylactic nodal irradiation and patterns of nodal relapse in inoperable early stage NSCLC patients treated with SBRT: A case-matched analysis.

**Publication Details:**

2013 Nov Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT).

**Publication Details:**


**Publication Details:**

2013 Nov Late radiographic changes after lung stereotactic body radiotherapy: Piloting a recurrence scale and synoptic reporting scale.

**Publication Details:**


**Publication Details:**

2013 Phase I Trial of Dacomitinib (D) Concomitant with Radiotherapy (RT) with and without Cisplatin (C) in patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN) (XDC-001). American Society of Clinical Oncology (ASCO). ASCO Annual Meeting 2013.

**Publication Details:**

2013

Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT).

Publication Details:

2013

Stereotactic lung radiotherapy in patients with previous pneumonectomy: Safety and efficacy.

Publication Details:

2013

Clinical outcomes of T4 larynx cancer treated with primary radiotherapy compared to primary laryngectomy.

Publication Details:

2011 Oct

Clinical outcomes in stage I non-small cell lung cancer patients managed with accelerated hypofractionated radiotherapy.

Publication Details:

2011 Jun

Correlation of dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma.

Publication Details:

2011 Jun

Cost-effectiveness analysis comparing conventional versus stereotactic body radiotherapy for surgically ineligible stage I non-small cell lung cancer.

Publication Details:

2011

Cost-effectiveness analysis comparing conventional versus stereotactic body radiotherapy for surgically ineligible stage I non-small cell lung cancer.

Publication Details:
Mitera G, Swaminath A, Rudoler D, Seereeram C, Giuliani M, Leighl N, Warde P, Gutierrez E, Coyte P,
<table>
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<th>Year</th>
<th>Publication Details</th>
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| 2011 | Correlation of dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma. 
Publication Details:
| 2011 | Clinical outcomes in stage I non-small cell lung cancer patients managed with accelerated hypofractionated radiotherapy. 
Publication Details:
| 2010 Dec | Outcomes of salvage therapy in patients with limited-stage small cell lung carcinoma with isolated locoregional failure. 
Publication Details:
| 2010 Nov | Automated tools to facilitate lung cancer outcomes data-mining. 
Publication Details:
| 2010 Nov | Patterns of failure in patients with limited-stage small cell lung carcinoma. 
Publication Details:
| 2010 | Incorporating multi-source feedback into a radiation oncology resident assessment system. 
Publication Details:
| 2010 | Patterns of failure in patients with limited-stage small cell lung carcinoma. 
Publication Details:
| 2009 Nov | Dosimetric and clinical parameters contributing to esophagitis and radiation pneumonitis following treatment for small-cell lung carcinoma. 
Publication Details:
Meredith Elana GIULIANI


2009 Nov
Survival impact of prophylactic cranial irradiation in limited-stage small-cell lung cancer.

Publication Details:

2009
Prophylactic cranial irradiation rates in limited-stage small cell lung cancer.

Publication Details:

2009
Factors influencing prophylactic cranial irradiation utilization in limited stage small cell lung cancer.

Publication Details:

2009
Assessing radiation oncology residents in the CanMEDS era: Developing a multi-source feedback program.

Publication Details:

2005 Jun
Should surveillance be considered the standard of care in stage I seminoma?

Publication Details:

2005 Apr
Outcome in stage I seminoma managed by radiation therapy and surveillance.

Publication Details:

2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

2015 Sep
Post-radiotherapy cervical lymph node calcification on its own is not predictive for neck recurrence in oropharyngeal carcinoma. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

Publication Details:

2015 Sep
Metastatic risk groups in human papillomavirus-related oropharyngeal cancer treated with definitive radiotherapy with or without chemotherapy. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

Publication Details:

2015 Sep
Risk of relapse profile in human papillomavirus-unrelated oropharyngeal carcinoma treated with definitive radiotherapy with or without chemotherapy. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

Publication Details:

2015 Sep
Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

Publication Details:

2015 Sep
Outcome following definitive radiotherapy for squamous cell carcinoma of the nasal vestibule. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

Publication Details:

2015 Sep

Publication Details:
2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

**Publication Details:**

2015 Sep Clinical outcomes following re-irradiation in head and neck cancers. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

**Publication Details:**


**Publication Details:**
**Giuliani ME**, Wong O, Gay J, Le L, Brade A, Cho J, Sun A, Bezjak A, Hope A. Prognostic Value of Pretreatment Circulating Neutrophils, Monocytes, and Lymphocytes on Outcomes in Lung SBRT. Radiother Oncol. 116(Suppl):S64. **Senior Responsible Author.**


**Publication Details:**

2014 Aug The prevalence and nature of survivorship needs in head and neck cancer patients. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**


**Publication Details:**

2014 Aug Not Just an Add-On Subject: Integrating Oncology into the Heart of Undergraduate Medical Education. CARO 2014 Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

2014 Aug Team-Based Clinical Simulation in Radiation Medicine: Value to Attitudes and Perceptions of Interprofessional Collaboration. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and...
Labrador, Canada.

**Publication Details:**

2014 Aug
Evaluation of High-Fidelity Simulation Training in Radiation Oncology. CARO 2014 Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

2014 Aug

**Publication Details:**

2014 Aug
The prognostic value of pre-treatment circulating neutrophils in oropharyngeal cancer by HPV status. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

**Publication Details:**

2014 Aug
Survival predictor in oropharyngeal cancer patients with distant metastasis. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

**Publication Details:**

2014 Aug
Patient reported outcomes: correlation of MDASI-HN and clinical support required for patients receiving curative head and neck chemoradiotherapy. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

**Publication Details:**

2014 Aug
Elderly patients with advanced head and neck cancer less likely to receive radiation therapy. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

**Publication Details:**

2014 Aug
Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.
Publication Details:

2014 Aug
Role of radiotherapy in management of nasal and sinonasal squamous cell carcinoma. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

Publication Details:

2014 Aug

Publication Details:

2013 Sep
Late radiographic changes after lung stereotactic body radiotherapy: Piloting a synoptic reporting and recurrence predication scale. CARO-COMP Joint Scientific Meeting. Montreal, Quebec, Canada.

Publication Details:

Presentation Reviews


Other Presentations


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2014 May 26 Lung and Liver SBRT: Exploring the Next Frontier. Sault Area Hospital.

Presented Abstracts

2014 Sep 23 Not Just an Add-On Subject: Integrating Oncology into the Heart of Undergraduate Medical Education. 3rd Annual Queen’s University Medical Student Research Showcase. Kingston, Ontario, Canada. Kwan JYY, Nyhof-Young J, Catton P, Giuliani ME.


4. LOCAL

Invited Lectures and Presentations


2015 May 19 Invited Lecturer. Medical and Radiation Oncology for Surgeons. University of Toronto. Toronto, Ontario, Canada. Surgical Foundations Course (100 PGY1&2 Toronto surgical residents).

Meredith Elana GIULIANI

2015 May 8  **Organizer.** Princess Margaret Cancer Centre Education Strategic Planning Workshop. Princess Margaret Cancer Centre. Toronto, Ontario, Canada.


2014 Nov 6  **Speaker.** Undergraduate Oncology Curriculum Review. University of Toronto. Toronto, Ontario, Canada. Presenter(s): Giuliani, M. Curriculum Review of the Undergraduate Medical Education Curriculum Committee.


2014 May 27  Smoking Cessation. LUNG RAMP Update, UHN. Toronto, Ontario, Canada.

2014 Apr 29  Introduction to Lung Cancer. Princess Margaret Cancer Centre Radiation Oncology Academic Block. Toronto, Ontario, Canada.


2014 Jan 14  Cancer Care Ontario Smoking Cessation Program. Cancer Committee, Princess Margaret Cancer Centre. Toronto, Ontario, Canada.


2013 Jun 5  **Facilitator.** EIRR21 Trainee Research Presentation Judge. Princess Margaret Cancer Centre. Toronto, Ontario, Canada.

2013 Apr 10  Oncology Interest Group. University of Toronto. Toronto, Ontario, Canada.

2013 Apr 4  Contouring Exercise. Head and Neck IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada. April 4-6, 2013.

2013 Apr 4  Course Recap. Head and Neck IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada. April 4-6, 2013.

2013 Apr 4  Problem-Based Learning Session: Issues from the Front Lines. Head and Neck IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada. April 4-6, 2013.
Meredith Elana GIULIANI

2013 Mar 1  Graduate Studies During and After Residency Training. Princess Margaret Hospital. Toronto, Ontario, Canada. To Radiation Oncology Residents.

2013 Jan 18  Target Delineation. Lung IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada.

2013 Jan 18  Putting Lung IGRT Into Action. Lung IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada.


2011 Sep 27  Introduction to the Department of Radiation Oncology. Presentation to Excellence in Radiation Research for the 21st Century (EIRR21) training program students. Toronto, Ontario, Canada.


2011 Apr 1  Stereotactic Body Radiotherapy (SBRT) for Early Stage Lung Carcinoma. Department of Radiation Oncology Resident Academic Half-Day. Toronto, Ontario, Canada.


2010 Jun 30  Resident speaker to incoming PGY1 residents. Orientation to Radiation Oncology Residency Program at the University of Toronto. Toronto, Ontario, Canada.

2010 Mar 23  Resident speaker to University of Toronto medical students. Medical Oncology & Radiation Oncology Career Night, Medical Sciences Building, University of Toronto. Toronto, Ontario, Canada.

2009 Jun 29  Resident speaker to incoming PGY1 residents. Orientation to Radiation Oncology Residency Program at the University of Toronto. Toronto, Ontario, Canada.

2008 Dec 10  Resident speaker to University of Toronto medical students. Medical Oncology & Radiation Oncology Career Night, Princess Margaret Hospital. Toronto, Ontario, Canada.


Presented Abstracts


2013 May 2  Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT). Target Insight VII: Rethinking Radiation Therapy for Metastatic Cancer.
Meredith Elana GIULIANI


5. OTHER

Invited Lectures and Presentations


F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2015 - present Cancer Trainee Professional Enrichment Program (CTPEP), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Centre
   A 2-year interprofessional curriculum designed for cancer program trainees at Princess Margaret Cancer Centre. It focuses on 5 program domains: Research, Education, Cancer Systems, Global Cancer & Leadership/Management.

2014 - present Adolescent and Young Adult Area of Focused Competence Development Committee, Royal College of Physicians and Surgeons of Canada
   Radiation Oncology representative on Adolescent and Young Adult Diploma Committee for the Royal College of Physicians and Surgeons of Canada. This diploma is a novel program to address a growing gap in clinical care for adolescent and young adults with cancer.

2013 - present CARO-CROF Summer Studentship, Undergraduate MD, CARO-CROF, CARO-CROF
   Starting in 2013 this program offers 7 national summer placements for second year medical students to give them the opportunity to explore radiation oncology as a career. The program is administered through the CARO Education Committee. It involves a competitive application process and placement matching. 12 students in 2 years have experienced placement in radiation oncology with another 7 starting in 2015.

2012 Nov 1 - present PMH Head and Neck IGRT course, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   Co-director. Remarkable advances in imaging technology can now be harnessed to enhance target
Localization. Image-Guided Radiation Therapy (IGRT) is rapidly revolutionizing the planning and delivery of radiation therapy in the treatment of cancer.

These unique education programs offer the opportunity to acquire the skills, knowledge and strategies that will learners successfully apply and implement the principles of image guidance. At the conclusion of any course, participants can:

- Adopt innovative IGRT approaches in clinical practice
- Expand opportunities for image guided radiotherapy practice
- Make informed decisions in the context of IGRT.

Participants will be encouraged to learn in a collaborative environment by participating in interprofessional teams consisting of oncologists, physicists, dosimetrists and therapists.

2016 Feb 27
University of Toronto Medical School Admissions Interviewer, Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

2014 Jul 1 - 2015 Jun 30
CARO Resident Refresher Course, Postgraduate MD, CARO
Organization of the resident refresher course at the Canadian Association of Radiation Oncology Annual Scientific Meeting

Objectives: Upon completion of this refresher course, attendees should be able to:
- Review the principles of management of common cancers.
- Understand the technology that underpins cone-beam CT and common misconceptions about CBCT.
- Review and practice volume generation in compliance with the GEC-ESTRO guidelines.

Provides teaching to approximately 75 residents from across Canada.

2014 Jul 1 - 2015 Jun 30
Defining Oncology Competencies for Canadian Undergraduate Medical Students, Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology
Working with Vincent Tam (Medical Oncologist) and a national working group to define the minimum competencies for Undergraduate Medical Students with respect to Oncology. This work has involved a national delphi process.
An abstract was submitted to American Society of Clinical Oncology 2015 Annual Scientific Meeting and the results will be published for access by all Canadian Medical Schools.

2014 Mar - 2014 Mar 20
Head and Neck IMRT course, Continuing Education, Kuwait Cancer Control Centre, Princess Margaret Hospital
Director.

2014 - 2015
Undergraduate Oncology Curriculum Review, Undergraduate MD
Lead oncology curriculum review at University of Toronto with Medical Student Jennifer Kwan and Dr Joyce Nyhof-Young to make recommendations on undergraduate oncology content and teaching delivery.
Published in the International Journal of Radiation Oncology, Biology & Physics and presented to the Curriculum Committee, Undergraduate Medical Education at University of Toronto.

2014
VERO - Virtual Experience in Radiation Oncology, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Updating the virtual experience in radiation oncology (VERO) website to serve as a resource for the new longitudinal integrated curriculum for medical students at University of Toronto during their oncology case.

2014
CORE Curriculum in radiation Oncology, University of Toronto, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology
Designed curriculum change for PGY2/3 to the core site based rotations including syllabus designs and new ITERS/assessments.
Improved resident performance on in-training examinations.

2014
Curriculum Design: Quality and Safety in Radiation Medicine, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Radiation Medicine Program
Conducting a national curriculum design project in collaboration with Canadian Partnership
for Quality Radiotherapy (CPQR). This curriculum will assist Radiation Oncology residency programs with the Quality and Safety aspects of CanMEDS 2015 implementation.

2013 Jul - 2015 Jun 30 Imaging Literacy Curriculum Design, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology Co-led with Dr. Pam Catton. Development of an imaging literacy curriculum at the request of the Royal College of Physician and Surgeons of Canada Radiation oncology Specialty Committee. Curriculum has been published in the International Journal of Radiation Oncology Biology & Physics and has underpinned curriculum reform at the University of Toronto Radiation Oncology Program. Curriculum is being discussed at other international societies including RANZCR and the UK.

2013 Apr 19 Early Larynx Cancer, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Centre Half day teaching session geared towards the Radiation Oncology Residency Program.

2012 Jul 1 - 2013 Getting Back on Track after Head and Neck Cancer, Patient and Public Education, Faculty of Medicine, Dept of Radiation Oncology, ELLICSR Two hour lecture series to patients monthly to discuss rehabilitation and care following cancer therapy.

2009 - 2011 Academic Half-Day curriculum, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology Design and organize the academic half-day for the Department of Radiation Oncology residency program.

2009 Developed and implemented a PGY1 orientation program for the incoming PGY1 residents in radiation oncology, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2015 - present Primary Supervisor. Lorna Sampson. Educational Preferences for Smoking Cessation in Cancer Patients.

2016 May - 2016 Aug Primary Supervisor. Leah Brach. Educational Preferences for Smoking Cessation in Cancer Patients. Supervisor(s): Guiliani, ME.


Graduate Education


Undergraduate MD

2012 - present Primary Supervisor. Natalie Jewitt. Determinants of Community Health 2 (DOCH 2) research supervisor: Resource development and assessment project of lung SBRT patient educational material.


2016 Jun - 2016 Jul Primary Supervisor. LEAD Student Placement. Kirby Ding. Outpatient Smoking Cessation
Resource Plan Development for UHN.

2014 Jul - 2015 Jun  
**Primary Supervisor.** Devon Alton. *Predictors of SMoking Cessation in Cancer Survivors* (DOCH2).

2013 Jul - 2014 Nov  
**Primary Supervisor.** Robin Milne. *Predictors of High eHealth Literacy in Primary Lung Cancer Survivors.*

2013 - 2014  
**Primary Supervisor.** Jennifer Kwan. *Mapping the Future: Towards Oncology Curriculum Reform in Undergraduate Medical Education at a Canadian Medical School.*

2010 - 2011  
**Co-Supervisor.** Kalvin Lung. *Determinants of Community Health 2 (DOCH 2) research supervisor: Resource development project for an electronic interface to collect lung cancer patient reported outcomes.* Collaborator(s): Co-supervisor with Dr Andrew Hope.

2010  
**Co-Supervisor.** Terence Yung. *Outcomes for early stage non-small cell lung cancer patients treated with conventional fractionation.* Collaborator(s): Co-supervisor with Dr Andrew Hope.

2009 - 2010  
**Co-Supervisor.** Gur Chandhoke. *Determinants of Community Health 2 (DOCH 2) research supervisor: Resource development project for assessing the acute toxicity of thoracic radiotherapy.* Collaborator(s): Co-supervisor with Dr Andrew Hope.

2009  
**Co-Supervisor.** Carey Chan, Michener Institute Medical Radiation Science Student. *Toxicity of Thoracic Radiotherapy in Patients with Extensive-Stage Small Cell Lung Cancer.* Collaborator(s): Co-supervisor with Dr Andrew Hope.

**Postgraduate MD**

2015 - present  
**Primary Supervisor.** Daniel Glick, Radiation Oncology Clinical Fellow. *Clinical Outcomes in Lung SBRT.*

2015 - present  
**Primary Supervisor.** Jenna Adleman, Radiation Oncology Resident. *Development of Radiation Oncology Quality and Safety.*

2015 - present  
**Primary Supervisor.** Horia Vulpe, Radiation Oncology Resident. *Patterns of Failure Following External Beam Radiation in Thyroid Carcinoma.*

2014 - 2015  
**Co-Supervisor.** Vivian Yau, Radiation Oncology Resident. *Trimodality Management of Lung Cancer.* Collaborator(s): Co-supervisor with Dr Andrew Hope.

2014 - 2015  
**Primary Supervisor.** Satiaavani Ramasamy, Radiation Oncology Fellow. *Re-irradiation in Head and Neck Case.*

2014 - 2015  
**Primary Supervisor.** Abdul Dayyat, Radiation Oncology Fellow. *SBRT Retreatment Clinical Outcomes.*

2013 - 2015  
**Primary Supervisor.** Matthew Mason, Radiation Oncology Fellow. *Small Cell Head and Neck Cancer Clinical Outcomes.*

2013 - 2014  
**Primary Supervisor.** Irene Karam, Radiation Oncology Fellow. *ReIrradiation of Nasopharyngeal Carcinoma.*

2012 - 2015  
**Co-Supervisor.** Hamid Raziee, Radiation Oncology Resident. *SBRT Fibrosis scoring validation project.* Collaborator(s): Co-supervisor with Dr Andrew Hope.

2012 - 2015  
**Primary Supervisor.** Salil Vengalil, Radiation Oncology Fellow. *Clinical and Dosimetric Predictors of Functional Outcome in T4 Glottic Cancer Patients.*

2012 - 2014  
**Co-Supervisor.** Salman Faruqi, Radiation Oncology Resident. *SBRT Fibrosis scoring validation project.* Collaborator(s): Co-supervisor with Dr Andrew Hope.
Curriculum Vitae

Mary Gospodarowicz
MD

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
610 University Ave
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-4421
Fax 416-946-2038
Email mary.gospodarowicz@rmp.uhn.on.ca

1. EDUCATION

Degrees
1971 MD, University of Toronto

Qualifications, Certifications and Licenses
1977 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1977 Diplomate, American Board of Medical Oncology
1975 Fellow, Internal Medicine, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2005 - present Medical Director, Princess Margaret Cancer Program
2005 - present Regional Vice President, Cancer Care Ontario, Toronto
1996 - present Professor, Radiation Oncology, University of Toronto
1977 - present Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital

Previous Appointments
HOSPITAL
2001 - 2012 Chief, Radiation Medicine Program, Princess Margaret Hospital
1996 - 1999 Director of Clinical Programs, Department of Radiation Oncology, Princess Margaret Hospital
1989 - 1990 Deputy Head, Department of Radiation Oncology, Princess Margaret Hospital

UNIVERSITY - RANK
2001 - 2012 Chair, Radiation Oncology, University of Toronto
1992 - 1996 Associate Professor, Radiation Oncology, University of Toronto
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2014    Gold Medal Award, American Society of Therapeutic Radiology and Oncology (ASTRO). (Distinction)
2014    Honorary Member, DEGRO, German Radiation Oncology Society. (Distinction)
2013    2013 Janeway Medal and Lecture, American Radium Society. (Distinction)
2013    Honorary Member, Scientific Association of Swiss Radiation Oncology (SASRO). (Distinction)
2013    Keynote Speaker, National Cancer Congress, Turkey. (Distinction)
2013    Lifetime Achievement Award, European Society of Therapeutic Radiology and Oncology. (Distinction)
2013    Samuel C. Harvey Memorial Lectures, American Association for Cancer Education, Seattle, Washington. (Distinction)
2013    Theodore L. Phillips Lecture, Annual Conference, Radiation Oncology, Helen Diller Family Comprehensive Cancer Center, San Francisco. (Distinction)
2012 Sep    Honorary Fellow, Royal College of Surgeons of Ireland, Faculty of Radiologists, Ireland. (Distinction)
2008    Schiffer Exchange Visiting Professor, Israel. (Distinction)
2007    Annual Hospital Oration, Tata Memorial Hospital, India. (Distinction)
2007    Fellow, American Society of Therapeutic Radiology and Oncology. (Distinction)
2005    Simon Kramer Lectureship, Thomas Jefferson University, Philadelphia. (Distinction)
2004    Ira Spiro Visiting Lecturer 2004, Massachusetts General Hospital. (Distinction)
2003    Honorary Fellow, European Society of Therapeutic Radiology and Oncology. (Distinction)
2001    Honorary Fellow, Royal College of Radiologists, United Kingdom. (Distinction)

NATIONAL

Received

2012 Aug    May Cohen Award for Women Mentors, Canadian Medical Association. (Distinction)
2010    Gordon Richards Lecture, Canadian Association of Radiation Oncology. (Distinction)

LOCAL

Received

2016    Dr. W. Gerald Cosbie Leadership Award, Canadian Cancer Trials Group. (Distinction)
2016    Harold Warwick Prize., Canadian Cancer Society Research Institute CCSRI. (Research Award)
        In recognition of outstanding research achievements in cancer control.
2015    Officer of the Order of Canada. (Distinction)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

- **Member**, Alpha Omega Alpha Honours Medical Society
- **Member**, American Association for Cancer Research
- **Member**, American Society of Clinical Oncology
- **Member**, American Society of Therapeutic Radiology and Oncology
- **Member**, Canadian Association of Radiation Oncology
- **Member**, Canadian Oncology Society
- **Member**, Canadian Urologic Oncology Group
- **Member**, European Society for Therapeutic Radiology and Oncology
- **Member**, Royal College of Physicians and Surgeons of Canada
- **Member**, Society of Urologic Oncology

Administrative Activities

**INTERNATIONAL**

**ACORRN**

- 2005 - 2007 **Member**, International Advisory Committee

**American Joint Commission on Cancer: American College of Surgeons, College of Pathologists**

- 2000 - present **Member**, AJCC - Task Force on Lymphomas
- 2000 - present **Member**, AJCC - Task Force on GU Cancers
- 2000 - 2006 **Member**, American College of Surgeons, Commission on Cancer
- 1994 **Member**, AJCC - Task Force on Testis Tumors
- 1992 - 1995 **Member**, American Joint Committee on Cancer (AJCC)

**American Society of Clinical Oncology**

- 2006 - 2007 **Member**, International Affairs Committee-Steering Committee
- 2005 - 2008 **Member**, International Affairs Committee
- 1997 **Member**, Advanced Prostate Cancer Guidelines Panel
- 1995 **Member**, Scientific Program Committee

**American Society of Radiation Oncology**

- 2010 **Member**, Strategic Planning Task Force
- 1994 - 1999 **Member**, ASTRO – Scientific Program Committee
- 1986 **Member**, ASTRO - Program Committee

**Dutch Cancer Society**

- 2013 - present **Program Reviewer**

**International Commission on Radiation Units and Measurements (ICRU)**

- 2003 - 2007 **Member**
International Consensus Development Conference on Guidelines for Clinical Research in Bladder Cancer
1993 Chair, 4th Conference, TNM Staging Working Party
1993 Member, 4th Conference, Radiation Therapy Working Party
1990 Member, 3rd Conference, TNM Working Party
1984 Member, 1st Conference, Radiotherapy Party, Antwerp.

International Extranodal Lymphoma Study Group
2004 - present Member, Board of Directors
2000 - 2004 Member, Scientific Advisory Board

National Cancer Institute
2013 Reviewer, Loan Repayment Program (IAR)
2012 - 2013 Invited Participant, Centre for Global Health
1998 - 2002 Member, CTEP, Concept Evaluation – GU Panel
1998 - 2002 Member, Subcommittee H
1997 Member, RTOG Site Visit
1996 Member, Program Review Group - Prostate Cancer
1990 Member, Site Visit review of the Southwest Oncology Group
1988 Member, Cancer Clinical Investigation Review Committee

National Cancer Research Network – Medical Research Council UK
2009 - present Member, MRC, Data Safety Monitoring Committee, RADICALS MRC Trial
2009 Member, United Kingdom.
2008 Member, Quinquennial Review Committee, Royal Marsden Hospital, Institute for Cancer Research, United Kingdom.
2008 Member, Department of Health, NIHR Program Grant reviews, United Kingdom.
2007 Reviewer, Program Grants

UICC - Union for International Cancer Control
2012 - present Chair, TNM Project
2014 - 2016 Immediate Past President
2012 - 2014 President
2010 - 2012 President-Elect
2010 Member, Workshop on Prognostic Factors in Cancer, Royal Society of Medicine, United Kingdom.
2008 - 2012 Member, Policy Committee
2008 - 2012 Member, Advisory Panel on Congresses
2008 - 2010 Chair, Membership Committee
2006 - 2012 Member, Board of Directors
2006 - 2010 Member, Finance Committee
2006 - 2009 Member, International Cancer Foundation, Board
2006 - 2008 Treasurer, Finance Committee
2005 - 2011 Chair, TNM Project, TNM Process and Prognostic Factors Task Force
2005 - 2011 Chair, Prognostic Factors Task Force
2002 - 2004 Chair, Task Force on Membership and Governance
<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
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</thead>
<tbody>
<tr>
<td>2000 - 2006</td>
<td>Member, Executive Committee</td>
</tr>
<tr>
<td>2000 - 2005</td>
<td>Member, TNM Prognostic Factors Program</td>
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<tr>
<td>1990 - 1995</td>
<td>Member, TNM Project Committee, Geneva.</td>
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</table>

**World Health Organization**

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
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<tbody>
<tr>
<td>1996</td>
<td>Member, WHO Consensus Conf on Study Design and Evaluation of Clinical Trials on Prostate Cancer, Stockholm.</td>
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</table>

**World Health Organization & Union for International Cancer Control (UICC)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
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<tbody>
<tr>
<td>2011</td>
<td>Member, ICUD Editorial Group, Localized Prostate Cancer</td>
</tr>
<tr>
<td>2005</td>
<td>Co-Chair, 6th International Consultation on Prostate Cancer, Committee on Localized Treatment, Paris.</td>
</tr>
<tr>
<td>2004</td>
<td>Member, WHO/ICUD/SIU Consultation on Bladder Cancer; Radiotherapy</td>
</tr>
<tr>
<td>2002</td>
<td>Co-Chair, 3rd International Consultation on Prostate Cancer, Committee on Prognostic Factors and Markers, Paris.</td>
</tr>
<tr>
<td>1999</td>
<td>Chair, 2nd International Consultation on Prostate Cancer, Committee on Treatment of Regional Disease, Paris.</td>
</tr>
<tr>
<td>1996</td>
<td>Member, 1st International Consultation on Prostate Cancer, Monaco.</td>
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</table>

**NATIONAL**

**Canadian Association of Radiation Oncology**

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<tr>
<th>Year</th>
<th>Position</th>
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<tr>
<td>2003 - 2005</td>
<td>Chair, Nominating Committee</td>
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<td>2003 - 2005</td>
<td>Past President</td>
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<td>2001 - 2003</td>
<td>President</td>
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<td>2000 - 2003</td>
<td>Member, Annual Scientific Meeting Committee</td>
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<td>1999 - 2005</td>
<td>Member, Board of Directors</td>
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<td>1999 - 2001</td>
<td>President Elect</td>
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<td>1990 - 1992</td>
<td>Member, Manpower Committee</td>
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<td>1986 - 1987</td>
<td>Member, Steering Committee</td>
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</table>

**National Cancer Institute of Canada/Clinical Trials Group**

<table>
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<tr>
<th>Year</th>
<th>Position</th>
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<tr>
<td>2007 - present</td>
<td>Member, Clinical Trials Committee</td>
</tr>
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<td>2000 - 2003</td>
<td>Member, Canadian Prostate Cancer Research Initiative – Management Committee</td>
</tr>
<tr>
<td>2000</td>
<td>Member, Nominating Committee</td>
</tr>
<tr>
<td>1998 - 2000</td>
<td>Member of the Institute</td>
</tr>
<tr>
<td>1998 - 1999</td>
<td>Executive, Genito-Urinary Committee</td>
</tr>
<tr>
<td>1997</td>
<td>Member, National Consultation on Cancer Staging</td>
</tr>
<tr>
<td>1995 - 1996</td>
<td>Co-Chair, National Forum on Prostate Cancer Treatment</td>
</tr>
<tr>
<td>1993 - 1999</td>
<td>Executive, Hematology Committee</td>
</tr>
<tr>
<td>1992 - 1998</td>
<td>NCIC CTG Representative, Global GU Clinical Trials Group</td>
</tr>
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<td>1992 - 1998</td>
<td>Chair, Genitourinary Site Committee</td>
</tr>
<tr>
<td>1992 - 1995</td>
<td>Chair, Canadian Committee on Cancer Staging</td>
</tr>
<tr>
<td>1991 - 1992</td>
<td>Chair, Ad-Hoc Committee on Staging</td>
</tr>
<tr>
<td>1990 - 1995</td>
<td>NCIC representative to the UICC / TNM Committee - Geneva</td>
</tr>
<tr>
<td>1985 - 1989</td>
<td>Member, Advisory Committee on the TNM Classification of Tumours</td>
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</table>
Mary GOSPODAROWICZ

Royal College of Physicians and Surgeons of Canada
1995 - 2000 Member, Examination Board for Certification in Radiation Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
2008 - present Member, Toronto Central Local Health Integration Network
2005 - present Member, Provincial Leadership Council
2001 - 2012 Member, Radiation Oncology Provincial Advisory Committee
2001 - 2005 Member, Radiation Treatment Advisory Committee (RTAC)

Ontario Ministry of Health
2001 Member, Cancer Human Resources Committee
1996 Consultant, Workers Compensation Board
1990 Consultant, Drug Benefit Program
1989 Referee, Ontario MOH Research Programs

LOCAL

University of Toronto
2009 - 2012 Member, Council of Health Sciences
2005 - 2012 Member, Clinical Relations Committee
2003 - 2006 Member, Hospital/University Education Committee
2003 - 2005 Member, Dean’s Executive Committee
2001 - 2012 Member, Clinical Chairs Committee
2001 - 2012 Member, Clinical and Basic Science Chairs Committee
1995 - 2000 Member, Senior Advisory Group Committee, Faculty of Medicine, Dept of Radiation Oncology
1995 Chair, Toronto Lymphoma Group
1988 Executive, Toronto Genitourinary Oncology Group
1987 - 1992 Chair, Toronto Lymphoma Group, Radiation Oncology Section

Peer Review Activities

EDITORIAL BOARDS

Associate Editor-in-Chief
2015 - present Journal of Global Oncology
2014 - present Cancer Biology & Medicine
Member
2010 - present ASCO Post – Editorial Advisory Board
1993 - present Cancer - Advisory Editorial Board
1993 - present Urologic Oncology
2008 - 2009 OncologySTAT
1999 - 2010 Int Journal of Radiation Oncology, Biology, Physics
1999 - 2010 Uro Oncology
1997 - 2001 Prostate Journal
1997 - 2000 The Prostate
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2004  Co-Principal Investigator. National Hospital Staging Survey. National Cancer Institute of


Phase III trial of chemotherapy in high risk stage I seminoma. National Cancer Institute of Canada (NCIC). [Clinical Trials]

TE-1 - Trial Committee - planned.

Phase III trial of intermittent vs. continuous hormonal therapy in patients with prostate cancer and failure following radiation therapy. National Cancer Institute of Canada (NCIC). [Clinical Trials]

PR.7 Intergroup Trial NCIC, SWOG - Trial Committee.

Principal Investigator. Study of second primary breast cancer following Hodgkin’s disease. NCI US and CCO Epidemiology Division. Collaborator(s): Dr. L.Travis (Co-Investigator). [Clinical Trials]

Principal Investigator. Study of second primary lung malignancies following Hodgkin’s disease. NCI US and OCTRF Epidemiology Division. Collaborator(s): Dr. L.Travis (Co-Investigator). [Clinical Trials]

Principal Investigator. Study of second malignancies in testis and ovarian cancer. NCI US and OCTRF Epidemiology Division. Collaborator(s): Dr. L.Travis (Co-Investigator). [Clinical Trials]

A randomized trial of a shorter radiation fractionation schedule for the treatment of localized prostate cancer. Ontario Clinical Trials Group and National Cancer Institute of Canada Clinical Trials Group. [Clinical Trials]

PR.5 - Member Steering Committee.

Phase III trial of chemotherapy alone in stage I and II Hodgkin’s disease. National Cancer Institute of Canada (NCIC). [Clinical Trials]

HD.6 Trial Committee.

Phase III trial of hormonal therapy in locally advanced prostate cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials]

PR.3 Intergroup Trial ECOG/NCCTG/NCIC Trial Committee.

Principal Investigator. Study of second malignancies in Non-Hodgkin’s Lymphoma. RFP NCI US and OCTRF Epidemiology Division. Collaborator(s): Dr. L.Travis (Co-Investigator). [Clinical Trials]
1989 Jul - 1995 Jun **Principal Investigator.** The international study of neoadjuvant chemotherapy in locally advanced bladder cancer. National Cancer Institute of Canada (NCIC). in collaboration with the MRC/EORTC GU GROUP. [Clinical Trials] **BL.5. NCI Canada CTG Principal Investigator – Canada.**

1985 Jul - 1993 Jun **Co-Principal Investigator.** Preoperative (or radical) radiotherapy with randomized addition of concurrent Cisplatin for locally advanced transitional cell carcinoma of the bladder. National Cancer Institute of Canada (NCIC). [Clinical Trials] **BL.3.**


**NON-PEER-REVIEWED GRANTS**

**FUNDING**


2010 Jul - 2011 Jun **Co-Principal Investigator.** Testicular Cancer Survivorship Needs. Princess Margaret Hospital Foundation (The). Collaborator(s): Wiljer D, Bender J, Gospodarowicz M. 5,000. [Grants]


D. Publications

1. PEER-REVIEVED PUBLICATIONS

Journal Articles


Editorials

Clinical Trial, Journal Articles

Comment, Journal Articles

Historical Article, Journal Articles

Journal Articles, Randomized Controlled Trial


Journal Articles, Review


Review

2. NON-PEER-REVIEWS PUBLICATIONS

Books Edited


Book Chapters


Mary GOSPODAROWICZ


**Editorials**


**Letters to Editor**


**E. Presentations and Special Lectures**

1. **INTERNATIONAL**

**Invited Lectures and Presentations**

**2014**  

**2013**  
**Presenter.** Phillips Lecture: Radiotherapy as part of global challenge. UCSF Radiation Oncology Update: Cross-Platform Radiation Therapy in an Evidence-Based World. San Francisco.

**2013**  
**Presenter.** Role of radiotherapy in marginal zone lymphomas. Comprehensive Seminar on “Marginal Zone B-cell Lymphomas,” Athens Medical Center and IELSG 16th Annual Meeting. Athens, Greece.

**2013**  
**Keynote Speaker.** Global fight against cancer: The role of UICC. 20th National Congress of Cancer. Antalya, Turkey.

**2013**  
**Presenter.** Primary extranodal lymphomas. 20th National Congress of Cancer. Antalya, Turkey.

**2013**  

**2013**  
Radiotherapy remains the standard component of treatment in early stage Hodgkin Lymphoma? (debate). 12th International Conference on Malignant Lymphoma. Lugano, Switzerland.

**2013**  
**Presenter.** Cancer in the World - the Equity Imperative. Scientific Association of Swiss Radiation Oncology. Davos, Switzerland.

**2013**  
**Presenter.** Cancer in the world - Addressing the equity gap. 13th International Cancer Education Conference. Seattle. Samuel C. Harvey Memorial Lecture.
2013 Presenter. Cancer in the world and in Asia - the equity imperative. Asia Pacific Cancer Control Leaders’ Summit. Shanghai, China.


2013 Presenter. Quality assurance in radiation therapy. 9th AORTIC International Conference on Cancer in Africa. Durban, South Africa.


2012 Feb Presenter. The impact of prospective randomized trials on the management of prostate Cancer. Liverpool Hospital. Liverpool, New South Wales, Australia.


2012 Presenter. UICC Vision and Programs. 8th International Jordan Oncology Society Conference. Amman, Jordan.


2012 Presenter. UICC efforts in cancer control. 34th International Association of Cancer Registries. Cork, Ireland.


2012 Session Chair. What can we learn from the fight against AIDS, TB and malaria? World Oncology Forum. Geneva, Switzerland.

2012 Visiting Professor. Locally advanced prostate cancer - impact of clinical trials. Management of stage I/II
follicular and marginal zone lymphomas. Department of Radiation Oncology, St. Luke’s Hospital. Dublin, Ireland.


2011 Sep  Presenter. UICC – Global Cancer Control. First Symposium on Cancer Staging and prognostication in China, Hong Kong Academy of Medicine. Hong Kong.

2011 Sep  Presenter. TNM Classification – Development and Overall Perspectives. First Symposium on Cancer Staging and prognostication in China, Hong Kong Academy of Medicine. Hong Kong.


2011 Jun  Presenter. Role of the civil society in improving access to cancer care in LMIC. GTF.CCC Session, American Society of Clinical Oncology Annual Meeting. Chicago.


2010  World Cancer Day – Cancer can be prevented, too. 59th IFMSA General Assembly. Montreal.

2010  The World Cancer Declaration – A call to action from the global community. UICC World Cancer Congress. Shenzhen, China.

2010  Session Chair. Internet applications and cancer. UICC World Cancer Congress. Shenzhen, China.

2010  Session Chair. Can we make high technology radiotherapy affordable? UICC World Cancer Congress. Shenzhen, China.


2010  Radiation therapy for stage I seminoma, game on or game over? ASTRO Annual Meeting. Boston.


2010  Cancer staging and prognosis. NCRI Cancer Conference. Liverpool.


2010  Cancer staging and prognosis in the era of personalized medicine. Excellence in Oncology – Cutting Edge Findings into Clinical Practice. Athens.

2009  **Lymphoma Session Chair.** Molecular Pathology of B cell lymphomas. Highlights in Oncology, Aviano Cancer Center 25th Anniversary. Pordenone, Italy.


2008  Radiotherapy or chemotherapy for stage II A/B seminoma. European Society for Medical Oncology.

2008  Communicating risk management of late effects. ASCO Annual Meeting. Chicago.


2008  Masters in radiation oncology. ASTRO Annual Meeting.

2008  The role of radiotherapy in localized MZL. Danish Lymphoma Group 11th Plenary Meeting. Copenhagen.


2007  **Visiting Professor.** Prognosis and Prognostic Factors in Cancer. Annual Hospital Oration, Tata Memorial Hospital. India.

2007  **Visiting Professor.** Role of radiation therapy in non-Hodgkin lymphoma. Department of Radiation
Oncology, University of Florida. Gainesville.

2007  
International Extranodal Lymphoma Group – 10 years of progress. IELSG Annual Scientific Meeting. Lugano.

2007  
Therapy for Stage I Seminoma. ASCO Annual Meeting. Chicago.

2007  
**Discussant.** GU Cancer Session, ASCO Annual Meeting. Chicago.

2007  
**Session Chair.** Treatment of diffuse of large B-cell lymphoma. Workshop on Aggressive Lymphomas. Germany.

2007  
TNM and Staging. ECCO Annual Meeting. Barcelona.

2007  

2007  

2007  
Bladder Cancer, Session VIII. ASCO GU Cancers Symposium.

2006  
Bone DLBCL: The IELSG 14 study. IELSG Meeting. Lugano. Presenter(s): **M. Gospodarowicz, D. Christie.**

2006  
RT of gastric MALToma: The IELSG 22 study. IELSG Meeting. Lugano. Presenter(s): **M. Gospodarowicz, A. Wirth.**

2006  
This house believes that TNM is a waste of time (debate). 5th European Breast Cancer Conference. Nice, French Guiana.

2006  

2006  
**Co-Chair.** Clinical Science symposium – Survivorship issues in genitourinary malignancy. ASCO/MASCC, American Society of Clinical Oncology. Atlanta, Georgia. (with Larry Einhorn).

2006  
How to interpret and communicate the risks of therapy related complications. American Society of Clinical Oncology. Atlanta, Georgia.

2006  

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2005  
**Visiting Professor.** Prognosis and Prognostic Factors in Cancer. Department of Radiation Oncology, MD Anderson Cancer Center.

2005  

2005  
**Visiting Professor.** Radiation Therapy in Follicular and MALT Lymphoma. Department of Radiation Oncology, MD Anderson Cancer Center.

2005  
Gastric MALT Lymphoma: A Retrospective Study. IELSG Annual Meeting. Ascona.
2005  Radiation Medicine Program at Princess Margaret Hospital. Elekta Synergy Meeting. Wurzburg, Germany.


2004  Visiting Professor. The role of radiotherapy in lymphomas. Wisconsin Society of Radiation Oncologists.


2003 Localized mucosa-associated lymphoid tissue (MALT) lymphoma treated with radiation therapy has excellent clinical outcome. ECCO12 – The European Cancer Conference. Copenhagen.
2002 Primary Testis Lymphoma. Meet the Professor Session. VIII International Lymphoma Conference. Lugano.
2002 Role of integrated volumetric imaging and delivery. Elekta Symposium at 44th ASTRO Annual Meeting.


2001 From Denoix to Neural Networks. TNM and Prognostic Factors in Cancer. 3rd UICC Cancer Management Meeting. Singapore.


2001 Prostate cancer and Radiation therapy. 96th Annual Meeting of AUA, Takeda Evening Seminar for Japanese Urologists. Prostate Cancer - What is the most optimal treatment modality?.


2001 Extranodal Lymphoma, Refresher Course. 43rd ASTRO Annual Meeting. San Francisco.

2001 Extranodal Lymphomas. Annual Conference on Hematological Malignancies. Scripps Cancer Center. La Jolla, California.


2000 The Role of Radiotherapy in Bladder Cancer. 3rd International Galician Urological Meeting. Krakow, Poland.


2000 Biochemical Relapse Following Radical Prostatectomy and Radiation Therapy (Round Table Discussion). 3rd International Galician Urological Meeting. Krakow, Poland.


1999 GU Malignancies other than prostate cancer. ASTRO Spring Refresher Course Videoconference. New Orleans.


1999 Prostate Cancer – Visiting Speaker. 29th Congress of Polish Urological Association. Warsaw, Poland.


1999 Meet the Professor Session, Primary Extranodal Lymphomas. American Society of Clinical Oncology.

1999 Radiation therapy in localized follicular lymphoma. Toronto International Lymphoma Conference.


1999 Prospective randomized trials in locally advanced prostate cancer. ASTRO – Leader of the Panel on Locally Advanced Prostate Cancer – didactic and case based discussion.

1999 Educational Session – Germ Cell Tumors, Staging and Prognosis in Germ Cell Testis Tumors. American
Society of Clinical Oncology.

1998  
**New Therapies in Prostate cancer Session. American Society of Clinical Oncology.** (invited comment).

1998  
**Gastric MALT lymphoma. Toronto International Lymphoma Conference.**

1998  
**Hodgkin’s disease – current issues in localized disease. Toronto International Lymphoma Conference.**

1998  

1998  
**Visiting Professor.** Role of radiation therapy in REAL classification based management of early stage lymphomas. Bowman Gray School of Medicine, Winston Salem, North Carolina.

1997  
**Visiting Professor.** Definitive radiation therapy in bladder cancer. MD Anderson Cancer Center. Houston, Texas.

1997  
**Visiting Professor.** Evolution of the prognostic factor based management of clinical stage I and II HD. MD Anderson Cancer Center. Houston, Texas.

1997  

1997  

1997  
**Keynote Speaker.** Palliative radiotherapy in prostate and bladder cancer. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.

1997  
**Keynote Speaker.** The value of prognostic factors in cancer. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.

1997  
**Keynote Speaker.** Role of definitive radiation therapy in the management of locally advanced bladder cancer. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.

1997  
**Keynote Speaker.** Optimum management of early stage testicular tumours. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.

1997  
**Keynote Speaker.** Primary extranodal lymphoma. Lymphoma Categorical Course. 39th Annual Meeting of American Society of Therapeutic Radiology and Oncology. Orlando.

1997  
**Keynote Speaker.** Future clinical trials in prostate cancer in Canada. MRC UK GU Working Group. York, United Kingdom.

1997  
**Keynote Speaker.** Definitive radiation therapy and chemotherapy in advanced bladder cancer. Heinrich Warner Stiftung, VI Symposium. Hamburg, Germany.

1997  
**Keynote Speaker.** Future directions in radiation therapy research in bladder cancer. Fifth International Consensus Conference on Bladder Cancer. Tokyo, Japan.

1997  
**Keynote Speaker.** Optimum management of early stage seminoma. 4th International Testis Cancer Conference. Leeds, United Kingdom.

1997  
**Keynote Speaker.** Combined modality approach in the management of locally advanced prostate cancer. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.

1996  
**Keynote Speaker.** Trends in the management of testicular tumours. NCI Epidemiology Branch. Bethesda, Maryland.

1996  
**Keynote Speaker.** Prognostic factor based management of stage I and II Hodgkin’s disease. Nebraska Lymphoma Study Group, Department of Hematology/Oncology, University of Nebraska. Omaha, Nebraska.

1996  


1996  Radical prostatectomy vs. radiation therapy in early stage prostate cancer. 2nd Urological Meeting of the Americas. Mexico.


1996  Controversial topics in Urologic Neoplasia. 2nd Urological Meeting of the Americas. Mexico.


1996  **Visiting Professor.** Role of radiation therapy in non-Hodgkin’s lymphoma. University of Lausanne, Department of Radiation Oncology. Switzerland.

1996  **Visiting Professor.** Bladder conservation with radiation therapy. University of Lausanne, Department of Radiation Oncology. Switzerland.

1995  **Visiting Professor.** Combined modality approach to bladder cancer. University of Zurich, Switzerland. Department of Radiation Oncology.

1995  **Visiting Professor.** Role of radiation therapy in localized low grade lymphoma. University of Zurich, Switzerland. Department of Radiation Oncology.

1995  **Visiting Professor.** Management of primary extranodal lymphomas. University of Iowa. Iowa City.


1995  **Visiting Professor.** Management of stage I seminoma. University of Zurich, Switzerland. Department of Radiation Oncology.


1995  **Guest Speaker.** Therapeutic options in the management of early stage seminoma. 46th Annual Meeting of the Royal Australasian College of Radiologists. Melbourne, Australia.


1995  **Guest Speaker.** Organ sparing versus cure in locally advanced bladder cancer. 46th Annual Meeting of the Royal Australasian College of Radiologists. Melbourne, Australia.


1994  Treatment of invasive bladder cancer - radiation therapy. V Curso Portuguese de Oncologia Urologica, European School of Oncology, Portugal.


1994  Management of locally advanced prostate cancer - the role of RT and post-op RT. V Curso Portuguese de Oncologia Urologica, European School of Oncology. Portugal.


1993  The overview of treatment of primary gastrointestinal lymphoma. 5th International Conference on Malignant Lymphoma. Workshop on Gastrointestinal Lymphoma. Lugano.


1991  Clinical definition of the high risk patient. Mini-symposium: Controversies in the management of high risk

1991
TNM Staging Classification for carcinoma of the prostate. First International Conference of the Dutch Urological Association / Progress and Controversies in Urological Oncology Meeting. Rotterdam. (Panel discussion).

1991

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1990
Visiting Professor. Management of localized lymphomas. University of Cincinnati College of Medicine, Department of Radiation Oncology. Cincinnati, Ohio.

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1986
Role of radiation therapy and adjuvants in the treatment of infiltrating bladder cancer. 38th Annual meeting of the Northeastern Section of the American Urological Association. Toronto.

1984

1981
Treatment of malignant lymphomas. XV International Congress of Radiology, Scientific Program Section
Mary GOSPODAROWICZ

Il. Brussels, Belgium.


1979  Treatment of cancer of the ovary - Princess Margaret Hospital Study. Stanford University.

1979  Malignant lymphomas - Princess Margaret Hospital experience. Stanford University.

Presented Abstracts


2008  The continuous review process of the TNM classification. UICC World Cancer Congress. Groome PA, Gospodarowicz MK, Sobin LH, Greene FL, Keller S.


1996 Stage I testicular seminoma managed by surveillance alone: Is flow cytometric DNA analysis of predictive value for relapse? American and Canadian Academy of Pathology. Banerjee D, Warde PR,


1994 Late relapse in patients on surveillance for stage I testicular seminoma. 3rd International Germ Cell Tumour Conference.


2. NATIONAL

Invited Lectures and Presentations


2011 Jan  Understanding the long term risks of cancer and its treatment. Foster the Partnership: Canadian GU Cancers Survivorship Workshop. King City.


1990  Role of radiation therapy in management of non-Hodgkin’s Lymphoma. Annual meeting of the Royal
Mary GOSPODAROWICZ

College of Physicians and Surgeons of Canada. Toronto. Joint symposium of the Canadian Hematology Society, Canadian Oncology Society, Canadian Association of Medical Oncology and Canadian Association of Radiation Oncology.


1985 The role of RT in the management of localized lymphomas. Royal Victoria Hospital, McGill University. Montreal.


Other Lectures and Presentations


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


1995 Chemoradiation in the management of locally advanced bladder cancer. Multidisciplinary Oncology Rounds, Hamilton Regional Cancer Centre.


Other Lectures and Presentations

Mary GOSPODAROWICZ

(Presentation to Patients/Public).

2005 May  
SUSO Meeting. Intercontinental Hotel. (Presentation to Patients/Public).

2002  

1998  

1998  
Clinical trials in prostate cancer. US TOO Prostate Support Group, Brampton, Ontario chapter. (Presentation to Patients/Public).

1998  

1998  

1997  
Prostate Cancer Research at the Princess Margaret Hospital. US TOO, Brampton Chapter. Brampton, Ontario. (Presentation to Patients/Public).

1997  

1996  
Combined hormone and radiation therapy in the management of prostate cancer. Peel and Toronto Urology Community Group. Toronto. (Presentation to Patients/Public).

1996  
Understanding lymphoma; a general overview. Lymphoma Foundation Family Information Forum. Toronto. (Presentation to Patients/Public).

4. LOCAL

Invited Lectures and Presentations


2008  
The current role of radiation therapy in the treatment of lymphoma. PMH 50th Anniversary. The 8th Princess Margaret Hospital Conference. Toronto.

2003  

2002  

1997  

1997  
Radical prostatectomy vs. radiation therapy in early stage prostate cancer. Controversies in Urologic Oncology. Toronto.

1995  
Observation in early stage prostate cancer. Prostate Cancer Workshop, University of Toronto.

1994  
Chemo-radiotherapy in bladder cancer. Clinical Aspects of Radiation Biology, University of Toronto Department of Radiation Oncology CME Course. Toronto. (Continuing Education).

1994  

1993  
Mary GOSPODAROWICZ

1992    Results of involved field radiotherapy in clinical stage I and II low grade lymphoma. Radiation Oncology 25 years later. University of Toronto - Department of Radiation Oncology, Alumni Day. Toronto.


Other Lectures and Presentations

2006 Dec Accelerating transformation of cancer research and practice at PMH. PMH Foundation/TD Waterhouse Evening. (Presentation to Patients/Public).
Curriculum Vitae

Kathy Han

A. Date Curriculum Vitae is Prepared: 2016 August 9

B. Biographical Information

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Department of Radiation Oncology
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone: (416) 946-2919
Fax: (416) 946-6561
Email: Kathy.Han@rmpuhn.ca

1. EDUCATION

Degrees
2012 Jul - 2014 Mar MSc, Epidemiology, Harvard School of Public Health, Boston, Massachusetts, United States
2002 Aug - 2006 May MD, Medicine, Faculty of, McGill University, Montreal, Quebec, Canada
1998 Sep - 2002 Apr BSc, Immunology, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
2012 Jul 1 - 2012 Dec 31 Fellow, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2006 Jul 1 - 2012 Jun 30 Resident, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2012 Jun - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2008 Jan - present Diplomate, US Medical Licensing Exam, United States
2007 Nov - present Licentiate (LMCC), Medical Council of Canada
2006 Jul - present College of Physicians and Surgeons of Ontario, License / Membership #: 84467
2012 Jan Certificate in Protecting Human Research Participants, National Institutes of Health
2008 Sep Certificate in Principles of Clinical Research Practice, University Health Network

2. EMPLOYMENT

Current Appointments
2013 Jul 1 - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Canada
2013 Jan 1 - present Staff Physician, Radiation Medicine Program, Princess Margaret Cancer Centre, University Health Network.
2016 Mar 1 - 2021 Feb 28 Associate Member, Institute of Medical Science, University of Toronto, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2011 Sep  
**Resident Training Fellowship, Radiation Therapy Oncology Group (RTOG), American College of Radiology.** (Distinction)  
Selected for a funded 5-day fellowship to attend RTOG study chair education and training session at RTOG headquarters, and to finalize research focus.

1998 Sep - 2002 May  
**Honour List, Golden Key International Honour Society.** (Distinction)  
Recognized as the top 15% of the students.

NATIONAL

Received

2013 Nov  
**Cancer Research Development Program, Canadian Cancer Research Conference, Canadian Institutes for Health Research (CIHR) and Canadian Cancer Society Research Institute (CCSRI).** (Distinction)  
Funded to attend training program for new principal investigators.

2013 Aug  
**New Investigator Clinical Trials Course, National Cancer Institute of Canada/Clinical Trials Group.** (Distinction)  
Chosen to learn the essentials of clinical trial conduct in the Canadian research environment.

2013 May  
**Junior Investigator Travel Grant Award, Canadian Cancer Society.** (Research Award)  
Selected to gain knowledge and understanding of peer review process for research grants.

2012 Jul - 2012 Dec  
**CARO-Elekta Fellowship Award, Canadian Association of Radiation Oncologists (CARO)-Elekta, Canada.** (Research Award)  
Won in competition with residents across Canada for fellowship funding. Total Amount: 37,500 CAD

2002 Jun  
**Student Research Award, Canadian Institutes of Health Research.** (Research Award)  
Awarded for research interest and academic excellence. Total Amount: 2,700

PROVINCIAL / REGIONAL

Received

2016 Jan  
**Ontario Association of Radiation Oncologists (OARO) Clinician Scientist Award, OARO.** (Research Award)

2002 Jun  
**Ontario Graduate Scholarship (OGS), Ontario Ministry of Training, Colleges, and Universities.** (Distinction)  
Awarded based on academic excellence. (Declined). Total Amount: 5,000

1998 Jun  
**Governor General’s Academic Medal, Governor General of Canada.** (Distinction)  
Presented to the student graduating with the highest average from secondary school.

LOCAL

Received

2014 Nov  
**Outstanding Research Potential Award, University of Toronto Department of Radiation Oncology.** (Distinction)

2012 Jul - 2012 Dec  
**Excellence in Radiation Research for the 21st Century (EIRR21) Research Training Award, Canadian Institutes of Health Research/Terry Fox Foundation.** (Research Award)
Chosen for award based on the proposed research project and previous accomplishments.
Total Amount: 15,000

2006 May
McGill Alumni Society Convocation Prize, McGill University Faculty of Medicine. (Distinction)
Presented upon graduation to a distinguished medical student for excellence and high academic standing. Total Amount: 150

2004 Jan
J.W. McConnell Award, McGill University Faculty of Medicine. (Distinction)
Awarded for ranking in top 5% of the class. Total Amount: 1,500

2003 Aug
Samuel Rosenfield Prize, McGill University Faculty of Medicine. (Distinction)
Awarded to the student with highest standing in Host Defense unit, first year medical school. Total Amount: 150

2002 Aug - 2006 May
Dean’s Honour List, McGill University Faculty of Medicine. (Distinction)
Awarded to the top 10% of the graduating medical class.

2002 May - 2002 Aug
Summer Research Studentship Award, Sunnybrook Health Sciences Centre. (Distinction)
Awarded for research interest and academic excellence. Total Amount: 4,200

2002 May - 2002 Aug
Summer Undergraduate Scholarship, University of Toronto. (Distinction)
Awarded to the top students in the Department Medical Biophysics research program. Total Amount: 1,500

2002 May
Provost’s Scholar, University of Toronto. (Distinction)
Presented to the top 27 graduating students from Trinity College. Total Amount: 200

2001 May - 2001 Aug
Summer Undergraduate Scholarship, University of Toronto. (Distinction)
Awarded to the top students in the Department Medical Biophysics research program. Total Amount: 1,500

2001 May
Chancellor’s Scholarship, University of Toronto. (Distinction)
Granted for strong academic achievement. Total Amount: 500

1998 Sep - 2002 Apr
Dean’s Honour List, University of Toronto. (Distinction)
Awarded for high academic standing.

Teaching and Education Awards

LOCAL

Received

2016 Jun
Best RMP Rounds for 2015/2016, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Center. (Multilevel Education)
Awarded for presentation: “Personalizing Cervix Cancer Treatment: Seeing is Believing.”.

Student/Trainee Awards

INTERNATIONAL

Received

2014 Sep
RSNA Trainee Research Prize, Resident Category, Supervisor, Awardee Name: Dr. Adam Gladwish, Radiological Society of North America (RSNA)
Chosen for award based on research project titled “Does the Apparent Diffusion Coefficient Value Predict Disease Recurrence in Patients with Locally Advanced Cervical Cancer Treated with Radical Chemoradiation?”. Total Amount: 1,000

2014 May
American Society for Radiation Oncology (ASTRO) Resident Digital Poster Discussion Award, Physics Category, Supervisor, Awardee Name: Dr. Adam Gladwish. ASTRO Annual Meeting
Selected as the highest-rated abstract submitted by a resident and accepted as a Digital Poster Discussion for the work titled: “Technical Factors affecting Apparent Diffusion
Coefficient in Women with Locally Advanced Cervical Cancer”.

PROVINCIAL / REGIONAL
Received

2013 Sep - 2014 Jun Excellence in Radiation Research for the 21st Century (EIRR21) Resident Research Training Award, Awardee Name: Dr. Adam Gladwish. Canadian Institutes for Health Research (CIHR)-Terry Fox Foundation
Chosen for award based on the proposed research project titled “Diffusion weighted imaging as a non-invasive biomarker for outcome in locally advanced cervical cancer”.

LOCAL
Received

2014 Jun Chair’s Award for Academic Excellence in Research, Awardee Name: Dr. Adam Gladwish. University of Toronto Department of Radiation Oncology
Chosen as the best oral presentation delivered by a resident at the UTDRO Research Day for his work titled “Does the apparent diffusion coefficient value predict disease recurrence in patients with locally advanced cervical cancer treated with radical chemoradiation?”.

2014 Jun W.J. Simpson Award, Supervisor, Awardee Name: Dr. Adam Gladwish. University of Toronto Department of Radiation Oncology (UTDRO)
Chosen as the best oral presentation delivered by a resident at the UTDRO Research Day for his work titled “Does the apparent diffusion coefficient value predict disease recurrence in patients with locally advanced cervical cancer treated with radical chemoradiation?”.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2013 Dec 1 - present Member, American Society of Clinical Oncology
2011 Dec 1 - present Member, Radiological Society of North America
2008 Feb 1 - present Member, Canadian Association of Radiation Oncology
2008 Jan 1 - present Member, American Society for Radiation Oncology

Administrative Activities

INTERNATIONAL

RSNA Headquarters, Oak Brook

NATIONAL

National Cancer Institute of Canada Clinical Trials Group
2014 May - present Member, Endometrial Cancer Working Group

PROVINCIAL / REGIONAL

Cancer Care Ontario
2014 Sep - present Member, Cervical Cancer Pathway Working Group
LOCAL

Princess Margaret Cancer Centre
2015 Feb - present Organizer, Radiation Medicine Program Research Rounds
2014 May - present Member, Protocol Review Committee, Radiation Medicine Program

Techna Institute
2014 May - present Liaison, Gynecology Site Group, Cancer Informatics Platform

University of Toronto
2015 Feb - 2015 Mar Reviewer, Faculty of Medicine Admissions
2014 Dec Examiner, Department of Radiation Oncology PGY5 Resident Planning Exam
2013 Nov - 2013 Dec Reviewer, Canadian Resident Matching Service (CaRMS), Department of Radiation Oncology
2011 - 2012 PGY-5 Resident Representative, Evaluation Subcommittee, Postgraduate Medical Education (PGME), Department of Radiation Oncology
2006 - 2007 PGY-1 Resident Representative, Postgraduate Medical Education (PGME) Committee, Department of Radiation Oncology

Peer Review Activities

EDITORIAL BOARDS

Editor
2002 Sep 1 - 2003 Jun 30 McGill University, McGill Journal of Medicine

Editor-in-Chief
2003 Jul 1 - 2004 Jun 30 McGill University, McGill Journal of Medicine

GRANT REVIEWS

Internal Grant Reviewer
2016 Jan 20 RMP Regenerative Medicine Grants Competition, Number of Reviews: 1

MANUSCRIPT REVIEWS

Reviewer
2016 May - present Oncotarget, Number of Reviews: 1
2016 Jan - present Radiotherapy and Oncology, Number of Reviews: 1
2015 Jul - present Journal of Global Oncology, Number of Reviews: 1
2012 - present International Journal of Radiation Oncology*Biology*Physics, Number of Reviews: 8
2012 - present Technology in Cancer Research and Treatment, Number of Reviews: 1
2011 Brachytherapy, Number of Reviews: 2

ABSTRACT REVIEWS

Reviewer
2014 - present Canadian Association of Radiation Oncology Annual Meeting
C. Academic Profile

1. RESEARCH STATEMENTS

Research Statements.
My research primarily focuses on improving the therapeutic ratio and better individualizing radiation treatment through the development and application of molecular imaging and biology-based approaches:
1) Improving geometric performance and clinical application of diffusion-weighted imaging in radiation treatment planning by using segmented echo-planar imaging (vs. standard single-shot echo-planar imaging);
2) Refining target delineation in MR-guided cervix brachytherapy by using multiparametric MR (T2-weighted, dynamic contrast-enhanced, and diffusion-weighted sequences) and FDG-PET imaging;
3) Investigating the potential of metformin to decrease tumor hypoxia and improve radiation response in locally advanced cervical cancer in a hypoxia-directed trial using fluoroazomycin arabinoside (FAZA)-PET imaging; and
4) Investigating plasma HPV DNA as a biomarker in locally advanced cervical cancer.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

To improve patient outcome by reducing tumor hypoxia in patients with locally advanced cervix cancer.

2014 Nov - 2016 Oct  Co-Principal Investigator. FDG-PET and Circulating HPV in Patients with Cervical Cancer Treated with Definitive Chemoradiation. University of Toronto Department of Radiation Oncology Collaborative Research Seed Grant. PI: Han K, Bratman S, Leung E. 50,000 CAD. [Grants]
Goal: To determine if plasma HPV DNA predates clinical recurrence and/or improves the accuracy of metabolic response on FDG-PET scan at 3 months post completion of radical chemoradiation in patients with locally advanced cervical cancer.

Goal: To improve patient outcome by targeting or exploiting hypoxic cell phenotypes in tumors. The program consists of 5 projects: novel mechanistic studies to understand how
hypoxia influences protein expression relevant to metastasis (P1), identification of new therapeutic targets and development of new biologics (P2), understanding the relationship between hypoxia and genetic changes (P3), evaluating proposed new therapies in models (P4), and implementing personalized medicine approaches in active, hypoxia-directed clinical trials (P5). One of the funded P5 studies is a Phase II Metformin Trial to reduce tumor hypoxia in locally advanced cervix cancer (PI: Han, K).

2012 Jul - 2015 Jun

**Principal Investigator.** A Prospective Pilot Study of the Utility of DWI, DCE-MRI and FDG PET-CT imaging in T2W MRI-Guided Brachytherapy for Cervical Cancer. Radiological Society of North America. Research Fellow Grant. 50,000 USD. [Grants]

**Goal:** To evaluate the feasibility and utility of diffusion-weighted MRI, dynamic contrast-enhanced MRI and FDG PET imaging for target delineation in MRI-guided brachytherapy for cervical cancer.

### E. Publications

#### 1. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


**Book Chapters**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**

F. Presentations and Special Lectures

1. INTERNATIONAL

Presented and Published Abstracts


*Publication Details:*


*Publication Details:*


*Publication Details:*

2014 Sep  Predictors of breast radiation therapy plan modifications: quality assurance rounds in a large cancer center. ASTRO Annual Meeting. San Francisco, California, United States.

*Publication Details:*


*Publication Details:*

2014 Sep  Technical factors affecting apparent diffusion coefficient in women with locally advanced cervical cancer. ASTRO Annual Meeting. San Francisco, California, United States. (Trainee Presentation)

*Publication Details:*

2014 Sep  **Presenter.** The relationship between circulating CD34+ cells with mental fatigue and insomnia during

Publication Details:

2014 Sep

Publication Details:

2013 Oct

Publication Details:

2012 May

Publication Details:

2011 Oct

Publication Details:

2010 Oct
Presenter. IMRT and concurrent chemotherapy for anal and perianal cancer: the Princess Margaret Hospital Experience. ASTRO Annual Meeting. San Diego, California, United States. (Poster Presentation).

Publication Details:

2009 Nov

Publication Details:

2004 May
Presenter. Preoperative alpha-fetoprotein slope is predictive of hepatocellular carcinoma recurrence after

**Publication Details:**

2. NATIONAL

Invited Lectures and Presentations

2016 Apr 4 **Presenter.** Canadian experience with implementation of MRI guided brachytherapy. ESTRO-CARO Teaching Course on Image-Guided cervic radiotherapy - with a special focus on adaptive brachytherapy. ESTRO-CARO. Toronto, Ontario, Canada. Presenter(s): **Han K.**

Presented and Published Abstracts


**Publication Details:**


**Publication Details:**

2015 Sep **Presenter.** Metformin use is associated with lower cervical cancer-specific mortality (Poster Discussion). CARO Annual Meeting. Kelowna, British Columbia, Canada.

**Publication Details:**
Han K, Pintilie M, Lipscombe L, Lega I, Milosevic M, Fyles A. Metformin use is associated with lower cervical cancer-specific mortality (Poster Discussion). Radiother Oncol. 2015 Sep 1;116(1):S54. **Principal Author.**


**Publication Details:**


**Publication Details:**

2014 Aug
Predictors of breast radiotherapy plan modifications: quality assurance rounds in a large cancer centre. CARO Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

2014 Aug
Neutrophils modulate response to radiation and chemotherapy in locally advanced cervical cancer. CARO Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

2014 Aug
The relationship between circulating CD34+ cells with mental fatigue and insomnia during adjuvant breast cancer radiation therapy (RT). CARO Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

2014 Aug
Vaginal dose and patient reported sexual adjustment with MR-guided brachytherapy for cervical cancer. CARO Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

2013 Sep
**Presenter.** Phase I/II study of palliative radiation and sorafenib for patients with metastatic renal cell carcinoma and painful bone metastases. CARO Annual Meeting. Montreal, Quebec, Canada. (Oral Presentation).

**Publication Details:**

2013 Sep

**Publication Details:**

2012 Sep
Adjuvant radiotherapy improves local control and survival in patients with uterine leiomyosarcoma. CARO Annual Meeting. Ottawa, Ontario, Canada.

**Publication Details:**

2010 Sep Presenter. Intensity-modulated radiotherapy (IMRT) and concurrent chemotherapy for anal and perianal cancer: the Princess Margaret Hospital Experience. CARO Annual Meeting. Vancouver, British Columbia, Canada. (Oral Presentation).

Publication Details:

2009 Sep Presenter. Comparison of helical, slow and average CT for radiation treatment planning and normal tissue contouring in stereotactic body radiotherapy of lung tumours. CARO Annual Meeting. Quebec City, Quebec, Canada. (Poster presentation).

Publication Details:
Han K, Cheung P, Basran P. Comparison of helical, slow and average CT for radiation treatment planning and normal tissue contouring in stereotactic body radiotherapy of lung tumours. Radiother Oncol. 2009 Sep;92(Suppl 2):S5-6. Principal Author.


Publication Details:

2009 Sep Presenter. Intensity-modulated radiotherapy (IMRT) and concurrent chemotherapy for anal and perianal cancer: preliminary report of acute toxicity. CARO Annual Meeting. Quebec City, Quebec, Canada. (Poster Presentation).

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Presented Abstracts


2009 May Presenter. Comparison of helical, slow and average CT for radiation treatment planning and normal
tissue contouring in stereotactic body radiotherapy of lung tumours. Department of Radiation Oncology Research Day, University of Toronto. Toronto. (Poster presentation).

2009 May Presenter. Intensity-modulated radiotherapy (IMRT) and concurrent chemotherapy (ChT) for anal and perianal cancer: preliminary report of acute toxicity. Department of Radiation Oncology Research Day, University of Toronto. Toronto. (Poster presentation).


Departmental Rounds

2016 Apr 18 Presenter. MRI guided adaptive brachytherapy for cervical cancer. Gynecological Site group Rounds. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Han K.

2015 Dec 10 Presenter. Personalizing Cervix Cancer Treatment: Seeing is Believing. RMP Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Han K.


2013 Apr 4 Presenter. Improving Cervix Cancer Outcomes: From Technology to Pharmacology. RMP Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Han K and Fyles A.

Other Speaking Engagements


2015 Sep 28 Invited Speaker. Ovarian Cancer Peer Support Network GTA. Toronto, Ontario, Canada. Presenter(s): Han K.

G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2016 Question writer for breast cancer, Radiation Oncology written exam, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, PGY 2/3

2016 UME curriculum renewal, week 5 breast cancer case development, Postgraduate MD,
Faculty of Medicine, Dept of Radiation Oncology

Provided details on radiation treatment for breast cancer.
Enriched learning for medical students.

2015 Question writer for gynecological cancer, Radiation Oncology written exam, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, PGY 2/3

2014 Question writer for gynecological cancer contouring case, Radiation Oncology planning exam, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, PGY 4/5

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD


Postgraduate MD


Clinical Research Fellow (MD)

2015 Feb - present  Primary Supervisor. Dr. Reem Ujaimi. Supervisee Position: Radiation oncology fellow, Supervisee Institution: Princess Margaret Cancer Centre. Correlation between intermediate dosimetric parameters and late rectal toxicity in magnetic resonance image-guided cervix cancer brachytherapy, Non-thesis Project. Supervisor(s): Han K.

2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2016 Mar - present  MSc. Dr. Magali Lecavalier-Borsum, Medical Science. Improving the effectiveness of radiotherapy in cervical cancer: Targeting the CXCL12 pathway and myeloid cells to improve tumor control and reduce metastases. Supervisor(s): Dr. Michael Milosevic.

Clinical Internship Supervisor

CURRICULUM VITAE

CHARLES ROBERT RUSSELL HAYTER

15 Maitland Place
Toronto, Ontario, Canada M4Y 2X3
Tel: 647-449-7476
E-mail address: chayter@rogers.com

Date of Birth: April 17th, 1952
Citizenship: Canadian and British

Updated April 14, 2016

EDUCATION

MD Queen's University, Kingston, Canada 1984
MA Drama, University of Calgary, Canada 1976
BA (Hons) English and Drama, Queen's University 1974

SPECIALIST QUALIFICATIONS

1988 FRCPC Radiation Oncology

MEDICAL LICENSES

1985 Licentiate of Medical Council of Canada (LMCC #59973)
1985 Province of Ontario General Medical License (Licence 54415)
1989 Province of New Brunswick Medical License

CURRENT APPOINTMENT

Since 2007 Radiation Oncologist
Peel Regional Cancer Centre
Credit Valley Hospital, Ontario
Mississauga, Ontario
PREVIOUS APPOINTMENTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2007</td>
<td>Radiation Oncologist</td>
<td>Grand River Cancer Centre, Kitchener, Ontario</td>
</tr>
<tr>
<td>2005-2006</td>
<td>Palliative Care Physician</td>
<td>Temmy Letner Centre for Palliative Care Mount Sinai Hospital, Toronto</td>
</tr>
<tr>
<td>1999-2005</td>
<td>Associate Professor</td>
<td>Department of Radiation Oncology University of Toronto</td>
</tr>
<tr>
<td>1999-2005</td>
<td>Radiation Oncologist</td>
<td>Toronto-Sunnybrook Regional Cancer Centre Toronto, Ontario</td>
</tr>
<tr>
<td>1997-1999</td>
<td>Associate Professor</td>
<td>Department of Oncology Queen’s University</td>
</tr>
<tr>
<td>1991-1999</td>
<td>Radiation Oncologist</td>
<td>Kingston Regional Cancer Centre Kingston, Ontario</td>
</tr>
<tr>
<td>1991-1997</td>
<td>Assistant Professor</td>
<td>Department of Oncology Queen's University, Kingston, Ontario</td>
</tr>
<tr>
<td>1989-1991</td>
<td>Radiation Oncologist</td>
<td>Saint John Regional Hospital Saint John, New Brunswick</td>
</tr>
<tr>
<td>1989-1991</td>
<td>Lecturer</td>
<td>Department of Radiation Oncology Dalhousie University, Halifax, Nova Scotia</td>
</tr>
<tr>
<td>1989</td>
<td>Honorary Senior Registrar</td>
<td>Department of Radiotherapy and Oncology Royal Marsden Hospital, London, U.K.</td>
</tr>
<tr>
<td>1985-1988</td>
<td>Resident</td>
<td>Department of Radiation Oncology Queen's University</td>
</tr>
</tbody>
</table>

Including two months of training in paediatric radiotherapy at the Cancer Control Agency of
1984 - 1985  Intern  Department of Medicine  Queen's University  
One year of speciality internship training in internal medicine

1977 - 1979  Assistant Professor  Department of Drama  
Queen’s University

AWARDS AND DISTINCTIONS

Medical

2014  Gordon Richards Lectureship,  
Canadian Association for Radiation Oncology

2001  John B. Neilson Award  
Associated Medical Services, Inc.

(The Award shall be offered to a Canadian (not a professional medical historian) who has  
made a significant continuing, long-standing contribution to the history of health care in  
Canada. It will be made on the basis of contributions of high quality to the discipline, in the  
form of noteworthy historical publications, teaching, research, and service to the community  
or other significant endeavours)

1988  McEachern Award  
Canadian Cancer Society

1984  Neil Currie Polson Memorial Prize

1982  Alice Waddington Scholarship in Psychosocial Aspects of Medicine

1982  Ivan Smith Summer Studentship  
Ontario Cancer Foundation, Kingston Clinic

1981  Summer Studentship  
Department of Medicine (Neurology)  
Queen's University
1981  Daniel McTavish Daniel Baker Scholarship

1980  Roberta McCullough Entrance Scholarship

**Non-Medical**

1975  Province of Alberta Graduate Scholarship

1974  Queen's University Medal in Drama

1972  Bogart Prize in Greek

1971  McIver Scholarship in English

1971  W. Near Prize in Classics

1970  Queen's University Entrance Scholarship

1970  Governor-General's Medal (high school graduation)

**MEMBERSHIPS AND PROFESSIONAL ACTIVITIES**

Canadian Association of Radiation Oncologists - served as Atlantic Director 1990-1991
American Society for Therapeutic Radiology and Oncology
Canadian Society for the History of Medicine
American Association for the History of Medicine
Canadian Society for Clinical Hypnosis – Ontario Division
Canadian Medical Association
Ontario Medical Association
Southern Ontario Gay and Lesbian Association of Doctors

**Committees Chaired:**

Undergraduate Education, Dept of Radiation Oncology, University of Toronto, 2000-2004
Archives and History Committee, Canadian Association of Radiation Oncologists, 1997-2003
Admissions Committee, Faculty of Medicine, Queen's University, 1995-1999
GU Site Group, Kingston Regional Cancer Centre, 1995-1999
50th Anniversary Committee, Kingston Regional Cancer Centre, 1996
Undergraduate Education Committee, Department of Oncology, 1991-1995
Co-chair, Oncology Inpatient Unit Management Committee, 1991-1993

**Offices held:**

- Director of Education, TSRCC Radiation Program, 2002 - 2005
- President, Toronto Medical History Club, 2003 - 4
- President, Canadian Association for the History of Medicine, 2001-2003
- Secretary, Medical Staff Committee, Kingston Regional Cancer Centre, 1992-1993
- Prosector, Department of Anatomy, Queen’s University, 1981-1982

**Committee Memberships:**

- Royal College of Physicians and Surgeons of Canada History and Heritage Advisory Committee, 2008-
- U of T Faculty of Medicine Electives Committee, 2001-2004
- American Association for the History of Medicine Annual Meeting Committee, 2001-04
- Cancer Care Ontario Working Group on Unconventional Therapies, 1998-2002
- Member of the Board, Canadian Society for the History of Medicine, 1997-2004
- Member of the Board, Museum of Health Care for Eastern Ontario, 1997-1999
- Member of the Board, John Austin Society, 1996-1999
- Chronic Pain Management Committee, Kingston General Hospital, 1996-1999
- Admissions Committee, Faculty of Medicine, 1992-1999
- Queen's University Ban Righ Board, 1992-1995
- Andrina McCullough Public Speaking Award, 1992-1993
- Canadian Association of Radiation Oncologists Ad Hoc Centenary Committee, 1993-1996
- Kingston Regional Cancer Centre Patient Care Advisory Committee
- Kingston Regional Cancer Centre Oncology Training Program Committee
- Saint John Regional Hospital Ethical Review Board, 1990-1991
- Saint John Regional Hospital CME Committee, 1990-1991

**Other Positions held:**

- Off Campus Student Advisor, Queen's University, 1991-1992
- Sessional Instructor, Division of Humanities, University of N.B. at Saint John, N.B., 1990
- Don, Men's and Co-ed Residences, Queen's University, 1979-1982
- Assistant Professor, Department of Drama, Queen's University, 1977-1979
- Graduate Teaching Assistant, Department of Drama, University of Calgary, 1974-1976
EDUCATIONAL ACTIVITIES

University of Toronto – Undergraduate

<table>
<thead>
<tr>
<th>Ongoing</th>
<th>Mentor</th>
<th>CHICES program</th>
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</thead>
<tbody>
<tr>
<td>February 2000</td>
<td>Group</td>
<td>Diversity in Medicine Program</td>
</tr>
<tr>
<td></td>
<td>Facilitator</td>
<td></td>
</tr>
</tbody>
</table>

2000 - 2002 Tutor Determinants of Community Health course (year 1)

Seminars / Lectures (Number of Hours):

- DOCH-2 Independent Learning Project (ILP) Supervisor 2001-2: Anita Chakraborty, Aiden Mokhtassi, Kelly Williams, Carol Zimbalatti, Hın Hın Ko, Andrea Molckovsky

- DOCH-2 ILP Supervisor 2002-3: Allan Lee, Connie Chiu, Michael Ordon, Garfield Miller, Chia Yee Hong

- Lecture “The History of the Medical Profession,” DOCH-1 course, September 18th, 2003; September 9, 2004

Medical Students Assigned:

Jon-Paul Voroney (4th year elective, March 18-28, 2002)
Malcolm Gibson (4th year elective, Queen’s, April 8-May 3rd 2002)
Allan Lee (2nd year observor, August 19-30, 2002)
Yongjin Wang (IMG observor, October 10, 2002)
Kevin Lai (2nd year observor, October 21, Nov 6, 15, 2002)
Susan Russell (4th year elective, Memorial, October 7-November 1st, 2002)
Alwin Cunje (4th year elective, McMaster, January 6-29, 2003)
Stacey Grossman (4th year ACE), March 13, 2003
Philip Buckler (4th Year ACE), April 15, 2003
Tim Hanna (3rd year elective, June 11 & 18, 2003)
Jane Lea (Ivan Smith student, June 9-July 25, 2003)
Mark Lomaga (3rd year elective, September 15-28, 2003)
Anand Swaminath (elective) Jan 19 – 30, 2004
Ratna Appasani (IMG observor) Apr 14 - May 14, 2004
Stephen Chin (Ivan Smith student) May 3 - Jun 11, 2004
Nisha Mistry Ivan Smith student) Jul 12-Aug 20, 2004
Perry Choi (4th year ACE) Oct 4 – 29, 2004
David Bowes (4th year elective) Nov 15 - Dec 3, 2004
Susan James (4th year Arts and Medicine elective) April 11-May 6, 2005
Caroline Liau (4th year clerk), January 10th, 2006

Herman Tang (mentor), 2015

University of Toronto- Postgraduate

Mentorship Dr Ewa Szumacher

Dr. Anoo Tamber (Palliative Medicine Fellow, Dec 2-30, 2003)
Dr. Justin Lee (Radiation Oncology Resident, July 1st-September 30, 2004)

Queen's University (1991-1997) - Undergraduate

Instructor Clinical Skills Program

Mentor Death and Dying Elective

Lecturer Phase IIA Principles of Oncology and Phase IIE Principles of Dermatology Courses

Lecturer Haematology/Oncology In-patient Unit Core Tutorial Program

Supervisor Undergraduate Oncology elective students (Ivan Smith Scholars and Clinical Clerks)

Mentor Undergraduate Mentor Programme, Faculty of Medicine

Queen’s University (1991-1997) - Postgraduate

Instructor Radiation Oncology Training Program Core Program

Instructor Radiation Therapy Training Program Tutorials

Lecturer General Surgery Residents' Core Program

Supervisor Radiation Oncology Resident Clinical Rotations
Co-Editor Cancer Therapy Handbook, Department of Oncology

**Continuing Education and Community Presentations**

October 30, 2014  
“From Fegrus to conformal: A Brief History of Radiation Therapy,”  
Oncology Grand Rounds, Grand River Regional Cancer Centre, Kitchener

January 25, 2013  
“Doctors as supporting characters in the trials of the Kamloops Kid,”  
Toronto Medical History Club

May 4, 2010  
“From the Humors to Heroics: A Brief History of Cancer Therapy,”  
Grand Rounds, London Regional Cancer Program, London, Ontario

October 8, 2009  
“Beyond HIV: Palliative Care for the GLBT Community”  
Workshop on Palliative Care & Bereavement Services for Lesbian, Gay, Bisexual & Transgender People  
Durham Hospice, Ajax, Ontario

November 28, 2008  
“The Radium Institute of Toronto”  
Toronto Medical History Club

November 8, 2008  
Prostate Cancer Update  
Man to Man Support Group  
519 Community Centre  
Toronto, Ontario

April 30, 2008  
“The History of Ontario’s Cancer System: Part 2”  
Oncology Grand Rounds,  
Credit Valley Hospital

February 20, 2008  
“Back to the Future: The History of Ontario’s Cancer System”  
Oncology Grand Rounds,  
Credit Valley Hospital,  
Mississauga, Ontario

October 27, 2007  
“Screening and Diagnosis of Prostate Cancer”  
Man to Man Prostate Cancer Support Group,  
519 Community Centre,  
Toronto, Ontario

January 13, 2007  
“Cancer Concerns for Gay and Bisexual Men”  
Canadian Cancer Society Special Forum on GLBT Cancer Issues,  
519 Community Centre  
Toronto, Ontario

June 3rd, 2006  
“Screening and Diagnosis of Prostate Cancer”  
Forum on Prostate Cancer
March 28, 2006
“Basics of Cancer,”
Wellspring Cancer Support Centre,
Toronto, Ontario

March 23, 2006
“The Medical Student Show: A History,”
John Austin Society,
Queen’s University, Kingston

October 20, 2005
“Hypnosis for Cancer pain: Myths and Realities”
Wellspring Cancer Support Centre, Toronto

May 7, 2005
“Prostate Cancer Basics”
Forum at 519 Community Centre, Toronto

May 3, 2005
“A Survey to Assess Cancer Patient’s Awareness and Interest in Hypnosis,”
PROG-O Rounds Teleconference

November 9, 2004
“Development of a Virtual Elective in Radiation Oncology,”
Progress in Pathology Rounds, S&W

September 14, 2004
Round Table Discussant: Using the Internet to optimize cancer care,
2nd international onference on Cancer on the Internet,
NYC, USA

May 16, 2003
“Country Tales from the Early Years of Radiotherapy”
TSRCC Nurses’ Week Luncheon

November 28, 2002
“Hypnosis for Symptom Control: Current Knowledge and Future Opportunities,”
Radiation Oncology Palliative Rounds, TSRCC

October 5, 2002
“A Backward Glance: the History of Radiation Therapy”
OAMRT Central Section Education Day

September 26, 2002
“Get ‘em while they’re fresh: Radiation Oncology in the Undergraduate Curriculum”
University of Toronto DRO Rounds

February 11, 2002
“Hypnosis for Cancer Pain: Myths and Realities”
8th Annual Palliative Care Awareness Day
Sunnybrook and Women’s College Health Sciences Centre

November 22, 2001
“The History of Pedoscopy”
John Austin Society
Queen’s University

November 17, 2001
Workshop presenter
“Impending Spinal Cord Compression”
8TH Annual Art and Science of Pain and Symptom Management Conference,
University of Toronto

September 22, 2001
Facilitator
Symposium on Teaching Medical History in Canadian Medical Schools
Royal College Annual Meeting
Ottawa, Ontario

June, 2001
Member of Abstract Review Panel
History of Medicine
RCPSC Annual Meeting 2001

April 20, 2001
“Medical History on CD-ROM”
Luncheon Workshop
American Association for the History of Medicine
Charleston, SC, USA

April 5, 2001
“Name That Artefact”
Museum of Health Care
Kingston, Ontario

March 14, 2001
“History of Radiation Oncology in Toronto”
Canadian Museum of Health & Medicine
Toronto General Hospital

November 28, 2000-11-24
“From Hypocrates to Hospice: A Historical Perspective on Palliative Medicine”
Radiation Oncology Palliative Rounds
T-SRCC

November 18, 2000
Interactive Palliative Workshop for RTTs
University of Toronto
“What is s/he thinking?: Approaching a palliative patient”

November 17, 2000
7th Annual Conference on Science & Art of Pain and Symptom Management
University of Toronto
“Management of Pain and Symptoms with Palliative Radiotherapy”

March 24, 2000
T-SRCC RN/MRT Conference
“History of Radiation Therapy”

February 24, 2000
“The History of Radiation Oncology: Warp and Woof”
University of Toronto DRO Rounds

May 1999
Padre Laverty Dinner, Queen’s Alumni Association
“Dr. Ronald Burr: A Tribute”

March 25, 1999
Queen’s CME, Kingston
“Palliative Radiotherapy for Family Physicians”

November 1998  Queen’s CME, Kingston
“Palliative Radiotherapy for Family Physicians”

September 1998  Friends of the History of Medicine, Kingston
“Saving Edward's Nose: the Introduction of Radium to Medicine”

May 1998  Cancer Learning and Awareness Forum, Kingston
“Hypnosis for Cancer Pain”

April 1998  Kingston Prostate Cancer Support Group, Kingston
“Update on Prostate Cancer Clinical Trials”

March 1998  Queen’s CME, Kingston
“Palliative Radiotherapy for Family Physicians”

November 29, 1997  OAMRT Eastern Conference
“Radiotherapy Case Studies”

November 28, 1997  Queen’s CME
“Palliative Radiotherapy”

May 1, 1997  Queen’s University Continuing Medical Education
“Palliative Radiotherapy”

April 1997  Canadian Cancer Society, Brockville
“Cancer: Its Treatment and Cure”

April 1997  Joint Meeting, Kingston, Ontario
John Austen Society and Medical History Society of Ottawa
Dr. Moir and the Huron Springs Sanatorium

March 1, 1997  OAMRT, Eastern Conference
“Radiotherapy Case Studies”

October 20, 1996  Informathon '96, CKWS Television Special
Kingston Regional Cancer Centre
“Prostate Cancer”

October 19, 1996  Kingston Whig-Standard Newspaper
Informathon '96 - Supplement
“History of the Kingston Regional Cancer Centre”

September 19, 1996  Kingston Historical Society
"A Soldier, A Singer and Shadowgraph: The Advent of X-Rays in Kingston"

May 22, 1996  Kingston Whig-Standard
“The First Use of X-Rays in Kingston”

May 23, 1996  Museum of Health Care for Eastern Ontario
May 8, 1996  Continuing Medical Education, Picton, Ontario  
Isaiah Tubbs Resort  
“Management of Skin Cancer”

April 26, 1996  Later Life Learning  
"History of the X-Ray: Stories of its Early Use in Kingston"

April 24, 1996  2nd Annual Volunteer Appreciation Day Tea  
Kingston Regional Cancer Centre  
"A Soldier, A Singer, and a Shadowgraph: The Arrival of X-Rays in Kingston"

April 12, 1996  School Cancer Conference  
"Cancer Therapies"

April 1, 1996  Kingston Cablenet 'Seniorscope'  
"Update on Cancer"

March 29, 1996  Palliative Care Conference  
Continuing Medical Education, Queen's University  
"Radiotherapy"

November 23, 1995  John Austin Society, Kingston  
"J.K. Robertson and the Teaching of Radiological Physics to Undergraduate Medical Students"

November 22, 1995  Canadian Cancer Society Kingston  
"Prostate Cancer"

November 18, 1995  Discovery Channel, Toronto  
"Centenary of X-rays"

November 1, 1995  Cancer '95, Kingston Regional Cancer Centre  
"From Roentgen to Rads: 100 Years of Radiation Therapy in Canada"

August 1995  CKWS Television, Kingston  
"Prostate Cancer"

June 27, 1995  OAMRT Eastern Conference  
"Rectal Cancer"

May 12, 1995  OAMRT Annual Conference, Kingston  
"Radiation Therapy"

May 10, 1995  Prostate Support Group, Kingston  
"The History of Radiation Therapy"

April 10, 1995  Canadian Cancer Society, Kingston
"Therapy of Prostate Cancer"

February 13, 1995
Cancer Presentation in Schools, Kingston
"The Side Effects of Radiotherapy"

January 9, 1995
John Austin Society, Kingston
"Soldier, Singer and a Shadowgraph - The early history of x-rays in Kingston"

Other Educational Activities

September 1998
Judge, Boyd Upper Prize, School of Medicine

December 1998
External Examiner, Daniel Malleck PhD Thesis
Department of History, Queen’s University

February 2001
Facilitator
Accountability & Reporting Workshop
Canadian Strategy for Cancer Control Consultation Conference
Ottawa, On

October 2006
Preceptor – Dr. Chris Lund (family physician)

RESEARCH ACTIVITIES

Grants Awarded:

2003
With Joyce Nyhof-Young, et al
Radiological Society of North America
WWW-based Educational Program Grant
“Development of a Virtual Elective in Radiation Oncology”
US $74,725

2003
With Joyce Nyhof-Young
Dean’s Excellence Fund
“Development of a Virtual Experience in Radiation Oncology”
$9,000 with match from PMH, SWCHSC, and DRO

2002
With Joyce Nyhof-Young et al
Dean’s Excellence Fund for Medical Education
“Concept Testing and Preliminary Development of a Virtual Elective in Radiation Oncology”
$9,000 with match from PMH, SSCHSC, and DRO

1996 - 1998 Hannah Institute Grant-in-Aid
"The Magic Element: Radium in Canada, 1909-40"
$12,500

1996 - 1997 With Deborah Feldman-Stewart et. al.
Determining the information to include in an information supplement for patients with curable prostate cancer.
National Cancer Institute of Canada
$52,140

1995 - 1998 With Himu Lukka et. al.
A Randomized Trial of a Shorter Fractionation Scheme of Localized Prostate Cancer
Ministry of Health to OCOG
Accrual: 900 patients
$900,000

Clinical Trials

1. Co-chair, Ontario Clinical Oncology Group/NCIC PR5 trial, "A Randomized Trial of a Shorter Fractionation Scheme for Localized Prostate Cancer."

2. Real-time Reviewer, NCIC PR3 trial, "A Randomized Trial Comparing Total Androgen Blockade versus Total Androgen Blockade Plus Pelvic Irradiation in Clinical Stage T3-4, NO, MO, Adenocarcinoma of the Prostate."
Study activated: February 1995. Target accrual: 600 patients

Study activated: December 1993. Target accrual: 20 patients (accrual complete, 1997)

4. Co-investigator, Rapid Response Radiotherapy Program and University of Toronto Palliative Radiation Oncology Group

Publications (Peer-Reviewed)
Published and In Press


13. **Hayter C.** Historical origins of current problems in cancer control. *CMAJ*, 158:1735-40,


*Submitted/In Press*

1. Hayter C. “Advent of X-Rays”. Chapter 29.2 in *History of Science (Instituto della Enciclopedia Italiana)* (accepted and in press)


**GUEST EDITORSHIPS**


**PUBLICATIONS (NON PEER-REVIEWED)**


**ABSTRACTS**

**Published and Accepted**


13-17, 1995.


15. Feldman-Stewart D, Brundage MD, Hayter C, Davidson JR, Groome P, Nickel JC.


Annual Meeting (CARO), Montreal, September 1999.


54. H Lukka, **C Hayter, P Warde, J Morris, J Julian, M Gospodarowicz, M Levine.** McMaster University, University of Toronto, University of British Columbia, Ontario Clinical Oncology Group, National Cancer Institute of Canada Clinical Trials Group A Randomized Trial Comparing Two Fractionation Schedules for Patients with Localized Prostate Cancer, *Int J Radiat Oncol Biol Phys.* 2003 Oct 1;57(2 Suppl):S126


56. Lukka H, **Hayter C, et al.** Post Radiotherapy Biopsy Correlation with PSA Failure: Results from a Randomized Hypofractionated Study in Localized Prostate Cancer (ASTRO: *Int J Rad Onc Biol Phys* 2004)


Educacion Medica 2004 7:3, 41.


**ELECTRONIC PUBLICATIONS**


**OTHER PODIUM PRESENTATIONS**


2. Feldman-Stewart, D., Chammas, S., Hayter, C., Pater, J. and Mackillop W.J. "Predicting


17. Holden L, Hayter C. A Survey to Assess Cancer Patients' Awareness of and Interest in Hypnosis for Pain and Distressing Procedures. (podium) Canadian Association for Psychosocial Oncology annual meeting, Victoria B.C. April 20


**INVITED LECTURES**


13. “History of Cancer Control in Ontario,” Workshop Conference on Cancer Therapies in Historical and Sociological Perspective, Centre for the History of Science, Technology & Medicine, University of Manchester, October 7-8, 2005


16. “Thespis Meets Hippocrates: Transforming Dr. Vera Peters’ Fight against the Radical Mastectomy into Drama,” Annual Nigel Rusted Lecture in Medical Humanities, Faculty of Medicine, Memorial University, November 13, 2015.
CURATORIAL ACTIVITIES (EXHIBITS)


OTHER PUBLICATIONS


Curriculum Vitae

David C. Hodgson

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Hospital
610 University Ave., Rm 5-986
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2121
Fax 416-946-2111
Email david.hodgson@rmp.uhn.on.ca

1. EDUCATION

Degrees
2000 Master of Public Health, Harvard School of Public Health, Cambridge, Massachusetts, United States
1993 MD, University of Toronto, Toronto, Ontario, Canada
1989 BSc, Genetics, Western University, London, Ontario, Canada

Postgraduate, Research and Specialty Training
2000 - 2002 Fellowship, Health services research, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada
1998 - 2000 Fellowship, Medicine, Boston Children’s Hospital, Boston, Massachusetts, United States
1996 - 1997 Chief Resident, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1993 - 1998 Residency, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2000 Fellow, Radiation Oncology, American College of Radiology, United States
1998 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1993 Licensure, College of Physicians and Surgeons of Ontario, Ontario, Canada
1992 Licensure, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2015 Jul 1 - present Professor, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2007 - present Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
David C. Hodgson

2007 - present  Associate Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada
2002 - present  Adjunct Scientist, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada
2000 - present  Staff Radiation Oncologist, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada
2000 - present  Associate Staff, Hematology/Oncology, The Hospital for Sick Children, Toronto, Ontario, Canada

Previous Appointments

UNIVERSITY - CROSS APPOINTMENT
2000 - 2007  Assistant Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK
2000 - 2007  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2004  Karl-Musshoff Award for Outstanding Scientific Merit, 6th International Symposium on Hodgkin’s Lymphoma, Cologne, Germany. (Award)
1997  Cancer Clinical Trials Workshop Scholarship, American Society of Clinical Oncology (ASCO), United States. (Distinction)
1997  Cancer Clinical Trials Workshop Scholarship, American Association of Clinical Research (AACR), United States. (Distinction)

NATIONAL
Received

1998 - 2000  Fellowship, McLaughlin Foundation, Canada. (Credential, Specialty: Medicine)
Total Amount: 60,000

PROVINCIAL / REGIONAL
Received

2002 - 2007  Career Scientist Award, Ontario Ministry of Health and Long Term Care, Ontario, Canada. (Distinction)
Total Amount: 298,750

LOCAL
Received

2000 - 2002  Adam Linton Fellowship, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada. (Credential, Specialty: Health services research)
Total Amount: 104,000
1993  Ivan H. Smith Award, University of Toronto, Toronto, Ontario, Canada. (Distinction, Specialty: Clinical Oncology)
1991  Walter F. Wadkins Memorial Scholarship for Academic Performance, University of Toronto, Toronto, Ontario, Canada. (Distinction)
1990  Walter F. Wadkins Memorial Scholarship for Academic Performance, University of Toronto, Toronto, Ontario, Canada. (Distinction)
1989  Gold Medallist, Western University, London, Ontario, Canada. (Distinction)
1989  Honours B.Sc., Western University, London, Ontario, Canada. (Distinction, Specialty: Genetics)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2011 - present  Member, American Society of Hematology
2011 - present  Founding Member, International Lymphoma Radiation Oncology Group
2001 - present  Member, American Society of Clinical Oncology
2001 - present  Member, Children’s Oncology Group
2000 - present  Member, American Society of Therapeutic Radiology and Oncology
1998 - present  Member, Canadian Association of Radiation Oncology
1998 - present  Member, Royal College of Physicians and Surgeons
1993 - present  Member, Alpha Omega Alpha Medical Honours Society
1993 - present  Member, Ontario Medical Association

Administrative Activities

INTERNATIONAL

American Board of Radiology
2007 Jun  Board Examiner, Lymphoma, Louisville, Kentucky, United States. June 1 - 5.

American College of Radiology
2011 - present  Vice Chair, Appropriateness Guidelines Lymphoma Committee
2008 - present  Member, Hodgkin Lymphoma Expert Panel, Appropriateness Guidelines, United States.

American Society for Therapeutic Radiology and Oncology
2014 Jan - present  Member, Education Committee, United States.
2001 - present  Member, Health Services Research Committee

Children’s Oncology Group
2010 - present  Vice Chair, Hodgkin Lymphoma Steering Committee (Radiation Oncology).
Education Panel Abstract review subcommittee, American Society for Therapeutic Radiology and Oncology
2015 Jan 12 Education Commitee, United States.

International Lymphoma Radiation Oncology Group
2014 Apr - present Member, Research Committee
Review research project proposals for ILROG.
2012 - present Founding Member, Steering Committee

International Symposium on Childhood, Adolescent and Young Adult Hodgkin Lymphoma
2013 - 2014 Member, International Program Committee, Second International Symposium
2010 - 2011 Member, International Program Committee, First International Symposium

Paediatric Radiation Oncology Society
2009 - 2010 Member, Scientific Organizing Committee for radiation oncology, 42nd Congress of the International Society of Paediatric Oncology, 21-24 October 2010, Boston, Massachusetts, United States.

St. Jude’s Children’s Research Hospital
2011 - present Member, External Advisory Board, Childhood Cancer Survivor Study, Memphis, Tennessee, United States.
2009 Expert Reviewer/Participant, Childhood Cancer Survivor Study Strategic Planning Workshop, Memphis, Tennessee, United States.

US Children’s Oncology Group
2004 - present Member, Cardiovascular Toxicity Guidelines Task Force

NATIONAL
Canadian Association of Radiation Oncologists
2004 - 2010 Chair, Health Services Research Network, Canada.

Canadian Institutes of Health Research

Canadian Partnership Against Cancer: High Impact Practices in Cancer Control Initiative
2011 Jan 21 Member, Expert Panel, Toronto, Ontario, Canada.

Institute for Clinical Evaluative Science (Advisory Group to Ministry of Health and Long Term Care)
2003 - 2004 Member, Positron Emission Tomography Health Technology Assessment Working Group, Canada.

PROVINCIAL / REGIONAL
Cancer Care Ontario
2002 - present Member, Program in Evidence Based Care: Hematology Disease Site Group Committee, Ontario, Canada.

Ontario Association of Radiation Oncologists
David C. HODGSON

2015 Jan - present  Clinician Scientist Selection Committee, Toronto, Ontario, Canada.

**Pediatric Oncology Group of Ontario**

2013  **Applicant interviewer**, Ontario, Canada.
      *Medical Director position.*
2012  **Member**, Aftercare Education Day Planning Committee, Toronto, Canada.
2011  **Member**, AfterCare Education Day Planning Committee, Canada.
2008  **Applicant interviewer**, Ontario, Canada.
      *Research Scientist position.*
2008  **Member**, Organizing Committee, Educational Symposium, Faculty of Medicine, Dept of Radiation Oncology

**LOCAL**

**Princess Margaret Cancer Centre**

2013 - present  **Medical Director**, Pediatric Aftercare Program, Radiation Medicine Program, Toronto, Ontario, Canada.
2006 - present  **Member**, Cancer Registry and Data Access Committee, Toronto, Ontario, Canada.
2007  **Member**, Quality Taskforce, Toronto, Ontario, Canada.
      *development of Informatics Platform of University Health Network Scientific Strategic Plan.*
2004  **Examiner**, Radiation Therapy Physics Residency, Faculty of Medicine, Department of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2002 - 2004  **Member**, Research Ethics Board, Toronto, Ontario, Canada.
2002  **Member**, Strategic Planning Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.

**The Hospital for Sick Children**

2014 Oct - present  **Member**, Clinical Advisory Council, Toronto, Ontario, Canada.

**University of Toronto**

2012 Jul 1 - 2013 Jun 30  **Chair**, Admissions Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology and Health Care Research, Graduate Education, Toronto, Canada.
2012 Jul 1 - 2013 Jun 30  **Member**, Curriculum Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology and Health Care Research, Toronto, Ontario, Canada.
2012 Jul 1 - 2013 Jun 30  **Associate Director**, Clinical Epidemiology and Health Care Research, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology and Health Care Research, Graduate Education, Toronto, Ontario, Canada.
2012 Jul - 2013 Jun 30  **Member**, Executive Committee, Clinical Epidemiology and Health Care Research, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education, Toronto, Ontario, Canada.
2010  **Member**, Admissions Committee, MSc Program in Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education, Toronto, Ontario, Canada.
2008  **Member**, Admissions Committee, MSc Program in Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education, Toronto, Ontario, Canada.
2008 **Research Day Judge**, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Research Day Judge, Clinical Epidemiology and Health Care Research, Toronto, Ontario, Canada.

2004 **Applicant interviewer**, MSc Program in Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education, Toronto, Ontario, Canada.

1996 - 1997 **Member**, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

1996 - 1997 **Member**, Postgraduate Radiation Oncology Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

### Peer Review Activities

**EDITORIAL BOARDS**

**Member**

2011 - present US National Cancer Institute, PDQ Pediatric Treatment Editorial Board

2006 - 2008 Pediatric Oncology Group of Ontario (POGO), Practice Atlas of Pediatric Oncology in Ontario

**GRANT REVIEWS**

**External Grant Reviewer**

2014 Dutch Digestive Foundation

2011 Dutch Cancer Society

2011 Kika Children’s Cancer Fund

2008 Ontario Ministry of Health and Long Term Care Health, Research Personnel Development Program

2007 Canadian Institutes for Health Research

2005 Canadian Institutes for Health Research

2003 Canadian Breast Cancer Foundation, Alberta Heritage Fund

**MANUSCRIPT REVIEWS**

**Ad hoc reviewer**

2014 - present New England Journal of Medicine

2012 - present Blood

2010 - present Journal of the National Cancer Institute

2004 - present European Journal of Cancer

2002 - present Annals of Family Medicine

2002 - present Clinical Oncology

2002 - present International Journal of Radiation Oncology, Biology and Physics

2002 - present Journal of Clinical Oncology

2002 - present Lancet Oncology

2002 - present Leukaemia and Lymphoma

2002 - present Radiation Research

**PRESENTATION REVIEWS**

**Abstract Reviewer**

2014 American Society of Therapeutic Radiology and Oncology, Annual Scientific Meeting
2012 American Society of Hematology, American Society of Hematology Annual Scientific meeting
Abstract Reviewer: Health Services and Outcomes Research: Hematologic Malignancies: treatment and general aspects

2012 American Society of Therapeutic Radiology and Oncology, Annual Scientific Meeting

2012 Canadian Association of Radiation Oncology, Annual Scientific Meeting

2003 - 2006 Canadian Association of Radiation Oncologists, Annual Scientific Meeting

2002 - 2005 American Society of Therapeutic Radiology and Oncology, Annual Scientific Meeting

Other Research and Professional Activities

RESEARCH PROJECT


NORTH AMERICAN CLINICAL RESEARCH CONSORTIUM FOR DEVELOPING TRIALS RELATED TO PEDIATRIC CANCER SURVIVORS

2011 - present Member. Consortium for Pediatric Intervention Research, United States.

C. Academic Profile

1. RESEARCH STATEMENTS

2013 Jul 1 - 2014 Jun 30 Research statement. Hematologic malignancy is relatively uncommon, and the use of radiotherapy in the curative management of these patients, especially children, is less common still. In this context, oncologists who have less opportunity than I have had to develop subspecialized expertise can benefit from expert guidance to deliver optimal treatment. I have contributed to numerous continuing professional development activities at the regional, national and international levels, with the goal of disseminating best practice to radiation oncologists involved in the treatment of pediatric and hematologic malignancies.

As the vice-Chair of the expert lymphoma Panel of the American College of Radiology and a member of Cancer Care Ontario’s Hematologic Disease Site Group, and the Canadian Lymphoma Society guideline panel, I have been co-author on multiple practice guidelines regarding the management of patients with hematologic cancers. I was the lead author on Guidelines of the International Lymphoma Radiation Oncology Group describing the implementation of modern radiotherapy techniques for the treatment of pediatric HL, and am on the Editorial Board of the US National Institutes of Health Physician Data Query (PDQ) for pediatric lymphoma management. In addition, I have been presented invited updates on radiotherapy for lymphoma and the management of pediatric lymphoma at conferences organized by the American Hematology Society, the British Society for Haematology, the American Society of Therapeutic Radiology and Oncology, the Texas Radiological Society, the US Children’s Oncology Group, the Canadian Hematology Conference, and the Pediatric Oncology Group of Ontario. Guidelines have been published in oncology journals with international impact. My lead-author ILROG guidelines are the basis for RT treatments to be employed in the upcoming international COG high risk HL trial, will likely become the standard of radiotherapy care for children with high risk disease across North America. My research has also been highlighted in the media emphasizing the importance of young cancer survivors receiving...
appropriate screening interventions to reduce the risk of secondary malignancies. I have been invited to speak at CME events in Canada, the United States and Europe regarding modern concepts in the management of children and adults with lymphoma, including at the American Society for Hematology and the British Haematology Society.

2013 Jul 1 - 2014 Jun 30 Improving Outcomes of Young Lymphoma Patients and Cancer Survivors. My goal is to improve the outcome of lymphoma patients by refining criteria for selecting patients for radiation therapy, reducing the normal tissue radiation exposure among those who receive RT, and optimizing the follow-up strategies of survivors to limit the toxicity of treatment. My research group, independently and in collaboration with international investigators has developed novel analytic methods to evaluate the long-term risks of second malignancy and cardiac toxicity among long-term survivors, created new techniques to use modern imaging and intensity modulated RT to reduce the heart and lung dose received by young patients undergoing mediastinal RT for lymphoma, and conducted studies that improve the post-treatment screening for treatment-related breast cancer, lung cancer, and heart disease.

A major challenge in evaluating and reducing the late effects of treatment arises from the long interval between treatment and the outcomes of interest. As a result, observed toxicity risks often apply to treatments that are long outdated, and are hard to interpret in the context of modern therapy. To address this challenge, we have developed novel methods to reconstruct the detailed normal tissue dosimetry of historically treated lymphoma patients for whom long-term outcomes are available. In collaboration with investigators from the US Childhood Cancer Survivor Study, and mathematicians from Columbia University, and the University of Waterloo, we are developing robust dose-risk models that could be used to better estimate the risks associated with modern therapy.

I am a founding Steering Committee member of the International Lymphoma Radiation Oncology Group (ILROG), and the principal author of the ILROG guidelines to reduce normal tissue exposure in pediatric Hodgkin Lymphoma patients by employing involved-sited radiation therapy (ISRT) techniques, which employ modern image guidance to more accurately delineate radiation target volumes and reduce normal tissue exposure. I am also the vice-Chair of the US Children’s Oncology Group (COG) Hodgkin Lymphoma Steering Committee. In this capacity I have led the implementation of modern RT techniques in the management of children with HL treated on COG trials.

In 2012, I was invited to be a member of the external advisory board of the US Childhood Cancer Survivor Study (CCSS). Funded by the US NCI, the CCSS is a cohort of 20,346 childhood cancer survivors and 4,000 siblings of survivors assembled through the efforts of 27 participating centers in the United States and Canada. I am also the vice-Chair of the lymphoma expert panel of the American College of Radiology and have served on the Editorial Board of the US National Cancer Institute Physician Data Query (PDQ) for Pediatric Treatment.

Under my direction as vice-Chair of the HL Steering committee of the COG, normal tissue radiation will decrease significantly compared to prior protocols. In collaboration with other Steering Committee members, we led the effort to define and implement criteria for selecting patients for RT in the upcoming high-risk COG HL trial (AHOD 1331, approved by CTEP in 2014) and involved-site RT is being employed for the first time in any international pediatric Hodgkin lymphoma trial. The COG, which is funded by the US National Cancer Institute, is the largest pediatric clinical trials organization in the world. COG trials are open over 200 hospitals across North America, Europe, and Australia. This work will define the standard of care for children with high risk HL in North America.In addition, under my lead, the Princess Margaret Cancer Centre is the first Canadian cancer centre to adapt the concept of “active breathing control” to the treatment of lymphoma patients in order to reduce the heart and lung exposure of young patients, and this approach has been subsequently adopted in other Canadian and European centres.
Optimizing Utilization and Outcomes of Cancer Treatments in Real World Settings.

Although clinical trials are the gold standard by which cancer treatments are evaluated, there are critical clinical issues that cannot be answered in clinical trials. I have been involved in the conduct and dissemination of research relating to the utilization and outcome of new cancer treatments across Ontario and Canada.

With collaborators throughout Canada, I led a study sponsored by the Canadian Association for Radiation Oncology that was the first to quantify the significant variation in the uptake of intensity modulated radiation therapy across the country, which left Canadians in several provinces without access to this treatment which had been demonstrated to spare normal tissues and reduce toxicity, particularly for patients with head and neck cancers. Similarly, I led a study sponsored by the Pediatric Oncology Group of Ontario that demonstrated significant variation in the 5-year survival of children with medulloblastoma treated at different hospitals in Ontario. These results were reported to the POGO executive, and spurred the development of Provincial Pediatric CNS tumour boards, in which case discussions are tele/videoconferenced between the Hospital for Sick Children and other pediatric cancer centres. Likewise, other work, reported to CCO, has shown that radiosurgery is massively underutilized for patients with brain metastases in Ontario. In addition, I have contributed to work that has informed the policies of Cancer Care Ontario, the Ontario Wait Times Strategy, the American Society for Therapeutic Radiology and Oncology, and the Canadian Partnership Against Cancer.
2. TEACHING PHILOSOPHY

I have the privilege to work in an environment in which I have been able to develop expertise in a few specific areas of oncology: the use of radiation therapy in the management of lymphoma and paediatric malignancies; and also the late toxicities experienced by survivors. My approach to medical education has been influenced accordingly when teaching at different levels.

In the residency program, trainees in radiation oncology will commonly never see another pediatric malignancy after their rotation on my service. Consequently, I work to teach them not only the basic knowledge that they will need for Royal College exams etc, but emphasize the principles of oncologic management that apply to all cases: understanding treatment intent and devising an appropriate management plan, considering dose and treatment schedules that take into consideration curative vs palliative intent and anticipated toxicities, understanding relevant anatomy, patterns of tumour spread, and the implications for radiotherapy planning. More disease-specific knowledge is emphasized in more common lymphomas, and resident knowledge should reflect the fact that they are being trained at Canada’s largest centre for both pediatrics and lymphoma.

I have the benefit of training fellows seeking extra clinical experience in pediatric malignancies and/or lymphoma after their residency training. These fellows are taught beyond core knowledge, to be familiar with the most up to date clinical evidence and how to apply it to individual cases, so that upon completing their fellowship they can function independently to make sophisticated evidence-based judgements about treatment and interact with clinical competence in multidisciplinary settings.

Much of my teaching involves continuing medical education. In the context of a general oncology practice, many oncologists would have limited exposure to lymphoma and would rely on CME resources to keep up to date with contemporary developments in lymphoma management. I have lectured widely in North America, Europe and Asia, and written CME pieces that have had international influence.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2008 - present  
Cancer Care Ontario. 1,000,000 CAD. [Grants]  
Research Chair in Health Services Research.

2004 - present  

2011 Jun - 2012 May  
Collaborator(s): Paul Nathan, Eric Yu, Cecilia Cotton. 115,140 CAD. [Grants]

2011 Apr - 2014 Mar  
Co-Investigator. Effective Estimation of Second Cancer Risks and Resultant Possible Improvements of Treatment Protocols. Canadian Institutes of Health Research – NSERC CHRP.  
PI: Sivaloganathan Siv.  
Collaborator(s): Mohammad Kohandel, David Hodgson,
<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
<th>Project Title</th>
<th>Collaborators</th>
<th>Funding</th>
<th>Notes</th>
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<tr>
<td>2008 - 2010</td>
<td>Principal Investigator</td>
<td>Looking in Pandora’s Box: Predicting the Uptake, Cost and Outcome of New Cancer Drugs in Ontario.</td>
<td>Green Shield Canada Foundation. Collaborator(s): Jeffrey Hoch, Murray Krahn, Maureen Trudeau, Dr. Monika Krzyzanowska, David Henry (Co-Investigators).</td>
<td>134,183 CAD.</td>
<td>[Grants]</td>
</tr>
</tbody>
</table>
2003 - 2006  **Principal Site Investigator.** A Randomized Phase III Trial of ABVD Versus Stanford V ± Radiation Therapy in Locally Extensive and Advanced Stage Hodgkin’s Disease With 0 - 2 Risk Factors. NCIC HD7, ECOG/SWOG E2496. [Clinical Trials]

2002 - 2007  **Principal Investigator.** Appropriateness and Coordination of Cancer care. Ontario Ministry of Health and Long Term Care. 59,750 CAD. [Grants]
*(Career Scientist Award)*


**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2006 - 2008  **Principal Investigator.** Late Effects Among Testicular Cancer Survivors. Princess Margaret Hospital Foundation Testicular Cancer Research Fund. Collaborator(s): Warde P. 20,000 CAD. [Grants]


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


Female survivors of pediatric Hodgkin Lymphoma (HL) who have received chest radiotherapy (RT) are at increased risk of breast cancer. Guidelines for early breast cancer screening among these survivors are based on little data regarding clinical outcomes.

This is the largest study to evaluate the outcome of breast cancer screening among a cohort of at-risk survivors of pediatric HL, and the only study in which MRI was employed for screening among all patients studied. Screening survivors with MRI and mammography detected tumors at significantly earlier stages compared to mammography alone (none with involved lymph nodes vs. 50% with involved lymph nodes), although MRI caused a substantial proportion of women to undergo additional tests for benign imaging findings. The 5-year cumulative incidence of invasive or pre-invasive tumors after initiating screening was 10.8%. This study illustrated for the first time the potential benefits and caveats of MRI breast screening for young female survivors following HL treatment.


In vivo murine experiments have shown that radiation therapy can induce the disruption of established atherosclerotic plaques through the precipitation of an intravascular inflammatory cascade. The potential clinical implication is that the mechanism of radiation-induced cardiac toxicity likely differs between the pristine coronary arteries of young patients and older patients with established coronary artery disease. Further, one would expect the latency between radiation exposure and the emergence of cardiac toxicity to differ in these groups.

We abstracted clinical data on a random sample (N = 1096) derived from a population-based cohort of HL patients diagnosed in Ontario (N = 3964). From this random sample, we compared the risk of cardiac hospitalization following treatment with doxorubicin-based chemotherapy alone, mediastinal RT alone or both. Among those experiencing post-treatment cardiac toxicity, the median time to this adverse outcome was significantly shorter among those with pre-existing heart disease than among the source cohort as a whole (1.8 years vs. 3.5 years), with approximately 40% of women and >50% of men with pre-existing heart disease requiring hospitalization after mediastinal RT.

These results are consistent with the murine models, suggesting that disruption of pre-existing plaques and/or the acceleration of established coronary artery disease may be influential in the development of the relatively rapid onset of cardiac morbidity among some older patients receiving mediastinal RT. The results are clinically significant insofar as patients with cardiac pathology are typically considered for chemotherapy (anthracycline) dose reduction, whereas it is apparent that radiotherapy dose reduction, and certainly vigilant post treatment cardiac evaluation, should also be considered for these patients.

Most females diagnosed with HL are of reproductive age, and as the average maternal age in many industrialized countries rises, the proportion of women who are diagnosed with HL before having children will increase. ABVD (doxorubicin, bleomycin, vinblastine, dacarbazine) is the chemotherapy regimen most commonly used for HL, although studies examining its impact on ovarian function have produced variable results, and no study had reported the pregnancy rates among women attempting pregnancy following ABVD.

This was the first study to specifically estimate the pregnancy rate among female HL survivors attempting pregnancy. The 12-month pregnancy rates were 70% and 75%, respectively (p= 0.84) indicating that modern ABVD chemotherapy did not significantly impair the fertility of young females attempting pregnancy following treatment.

The results were uniquely useful for female survivors seeking information about the probability of successful pregnancy following ABVD. Other strengths of this study included its relevance to modern treatment, and the evaluation of fertility among controls using the same measure.


Numerous studies have demonstrated increased risk of second malignancy among young cancer survivors, largely attributed to RT. However, because of the long latency required to observe second solid cancers and the rapid evolution of RT techniques, many estimates of radiation-related second cancer risk reflect outcomes of treatment no longer in use. Ideally, patient-specific radiation exposure data could be used to prospectively estimate RT-related second cancer risk. This would have the advantages of being patient-specific and also providing second cancer risk estimates to newly diagnosed patients undergoing treatment, thereby facilitating risk counseling and treatment decisions.

This was the first study to apply a contemporary radiobiological model to develop individualized prospective estimates of second cancer risk following modern involved-field RT for patients with Hodgkin lymphoma. Compared to historical RT treatments, modern RT techniques and doses were predicted to reduce the 20-year excess relative risks of breast and lung cancer of up to 77% and 57%, respectively. Moreover, patient-specific differences in normal tissue dose led to 11-fold and 3.6-fold variations among individual’s estimates of breast and lung cancer risks, illustrating the limitations of using “one size fits all” risk estimates and the potential benefits for personalizing second cancer risk estimates.


Risk estimates of second cancers among Hodgkin lymphoma survivors often group together survivors of considerably different ages and do not reveal the significant age-related differences in the excess incidence of solid cancers. Evaluation of long-term site-specific risks and changes in risk beyond 20 years of follow-up are sparse, due to the constraints of sample sizes in most series.

This was the second largest cohort study of second cancer risk in HL survivors and the first study to use multivariable modeling to describe the effects of age at HL diagnosis and attained age on both the relative risk and excess absolute risk of second cancer among HL survivors. After adjusting for age at diagnosis, the excess absolute risk of both breast and non-breast SC increased significantly with attained age, with a significant decline in the latter noted among elderly patients, a finding that has not been demonstrated previously. It was also the first study to identify a significantly increased risk of cancer of the pleura following treatment for HL. Previously, only case reports have documented mesothelioma diagnoses, typically more than 10 years after RT for HL.
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


41. Ng A, **Hodgson DC**, Moseley JL, Nguyen T-N C, Sharpe MB, Brock KK. Navigator channel adaptation to reconstruct three dimensional heart volumes from two dimensional radiotherapy planning data. BMC Medical Physics. 2012 Jan 18;12:1. **Co-Principal Author.**


Coauthor or Collaborator.


Case Reports


Letters to Editor


Clinical Care Guidelines


12. Members of the Hematology Disease Site Group. The Role of Bisphosphonates in the Management of Skeletal Complications for Patients with Multiple Myeloma. Toronto; 2012 Oct. Evidence-Based Series 6-4. A Quality Initiative of the Program in Evidence-Based Care (PEBC), Cancer Care Ontario (CCO). In Review. Coauthor or Collaborator.


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Editorials


Commentaries


Monographs


Other Publications


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2014 Jul 21 Invited Speaker. Pediatric Treatment Planning II: The PENTEC Report on Normal Tissue Complications. American Association of Physics in Medicine. Austin, Texas, United States. A CME educational session at the Annual meeting of the AAPM describing a collaborative international effort (PENTEC) to summarize existing knowledge and guide the development of new knowledge regarding the relationship between normal tissue radiation dose and toxicity among childhood cancer patients. (Continuing Education).


2014 Feb 12 Visiting Professor. Towards an Uncomplicated Cure for Hodgkin Lymphoma. MD Anderson Cancer Center. Houston, Texas, United States. (Continuing Education).

2014 Feb 12 Visiting Professor. Late Effects of Radiation Therapy: Biology and Physics. Department of Radiation Oncology, MD Anderson Cancer Center. Houston, Texas, United States.

2014 Feb 12 Visiting Professor. Modern lymphoma management: the “basics”. Department of Radiation Oncology, MD Anderson Cancer Center. Houston, Texas, United States.

2014 Feb 8 Visiting Professor. As Simple as Possible, but not Simpler: New Concepts in Radiation Therapy for Hodgkin Lymphoma. Wayne State University, Department of Radiation Oncology. Detroit, Michigan, United States.


2013 Jan 10  Visiting Professor. The Einstein Principle of Lymphoma Management: Selecting Patients for Combined Modality Therapy. Baltimore, Maryland, United States. Presentation to the Radiation Oncology Department, University of Maryland. (Continuing Education).

2013 Jan 10  Visiting Professor. "Best of Lymphoma - ASTRO and ASH 2012". University of Maryland School of Medicine. Baltimore, Maryland, United States. (Continuing Education).


2011 Dec 10 **Invited Speaker.** Late Effects of Modern Radiation Therapy for Hodgkin Lymphoma. Annual Meeting of the American Society of Hematology. San Diego, California, United States. (Continuing Education).


2011 Mar 4 **Invited Speaker.** Towards Personalized Medicine for Young Cancer Patients: Modifying Treatment for an Uncomplicated Cure. RTi3 Radiation Therapy Conference. Toronto, Ontario, Canada.


2010 **Invited Speaker.** Role of Radiation Therapy in Extranodal Aggressive Non-Hodgkin Lymphoma. Eighth Annual Evidence Based Management of Cancers, Tata Memorial Hospital. India. (Continuing Education).


2008 Oct **Speaker.** Cardiac Screening Among Hodgkin Lymphoma Survivors. Eighth Princess Margaret Conference: New Developments in Cancer Management: Conquering Cancer in our Lifetime. Toronto, Ontario, Canada. (Continuing Education).

2008 Sep 23 **Invited Speaker.** The Management of Extranodal Aggressive Histology Non-Hodgkin Lymphoma. Annual Scientific Meeting, American Society of Therapeutic Radiology and Oncology. Boston, Massachusetts, United States. (Continuing Education).


2006 Apr  Invited Speaker. Cardiac Toxicity Among Hodgkin Lymphoma Survivors: Impact of Recent Changes in Treatment and Opportunities for Improvement. International Workshop on Second Malignancy and Cardiovascular Disease After Treatment for Cancer in Adults. Christie Hospital NHS Trust Cancer Center. Manchester, United Kingdom.


Presented Abstracts


2004 Oct  Does Chemotherapy Intensification Facilitate Surgical Resection and Avoidance of Radiation Therapy for Children with Non-Metastatic Rhabdomyosarcoma: the Experience of The Hospital for Sick Children. Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Atlanta, Georgia, United States. (SRA – Presented by Dr. Isabelle Vallieres, Radiation Oncology Fellow, Princess Margaret Hospital).


2001 Presenter. The Role of Stereotactic Radiosurgery (SRS) in the Management of Pediatric Brain Tumours. Annual Meeting of the American Society for Therapeutic Radiology and Oncology. San Francisco, California, United States.


Educational Session


2011 Dec 10 **Invited Speaker.** Long-term Late Effects of Hodgkin Lymphoma Therapy in the Modern Era. 54th Annual General Meeting of the American Society of Hematology. San Diego, California, United States. Educational session at the Annual General Meeting of the American Society of Hematology. (Continuing Education).


**Medscape CME Online Panel Discussion**


2. NATIONAL

**Invited Lectures and Presentations**


2006 Sep **Invited Speaker.** Utilization of Advanced Radiation Therapy Technology in Canada: Results of the CARO National Survey of Canadian Cancer Centers. Annual Meeting of the Canadian Association of Radiation Oncology. Calgary, Alberta, Canada.

2005 Sep **Presenter.** Regional Supply of Radiation Therapy Equipment in Canada: Results of the CARO National Survey of Canadian Cancer Centers. Annual Meeting of the Canadian Association of Radiation Oncology. Victoria, British Columbia, Canada.

**Presented Abstracts**


2002  Adoption complex radiotherapy planning: implications for treatment error rates. Annual meeting of the Canadian Association of Radiation Oncologists. Toronto, Ontario, Canada. Presenter(s): Dr. Eng-Siew Koh. (SRA – Presented by Dr. Eng-Siew Koh, Radiation Oncology Fellow, Princess Margaret Hospital). (Trainee Presentation).

2000  **Presenter.** The impact of extranodal involvement on outcome of stage I & II Hodgkin’s disease treated with combined modality therapy. Annual Meeting of the Canadian Association of Radiation Oncologists. Edmonton, Alberta, Canada.

1999  **Presenter.** The significance of elevated PSA levels in patients “disease free” by ASTRO consensus guidelines. Annual Meeting of the Canadian Association of Radiation Oncologists. Toronto, Ontario, Canada.


**Media Appearances**


**3. PROVINCIAL / REGIONAL**

**Invited Lectures and Presentations**

2014 May 1  **Facilitator.** Pediatric Panel Case Discussion- Particle Therapy vs Current Therapies. Department of Radiation Oncology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Dr. Danny Indelicato, Dr. Anita Mahajan. Case-based discussion of the optimal selection of patients for proton therapy. Presented at Target Insight VIII.


2004 Jul  **Invited Speaker.** Defining Quality of Care in Pediatric Medulloblastoma. Board of the Pediatric Oncology Group of Ontario. Toronto, Ontario, Canada.


2001 Jan  **Invited Speaker.** Health services research: is the audience listening? Radiation Oncology Research Unit, Queen’s University. Kingston, Ontario, Canada.

**Moderator**

2012 Feb 3  **Facilitator.** Continuing Education Panel on Neurocognitive Late Effects of Pediatric Cancer Treatment. Pediatric Oncology Group of Ontario. Toronto, Ontario, Canada.

### 4. LOCAL

**Invited Lectures and Presentations**


2016 May 26  **Presenter.** A.I. – Assisted Tumor Boards. RMP Research Rounds. Department of Radiation Oncology, Princess Margaret Cancer Center. Ontario, Canada.


2016 Jan 8  **Presenter.** Hodgkin Lymphoma stage I/II. Princess Margaret Cancer Center. Toronto, Ontario, Canada.


2012 Feb 17  **Invited Speaker.** Radiation-induced Second Malignancies. University of Toronto Department of Radiation Oncology Clinical and Experimental Radiobiology Course. Toronto, Ontario, Canada. (Continuing Education).
5. OTHER

Invited Lectures and Presentations


G. Teaching and Design

I have participated actively and effectively in clinical and methodological teaching at the local, national and international levels.

Locally

a. supervised numerous clinical fellows doing elective fellowships in pediatric radiation oncology, lymphoma and survivorship aftercare.
b. taught for several years in interdisciplinary courses in oncology at the Michener Institute.
c. supervised MSc candidates in Health Policy, Management and Evaluation, and the Institute for Medical Sciences.
d. supervised numerous undergraduate MD elective students in clinical rotations
e. served as Associate Director, Clinical Epidemiology and Health Care Research Program, Institute for Clinical Evaluative Sciences.

Nationally

a. Lectured at numerous CME events, organized by Cancer Care Ontario, the Pediatric Oncology Group of Ontario, the Canadian Association of Ontario
b. co-authored several clinical practice guidelines with members of the Hematology Disease Site Group of Cancer Care Ontario

Internationally

a. Lectured at CME events for the American Society of Hematology, the British Society of Haematology, the American Society of Therapeutic Radiology and Oncology (ASTRO), and lymphoma conferences in Europe and Asia.
b. Current Chair of the Lymphoma Education Committee for the ASTRO.
c. authored and co-authored several international clinical practice guidelines with the American College of Radiology, and Children’s Oncology Group, American Society of Hematology etc, that have been widely cited.
d. co-authored numerous textbook chapters on the treatment of hematologic malignancies and/or late effects of therapy,
including in the Oxford Textbook of Oncology and Principals and Practice of Oncology (“DeVita”).

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD

2011 Jul - 2012 Jun  

2010 Jul - 2011 Jun  

2009 Jul - 2010 Jun  

2008 Jan - 2008 Jun  

Clinical Research Fellow (MD)

2014 Jul - 2015 Jun  

2012 Jul - 2013 Jun  

2011 Jul - 2012 Jun  

2009 Jul - 2012 Jun  

2. OTHER SUPERVISION

Clinical Research Fellow (MD)

Secondary Supervisor

2006 Jul - 2008 Jun  
I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE


My goal is to improve the outcome of lymphoma patients by refining criteria for selecting patients for radiation therapy, reducing the normal tissue radiation exposure among those who receive RT, and optimizing the follow-up strategies of survivors to limit the toxicity of treatment. My research group, independently and in collaboration with international investigators has developed novel analytic methods to evaluate the long-term risks of second malignancy and cardiac toxicity among long-term survivors, created new techniques to use modern imaging and intensity modulated RT to reduce the heart and lung dose received by young patients undergoing mediastinal RT for lymphoma, and conducted studies that improve the post-treatment screening for treatment-related breast cancer, lung cancer, and heart disease.

A major challenge in evaluating and reducing the late effects of treatment arises from the long interval between treatment and the outcomes of interest. As a result, observed toxicity risks often apply to treatments that are long outdated, and are hard to interpret in the context of modern therapy. To address this challenge, we have developed novel methods to reconstruct the detailed normal tissue dosimetry of historically treated lymphoma patients for whom long-term outcomes are available. In collaboration with investigators from the US Childhood Cancer Survivor Study, and mathematicians from Columbia University, and the University of Waterloo, we are developing robust dose-risk models that could be used to better estimate the risks associated with modern therapy.

I am a founding Steering Committee member of the International Lymphoma Radiation Oncology Group (ILROG), and the principal author of the ILROG guidelines to reduce normal tissue exposure in pediatric Hodgkin Lymphoma patients by employing involved-sited radiation therapy (ISRT) techniques, which employ modern image guidance to more accurately delineate radiation target volumes and reduce normal tissue exposure. I am also the vice-Chair of the US Children’s Oncology Group (COG) Hodgkin Lymphoma Steering Committee. In this capacity I have led the implementation of modern RT techniques in the management of children with HL treated on COG trials.

In 2012, I was invited to be a member of the external advisory board of the US Childhood Cancer Survivor Study (CCSS). Funded by the US NCI, the CCSS is a cohort of 20,346 childhood cancer survivors and 4,000 siblings of survivors assembled through the efforts of 27 participating centers in the United States and Canada. I am also the vice-Chair of the lymphoma expert panel of the American College of Radiology and have served on the Editorial Board of the US National Cancer Institute Physician Data Query (PDQ) for Pediatric Treatment.

Under my direction as vice-Chair of the HL Steering committee of the COG, normal tissue radiation will decrease significantly compared to prior protocols. In collaboration with other Steering Committee members, we led the effort to define and implement criteria for selecting patients for RT in the upcoming high-risk COG HL trial (AHOD 1331, approved by CTEP in 2014) and involved-site RT is being employed for the first time in any international pediatric Hodgkin lymphoma trial. The COG, which is funded by the US National Cancer Institute, is the largest pediatric clinical trials organization in the world. COG trials are open over 200 hospitals across North America, Europe, and Australia. This work will define the standard of care for children with high risk HL in North America. In addition, under my lead, the Princess Margaret Cancer Centre is the first Canadian cancer centre to adapt the concept of "active breathing control" to the treatment of lymphoma patients in order to reduce the heart and lung exposure of young patients, and this approach has been subsequently adopted in other Canadian and European centres.
I have been co-author of COG guidelines regarding the optimal follow-up of pediatric cancer survivors, and, recognizing the limited evidence on which these consensus guidelines were based, my group has created new knowledge that informs the rational development of evidence-based guidelines for the follow-up of survivors.

2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2007 Jul - present  
Knowledge Translation - Improving the Appropriate Treatment of Patients with Lymphoma.  
Hematologic malignancy is relatively uncommon, and the use of radiotherapy in the curative management of these patients, especially children, is less common still. In this context, oncologists who have less opportunity than I have had to develop subspecialized expertise can benefit from expert guidance to deliver optimal treatment. I have contributed to numerous continuing professional development activities at the regional, national and international levels, with the goal of disseminating best practice to radiation oncologists involved in the treatment of pediatric and hematologic malignancies.

As the vice-Chair of the expert lymphoma Panel of the American College of Radiology and a member of Cancer Care Ontario's Hematologic Disease Site Group, and the Canadian Lymphoma Society guideline panel, I have been co-author on multiple practice guidelines regarding the management of patients with hematologic cancers. I was the lead author on Guidelines of the International Lymphoma Radiation Oncology Group describing the implementation of modern radiotherapy techniques for the treatment of pediatric HL, and am on the Editorial Board of the US National Institutes of Health Physician Data Query (PDQ) for pediatric lymphoma management. In addition, I have been presented invited updates on radiotherapy for lymphoma and the management of pediatric lymphoma at conferences organized by the American Hematology Society, the British Society for Haematology, the American Society of Therapeutic Radiology and Oncology, the Texas Radiological Society, the US Children’s Oncology Group, the Canadian Hematology Conference, and the Pediatric Oncology Group of Ontario.

Guidelines have been published in oncology journals with international impact. My lead-author ILROG guidelines are the basis for RT treatments to be employed in the upcoming international COG high risk HL trial, will likely become the standard of radiotherapy care for children with high risk disease across North America. My research has also been highlighted in the media emphasizing the importance of young cancer survivors receiving appropriate screening interventions to reduce the risk of secondary malignancies. I have been invited to speak at CME events in Canada, the United States and Europe regarding modern concepts in the management of children and adults with lymphoma, including at the American Society for Hematology and the British Haematology Society.

2007 Jul - 2014 Jun 30  
Optimizing Utilization and Outcomes of Cancer Treatments in Real World Settings.  
Although clinical trials are the gold standard by which cancer treatments are evaluated, there are critical clinical issues that cannot be answered in clinical trials. I have been involved in the conduct and dissemination of research relating to the utilization and outcome of new cancer treatments across Ontario and Canada.

With collaborators throughout Canada, I led a study sponsored by the Canadian Association for Radiation Oncology that was the first to quantify the significant variation in the uptake of intensity modulated radiation therapy across the country, which left Canadians in several provinces without access to this treatment which had been demonstrated to spare normal tissues and reduce toxicity, particularly for patients with head and neck cancers. Similarly, I led a study sponsored by the Pediatric Oncology Group of Ontario that demonstrated significant variation in the 5-year survival of children with medulloblastoma treated at different hospitals in Ontario. These results were reported to the POGO executive, and spurred the development of Provincial Pediatric CNS tumour boards, in which case discussions are tele/videoconferenced between the Hospital for Sick Children and other pediatric cancer centres. Likewise, other work, reported to CCO, has shown that radiosurgery is massively
underutilized for patients with brain metastases in Ontario. In addition, I have contributed to work that has informed the policies of Cancer Care Ontario, the Ontario Wait Times Strategy, the American Society for Therapeutic Radiology and Oncology, and the Canadian Partnership Against Cancer.
Curriculum Vitae

Andrew J. Hope
Assistant Professor

A. Date Curriculum Vitae is Prepared: 2016 July 20

B. Biographical Information

Primary Office
5th floor, 6-505
Department of Radiation Oncology
Princess Margaret Hospital
610 University Ave.
Toronto, Ontario
M5G 2M9

Telephone 416-946-2124
Fax 416-946-6566
Email andrew.hope@rmp.uhn.on.ca

1. EDUCATION

Degrees
1998 - 2002 MD, Medical School, University of Wisconsin - Madison, Madison, Wisconsin
1993 - 1997 BSc, Biochemistry/Philosophy, University of Wisconsin - Madison, Madison, Wisconsin

Postgraduate, Research and Specialty Training
2006 - 2007 Chief Resident, Department of Radiation Oncology, Washington University Medical School, St. Louis, Missouri
2005 - 2006 Assistant Chief Resident, Department of Radiation Oncology, Washington University Medical School, St. Louis, Missouri
2003 - 2005 Resident, Department of Radiation Oncology, Washington University Medical School, St. Louis, Missouri
2002 - 2003 Transitional Resident, Aurora St. Luke’s Hospital, Milwaukee, Wisconsin

Qualifications, Certifications and Licenses
2008 - present Board Certification, Radiation Oncology, American Board of Radiology, United States
2008 - present Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada, License / Membership #: 711302
2007 - present Medical Licensure, Radiation Oncology, College of Physicians and Surgeons of Ontario, Ontario, Canada, License / Membership #: 87585

2. EMPLOYMENT

Current Appointments
2007 - present Staff Radiation Oncologist (Clinician Researcher), Princess Margaret Hospital, Toronto, Ontario
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2006
Roentgen Resident/Fellow Research Award, RSNA. (Research Award)

NATIONAL
Received
2010
Flims Fellowship, CARO-CROF. (Research Award)
2005
Young Oncologist Essay Award, Radium Society. (Distinction)

LOCAL
Received
2010
Outstanding Research Potential, University of Toronto. (Research Award)
1993 - 1997
Medical Scholars Program, University of Wisconsin - Madison. (Distinction)

OTHER
Received
1993 - 1997
Science Scholar, Borg Foundation. (Distinction)

Teaching and Education Awards

LOCAL
Received
2015 May
RMP Education Awards: Accelerated Education Program (AEP) Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
Highest Overall Average Teaching Effectiveness Score.
2014
Postgraduate Medical Education - Excellence in Research Supervision Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
2010
Best Clinical Teacher, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD, Core Program)
2010
Best Half-day Lecture, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto
2010
Chief's Choice, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Continuing Education)
For 2009-2010 RMP Grand Rounds.
2009
Best Research Project Mentor, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto
Student/Trainee Awards

INTERNATIONAL

Received

2011

Young Investigator Award, Awardee Name: Guinifa Mitera (Clinical Epidemiology student).
12th Annual World Conference on Lung Cancer, Amsterdam, Netherlands

NATIONAL

Received

2009

Best Poster Presentation, Awardee Name: Meredith Giuliani (Radiation Oncology Resident).
Canadian Association of Radiation Oncology
Award for Best Poster Presentation by a resident.

PROVINCIAL / REGIONAL

Received

2010

Resident Research Prize, Awardee Name: Meredith Giuliani (Radiation Oncology Resident).
5th Annual Ontario Thoracic Cancer Conference
Awarded for the top abstract submitted by a resident.

2009

Resident Research Prize, Awardee Name: Meredith Giuliani (Radiation Oncology Resident).
4th Annual Ontario Thoracic Cancer Conference
Awarded for the top abstract submitted by a resident.

LOCAL

Received

2011

Best poster award, Department of Radiation Oncology, Awardee Name: Meredith Giuliani
(Radiation Oncology Resident). University of Toronto
For annual departmental research day.

2010

Ellen Epstein Rykov Memorial Prize, Awardee Name: Meredith Giuliani (Radiation Oncology Resident).
University of Toronto
For excellence in postgraduate research.

2010

Joseph M. West Family Memorial Fund, Awardee Name: Meredith Giuliani (Radiation Oncology Resident).
University of Toronto
For excellence in postgraduate research.

2010

Timeposters Fellowship, Awardee Name: Meredith Giuliani (Radiation Oncology Resident).
University of Toronto
For excellence in postgraduate research.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2010 - present
American Association for Cancer Research (AACR)

2009 - present
International Association for the Study of Lung Cancer (IASLC)

2008 - present
Canadian Association of Radiation Oncologists (CARO)

2008 - present
European Society of Therapeutic Radiology and Oncology (ESTRO)
Andrew J. HOPE

2003 - present  American Society of Therapeutic Radiology and Oncology (ASRO)

Administrative Activities

PROVINCIAL / REGIONAL
Cancer Care Ontario
2009 - 2010  Member, IMRT Expert Panel – Lung

LOCAL
University Health Network
2012 - present  Member, Advanced Clinical Documentation Committee, Ontario, Canada.

University of Toronto
2013 - present  RMP Information and Data Committee
2011 - present  Member, Electronic Health Record, Clinical Advisory Committee
2010 - present  Coordinator, Academic Half Day
2010 - present  Member, Health Informatics Research Steering Committee
2010 - present  Member, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2010 - present  Member, Postgraduate Medical Education Committee, subcommittee on Curriculum, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2010 - present  Faculty Coordinator, Resident Half-Day Education Coordinator
2010 - present  Chair, RMP Information and Data Committee

University of Wisconsin Medical School
2001 - 2002  Member, Human Subjects Committee (IRB), Madison, Wisconsin.

Peer Review Activities

GRANT REVIEWS
External Grant Reviewer
2013 Nov  Dutch Cancer Society
2009  National Cancer Institute of Canada

MANUSCRIPT REVIEWS
Reviewer
Biology of Blood and Marrow
Cancer
Clinical Oncology
International Journal of Radiation Oncology Biology and Physics
Medical Physics
Radiation Oncology
Radiation Research
Radiotherapy and Oncology
PRESENTATION REVIEWS

Reviewer
2010  ASTRO, Abstract Reviewer, Lung abstracts
2009  ASTRO, Abstract Reviewer, Lung abstracts
2008  ASTRO, Abstract Reviewer, Lung abstracts

C. Academic Profile

1. RESEARCH STATEMENTS

Research Interests.
On-going research projects focus on normal tissue toxicity following radiation therapy, development of small animal models of radiation toxicity, discovery and evaluation of biomarkers predictive of such toxicity, and outcomes research for patients undergoing treatment for lung and/or head and neck malignancies. My laboratory develops and utilizes animal models of conformal radiation treatment to assist in the discovery and translation of both biologic and imaging biomarkers. Current technology development activity includes advanced clinical documentation systems and guided therapeutics for improved radiotherapy targeting.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


2008 - 2012  Principal Investigator. Improved Radiation Induced Lung Toxicity Prediction with Linked Preclinical/Clinical Models and Biomarkers. National Cancer Institute of Canada (NCIC).
NON-PEER-REVIEWED GRANTS

FUNDED

2010 - 2011

2009 - 2010

2005 - 2006

2004 - 2005
Co-Investigator. Mesenchymal stem cells in radiation pneumonitis. Washington University Department of Radiation Oncology. Seed Grant. Collaborator(s): Deasy, Joe, Hope A. 7,500 USD. [Grants]

Co-Investigator. Lung Stereotactic Radiation Therapy for Patients with Non-small Cell Lung Cancer and Other Cancers. PI: Bezjak, Andrea. [Clinical Trials]

Co-Investigator. Prospective Study of CT and PET Imaging during a course of Radical Radiotherapy to determine the Dosimetric Benefits of Replanning in Non-Small Cell Lung Cancer. PI: Bissonnette, JP., Bezjak, A. [Clinical Trials]

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Case Reports


Letters to Editor

Comment, Letter


Journal Article


Journal Articles, Review


Letter


Other Publications


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Letters to Editor


F. Intellectual Property

1. PATENTS


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2009  Translational research with small animal IGRT. American Association of Physicists in medicine (AAPM). Anaheim, California.

2008  Models of lung and CNS injury using modern small animal conformal RT. FOREM. St. Louis, Missouri, United States.

2007  Small animal models. QUANTEC. Madison, Wisconsin.

Presented Abstracts


2012 Nov  Creation of ON-PROST: The Ontario patient-reported outcomes of symptoms and toxicity applied clinical research unit. ASCO’s Quality Care Symposium. Boston, Massachusetts. Presenter(s): Geoffrey Liu, Andrea Perez Cosio, Monika K. Krzyzanowska, Madeline Li, Gary Rodin, Michael Donald Brundage, Andrew J. Hope, Doris Howell, Ontario Patient Reported Outcomes of Symptoms and Toxicity Applied Cancer Research Unit.


2012 Jun  Pre-treatment neurocognitive function (NCF) evaluation in head and neck cancer (HNC) patients (pts) with comparison to healthy control participants. ASCO Annual Meeting. Chicago, Illinois. Presenter(s): Razak AA, Gan HK, Pond G, Tirona K, Chen EX, Chan K, Hope A, Kim J, Siu LL, Bernstein LJ.

2012 Feb 28  Presenter. Increased acute pneumonitis in a murine model of fractionated radiotherapy with/without
2011 Oct

2011 Jul

2011 Jun

2011 Mar

2011

2010 Nov

2010 Nov

2010 Jun

2010

2010

2010

2009 Jan 11

2009


Andrew J. HOPE


2005

2004

2004

Presented and Published Abstracts

2015 Oct 18

Publication Details:

2015 Oct 18

Publication Details:

2015 Oct 18

Publication Details:

2015 Oct 18
Tumor size as Prognostic Factors in Squamous Cell Carcinoma of the Nasal Vestibule. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United


*Publication Details:*  


*Publication Details:*  
Tumor Location is Associated with Recurrence Pattern and Survival after SBRT in Early Stage NSCLC Patients. Journal of Thoracic Oncology. 10(9(S)):S211.


*Publication Details:*  
Stereotactic Body Radiotherapy is Safe and Effective in Octo-and Nonagenarians for the Treatment of Early Stage Lung Cancer. Journal of Thoracic Oncology. 10(9(2)):S326.


*Publication Details:*  


*Publication Details:*  

Publication Details:


Publication Details:


Publication Details:

Impact of Comorbidity and Age on Radiotherapy Delivery to Elderly Patients with Head and Neck Cancer. ASTRO.

Publication Details:

Incidental prophylactic nodal irradiation and patterns of nodal relapse in inoperable early stage NSCLC patients treated with SBRT: A case-matched analysis.

Publication Details:


Publication Details:

Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body
radiation therapy (SBRT).

Publication Details:

2013 Nov Late radiographic changes after lung stereotactic body radiotherapy: Piloting a recurrence scale and synoptic reporting scale.

Publication Details:

2013 Nov Improved Modeling of Radiation Pneumonitis Risk in Lung Sbmt by Incorporating a Local Dose Effect Relation for Perfusion Reduction.

Publication Details:


Publication Details:

2013 Sep 30 Phase I trial of nab-paclitaxel (A), cisplatin (P) and 5-fluorouracil (F) induction chemotherapy (IC) followed by concurrent chemoradiotherapy (CCRT) in patients (pts) with locoregionally advanced squamous cell carcinoma of head and neck (LA-SCCHN): final results.

Publication Details:

2012 Dec 1 Creation of ON-PROST: The Ontario patient-reported outcomes of symptoms and toxicity applied clinical research unit.

Publication Details:

2012 Nov 1 Impact of Pretreatment Growth Rate on Outcome of Stage I Non-small Cell Lung Cancer. After
Stereotactic Body Radiation Therapy.

**Publication Details:**

2012 Nov 1
Role of FDG-PET as an Early Imaging Biomarker of Esophagitis and Pneumonitis During the Course of Radiation Therapy for Lung Cancer.

**Publication Details:**

2012 Jan 26
Pre-treatment neurocognitive function (NCF) evaluation in head and neck cancer (HNC) patients (pts) with comparison to healthy control participants.

**Publication Details:**
Razak AA, Gan HK, Pond G, Tirona K, Chen EX, Chan K, Hope A, Kim J, Siu LL, Bernstein LJ. Pre-treatment neurocognitive function (NCF) evaluation in head and neck cancer (HNC) patients (pts) with comparison to healthy control participants. J Clin Oncol. 2012 Jan 26;30(15):5587. **Coauthor or Collaborator.**

2011 Oct
Comparison of Two NTCP Models in Terms of Impact on the Maximum Prescription Dose which can be Prescribed in NSCLC Dose Escalation Protocols.

**Publication Details:**

2011 Sep
The characteristics of tumor and involved lymph node in HPV-related oropharyngeal carcinoma determined by "intent-to-treat" GTVs. European Multidisciplinary Cancer Congress (ECCO 16). Stockholm, Sweden.

**Publication Details:**

2011 Jun 9
Neurocognitive function (NCF) in patients (pts) treated with chemo/bio-radiotherapy (C/B-RT) for head and neck cancers (HNC).

**Publication Details:**

2011
Phase I Trial of Albumin-bound Paclitaxel (A), Cisplatin (P) and 5-Fluorouracil (F) as Induction Chemotherapy (IC) Followed by Concurrent Chemotherapy (CRT) with Carboplatin (Cb) in Patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN). ECCO Annual Meeting. Stockholm, Sweden.

**Publication Details:**
Diaz-Padilla I, Waldron J, Hope A, Chen EX, Chan K, Kim J, O’Sullivan B, Abdul Razak AR, Chin SF, Siu LL. Phase I Trial of Albumin-bound Paclitaxel (A), Cisplatin (P) and 5-Fluorouracil (F) as Induction Chemotherapy (IC) Followed by Concurrent Chemotherapy (CRT) with Carboplatin (Cb) in Patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN). Eur J Cancer. 2011 Sep;47(S1):A8511. Coauthor or Collaborator.

2011
Clinical outcomes in stage I non-small cell lung cancer patients managed with accelerated hypofractionated radiotherapy. ASTRO Annual Meeting. Miami Beach, Florida. Presenter(s): Meredith Giuliani. (Trainee Presentation)

Publication Details:

2011

Publication Details:

2011

Publication Details:

2011

Publication Details:

2011

Publication Details:

2011
Infraction Variation of Target Position During Cone-beam CT Image-guided Stereotactic Body Radiotherapy (SBRT) for Early-stage Non-small Cell Lung Cancer: A Collaborative Analysis. ASTRO Annual Meeting. Miami Beach, Florida.

Publication Details:
Grills IS, Kestin L, Sonke J, Bissonnette JP, Hope A, Beidarbos J, Guckenberger M, Ionascu D, Yan D. Infraction Variation of Target Position During Cone-beam CT Image-guided Stereotactic Body

**2011**

NTCP Modeling for Radiation Pneumonitis after SBRT for Malignant Pulmonary Lesions: Results of a Multi-institutional Analysis. ASTRO Annual Meeting. Miami Beach, Florida.

*Publication Details:*

**2010 Nov**

Automated Tools to Facilitate Lung Cancer Outcomes Datamining. ASTRO Annual Meeting. San Diego, California.

*Publication Details:*

**2010 Nov**

Patterns of Failure in Patients with Limited-Stage Small Cell Lung Carcinoma. ASTRO Annual Meeting. San Diego, California.

*Publication Details:*

**2010 Nov**

Radiation-induced Mandibular Toxicity (RIMT) following Intensity Modulated Radiation Therapy (IMRT) for Head and Neck Malignancy. ASTRO Annual Meeting. San Diego, California.

*Publication Details:*

**2010 Nov**

Outcomes Of Bimodality And Trimodality Therapy In Patients With Stage III Non-small Cell Lung Cancer (NSCLC). ASTRO Annual Meeting. San Diego, California.

*Publication Details:*

**2010 Nov**

Radiotherapy Induced Bone Injury (RIBI) as a Late Side Effects in Patients Treated with Stereotactic Lung Radiotherapy. ASTRO Annual Meeting. San Diego, California.

*Publication Details:*

**2010 Nov**


*Publication Details:*
Kestin LL, Grills IS, Guckenberger M, Belderbos J, **Hope AJ**, Werner-Wasik M, Sonke J, Bissonnette J, Xiao Y, Yan D. Substantial Dose-response Relationship with Clinical Outcome for Lung Stereotactic Body...

2010 Nov


Publication Details:

2010 Nov

Poor Pulmonary function is not Associated with Increased Rates of Toxicity or Decreased Overall Survival after Stereotactic Body Radiotherapy for Early Stage Non-small Cell Lung Cancer: Results of a Multi-Institutional Analysis. ASTRO Annual Meeting. San Diego, California.

Publication Details:

2010 Nov

Time Interval between Staging FDG Positron Emission Tomography (PET) and Initiation of Stereotactic Lung Radiotherapy (SBRT) Impacts the Risk of recurrence and Metastasis in Non-small Cell Lung Cancer (NSCLC). ASTRO Annual Meeting. San Diego, California.

Publication Details:

2010 Nov

Stereotactic Body Radiotherapy (SBRT) for Non-small Lung Cancer (NSCLC) – is FDG-PET a Predictor of Outcome? ASTRO Annual Meeting. San Diego, California.

Publication Details:

2010 Sep


Publication Details:

2010 May 20

Treatment of the elderly when cure is the goal: The influence of age on treatment selection and efficacy for stage III non-small cell lung cancer (NSCLC).

Publication Details:
Coate LE, Massey C, Hope AJ, Pierre A, Bezjak A, Leighl NB, Darling GE, Sun A, Keshavjee S,
Shepherd FA. Treatment of the elderly when cure is the goal: The influence of age on treatment selection and efficacy for stage III non-small cell lung cancer (NSCLC). J Clin Oncol. 2010 May 20;28(15):7014. **Coauthor or Collaborator.**

**Publication Details:**

**2010 May**

Neuropsychological assessment in patients with head and neck cancer after radiotherapy or chemoradiotherapy. 12th World Congress.

**Publication Details:**

**2010**


**Publication Details:**

**2009 Nov**


**Publication Details:**

**2009 Nov**


**Publication Details:**

**2009 Nov**


**Publication Details:**

**2009 Nov**

Dosimetric and Clinical Parameters Contributing to Esophagitis and Radiation Pneumonitis following Treatment for Small-cell Lung Carcinoma. ASTRO Annual Meeting. Chicago, Illinois.
2009 Jul

2009 Feb 26

2009

2009

2009

2009
2009

Publication Details:

2009
Comparison of tumor coverage in radical lung radiotherapy: impact of cone-beam CT image guidance using spine or carina matching. 13th Annual World Conference on Lung Cancer. San Francisco, California, United States.

Publication Details:

2008 Sep

Publication Details:

2008 Sep

Publication Details:

2008 Sep

Publication Details:

2008 Sep

Publication Details:

2008 Sep

Publication Details:

2008 Sep

Publication Details:

2008 Sep
A Pilot Prospective Study of Metabolic and Anatomic Response using FDG PET CT before, during and after Radiotherapy in Lung Cancer. American Society for Radiation Oncology (ASTRO). Boston, Massachusetts.

Publication Details:

2008 Sep

Publication Details:

2008

Publication Details:

2008

Publication Details:

2008

Publication Details:

2008

Publication Details:
Huang E, Hope AJ, Lindsay P, Bradley J, Deasy J. SU-GG-T-404: The Impact of Breathing-Motion and

2008

Publication Details:

2008

Publication Details:

2007

Publication Details:

2007
Presenter. 4D-CT reconstruction by using optical flow motion estimation. 15th International Conference on the use of Computers in Radiation Therapy (ICCR). Toronto, Ontario, Canada.

Publication Details:

2006 Mar
141 Targeted sub-total irradiation of mouse models for normal tissue complication modeling using a prototype microt device. Canadian Association of Radiation Oncology Annual Meeting (CARO). Calgary, Alberta.

Publication Details:

Session Coordinator
2010

2009

2008

2007
Moderator. Motion modeling. International Conference on Computers in Radiation.

Other Presentations
2015 Sep 8
2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

2015 Sep 10 Post-radiotherapy cervical lymph node calcification on its own is not predictive for neck recurrence in oropharyngeal carcinoma. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO 2015). Kelowna, British Columbia, Canada. Presenter(s): Rathod S. Podium Presentation.

Publication Details:

2015 Sep 10 Metastatic risk groups in human papillomavirus-related oropharyngeal cancer treated with definitive radiotherapy with or without chemotherapy. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO 2015). Kelowna, British Columbia, Canada. Presenter(s): O’Sullivan B. Podium
Presentation.

Publication Details:


Publication Details:


Publication Details:

2015 Sep 10 Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO 2015). Kelowna, British Columbia, Canada. Poster Discussion.

Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:

2015 Sep  Outcomes in Patients with Stage III Non-Small Cell Lung Cancer Treated with Neoadjuvant Concurrent Chemotherapy and Radiotherapy Followed by Surgical Resection. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO 2015). Kelowna, British Columbia, Canada.

Publication Details:

2015 Feb  Refining UICC TNM stage and prognostic groups for non-metastatic HPV-related oropharyngeal carcinomas.

Publication Details:

2015 Feb  Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status.

Publication Details:

2015 Feb  ‘Cure’ is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis.

Publication Details:
Andrew J. HOPE


Publication Details:


Publication Details:


Publication Details:

2014 Aug  Elderly patients with advanced head and neck cancer less likely to receive radiation therapy. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

Publication Details:

2014 Aug  Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

Publication Details:


Publication Details:


Publication Details:

2013 Sep Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT).

Publication Details:

2013 Sep Late radiographic changes after lung stereotactic body radiotherapy: Piloting a synoptic reporting and recurrence prediction scale.

Publication Details:

2013 Sep Stereotactic Lung Radiotherapy in Patients with Previous Pneumonectomy: Safety and Efficacy.

Publication Details:

2013 Sep Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy compared to Primary Laryngectomy.

Publication Details:

2013 Sep Displaying 3D radiation dose on endoscopic video for therapeutic assessment and surgical guidance.

Publication Details:

2013 Sep Quantitative selection of optimal dose fractionation based on novel dose-volume metrics.

Publication Details:

2012 Sep Comparison of 3D Conformal Radiotherapy (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non-Small Cell Lung Cancer (NSCLC).

Publication Details:
Coauthor or Collaborator.

2012 Sep
Outcome of IMRT for hypopharyngeal cancer compared to conventional radiotherapy.

Publication Details:

2012 Sep
Outcome of Stage I Non-Small Cell Lung Cancer After Stereotactic Body Radiation Therapy, Does Growth Rate Matter?

Publication Details:

2012 Sep
The Characteristics of Cervical Lymph Node Resolution Following Primary Radiotherapy +/- Chemotherapy for N2-N3 Head and Neck Cancer.

Publication Details:

2012 Sep
Can FDG PET During the Course of Radiation Therapy for Lung Cancer Predict for Esophagitis and Pneumonitis.

Publication Details:

2012 May
Can FDG PET During the Course of Radiation Therapy for Lung Cancer Predict for Esophagitis and Pneumonitis Outcome?

Publication Details:

2012 Mar
Increased Acute Symptoms of Radiation Pneumonitis With Concurrent Chemoradiotherapy vs. Radiotherapy Alone in a Murine Model of Fractionated Sub-Total Thoracic IGRT.

Publication Details:

2011 Sep
Cost-Effectiveness Analysis Comparing Conventional Versus Stereotactic Body Radiotherapy for Surgically Ineligible Stage I Non-Small Cell Lung Cancer.

Publication Details:
2011 Sep

Is SBRT alone appropriate for early stage non-small-cell lung cancer with primary tumours larger than 4cm? Canadian Association of Radiation Oncology Annual Meeting (CARO). Winnipeg, Manitoba.

Publication Details:
Allibhai Z, Cho BCJ, Atallah S, Brade A. Hope A. Sun A. Taremi M. Bezjak A. Is SBRT alone appropriate for early stage non-small-cell lung cancer with primary tumours larger than 4cm? Radiother Oncol. 2011;100(S1):S22-S23. Coauthor or Collaborator.

2011 May

Testing Whether the Cell-Kill-Based Equivalent Uniform Dose (CEUD) Formula Predicts Local Control for Non-Small-Cell Lung Cancer.

Publication Details:

2011


Publication Details:

2011


Publication Details:

2011

Correlation of Dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma. Canadian Association of Radiation Oncology Annual Meeting (CARO). Winnipeg, Manitoba.

Publication Details:

2011


Publication Details:

2010 Sep

Patterns of Failure in Patients with Limited-Stage Small Cell Lung Carcinoma. CARO Annual Meeting. Vancouver, British Columbia.

Publication Details:
**Responsible Author.**

2010 Sep  
Four Year Outcomes of Patients with Stage I Lung Cancer Treated with Stereotactic Body Radiation Therapy (SBRT). Canadian Association of Radiation Oncology Annual Meeting (CARO). Vancouver, British Columbia.

**Publication Details:**

2010 Sep  
A Phase II Study of Concurrent Pemetrexed (P)/Cisplatin (C) Radiation (RT) for unresectable Stage IIIA/B Non-Small Cell Lung Cancer (NSCLC). Canadian Association of Radiation Oncology Annual Meeting (CARO). Quebec City, Quebec.

**Publication Details:**

2010 Sep  
FDG PET SUV Uptake in Stereotactic Body Radiotherapy (SBRT) for Non-Small Cell Lung Cancer (NSCLC). Canadian Association of Radiation Oncology Annual Meeting(CARO). Quebec City, Quebec.

**Publication Details:**

2009 Sep  
Patterns of Care in Elderly Head and Neck Cancer Patients: A Recent Single Institution Experience. Canadian Association of Radiation Oncology Annual Meeting (CARO). Montreal, Quebec.

**Publication Details:**

2009 Sep  
Factors Influencing Prophylactic Cranial Irradiation Utilization in Limited Stage Small Cell Lung Cancer. Canadian Association of Radiation Oncology Annual Meeting (CARO). Quebec City, Quebec.

**Publication Details:**

2009 Sep  
Assessment of Intra-fraction Target Position Accuracy for Lung Stereotactic Body Radiotherapy (SBRT) using Cone-beam CT (CBCT). Canadian Association of Radiation Oncology Annual Meeting (CARO). Quebec City, Quebec.

**Publication Details:**

2009 Sep  

**Publication Details:**
Andrew J. HOPE


2009 Sep
Princess Margaret Hospital experience with Lung Stereotactic Body Radiotherapy for early stage non-small cell lung cancer. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep
Quantitative Endoscopy for improved target delineation in planning intensity modulated radiation therapy for head and neck cancer. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep
Pre-Radiation Treatment PET/CT Scan can Predict the Localization of Residual Disease Post-Treatment in Lung Cancer. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep
Improvement of Target Coverage in Radical Lung Radiotherapy Using Image Guidance Cone-Beam (CBCT). CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep
Impact of Daily Volumetric Imaging in Reducing Set-Up Margins for Lung Cancer Patients Treated with Conventionally Fractionated Radiotherapy. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009
The Impact of Respiratory Motion on Highly Conformal Image-Guided Radiation Therapy of Small Animals. Canadian Association of Radiation Oncology Annual Meeting (CARO). Quebec City, Quebec.

Publication Details:
Lindsay PE, Moseley DJ, Jaffray DA, Hope AJ. The Impact of Respiratory Motion on Highly Conformal Image-Guided Radiation Therapy of Small Animals. Radiother Oncol. 2009;90(S3):S191. Senior Responsible Author.

2008 Sep

Page 40 of 47
Generated by Web CV - 2016 Jul 20
CONFIDENTIAL DOCUMENT
Publication Details:

2008 Sep
A Pilot Prospective Study of Metabolic and Anatomic Response using FDG PET CT before, during and after Radiotherapy in Lung Cancer. Canadian Association of Radiation Oncology Annual Meeting (CARO). Montreal, Quebec.

Publication Details:

2008 Sep
Feasibility of Reducing Radiation Dose to the Brachial Plexus (BP) for Nasopharyngeal Cancer (NPC) Patients Treated with IMRT. Canadian Association of Radiation Oncology Annual Meeting (CARO). Montreal, Quebec.

Publication Details:

2008 Sep
Pain and Rib Fracture after Stereotactic Radiotherapy for Peripheral Non-Small Cell Lung Cancer. Canadian Association of Radiation Oncology Annual Meeting (CARO). Montreal, Quebec.

Publication Details:

2008 Sep

Publication Details:

2007 Nov
Incorporating Population-Based Breathing Motion Improves Radiation Pneumonitis Modeling Correlation. American Society for Radiation Oncology (ASTRO). Los Angeles, California.

Publication Details:

2007 Nov

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2005 Oct
Clinical, Dosimetric, and Location-Related Factors to Predict Local Control in Non-Small Cell Lung Cancer. American Society for Radiation Oncology (ASTRO). Denver, Colorado.

Publication Details:

2005 Oct
Predictors of Lung Toxicity from the RTOG 9311 Radiation Dose Escalation Trial: GTV Position is Important. American Society for Radiation Oncology (ASTRO). Denver, Colorado.

Publication Details:

2005 Oct

Publication Details:

2005 Oct
Patterns of Failure in Patients Receiving Intensity Modulated Radiation Therapy (IMRT) for Head and Neck Cancer. American Society for Radiation Oncology (ASTRO). Denver, Colorado.

Publication Details:

2005

Publication Details:

2005

Publication Details:

2005
Publication Details:

2005


Publication Details:

2005


Publication Details:

2005


Publication Details:

2004


Publication Details:

2004


Publication Details:

2004


Publication Details:

2004

Radiation pneumonitis/fibrosis risk based on dosimetric, clinical, and location-related factors. American Society for Radiation Oncology (ASTRO) Annual Meeting. Atlanta, Georgia.

Publication Details:
**Hope AJ**, El Naqa I, Bradley JD, Vicic M, Lindsay PE, Bosch WR, Purdy JA, Deasy JO. Radiation

3. PROVINCIAL / REGIONAL

Presented Abstracts


Presented and Published Abstracts


Publication Details:

Session Coordinator

2009 Moderator. Head and Neck. Target Insight III.

4. LOCAL

Invited Lectures and Presentations

2016 Feb 1 Presenter. Radiation Oncology. AZ/Medimmune Head and Neck Cancer Preceptorship. Princess Margaret Cancer Center. Ontario, Canada. Presenter(s): Hope A.


2009 Molecular Genomics as Predictor of Toxicity and Response. Princess Margaret Conference. Toronto.

**Presented Abstracts**


**Patient Education**


5. **OTHER**

**Presented and Published Abstracts**

2010 May 20 Cognitive functioning pre- and postradiotherapy (RT), chemoradiotherapy (CRT), or bioradiotherapy (BRT) in patients with locally advanced squamous cell cancer of the head and neck (LA-SCCHN).

**Publication Details:**
Bernstein LJ, Gan HK, Razak AR, Tirona KM, Ringash J, O'Sullivan B, Waldron JN, **Hope AJ,** Goldstein DP, Siu LL. Cognitive functioning pre- and postradiotherapy (RT), chemoradiotherapy (CRT), or bioradiotherapy (BRT) in patients with locally advanced squamous cell cancer of the head and neck (LA-SCCHN). 2010 May 20;28(15):e19629. **Coauthor or Collaborator.**


**Publication Details:**
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2009 May  
**Primary Supervisor.** B. Sc. Melanie Padiachi, 1st year, Medical Radiation Science Student, IPC Placement.

2009 May  
**Primary Supervisor.** Lisa Peden, 1st year, Medical Radiation Science Student, IPC Placement.

2009 - 2010  
**Primary Supervisor.** C. Chan, University of Toronto/Michener Institute.

Undergraduate MD

2010 - 2011  
**Primary Supervisor.** Year 3. T. Yung. Outcomes for early stage non-small cell lung cancer patients treated with conventional fractionation.

2010 - 2011  
**Primary Supervisor.** K. Leung. Determinants of Community Health (DOCH2): research development project for assessing the acute toxicity of thoracic radiotherapy in an online format.

2009 - 2010  

Postgraduate MD

2011 Jul - 2012 Jun  
**Co-Supervisor.** Clinical Fellow. Z. Alibhai.

2010 - 2011  
**Primary Supervisor.** A. Chan.

2009 - 2010  
**Primary Supervisor.** Clinical Fellow. P. Mohindra.

2008 - 2010  
**Co-Supervisor.** Clinical Fellow. M. Taremi. Stereotactic Lung Fellowship.

2. OTHER SUPERVISION

Graduate Education

Secondary Supervisor

2009 - present  
MSc. M. Taremi.

Thesis Committee Member

2011 - present  
PhD. S. Shaw.

2009 - 2012  
MSc. A. Gussgard.

2009 - 2010  
MSc. C. Chung.
Curriculum Vitae

Dr. Glenn Wayne Jones

Radiation Oncologist
Credit Valley Hospital and Trillium Health Care

Lecturer, Adjunct Professor, Clinical Investigator
Department of Radiation Oncology, University of Toronto

Director, Data Management Centre
Table of Contents

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D. Publications
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E. Presentations and Special Lectures
   Pages 61-69

F. Teaching and Design
   Pages 70-78

G. Research Supervision
   Pages 79-84
A. Date of Curriculum Vitae is Prepared:

2012 June 8
B. Biographical Information
Primary Office: The Credit Valley and Trillium Health Centre
2200 Eglinton Avenue West
Mississauga, Ontario, Canada
L5M 2N1

Secondary Office: Glenn Jones Medicine Professional Corporation
U 201 – 469 Wilson Street E
Ancaster, ON

Home: 18 Ambridge Court
Hamilton, ON
L8W 3G8

Telephones: 905-813-1100 ext 5438 (work)
905-387-1304 (home)

Cell phone: 905-577-2405
Fax: 905-813-3962
Email gjones@cvh.on.ca

Citizenships: United Kingdom (1957)
Canada (1975)

Language: English
1. **EDUCATION**

M.Sc. (Clinical Epidemiology & Biostatistics, McMaster University)
F.R.C.P.C. (Radiation Oncology, University of British Columbia)
M.D. (Queen’s University, Ontario)
B.Sc. (Biochemistry & Chemistry, McMaster University)

**Degrees**

1991-1996

**MSc, Master of Science Clinical Epidemiology and Biostatistics**
(5 years, part time), McMaster University, Hamilton, Ontario, Canada
1. MS721-Fundamentals in Clinical Epidemiology
2. MS730-Research Methods in the Health Sciences
3. MS733-Issues in Clinical Trials
4. MS743-Prepared Research overviews (Meta-Analysis)
5. MS727-Measurement
6. MS702-Biostatistics
7. MS723-Advanced Statistics
8. MS737-Economic Analysis (method and theory)

With:
Internship: Course development with course teaching, “Epidemiology in Oncology”
Thesis: Social Preferences and allocating resources under a binding budget

1980-1984

**MD: Doctor of Medicine (4 years), Queens University, Kingston, ON**
- Edgar Forrester Scholarship
- Adiel Steacy Memorial Scholarship

1976-1980

**BSc: Bachelor of Science, Double Honors in Biochemistry and Chemistry**
(4 years), McMaster University, Hamilton, ON
- Lloyd Memorial Scholarship (4 years full tuition 1976-1980)
- McMaster University Scholarship
- Cyanamid of Canada Scholarship
- Chemical Association Prize
- British-Petroleum of Canada Scholarship
- Society of Chemical Industry (Europe) Award
- Burke Memorial Science Ring on graduation in 1980 ("highest marks in sciences and most significant undergraduate contribution")
- Dean’s Honors list, each of all 4 years, graduating Summa Cum Laude

1971-1976

**HS: Thomas A Blakelock High School (5 years), Oakville, ON**
- Highest academic performance award Grade 11 (93% all subjects)
- Highest academic performance award Grade 12 (95% all subjects)
- Highest academic performance award Grade 13 (99.5% all subjects)
Postgraduate, Research and Specialty Training

2011  Mixed Multi-level Modeling in Stata, October 24-25, 2011, Washington DC, USA (2 days)

2011  Summer School on Modern Methods in Biostatistics and Epidemiology
      BIOSTATEPI, Parma IT, June-July, 2011 (Karolinska & Harvard faculty)
      1. Survival Analysis (1 week)
      2. Applied Logistic Regression (1 week)
      3. Applied Longitudinal Analysis (1 week)
      4. Randomized Clinical Trial (1 week)
      5. Meta-Analysis using Stata (1 d)
      6. Multiple Imputation of Missing Data with Stata (1 d)

2007  Psychosocial assessment, IPOS and Eur School Oncology (Nov 18, 2007)

2004  Religion and Health, 1-week, Duke University Medical School, July

2003  Bayer Communication Skill’s workshop 2: Difficult Patients
      McMaster University, Hamilton, ON

2000  Clinical Bioethics Symposium for clinical ethics faculty
      McMaster University, Hamilton, ON

1995  Group Theory Two (Bion-Tavistock), Behav. Sciences, McMaster University, Hamilton, ON

1996  Bayer Communication Skill’s workshop 1: Physician-Patient Communication
      McMaster University, Hamilton, ON

1993  Biomedical Ethics Course, Hamilton Civics Hospitals, Hamilton, Ontario

1991  Protocol Workshop, Henderson Civics Research, Ontario Cooperative Oncology Group

1989  Work-shop, Evaluation of Clinical Skills, McMaster University, Hamilton ON

1989  Work-shop, Problem Based Learning, Tutorship, McMaster University, Hamilton

1988-1989  Clinical Fellowship in Radiation Oncology (8 months), Hamilton, Ontario, Canada

1985-1988  Residency in Radiation Oncology (3 years)
            University of British Columbia, Vancouver, British Columbia, Canada
            Cancer Agency/UBC Lucy Ellison Award
1985 Medical Internship in Medicine (1 year), Queens University, Kingston, Ontario, Canada

Qualifications, Certifications and Licenses

2011-present NCIC Clinical Trials Group GCP certificate

2011-present United Nations, Basic Security in the Field (staff safety, health and welfare)

2008 Tri-council policy statement: ethical conduct for research involving humans TCPS Introductory tutorial, March 4, 2008


2006-2009 United Nations, Basic Security in the Field (staff safety, health and welfare)

1988-present F.R.C.P.C., Radiation Oncology, University of British Columbia, British Columbia, Canada. Specialty exam in Radiation Oncology, #0391555. Royal College of Physicians and Surgeons of Canada

1985-present CPSO: General license in Medicine (#53865), College Physicians Surgeons Ontario

1984 LMCC Licentiate of the Medical Council of Canada #59685
1867 Alta Vista Dr P.O. Box 8234, Ottawa, Ontario, Canada
2. EMPLOYMENT

Current Appointments

2011-present  Adjunct Professor, Clinical Investigator  
Dept. of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

2004-present  Radiation Oncologist, Peel Radiation Oncology, Peel Regional Cancer Centre,  
The Credit Valley Hospital and Trillium Health Centre, Mississauga, Ontario, Canada

Previous Appointments

CLINICAL

1989-2004  Radiation Oncologist, Hamilton Regional Cancer Centre & Juravinski Cancer Centre,  
Hamilton, Ontario (and within Cancer Care Ontario 1989-2003)

2001-2003  Radiation Oncologist, Canadian Radiation Oncology Services, Toronto Ontario

2000-2001  5 weeks Locum Radiation Oncologist  
Thunder Bay Regional Cancer Centre, Thunder Bay, Ontario

CONSULTING

2011  Abott, Testosterone escape

2006-2007  Therakos Consulting Agreement (1-yr term regarding photophoresis)

HOSPITAL

2005-2011  William Osler, Brampton ON, Dept. of Medicine

2004-2011  Credit Valley Hospital, Mississauga ON, Dept. of Oncology/Medicine

2004-2010  Trillium Health Care, Etobicoke ON, Dept. of Oncology/Medicine

2004-2005  University Health Network, PMH, Toronto ON, Dept. of Radiation Oncology

2004-2005  Grand River Hospital, Kitchener ON, Dept. of Medicine
2001-2003  Staff Appointment, Toronto Sunnybrook Hospital, Toronto, Ontario, Canada
2000-2001  Staff Appointment, Thunder Bay Regional Hospital, Thunder Bay, Ontario, Canada
1996-2005  Staff Appointment, Hamilton Health Science, Hamilton, Ontario, Canada
1991-1993  Courtesy Staff, St. Joseph's Hospital, Dept. of Surgery, Photo-Dynamic Therapy program, Hamilton, Ontario, Canada
1990-1996  Courtesy Medical Staff, Chedoke-McMaster Hospitals, Hamilton, Ontario, Canada
1990-1996  Staff Appointment, Hamilton Civic Hospitals, Hamilton, Ontario, Canada
1989-1992  Staff Consultant, Greater Niagara General Hospital, Niagara Falls, Ontario, Canada
1989-1990  Associate Medical Staff, Hamilton Civic Hospitals, Hamilton, Ontario, Canada

UNIVERSITY – CROSS APPOINTMENT

2012  PENDING: Application for cross-appointment to Graduate Studies program, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY

2012  Applying for Assistant Professor, University of Toronto, Faculty of Medicine, Toronto, Ontario, Canada

2008-2011  Assistant Professor, Department of Medicine, McMaster University, based on part-time non-geographic status, Hamilton, Ontario, Canada

1995-2008  Associate Professor in Department of Medicine Continuing appointment without annual review, Section II 4.(v) McMaster University, Hamilton, Ontario, Canada

1990-1995  Assistant Professor in Department of Medicine McMaster University, Hamilton, Ontario, Canada

1979-1980  Department of Biochemistry, Student representative McMaster University, Hamilton, Ontario, Canada

1978-1980  Faculty of Science, Student representative McMaster University, Hamilton, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinction and Research Awards

INTERNATIONAL

Received

Nominated

NATIONAL

Received

Nominated

PROVINCIAL/REGIONAL

Received

Nominated

LOCAL

Received

Nominated

Calvin Gutkin Quality Recognition Award, 2011
In recognition of clinical excellence and innovation, I was nominated for two Calvin Gutkin Quality Recognition prizes at CVH as part of teams for “Reducing waiting times for radiotherapy at PRCC” and “Integrating Supportive & Psychosocial Care in the Radiotherapy Experience”
(team lead-member, team nominations were both in 2011)

People’s Choice Award Nomination, 2011, Credit Valley Hospital

Teaching Awards

INTERNATIONAL

Received
Nominate
NATIONAL
Received
Nominated
PROVINICIAL/REGIONAL
Received
Nominated
LOCAL
Received
Nominated

Student/Trainee Awards

INTERNATIONAL
Received
Nominated
NATIONAL
Received
Nominated
PROVINICIAL/REGIONAL
Received
Nominated
LOCAL
Received
Nominated
Professional Associations

Current
2012-present  Member, Canadian Association Radiation Oncology (CARO); also 1987-1998
2004-present  Member, Canadian Association of Psychosocial Oncology (CAPO)
2004-present  Member, American Society Therapeutic Radiation Oncology membership (ASTRO)
1989-present  Member, Royal College Physicians & Surgeons of Canada (RCPSC, #0391555)
1984-present  Member, Canadian Medical Protection Association (CMPA, #693227; code 65)
1983-present  Member, Ontario Medical Association (OMA, #2128494)

Past
2008-2009  International Psychosocial Oncology Society (IPOS)
2006-2008  Canadian Research Institute of Spirituality & Healing (CRISH), Vancouver BC
2005-2006  Spirituality in Health-Care Network, Toronto ON
1995-2004  Society for the Advancement of Socioeconomics (SASE)
1995      International Who's Who of Professionals

Administrative Activities

INTERNATIONAL

INTERNATIONAL BOARDS
2001-2002  International Mycosis Fungoides Foundation (MFF)

INTERNATIONAL CONFERENCE ORGANIZING COMMITTEES
2010  12th World Congress, International Psycho-Oncology Society, Quebec PQ
2006  4th International Multidisciplinary Conference on Spirituality and Health: Interweaving Science, Wisdom and Compassion

ADVISORY PAPER
2001  NCI USA, report submitted
Submission for Extra-Ordinary Funding, National Cancer Institute, USA
“Integrating mind-body medicine and spiritual care in clinical oncological practice: An extraordinary opportunity for the National Cancer Institute”
Jones GW, Sagar S, Wong R. 13 pages.

NATIONAL

NATIONAL BOARDS
2008-2010  C2CC  Campaign to Control Cancer (C2CC) (2 yr)
2008-2010  CAPO  Canadian Association of Psycho-Social Oncology (CAPO) (3 yr)
2007-2010  NCIC  Psychosocial and Behavioral Working Group (NCIC) (3 yr)
2000-2002  CCAC  Canadian Cancer Advocacy Coalition, Canada (CCAC) (3 yr)
1986-1991  CMDS  Canadian Ethics Commission, Medical and Dental Society of Canada (6 yr)

NATIONAL EXECUTIVE POSITIONS
1990-2004  Director, Mycosis Fungoides Canadian Cooperative Study Group (CCMFSG)
           Canadian Dermatology Society

NATIONAL EXPERT PANELS
2009-2011  Canadian Journey Action Committee – Canadian Partnership Against Cancer
           Pan-Canadian Guideline on Cancer Survivorship Services
2008-2011  Canadian Journey Action Committee – Canadian Partnership Against Cancer
           Pan-Canadian Guideline for Psycho-social Oncology Screening
2007-2011  NCIC Psychosocial and behavioral working group
2005-2009  NCIC PRCC Representative for Radiation Oncology, GI oncology, Canada

NATIONAL ADVISORY PANELS & TASK-FORCES
2011  Cancer Journey Advisory Group, Reviewer of Discussion Paper
      Canadian Partnership against Cancer, for 2012-2017, February
2010  Standards Document review, CAPO standards committee, March
2010  Cancer Journey Strategy, Reviewer, for CPAC, July 2010
2008  Integrative Oncology, Nov 7 (1 day)

NATIONAL CONFERENCE ORGANIZING COMMITTEES
2002-2004  Medical Society Annual and Scientific Meeting, 2004, Niagara, Ontario
           Established the theme and subtopics regarding interface of spirituality & health care
           Responsible for Workshop “The Medical Science of Clinical Spirituality” 2 hours,
           This reviewed all research and basic science evidence regarding spirituality in
           Cardiovascular and Oncology

REGIONAL & PROVINCIAL

PROVINCIAL BOARDS
2007-2009  OCREB  Ontario Cancer Research Ethics Board (3 yr)
1990-1992  OCOG  Centre Representative, Ontario Cooperative Oncology Group (3 yr)

PROVINCIAL EXECUTIVE POSITIONS
1994-1997  OMA  Ontario Medical Association tariffs, Radiation Oncology

LOCO-REGIONAL ADVISORY PANELS & TASK-FORCES
2003  Toronto-Sunnybrook Hospital (Dermatology) & Regional Cancer Centre & Women’s
       College Hospital clinical policy statement for Cutaneous T-Cell Lymphomas
**PROVINCIAL ADVISORY PANELS & TASK-FORCES**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Foster the Partnership, Canadian GU Cancers Survivorship</td>
</tr>
<tr>
<td></td>
<td>Kingbridge Centre, King City, ON, Jan 19-20</td>
</tr>
<tr>
<td>2003</td>
<td>Signature event, colorectal cancer control in Ontario, Opportunities for Quality improvement; Cancer Quality Council of Ontario, CCO</td>
</tr>
<tr>
<td></td>
<td>Toronto, Ontario, June 23</td>
</tr>
<tr>
<td>2002-2004</td>
<td>ECP Therapy working group (U of T and P.M.H. working with Therakos)</td>
</tr>
<tr>
<td></td>
<td>Princess Margaret Hospital Pheresis Unit</td>
</tr>
<tr>
<td></td>
<td>For Cutaneous T-Cell Lymphoma and Graft vs. Host Disease.</td>
</tr>
<tr>
<td>2001</td>
<td>Mission &amp; Values consultant for the professional group, OARO</td>
</tr>
<tr>
<td>1994-1995</td>
<td>Ontario Provincial Brachytherapy Task Force support</td>
</tr>
<tr>
<td>1994</td>
<td>Ontario Ophthalmology Rationalization Focus Group, Central West Ontario</td>
</tr>
</tbody>
</table>

**REGIONAL COMMITTEES**

<table>
<thead>
<tr>
<th>Year</th>
<th>Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-1995</td>
<td>CWO  Radiation Chairperson, Hematology Disease Site Group, CW Ontario</td>
</tr>
</tbody>
</table>

**LOCAL EXECUTIVE POSITIONS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
</tr>
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<tbody>
<tr>
<td>2010-present</td>
<td>PRCC  Peel Regional Hematology DST (head, radiation oncology, 2012-present)</td>
</tr>
<tr>
<td>2010-present</td>
<td>PRCC  Peel Regional Benign DST (head, radiation oncology, 2010-present)</td>
</tr>
<tr>
<td>2005-present</td>
<td>PRCC  Peel Regional GI DST (head, 2005-2008)</td>
</tr>
<tr>
<td>2004-present</td>
<td>PRO   Executive Committee, Peel Radiation Oncology</td>
</tr>
<tr>
<td>2004-2009</td>
<td>CVH   Chairperson, GI Oncology Disease Site Team</td>
</tr>
<tr>
<td>2004-2007</td>
<td>CVH   Secretary, GI Oncology Tumor Board</td>
</tr>
<tr>
<td>2003-2004</td>
<td>JCC   Vice-chairperson, GI Oncology Disease-Site Team</td>
</tr>
<tr>
<td>2002-2004</td>
<td>JCC   Chairperson, Advanced Living: Physics &amp; Health Associates (ALPHA)</td>
</tr>
<tr>
<td>1999-2004</td>
<td>HRCC  Administration, Gastro-Intestinal Oncology DST, HRCC</td>
</tr>
<tr>
<td>1999-2004</td>
<td>HRCC  Expert, Colorectal expert resource person for Central-West Ontario</td>
</tr>
<tr>
<td>1999-2004</td>
<td>HRCC  Chairperson, GI Radiation Oncology subgroup of the disease-site team</td>
</tr>
<tr>
<td>1999</td>
<td>HRAG  Secretary, Hamilton Radiotherapy Associates, Business Group</td>
</tr>
<tr>
<td>1997-1999</td>
<td>HRCC  Administrative Assistant, Gastro-Intestinal Oncology Disease-Site Team</td>
</tr>
<tr>
<td>1993-1995</td>
<td>HRCC  Chairperson, Hematology Radiation Subgroup, Central West Ontario</td>
</tr>
<tr>
<td>1990-1991</td>
<td>HRCC  Chairperson, CLINAC Accelerator User Committee, Div. RO</td>
</tr>
<tr>
<td>1989-1992</td>
<td>HRAG  Secretary, Hamilton Radiotherapy Associates Group (HRAG)</td>
</tr>
</tbody>
</table>

**LOCAL COMMITTEES, ADVISORY PANELS, TASK-FORCES**

<table>
<thead>
<tr>
<th>Year</th>
<th>Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-present</td>
<td>CVH-THC  Academic and Clinical Research Program development for CVH-THC</td>
</tr>
<tr>
<td>2012-present</td>
<td>PRCC   Steering group for naming conventions for structures and plans, Dept. RO</td>
</tr>
<tr>
<td>2012-present</td>
<td>PRCC   Task force for establishing a robust, embedded, data capture system for QA</td>
</tr>
<tr>
<td>2011-present</td>
<td>PRCC   Executive Steering Committee, Comprehensive QA, Dept. RO., PRCC</td>
</tr>
<tr>
<td>2011</td>
<td>PRCC   Comprehensive Program QA Committee</td>
</tr>
<tr>
<td>2011</td>
<td>CVH    Supportive Care Strategic Planning (2 ½-day sessions), Jan-Feb</td>
</tr>
<tr>
<td>2005-2011</td>
<td>CVH    Supportive Care, Oncology Program</td>
</tr>
<tr>
<td>2008-2010</td>
<td>CVH    Research and Ethics (2 yr term)</td>
</tr>
</tbody>
</table>
2007-2009  PRCC  Edmonton Symptom Assessment System (ESAS) implementation
2008  Patient and family centered care, expert participant, June (1 d)
2004-2005  PRCC  Radiation Therapy technical policy group
2004-2005  PRCC  Eclipse planning for GI tumors
2004-2005  PRCC  Planning software selection
2004-2005  PRCC  Patient Education
2004-2005  PRCC  Ambulatory outpatients Working Group
2004-2005  PRCC  Radiation Safety and Monitoring
2004-2005  GRCC  IMRT implementations
1997-2004  Chairperson, Cutaneous T-lymphoid Infiltrate DST, Central-West ON
2003  HRCC  Steering Committee for Quality of Working Life, HRCC
2003  HRCC  Education Committee; Values and Ethics consultant for the Centre
2001-2002  HSC  Clinical Ethics Committee, Hamilton Health Sciences Centre
1999  HRCC  Consultant for a Review Process for the Division of RO
1993-1995  HRCC  Health Services Research Committee

Peer Review Activities

ASSOCIATE OR SECTION EDITING

INTERNATIONAL JOURNALS ASSOCIATE EDITORSHIPS
1999-present  EBM  Evidence-Based Medicine Journal (EBMJ), Assoc. Ed., McMaster U

EDITORIAL BOARDS

1989-1991  CMDS  Editor for Ethics in: Focus, (Medical and Dental Society of Canada)

GRANT REVIEWS

INTERNATIONAL RESEARCH GRANT REVIEWS
2007  DUKE  Center for spirituality, theology and health, Duke University
RFP “Religion and Health: effects, mechanisms and interpretation”
Grant from John Templeton Foundation

NATIONAL RESEARCH GRANT REVIEWS
2007  CIHR - Scientific Officer, University Industry committee
Canadian Institutes of Health Research (CIHR)

MANUSCRIPT REVIEWS

JOURNAL PEER REVIEWER
Other Research and Professional Activities

The present foci are on supporting research and important clinical journals, local committees and task-forces for comprehensive Quality in the Radiation Oncology program, and disease site team support (e.g. statistics and research). I am presently on a task force to look at how to establish a research program across the CVH-THC sites in Mississauga, for the merged hospital organization. Past professional commitments and activities have included international, national and provincial responsibilities in multiple domains (e.g. editing, guidelines, boards, panels, task-forces, conferences and committees). See subsequent section for IAEA-related activities.

The foci of my professional development beyond formal education have been to improve my teaching-mentoring and clinical care, and to improve research methods, ethics, and statistical capabilities. In addition, self-directed study has rounded out my education by adding understanding and facility working with paradigms of choice and making decisions, and the evolution and organization of work.

UNIVERSITY FACULTY TRAINING
2011 New Faculty Orientation (Research and Graduate Studies), U of T, Fac. Of Med, Sept 29

CERTIFICATION PROGRAM OF THE ROYAL COLLEGE
2001-present Maintaining Certification Program for Continuing Professional Education
Royal College of Physicians and Surgeons of Canada, Ottawa, ON
1997-2001 Maintaining Competence, Voluntary Pilot Project
Royal College of Physicians and Surgeons of Canada, Ottawa, ON

SELF-DIRECTED LEARNING
- Socioeconomics, Professionalism, Sociology of Professional
- Professional Knowledge creation, Knowledge Management, Knowledge Transfer
- Theories of Choice, Decision Science, Decision Theory, Rational Choice Theory, Wisdom
- Social Epidemiology, Stress and Distress
- Philosophies and theories of the Emotions, Affective neurosciences and Spirituality
- Cancer survivorship, Psycho-social oncology
- Educational Psychology, Encouragement and Counseling
• Burnout and Work Engagement, Conflict Management
• Organizational Architecture, Theories, Business Strategies, Cultures and Agility, Diversity
• Management and Supervision, Leadership

HOSPITAL ASSOCIATIONS
2011-present Member, Professional Staff Association, CVH-THC
2004-2011 CVH Medical Staff Association

DISEASE SITE TEAMS (Membership only)
2008-present Peel Regional Breast DST
2008-present Peel Regional GU DST
2009-2012 Member, PRCC Skin DST
1995-1997 Member, Gastro-intestinal Oncology DST, HRCC

EXTERNAL REVIEWER
2009 Reviewer, Cancer Care Ontario PEBC 21-2 Cervix Provincial Guideline

CONFERENCES & MEETINGS
34 CONFERENCES ATTENDED
2011 5th Annual Thoracic Cancer Conf. McMaster University Health Sciences, Apr 2011
2010 Int. Conference on Teaching Statistics, Slovenia, June, 2010
2009 Go Public, Ottawa, Sept 2009
2009 STATA user group conference, 1st Canadian, Tornoto, Oct 2009
2009 Int. conference Advances in Radiation Oncology, Vienna AU, May 2009
2009 CAPO, Can. Assoc. Psycho-social Oncology annual meeting, Vancouver BC, April 2009
2008 Radiotherapy, Kingbridge, PMH, Apr 26-7, 2008
2008 Canadian Association Psycho-social Oncology, Halifax NS, 14 hours, May 7-9, 2008
2007 ASTRO 49th Annual Meeting, Los Angeles CA, Oct-Nov, 34 credits
2006 Int. EORTC Conference, Cutaneous lymphomas, Sept 24-26, 2006, Budapest HU
2005 GI Symposium, ASTRO/ASCO/SSG, Miami FL Jan 26-28, 2005
2005 Canadian Association Psycho-social Oncology, New Horizons in Cancer Care
2004 2nd International conference on Spirituality and Mental Health, Ottawa, Dec 6-8, 2004
2004 Int. EORTC Conference, Guidelines in Cutaneous Lymphomas, Madrid SP, Sept 24-26
2004 Medical and Dental Society, Spirituality and Medicine, May 2004
2003 American Society Therapeutic Radiation Oncology, Oct 2003
2003 Int. EORTC Conference, Cutaneous Lymphomas: Bologna IT, April 8-9, 2003
2002 National Institutes of Health, Spirituality, health & well-being, Bethesda MD, Apr 2003
2002 5th Annual Brachytherapy Symposium, Johannesburg, South Africa
2002 1st International conference on Spirituality and Mental Health
2002 2nd Canadian Inter-professional Conference on Spirituality & Healthcare
2002 Society for the Advancement of Socio-Economics (SASE), May 2002
2001 North American Multidisciplinary Spirituality & Health Conference
1996 Canadian Association Radiation Oncology
1994 Canadian Association Radiation Oncology
1994  American Society Therapeutic Radiation Oncology (ASTRO)
1992  Hodgkin’s disease, Metro Toronto Lymphoma Group, 5th Annual meeting
1992  Canadian Association Radiation Oncology
1991  Low Grade Lymphomas, Metro Toronto Lymphoma Group, 4th Annual meeting
1990  Extra-nodal NHL, Metro Toronto Lymphoma Group, 3rd Annual meeting.
1990  Canadian Association Radiation Oncology (CARO)
1989  American Society of Photo-biologists, Photodynamic workshop & Annual mtg., Boston MA

PENDING:  Canadian Association Radiation Oncology, September 2012 (and running workshops on Quality); American Society Therapeutic Radiation Oncology, October 2012 (and invited speaker, symposium on disparity)

13 MEETINGS ATTENDED
2011  LHIN 5/6 Update on prostate cancer quality initiatives Sep 15, 2011
2011  Emerging therapies for ADT in prostate cancer (Klotz, Pr-5) March 9 2011
2009  ASCO summary, June 23, 2009
2009  Cuzick J, Common statistical pitfalls in clinical oncology, Jan 27, 2009
2009  NCIC spring meeting, Toronto ON, May 2009
2008  NCIC spring meeting, Toronto ON, May 1-4 2008
2007  Varian Medical Systems Users meeting, Los Angeles CA, Oct 27, 2007
2007  ASCO summary, June 26, 2007
2006  NSABP trials, S Fine, May 10, 2006
2006  Geriatrics, Anti-aging and Homotoxicology (Dr. A Smit, South Afr.), 3 hours, May 2006
2004  Homotoxicology and adjuvant therapy for cancer, Heel Pharmaceuticals, 3 hours
1997  Annual Hamilton-London Dermatology day meeting, McMaster University

CLINICAL COURSES
2012  Symptom management guides to practice, 4 hrs, Oct 28 2011 CVH
2008  IMRT symposium, CVH and PMH, January 22
2003  ASTRO Intensity Modulated Radiation Therapy course, San Diego CA
1989  Second Annual Palliative Care Course, Canterbury Hills, Hamilton, ON

CLINICAL SERVICE

Since February of 1988 (almost 24 years) I have personally managed new patients as follows: over 4,400 at HRCC-JCC); 78 at TBRCC (Thunder Bay); over 800 at CROS in Toronto; and 2,640 new patients at CVH-THC (Peel-Mississauga). The combined total exceeds 8,000 new cases and includes benign and malignant disease for a mean rate of 330 new cases per annum. I have seen these patients in the capacity of staff Radiation Oncologist and locum tenens. Diagnoses include Prostate, Breast, Gastro-intestinal, Mycosis Fungoides and Other Lymphomas, Skin cancers and emergency cases.
At HRCC-JCC:

- During my tenure at HRCC/JCC, I provided on-call support and provided ward support at the Hamilton Health Sciences (i.e. the Henderson division where I had admitting privileges) and had occasion to support peripheral clinics.

- From 1989 through 2004, I led a national research and clinical program in Mycosis Fungoides. As of 2004, a total of 952 patients had been managed. I was responsible for most of the clinical program, including staging, patient education, Total Skin Electron Beam Radiation, Local Superficial Radiation Therapy, ordering and supervising topical and total-skin phototherapy (UVA, narrow band UVB, PUVA, photodynamic therapy), ordering and managing biological therapies and systemic chemotherapy for these patients. I remain responsible for substantive end-reporting and international reporting.

- From 1995 through 2004, I worked in the Gastro-Intestinal Oncology Disease Site Team, inventing and implementing electronic Dynamic Care-Webs (DCW) and real collaborative working environments as a technology to support professional learning and evidence-influenced clinical decision-making. Responsibilities included Chair of the Radiation Oncology clinical and technical policy subgroup and Centre content-expert for radiation management of rectal and gastric cancers. I initiated methods for 3-D CT simulation for GI malignancies in January of 2002 when a new CT-simulator was installed, and all radical GI patients were then planned in that manner in accordance with some of the principles of IMRT planning. For half of the time I was secretary and sub-team leaders for the GI DST. Responsibilities included Case-Conference re-invention and leading the initiative, staff support to promote work engagement, triage of all new cases referred to the GI team (avg. of 17 per week), and evaluation of delivery of consistent clinical care.

- From 1989 through 1995 I was the sole radiation oncologist for the Central West Ontario region for the Hematology Disease Group. Responsibilities included Total Body Irradiation for patients undergoing Transplantation. I developed the Binary Iso-centric Technique with Asymmetric Collimation method for matching fields to treat patients with Hodgkin’s disease (to implement clinical trial HD-6).

LOCUMS:

From March 2001 through August 2003 I attended the Canadian Radiation Oncology Services (CROS “after-hours clinic”) in Toronto on a weekly basis. I saw and managed early breast and prostate cancer patients using teletherapy, hormones and 3-D conformal radiation planning.

In 2000-2001, I provided 5 weeks of general locum support at the Thunder Bay Regional Cancer Centre (78 new patients plus follow-up clinics).

AT CREDIT VALLEY HOSPITAL:

In May of 2004, I joined the Peel Radiation Oncology partnership in the Peel Regional Cancer Centre, at Credit Valley Hospital, to help develop a Peel-Mississauga program in Radiation Oncology, and Oncology in general. This is a community-based practice, with privileges at several hospitals to provide a regional program for a
population-base of approximately 1.3 million citizens with a high growth-rate (exceeding 8% per year).

- In recognition of clinical excellence and innovation, I was nominated for two Calvin Gutkin Quality Recognition prizes at CVH as part of teams for “Reducing waiting times for radiotherapy at PRCC” and “Integrating Supportive & Psychosocial Care in the Radiotherapy Experience” (team lead-member, team nominations were both in 2011)
- In 2008 I shifted to 50% nominal research time, with up to 4 protected weeks per annum for Data Management Centre and International Atomic Energy Agency activities; this translates into a clinical case-load of 200 new patients per year (foci are Prostate, Breast and Lymphomas; and routine on-call)
- Shifting to CVH in 2004 necessitated focusing almost exclusively on administrative and clinical service from 2004-2008 until such time as staff came “on-line”—the work-load in 2005-2006 was at a rate of 660 new cases per year for each Radiation Oncologist (breast, prostate, GI, palliative and emergencies)

Innovations and Development in Teaching and Education

PROGRAM SUPPORT (MEDICAL SCHOOL, ADMINISTRATIVE)
Program Educational Evaluation, McMaster U
1997 Assisted Drs. Neville & Reiter to develop 6-8 "doctored" articles to highlight basic critical appraisal issues in reports of randomized trials and diagnostic tests; for Unit 1 class (100 medical students)
C. Academic History
1. RESEARCH STATEMENTS

The following sections outline main research themes for which I am responsible and/or lead. Each section contains a brief overview. Related grants and funds are presented subsequently; grants, funds and donations total $2,956,113 (37 items, about $80,000 per item) with PENDING decisions on an additional $218,000 (3 items). Each research theme is reflected fully in the publication section of this CV, but not in thematic sections in those listings. Themes cluster into (1) Data Management, (2) Quality, and (3) Other.

1.1 DATA MANAGEMENT CENTER

I established in 2002, and continue to direct, a Data Management, Research Methods and Educational Mentoring centre (DMC). This presently consists of three full-time staff and between three and six students and volunteers at any one time. Students may be in research internships and in co-op programs, or are summer students. Funding comes from contracts with the IAEA, grants and study funding from various sources. The annual budget for staff is approximately $100,000 for FY 2011-2012. The hospital has provided two offices within the Peel Regional Oncology Program (level 4, CVH-THC), one for the IAEA and one for non-IAEA activities, and we have three work-stations (computers, filing). One staff member works full-time on IAEA projects, one works on the prostate registry-cohort studies (PROSTATE, INSPIRES), and one works on other studies and publications. Positions are considered learning and mentoring opportunities for staff and students. Consequently there is a teaching program for staff and students, plus seminars and individual or team-based project arcs in which participants experience a project from conception to publication(s). DMC staff is required to learn Stata (College Station TX), prepare presentations and write protocols, and conduct ethics submissions and develop manuscripts and reports. Mentoring covers all aspects, with a focus on scientific methods, quality professional data management, statistics and communicating scientific results.

POSITION (DIRECTOR)

- Leadership, governance and administration
- Supervision and management of staff, students and volunteers
- Methodological, operational, data management (DM) and statistical support for research, including international randomized clinical trials, international and other studies, and clinical and pathological registries
- Mentoring of colleagues, staff, students and volunteers

CLINICAL RESEARCH ASSISTANTS

(DMC staff with research & professional career mentoring)

1. Trishala Menon, 2012-present, full-time
2. Arun Partridge, 2012-present, full-time (ends July 2012)
3. Nina Mazze, 2011-present, full-time, and coordinator of student projects (ends August 2012)
4. Tina Madzima, 2011-present, full-time (ends July 2012)
5. Jenny Nae Kim, 2010-May 2012, full-time, and manager of student projects
6. Alexandra Whate, 2009-2010, full-time
7. Lyndsay Richardson, 2007-2009, full-time, and manager of student projects
STUDENTS & VOLUNTEERS
(Mentoring in research)
1. Edward Leung, 2012, Patient education (prostate), graduate RTT, Volunteer
2. Jasper Chen, 2012, Patient education (prostate), graduate University of Toronto, Volunteer
3. Arun Partridge, 2012, Emotional measures, factor analyses, undergrad McMaster University, Hamilton
4. Leanne Pinto, 2012, Prostate adverse events, undergrad University of Toronto, Volunteer
5. Rahul Varghese, 2012, Prostate adverse events, undergrad University of Toronto-Mississauga, Volunteer
6. Sejal Doshi, 2011, Prostate data base, chart assembly and filing, undergraduate McMaster U, Hamilton
7. Arun Partridge, 2011, Prostate data base, PSA updates, post-High School, 8 wks, Volunteer
8. Yonah Sturmwind, 2011, Prostate clinical update, under-grad USA, 6 wks, Volunteer
9. William He, 2009, 3rd yr biology, U of Toronto, paid
11. Sarah Peltz, 2008, 3rd yr biology, 4 wks, paid
12. Naseer Omer, 2007-2008, pre-Resident (Pakistan MD), Prostate data and CAM review, 200 h, Volunteer
14. Danielle Major, 2003, Colorectal outcomes study and QOL, McMaster U, paid
15. Jaana Kastikainen, 2002, MF database & spiritual measures, Biomedical Sc, Guelph U, paid

SOFTWARE
- Professional Statistical & DM: Stata 12, Stata Corp, Texas
- Trials forms: Adobe PDF forms with e-FORM manager
- Data Entry: Micro-soft Excel

DATA-SETS

6 IAEA trial data-sets
1. E33021 IAEA esophageal RCT (n=219, completed), G Jones
2. E33025 IAEA breast RCT (planned n=600, open), G Jones
3. E33026 IAEA cervix RCT (n=601, closed to accrual), G Jones
4. E33027 IAEA esophageal RCT (n=201, closed), G Jones
5. E33029 IAEA lung RCT (n=250, A and B closed), G Jones
6. E33033 IAEA rectal RCT (planned n=350, open), G Jones

16 cancer-specific data-sets
1. Prostate cancer, PROSTATE, G Jones (n=480/1000 completed to Feb 2012, expanding
2. Prostate cancer, UROPATH, 16% of Ontario biopsies, 1995-2008, prostate (n=12,004), J Srigley
3. Prostate and Breast cancers, STEPS1 & ESAS longitudinal study; A longitudinal observational study of discomfort and distress in patients with breast or prostate cancer (STEPS, ESAS and emotions), (n=103), G Jones
4. Prostate and Breast cancers, ESAS exit survey for patients leaving the treatment floor, (n=103), G Jones
5. Prostate and Breast cancers, PICKER-LITE, a validation of a modified PICKER survey for use at the completion of a course of radiotherapy, n=120, T Larson
6. Breast cancer, Cell markers (5HT, e.g.) and cell activities predicting disease control, (n=40), A Frobe, Croatia
7. Breast cancer, Loco-regional toxicity assessment in breast cancer radiotherapy, development and validation study, W He and J Kim
8. Breast cancer, STADS randomized trial of hygiene, n=64, Kovacs M et al
9. Breast cancer, TSRCC-CROS, religion & spirituality, use of CAM, moods (CES-D, including study of factor structure of CES-D), (n=555), G Jones
10. Breast cancer, Symptoms when patients receive chemotherapy and marrow support, predictive factors and characterization of the burden of the symptoms (Arthralgias and Myalgias, ArMy), 2009-2010, n=131, M Leung
11. Breast cancer, Willingness to use communication aids like ESAS, n=84, J Kim
12. Breast cancer, CHARM (With Coping to Health, Appraisal and Relational Meaning), G Jones
13. Endometrial cancer, Outcomes with very aggressive treatments, a pilot study (n=40), A Frobe, Croatia
14. GI malignancies (all types), Survival, patterns of relapse, and explorations of the structure of EORTC-Q30, (n=1,022), A Figuerdo
15. MF lymphoma, photo-dermatology, a comparison and validation of QOL measures for MF (DLQI and Skindex-29, with CES-D, CAM use measure, religion-spirituality measures), n=103, G Jones
16. MF lymphoma, outcomes (n=952) including outcomes with LSRT (n=49), outcomes with TSEB+adjuvant PUVA (n=53), outcomes with T3 disease (n=53), outcomes with TSEB (n=680), M1 characterization (n=25) and second malignancies (through 2004, n=219), G Jones & R Wong (HRCC-JCC)
17. Prostate Cancer, PROSTATE, Factor structure of EMO sub-tool in STEPS-3, G Jones

9 any cancer data-sets
1. Radiation Oncology: Low dose radiation for immunomodulation, n=3, pilot project, G Jones
2. Psychosocial: OCP1-STEPS1, patterns of needs studies and predictors of stress score (n=1,955), G Jones
3. Psychosocial: STEPS3, presenting cross-sectional, (n=1,000), G Jones
4. Psychosocial: ESAS cross-sectional and longitudinal studies to assess ESAS and to develop approaches to improving ESAS (n=3,300 with 7,900 ESAS forms), G Jones
6. Psychosocial: Religion and cancer in the Canadian Health Survey, 2002, n=72,000, M Baetz
7. Psychosocial: Validation of a new Psycho-social referral form for PRCC, n=77, G Jones
8. Complementary therapies: chelating therapy, outcomes at NEX, Burlington, (n=340), G Strobele
9. Palliative Care: Malignant pleural effusions: Benchmark to practice change (2006-2009), n=121, J Hudson

1 staff survey data-set
1. Psycho-social capacities and interest in such care in radiotherapists, n=58 staff RT, A Rinaldo

1.2 INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)

My involvement with the IAEA began in 2002. It widened considerably to on-going involvement in a number of aspects from clinical trials to providing advice and manuscripts.

The IAEA of the United Nations is uniquely situated to explore the peaceful applications of the atom and has developed an expanding program consisting of a dozen randomized clinical trials in Radiation Oncology since the mid-1990’s, with specific clinical objectives and infrastructure objectives. Regarding the latter, the IAEA is active in technology transfer, improving international capacities for research, and increasing the application of evidence to decision-making in Radiation Oncology, in low and middle income countries.

Notably, Data Management for IAEA trials is far more comprehensive than DM typically understood (see under Chief Scientific Officer Contracts). Most of the participating investigators in low and middle income countries still lack infrastructure and so they require enhanced support and training from the DMC. While managing one-half of the IAEA clinical trial port-folio in Radiation Oncology with 44 investigators in 36 countries, I am working with the IAEA in advisory capacities and as a methods and statistics teacher.

I presently also lead an important, expanding initiative to develop an international network of data and methods centres, and affiliated investigators, to meet the objectives of the IAEA. Further, I have initiated four studies alongside the IAEA activities leading to manuscript submissions. I have completed an 86 pp monograph on DM, DMC’s and professional data management, which includes a component on Quality. I am participating as an expert regarding Quality in relation to a Telemedicine initiative for Africa, which is a pilot project for 2012-2014.

IAEA ADVISORY ACTIVITIES (FOR GOVERNANCE AND ADMINISTRATION)
2012 - present Advisory committee, Telemedicine in Africa, Vienna, May 28-Jun 1, 2012
2011 - present Advisory committee “Data Management for International RCT’s in RO” May/June
2010 Reviewer for “International curriculum, Radiation Oncologist training”
2010 - 2011 Advisory committee “Improving coordinated research projects” Dec
2010 Program Priorities for NAHU-ABR (planning cycle 2012-13)
2010 Reviewer for “A syllabus for the education and training of Radiation Oncologists”
2009-2011 Observer to: International Harmonization/Standardization of Radiotherapy Plans, Taxonomy
2006 Reviewer for “IAEA Radiotherapy Course Syllabus” dated Aug 18, 2006
IAEA INVITED PROPOSALS AND DOCUMENTS (FOR ADMINISTRATIVE PLANNING)

2009 Proposal to NAHU/IAEA for a network of data management centres for capacity augmentation
2008 Requested paper reviewing implementation in 5 trials and investigator performances

PENDING: 2012, Proposal to IAEA for an RCT in prostate cancer (for planning cycle for 2015)

IAEA SPECIAL SERVICES AGREEMENTS (FOR TEACHING)

2010 SSA
Regional (AFRA) Training Course Clinical Research, Addis Ababa, Ethiopia, Nov 30-Dec 4
24 staff Radiation Sciences, staff & trainees 15 Mahgreb, African and South Africa facilities
Eight x 60-to-90 minute sessions (= 2.0 days of 5 day program)
Small group tutorial (daily x 4 = 6 hrs on research methods, protocol writing)
Evidence-generating research, Protocol writing, Data Management

2006 SSA C7-RAF-6.024-013
Regional (AFRA) Training Course Clinical Trials, Dakar, Senegal, May 15-19
21 staff & trainee Radiation Oncologists from 19 Mahgreb, African and South Africa facilities
Seventeen x 30-to-90 minute sessions (= 2.5 days of 5 day program)
Evidence-based medicine, Statistics, Ethics

IAEA TECHNICAL CONTRACTS (FOR WRITING)

2011-2012 Establishing a Network of Data Management and methods centres for Radiation Oncology research in International Atomic Energy Agency member countries
The purpose is to establish networks of DMC and investigators in low and middle income countries using a shared-common taxonomy and methods, in order to improve the capacity and infrastructure for international and loco-regional research. I am the lead person for this initiative, collaborating with the IAEA.

CHIEF SCIENTIFIC OFFICER CONTRACTS (FOR RANDOMIZED CONTROLLED TRIALS)

Responsibilities for each randomized trial:
1. Protocol development, Protocol final edit
2. Development of trial forms, Operations manuals, Form revisions
3. All Protocol Amendment activities
4. Minutes and reports for all Research Co-coordinators’ Meeting (RCM are held every 18m, Vienna)
5. Bi-annual reports to the Technical Officer at the IAEA (e-mailed)
6. Presentations of trial updates (every 12-18 months) in person to Technical Officer (Vienna)
7. Attending all trial-related meetings (e.g. RCM’s)
8. Randomization approvals and allocations
9. Communications with each investigator
10. Monthly trial reports to investigators and the Technical Officer
11. All Data Management, including cleaning, reference data and meta-data, archiving
12. Trial reports at each RCM
1. Interim (if any) and Final Statistical analyses
14. Preparing all official abstracts and official presentation materials
15. Preparation of all core manuscripts (then finalized by the Technical Officer)
16. Preparation and submission of secondary abstracts and manuscripts

1.3 QUALITY OF LIFE - COMPREHENSIVE CARE, PSYCHO-SOCIAL CARE, AND AFFECTIVE ONCOLOGY

CCO in 199 announced a strategic plan that included attention to whole-person care and with an emphasis on front-line staff. Since then, I have been developing an understanding of this area and innovating with a number of studies to define the area more carefully, understand Ontario patients and their needs, and to look at novel ways to manage Quality of Life in order to enhance QOL, improve patient self-management and survivorship, and support research through greater patient engagement in care and using communication aids. Prior to 1999, I had conducted a comprehensive survey of Wisdom as foundational to ethics and decision-making, and I had completed my degree in Evidence-Based medicine in 1996 to round out my understanding of that what began in 1983 with the series of CMAJ articles by Sackett et al regarding decision-making and evidence based medicine. Subsequent to 1999, the goal has been to develop a model as to how to integrate the disparate set of domains outside of the bio-medical model of care, recognizing that in patients these silo domains are interactive and integrated are are reflected in outcomes such as quality of life, well-being, coping, allostatic load or stasis, and survival. I introduced a comprehensive care and survivorship plan model in Mycosis Fungoides in 1998.

Challenges have included measurement, statistical methods, meta-analyses of concepts, and conceptual model building including due attention to emotions and distress, and how symptoms are linked to greater outcomes through self-management, care, personality factors and psychology. Having established a technology platform for a program of comprehensive care and survivorship, the recent advance was to crystallize this into INSPIRES, for formal testing. The focus in 2012-2013 is to complete protocols and apply for peer-reviewed grant funding.

1.4 QUALITY OF TREATMENT - TECHNOLOGY ASSESSMENT

The purpose of this research theme is to develop a comprehensive QA program in prostate cancer with focus on clinical data quantity and quality related to treatment planning and delivery factors. High-quality outcome data (staff and patient-reported, and very detailed) fed-back to planning and delivery processes can assist technology evolution and provide methods and content for knowledge transfer. At first, I developed a longitudinal and expanding data-set in Mycosis Fungoides, 1989-2004, which received international recognition (e.g. my authoring the EORTC guideline published in 2002, my being a co-author in the DeVita and Gunderson-Teppe textbooks). Other data-sets and the prospective IAEA and other randomized trials widened and deepened that experience, c.2002-present. Beginning in 2005, my main in-house research focus at CVH-THC has been on prostate cancer as an exemplar for this stepped-up approach to technology assessment. Since 2009, and in line with QUANTEC and Advanced Technology Symposium recommendations, the approach is to develop, implement and test a high-end, disruptive technology, assessment and research program. Presently, the data-set consists of 500 cases with Prostate-Only radiotherapy, and is being expanded to exceed over 2,000 cases in total, and will become prospective in 2013.
1.5 QUALITY OF DECISION-MAKING

This research theme is aligned with those of Quality of Treatment and Quality of Life. A decision science approach has been taken. This has identified key decisions that are made during a patient’s clinical trajectory from pre-diagnosis of cancer well into survivorship or disease-or-toxicity-related death. Decisions should reflect the social capital of participants, and be influenced by evidence and ethics. In addition, for an organization to possess a learning culture and shift to agility (to manage choices, contingencies and chances) requires having processes to capture decisions and improve shared knowledge, or social capital. Therefore, during and after my thesis (MSc) I contrasted patient-level and physician-team level decision-making, and applied theory and technology (Dynamic Care Webs) to disease-site teams to demonstrate high-performance is possible with supporting infrastructure and clear values-driven activities including case-conferencing of clinical cases. The DCW approach was established in 1999 as a conceptually- and data-intense and is designed to support clinical operations, conduct technology assessments, provide whole-person care with documentation, and support administrative decision-making regarding resources (e.g. scheduling of patients). Funding for this area has not been required, as activities were conducted during normal operations. (e.g. study in contour-review by second Radiation Oncologist, development of case-conferences for Disease Site Teams).

My present work at CVH-THC in regard to furthering the Quality strategy of the Radiation Program, including being on several committees, is to institute the DCW approach as represented in a culture of Quality, with processes for Quality and professional data management. In regards to medical decisions, this includes attention to evidence-based re-organizing of clinical schedules and testing, criteria-based adverse event and disease-recurrence declarations, standardization of AE and recurrence management, capturing decisions made at case-conferences and translating those into clinical policies, and improving informed consent through locally-assembled evidence of benefits and risks.

1.6 QUALITY PARADIGM - CONTENT FOR A THEORY OF MEDICAL CHOICE

The purpose of this theme is to extend Evidence-Based Medicine to construct a complete Theory of Medical Choice. This includes placing greater weight on social sciences alongside the natural sciences, applying some of the principles of Socio-Economics and substituting Quality for Wisdom in making choices. Quality is a substantive content for a TOMC and it may be elaborated in three directions: Quality of Decisions, Quality of Treatment, and Quality of Life. A robust TOMC that can deliver Quality requires all three of these to be optimized as an ensemble, since they interact with feed-back, feed-in and feed-forward loops which may be co- or trans-temporal. Further theoretical work is being done towards a book on Quality.

1.7 NON-SERIES GRANTS AND FUNDS

No statement

1.8 CLINICAL TRIALS GROUPS

No statement

1.9 PHARMACEUTICAL STUDIES

No statement
1.10 INITIATIVES

PENDING STUDIES

- Prostate Cancer, PRINCE CHARMING, Prostate Investigations in the Cancer Experience, with Coping to Health, Appraisal and Relational Meaning, pending ethics submission, CVH (pending ethics approval June 2012)
- Prostate Cancer and MF lymphoma, Low-dose radiation as immune-modulation (hormesis), developing protocols for prostate and MF cancers with Boreman et al. at McMaster university (research meetings held Feb 14 and March 6, 2012) (pending protocols)

PENDING MONOGRAPH TEACHING SERIES

- Data as Asset—design, capture, assembly and reporting
- Quality
- Hot Statistics

PENDING STUDY COMPLETIONS (STUDIES OF THE DATA MANAGEMENT CENTRE)

2012 Investigator assessments of the difficulties and successes in conducting international trials (n=36 IAEA-trial investigators surveyed, 100% response rate)
- Domains under evaluation include phases of a trial (ethics, accrual, treatment, follow-up), support (local, IAEA and DMC), and investigator preparation and experiences
- Manuscript in draft form

2012 Investigator assessments of the impact of participating in international trials according to the CANMEdS2005 dimensions (n=40 IAEA-trial investigators surveyed, 100% response rate)
- Manuscript in draft form

2011 African Research Initiative: An in-context learning environment for trainees using a Registry research project; completed, 9 students across Africa in Dec, 2011
- This study was of in-context learning methods centered on a real project, the AFRES registry pilot study, to evaluate methods and materials for the website (see DMC section)
- Manuscript submitted to SA J Education in Jan, 2012, pending initial reviewer responses
- Article for African Research Oncology Group pending final acceptance, 2012

2010-2011 African Research Initiative: A real-time clinical pilot cancer registry in 4 centres (The Sudan, Zimbabwe, South Africa and Ontario); accrual 107 patients completed 2012
- This study was a pilot project to demonstrate the feasibility of a real-time clinical registry, in contrast to IARC (e.g.)
- Manuscript submitted to Central African Medical Journal in Dec, 2011; revision May 2012, pending final publication decision
- Article for African Research Oncology Group pending final acceptance, 2012

PENDING WEBSITE & REGISTRY

- I am planning for a web-site for research and a new Journal high-lighting research in low and middle income countries. Discussion with AORTIC (Africa Oncology) has begun to decide how best to proceed. Elements will include monograph type material, a new Journal high-lighting research in low
and middle income countries, and research projects (e.g. a clinical outcome registry) for in-context training (based on DMC studies, see IAEA section). I have also been in discussion with STATA and iUniverse regarding web-sites and publishing. An alternative is to integrate some of these ideas into the IAEA’s Health Campus.
2. RESEARCH AWARDS

Grants, Contracts, and Clinical Trials

PEER-REVIEWED GRANTS

Funded

2.1 International Atomic Energy Agency

2009-2016: E33034 “Comparison of two induction methods for locally advanced rectal cancer”, a multicenter 9-country international randomized trial of the IAEA; sample size 350 (presently 40), Euro 300,000 (estimate)

- This is an RCT for locally advanced (uT4 or at-risk CRM uT3/N+) rectal cancers, comparing neo-adjuvant Hypofractionated radiation (25/5) plus 2 chemotherapy cycles against long-course chemoradiation, with attempted surgery at week 16. Primary outcome is resection grade, with secondary outcomes in survival, biological impacts, AE and QOL, and health economics.
- 2 RCM in Vienna are completed (2009 and 2011), with accrual ongoing and adding new centres in other countries; next RCM is expected in 2013, with planned interim analysis at that time (n>100 reaching +16 weeks from randomization)

2007-2013: E33029 “Optimization of radiotherapy and chemotherapy in locally advanced and metastatic non-small cell lung cancer”, two multicentre 13-country randomized trials of the IAEA; sample size 61 completed (sub-study A) in 2011; sample size 189 (presently 180, sub-study B), Euro 300,000 (estimate)

- This is an RCT for NSCLC, with two sub-studies. In pilot study A, randomization was between radiation with 39 Gy in 13 fractions or Hypofractionated (1-2 fraction) radiation combined with 2 to 3 cycles of chemotherapy. In study B, randomization is between 2-3 cycles of chemotherapy and the same plus Hypofractionated (1-2 fraction) up-front radiation. Outcomes are survival, local control, and adverse events.
- Three RCM’s were completed in Vienna (2006, 2008 and 2010); another is booked for November of 2012 (the final RCM will be in Vienna, with consideration for follow-on studies)
- Final data-flow for A is expected by May of 2012, and for B by September of 2012, with final analyses for the RCM in November of 2012

2007-2013: E33027 “Improving outcomes in radiotherapy using new strategies of treatment delivery in esophageal cancer”, a multicentre 6-country international randomized trial of the IAEA; sample size 201 completed in 2010, Euro 250,000 (estimate)

- This is an RCT for the palliative treatment of esophageal cancer, M0 or M1 (stratification), all treated with 2 brachytherapy and with either 20 Gy in 5 fractions or 30 Gy in 10 fractions, with the main outcome of dysphagia relief, and secondary questions of (1) survival, (2) symptoms, (3) QOL, (4) validation of the Tata-7 QOL measure, (5) validation of the PPSv2 measure, and (6) OES-18
characterization for the questions of dysphagia

- Three RCM’s were completed in Vienna (2008, 2009, 2011)
- This study is completed; manuscripts are in preparation

**2007-2013:** E33025 “Resource Sparing Radiotherapy for Breast Cancer”, a multicentre 11-country international randomized trial of the IAEA; sample size of 350 for FEC/FAC component reached in 2012 (accrual continuing) and sample size for Taxane-based component presently 57, Euro 400,000 (estimate)

- This is an RCT for the radical treatment of early to intermediate stage breast cancer comparing chest-wall only radiation to chest-wall plus supraclavicular radiation, all 40 Gy in 15 fractions; primary question is loco-regional recurrence rate; secondary questions of (1) adverse events, (2) lymphedema, (3) Taxane vs. non-taxane toxicities, (4) SNiPs and adverse events (collaborator is in Japan)
- Three RCM’s were completed in Vienna (2006, 2008, 2010)
- This study continues with accrual; as of March, 2012, there are 410 women on study, with 40 deaths

**2005-2015:** E33024/26 “Optimizing treatment of cervix cancer using radiotherapy and analysis of virally-associated cellular resistance”, a multicentre 7-country international randomized trial of the IAEA; sample size 601 completed in 2011, Euro 400,000 (estimate)

- This is an RCT for the radical treatment of IIB and IIIB carcinoma of the cervix; it is a 4-arm trial with all cases receiving 46 Gy in 23 fractions external beam, combined with brachytherapy (2 or 4 insertions, by random allocation) or chemotherapy (0 or 5 weeks of concurrent chemotherapy); primary outcome is overall survival, with secondary questions of (1) adverse events, (2) loco-regional control, (3) radiobiologic contrast between 2 x 9 and 4 x 7 brachytherapy, (4) prognostic factors, (5) tumor markers (Kathy West, UK), (6) viral elements (JJ Kim, South Korea) , (7) patient self-reporting of toxicities using SOMA-LENT (S Davidson, UK)
- Three RCM’s were completed in Vienna (2005, 2009 and 2011); another meeting is likely around an international conference in 2013
- This study completed accrual in 2011 and as of March, 2012, there are 140 women out of 601 who are dead (projected number is 220 in 2014)
- Final data cleaning for early data (through 18 months of follow-up) is complete; early analyses are ongoing (not including the primary end-point of overall survival)

**2002-2007:** E33021 “The role of teletherapy supplementary to intraluminal high dose rate brachytherapy in the palliation of advanced esophageal cancer”, a multicenter 6-country international randomized trial of the IAEA; sample size 219 completed in 2007, US $240,000 (estimate)

- This is an RCT for the palliation of loco-regional advanced esophageal cancer (metastases-free) comparing 2 brachytherapy to 2brachytherapy followed by 2 weeks of external beam radiotherapy (30-Gy in 10 fractions) for the outcomes of survival, dysphagia-relief, symptoms, QOL and adverse events
- Three RCM’s were completed (2002 South Africa, 2005 Canada, 2007 Vienna)
- This study was completed with publication of the main finding in 2010

### 2.2 Quality of Life

**2009-2012:** Canadian Pharmaceutical Association, Leung M, et al., Jones GW. Factors in symptoms when patients receiving chemotherapy and marrow support, $6,800
This is a longitudinal study of women with breast cancer using scales and diary evaluating the experiences of women receiving chemotherapy with soft-tissue pain. Study is complete, ASCO abstract in 2012. Statistical analyses using longitudinal methods with mixed-effects.

2002-2003: Co-applicant with Drs. Wong and Sagar, Radiation Oncology, Quality of Life and Traditional Chinese Medicine assessment of Brain Tumour Patients presenting with cancer related fatigue syndrome. Fatigue Initiative, Canadian Association of Nurses in Oncology $12,000

2.3 Quality of Treatment
(None)

2.4 Quality of Decision-Making
(None)

2.5 Quality Paradigm

2004-2006
Change Foundation, Ontario, Co-applicant with Dr. Karen Parent, Queen’s University
Measuring best performance and value for hospital infrastructure support
$100,000 plus matching CV Hospital funds of $139,000

2.6 Other/Non-Series

2001 – 2004
CIHR, Co-applicant with Dr. Haywood, Physics, HRCC with Alex Vitkin, Physics, Princess Margaret Hospital, Optical Coherence Microscopy: Skin and endoscopic gastrointestinal imaging
Canadian Institutes of Health Research (CIHR) $421,780

2.7 Clinical Trials Groups

1995-1998
ECOG Co-chair, Scientific, with Dr. Paul Bunn, Hematology/Medical-Oncology
ECOG-1495 randomized trial, National Cancer Institute, USA
Core operating costs at ECOG

1995-1997
MRC-UK Secretariat member, Sarcoma Meta-Analysis Collaboration (SMAC)
Medical Research Council, Cambridge, United Kingdom, Sterling 100,000 Pounds

2.8 Pharmaceutical companies
(None)
Declined

2006  NCIC Grant Application
Sur, Ranjan (PI), Zychla, Laura, Wright, Jim, Lukka, Himu, Okawara, Gordon, Corbett, Tom, Jones Glenn
A Phase III Study Comparing Symptom Control and Quality of Life in Lung Cancer Patients Receiving
External Beam Radiation With or Without High Dose Rate Intraluminal Brachytherapy.
NCIC Randomized controlled trials $210,000

PENDING decision

June 2012 for 2012-2014, commencing in July for 2.5 yrs
Prostate Cancer Canada pilot grant program
$150,000 total
- This funding should support the PROSTATE initiative in regards to (1) extracting additional case data
  for another 520 cases with low to intermediate risk-prostate cancer treated at CVH (low-intermediate
  in 2011-2012, and adding prospectively cases in 2012-2014) and with high-risk-prostate cancer (2005-
  2014), (2) obtaining all partial-volume Dose-Histogram data-sets with sufficient resolution for all
  1,000 cases based on baseline CT-simulation plans, (3) obtain pvDH data-sets for CBCT in-treatment
  imaging (2009-2014) to account for organ motion/morphing, (4) updates of all outcomes, and (5)
  characterization and classification of main adverse events (rectum and bladder) for the additional
  cases. The first step will be a case-control study (cases with AE, cases without AE, matched on
  clinical-pathological and organ-volume factors) to determine sample size for initial analyses, although
  the intent is to have a prospective expanding and rich data-set that is Advanced Technologies
  Symposium and QUANTEC compliant. The primary objective is to look at how patient characteristics
  and co-morbidities, planning and delivered treatment parameters (including types of plans) relate, and
  whether these are predictive of the dimensions of rectal and bladder AE.
NON-PEER-REVIEWED GRANTS

Funded

2.9 International Atomic Energy Agency

None Presently

2.10 Quality of Life

Pending decision July, 2012
Canada’s Motorcycle Ride For Dad, Central-West Ontario chapter
Prostate Awareness study and educational materials development and publication
$29,000

- This funding should support the INSPIRES project by developing the educational modules required for INSPIRES (modules for patient education in all 3 phases of the clinical trajectory: pre-, during- and post-treatment). Needs so far identified (in prior studies) will be amplified by interviewing patients and with assistance from prostate support groups, and summarizing some of the literature and web-site topics/questions, to develop a robust list of items to be mapped onto the clinical trajectory. Text “answers” will be pilot tested in men with cancer, prior to finalization. Such educational material will then be used in INSPIRES.

2012
Abbott Laboratories, Educational Grant
$3,500

- This funding was used in support of additional statistical training in advanced methods, summer 2011.

2009
Abbott Laboratories, Educational Grant, Rounds support for Patterns of Needs initiative, CVH meeting, March of 2009
$450

- This funding supported an inter-disciplinary team meeting to review the patterns of needs as identified in STEPS-3 and ESAS data (n=2,000 patients) to establish a framework and criteria for analyzing disciplinary screening, assessment and responses to patient needs in 23 domains of care (e.g. nutrition, complementary therapies, anatomic system symptoms and signs)

2009
Sanofi-Aventis, unrestricted grant, Psycho-social oncology measures
$5,000

- This funding supported an evaluation of patient self-reporting using systematic screening tools for supportive (e.g. adverse symptoms and signs) and psychosocial (e.g. nutrition, emotions, spirituality) needs. We identified 10 validated, external tools suitable for such screening (PNAT, City of Hope,
PSSCAN, SCNS-LF59, MSAS, PICKER, CARES, CARES-SF, CCM and CPNQ) and cross-tabulated their questions, by care domain, with those in STEPS-3 and ESAS and the AUA(prostate), to identify coverage, agreement and psycho-metric issues. The total number of independent logical content questions was greater than 600 for all 13 instruments. This work was done to provide as background for an internal review of the radiation oncology program’s approach to the management of needs, particularly comprising one element for guiding the evolution of STEPS-3.

2008
Sanofi-Aventis, unrestricted grant, Psychosocial oncology measures for emotions
$15,000
- This funding supported conceptual, logical and psychometric analyses of 107 tools for screening for the emotions, with and without cancer. A total of 3,455 questions were assembled from the 107 tools, and divided into non-emotional and emotional domains, and the emotional questions were analyzed for content and distilled to 27 domains (25 specific and 2 overall). A manuscript was submitted (Supportive Care Cancer) with feedback. Presentations were made at CAPO and Kingsbridge (RMP U of Toronto). Results confirmed that the emotional tool in STEPS-3 (31 questions) contains 18 of the main domains and 9 of the 10 items of the International Positive and Negative Affect Score Short Form (I-PANAS-SF, with only 2 factors), particularly those most relevant to use with patients with cancer. Data using the EMO-module (Affective or Emotional Oncology screening tool) of STEPS-3 is accumulating; preliminary analyses indicate a 5-factor structure, which can guide further development of EMO.

2003-2005
Cross-sectional survey of 300 women with breast cancer who are receiving breast radiotherapy (1) to explore complementary therapies, mental state and core spirituality, (2) to methodologically compare several measures of spirituality & religion. Canadian Radiation Oncology Services, Toronto-Sunnybrook & Women’s College Hospital. Privately funded (patient donations, and staff support)
$3,000
- This funding was used to fund the TSRCC-CROS study, in 196 women with breast cancer (356 approached, 555 consecutive cases). The study demonstrated the dynamism of Rel./Spirituality in response to a diagnosis of cancer, further validating SQ-30 and RS-15. Randomization of 4 questionnaires in religion and spirituality demonstrated no effect of randomization on patient self-scoring of all questions-items. This work provides some of the background for the present studies (2011-2012) of CHARM and PRINCE CHARMINING, in which the relevance of appraisal (relational meaning, per PSS of S Cohen) and emotions (I-PANAS-SF) may be summarized by distress (DT), how these relate to coping strategies (CSI-R of PT Wong), and how those relationships may differ based on symptoms of mood disorders, and religion and spirituality. These, in turn, provide theory-frame for INSPIRES.

2003
A cross-sectional survey of quality of life in 100 dermatology patients receiving treatment at a regional photo-dermatology unit. Research Development Fund, Hamilton Health Sciences
$6,200
- This funding was used to conduct an ethics-approved cross-sectional study in 107 patients with MF undergoing phototherapy in Hamilton. Results were presented at specialty meetings.

2002-2005
Co-applicant with Dr. Figueredo, Medical Oncology
Analysis of QOL and outcomes in 1,000 GI Oncology patients managed from 1993-1999 at the HRCC.
**Academic Enhancement Fund HRCC**

$18,000

**2002-2004**

*Understanding the Cancer Experience in Patients with Mycosis Fungoides, including quality of life, function, spirituality and religion, and use of complementary therapies. Patient donations*

$1,120

- These funds were used to survey patients to determine patient understanding of the dimensions of spirituality and religion, and to clarify the definitions. New tools, Spiritual Quotient 30 (30 questions) and Religion-Spirituality 15 (later 18), were developed and validated against SWBS, SBI-15R, RFU and DRE. These findings laid the ground-work for a follow-on study at TSRCC (CROS). Results were presented at several meetings.

**2002-2004**

*An update of the Mycosis Fungoides Data-base at Hamilton, Academic Enhancement Fund HRCC*

$10,500

- This funding was used to finalize the MF data-set of the Canadian Co-operative MF Study Group of the Canadian Dermatology Society for further reporting. This took the data-set from 550 to 952 patients, with complete updates into 2004. This led to abstracts and published papers.

### 2.11 Quality of Treatment

**2012-2013**

*Canada’s Motorcycle Ride For Dad, Central-West Ontario chapter*

*Peel Regional Oncology Studies to Advance the Experience-Biomedical outcomes study 12-01*,

$21,084 for 1 yr

- This funding should support the on-going characterization and classification of main adverse events (rectum and bladder) for all 480 prostate-only radiotherapy cases already extracted, and the additional cases from March 2011 through to the end of 2012 with PORT.

**2011-2012**

*Canada’s Motorcycle Ride For Dad, Central-West Ontario chapter*

*Peel Regional Oncology Studies to Advance the Experience-Biomedical outcomes, PROSTATE*

$14,525

- This funding is to complete the characterization of several adverse events for the rectum for prostate-only radiotherapy (see past grants and funding relating to PROSTATE), using methodology developed at CVH. It will also classify bladder AE into grades according to CTC and similar scales, for comparison.

**2011**

*Sanofi-Aventis, unrestricted grant, PROSTATE*

$7,500

- This funding was used to expand the PORT analysis to 480 cases, further refining data management methods, leading to a basic analysis of changes in baseline CT-scan based Dose-Histograms with changes in technology, but no appreciable changes in rates of bleeding (present/absent). This finding suggested the need to (1) look at CBCT information for during-treatment-course organ motion, (2) look at sub-sections or partial-volumes to better characterize the elements of the histograms, and (3) to better
characterize the outcomes (a multi-dimensional classification system, needing to be developed).

2010
Sanofi-Aventis, unrestricted grant, PROSTATE
$5,000
- This funding was used to foster the PROSTATE data-set. This combined three existing data-sets (Clinical and risk-stratification variables, STEPS-1 and STEPS-3 baseline data, DVH plots, and PSA and clinical outcomes), with further amplification of data (current to early in 2011) to enable an analysis of outcomes for the first 128 prostate-only radiotherapy (PORT) patients treated at CVH 2005-2007. This study developed methods for expanding the data-set to include the 480 PORT patients treated at CVH 2005(July)-2011(March) using 3D-CRT, IMRT and VMAT technologies.

2.12 Quality of Decision-Making

2001
Social Capital and Knowledge Creation by patients on an international ListServ, Hamilton Regional Cancer Centre Foundation
$2,900
- This funding was used to evaluate the America Cancer On-line Resources list serve activities from 1995 through 2001 for the sub-group of Cutaneous T-cell Lymphomas. Overall, more than 16,000 listings were classified by subject and author, to look at topic coverage, social capital and democratic participation patterns. There were detailed analyses of content, particularly focused on radiation and new chemotherapy and immune-modulation agents. The conclusion was that this patient-based network community was low on social capital, with too high a turn-over in membership, and a relatively undemocratic participation pattern, to be of value relative to the social capital present in a case conferencing context (for MF and GI malignancies). Results were presented at the Society for the Advancement of Socio-Economics, and were discussed with the ListServ controller Judy Jones, influencing in broad terms the further development of the MF Foundation materials (e.g. FAQ’s).

1997-1998
Development and testing of Dynamic Care Webs for the GI DST to capture case-conferencing knowledge and guide patient care
$2,500 (donation)

2.13 Quality Paradigm

1995-1997
A Social Willingness-to-Pay Survey for allocating funds under a binding budget, McGregor Clinic Fund, Hamilton Civics Hospitals
$4,000
- This funding was in support of my thesis (MSc), which was a pilot project. Monies were used to reimburse participants of the survey. The research question was the feasibility of using WTP methodology to determine social preference for budget allocations. Based in neoclassical welfare economic theory, results demonstrated construct validity for the measurement tool. Subsequent work elaborated WTP as a method for assessing willingness of patients to use communication aids with different attributes for the self-reporting of symptoms (e.g. ESAS and similar tools) in 2008-2009, resulting in a paper (Patient Education and Counseling, 2010). Findings are relevant to the INSPIRES
initiative and for evolving STEPS-3 and the emotional module of STEPS-3 (EMO).

2.14 Other/Non-Series

2003-2005
Co-applicant with Dr. Wong, Radiation Oncology
Randomized study of the use of acupuncture-like transcutaneous nerve stimulation (CODETRON) in the prevention of radiation-induced xerostomia in head and neck cancer patients during radical radiotherapy.  
Hamilton Health Sciences Foundation  
$43,545

2003
Co-applicant with Dr. Wong, Radiation Oncology
Photographic analysis of the tongue in patients with gastrointestinal cancers  
Juravinski Cancer Centre  
$4,000

2001-2004
Co-applicant with Dr. Haywood, Physics
Use of polarization photography in determining skin cancer margins for radiotherapy.  
Hamilton Regional Cancer Centre Foundation  
$16,032

2000-2004
Co-applicant with Dr. Haywood, Physics
Measurement of erythema during total skin electron (TSE) radiotherapy Mycosis Fungoides  
The Varian Research Group  
$18,106

1999-2001
Co-applicant with Dr. Haywood, Physics
Measuring hypoxia and predicting tumour radiation resistance in esophageal cancer  
Hamilton Regional Cancer Centre Foundation  
$12,600

2002-2003
Co-applicant with Dr. Haywood, Physics
Optimization of ALA mediated Photodynamic therapy using in vivo fluorescence  
Hamilton Regional Cancer Centre Foundation  
$6,000

1999-2004
Co-applicant with Dr. Wong, Radiation Oncology
Phase I/II study of codetron in the treatment of xerostomia in head and neck patients  
Hamilton Health Sciences Corporation  
$19,918
1999-2001

Co-applicant with Dr. Wong, Radiation Oncology
Measuring hypoxia and predicting tumour radiation resistance in esophageal cancer
Hamilton Health Science Corporation
$12,000

2.15 CLINICAL TRIALS GROUPS

None at present

2.16 PHARMACEUTICAL STUDIES

LEDERLE-QUADRALOGIC

My involvement was to establish a national team of investigators and chair several sub-groups by anatomic site. This was a non-reimbursed activity, but it was in line with an interest in Hamilton to develop a PDT program at the HRCC. Given the evolution of no PDT at the HRCC, but done at other hospitals, plus some Health Canada issues about setting up new clinical programs, and Brian Wilson (physics, laser applications expert) moving to Toronto from Hamilton, it was decided to terminate activity in 1992.

POSITIONS
1990-1991 Coordinator of Central West Ontario Region Clinical Unit in Photodynamic Therapy
   Hamilton Regional Cancer Centre & St. Joseph’s Hospital, Hamilton, Ontario
1990-1991 Coordinator, for MaTCH (Montreal, Toronto, Calgary & Hamilton sites)
   National Photodynamic Therapy Initiative, Lederle and Quadralogic Technologies

MEETINGS
1991 Photofrin Bladder investigator’s meeting, Florida
1991 Photofrin Lung investigator’s meeting, Toronto, Ontario
1991 Photofrin PDT brain tumour group of Ontario, Hamilton, Ontario
1990 Meeting, PDT in Oncology, Clinical Applications, Lederle-Cyanamid, Toronto ON

Declined

None
Salary Support and Other Funding

PERSONAL SALARY SUPPORT

Submitted, decision pending in June, 201
Commencing in June for 3 yr duration
Career Scientist Position, Ontario Association of Radiation Oncologists (OARO)
Base Salary, for 80+% protected time

TRAINEE SALARY SUPPORT

2.17 IAEA

None presently

2.18 Quality of Life

2009
2 Canada Student Jobs ($10/hr total): Psychosocial screening & Medical screening tools
$3,750
- This federal funding was used in support of two studies looking at screening tools for medical and psychosocial needs and concerns of patients with cancer. Reports were generated based on statistical summaries of CVH data, literature reviews of subject area (23 domains of care), and a meta-analysis of two dozen extant screening tools (e.g. CARES, PCAN). Reports consisted of: (1) present methods for screening; (2) present disciplinary methods for assessment; (3) statistical results at CVH (n=4,000 patients, STEPS and ESAS); (4) revision of the prior conceptual, logical and psychometric analyses of present questions and tools; (5) models of care based on international societies and publications; (6) present disciplinary and inter-disciplinary responses to identified needs; and (7) recommendations for improvement/change (e.g. how to change STEPS-3 to STEPS-4). These reports led in 2010 directly to the approach of INSPIRE as a way of organizing supportive and psycho-social care for ambulatory patients.

2.19 Quality of Treatment

2012
1 Canada Student Jobs (8 weeks at 30 h per wk and $5.43 per hour, PROSTATE)
$1,303.12
- This funding is to complete the characterization of several adverse events for the rectum for prostate-only radiotherapy (see past grants and funding relating to PROSTATE), using methodology developed at CVH. It will also classify rectal AE into grades according to CTC and similar scales, for comparison.

2.20 Quality of Decision-Making
None Presently

2.21 Quality Paradigm
None Presently

2.22 Other/Non-Series
None Presently

2.23 Clinical Trials Groups
None Presently

2.24 Pharmaceutical Studies
None Presently

OTHER FUNDING

2.25 Clinical Trials Groups

2010-present
**PROFIT**, Randomized Trial of Prostate Fractionated Irradiation Trial

2007-2011
**NCIC**, breast CTG, **RAPID** study (partial breast radiation vs. whole breast radiation)
McMaster University, Randomized Trial of Accelerated Partial Breast Irradiation

2009
**NCIC**, CTG PR.12, A Phase III Study of Neoadjuvant Docetaxel and Androgen Suppression
plus Radiation Therapy versus Androgen Suppression alone plus Radiation Therapy for
High-Risk Localized Adenocarcinoma of the Prostate, (DART)

1996-2004
**RTOG**, Hamilton Regional Cancer Centre, full member institution of the RTOG. Radiation Therapy Oncology
Group (RTOG) per case funding provided for personal patients entered onto clinical trials, including patients
with gastric, rectal, liver, pancreas and anal cancers. Was local principal clinical investigator for a trial testing
adjuvant chemotherapy for patients with pancreatic cancer who were undergoing a Whipple’s procedure.

1995-1996
**NCIC**, Randomized trial in Hodgkin’s Disease, (HD-6; became an Inter-group SWOG & ECOG study &
formally closed 2002)
2.26 Pharmaceutical companies

Responsible for recruiting and managing patients for the trial; I placed 8 cases on trial, but left HRCC for CVH and so my commitment then ceased. Reimbursement per-case funding was approximately $16,000 for a total of $128,000.

2003-2004
Ligand pharmaceuticals, FDA approved clinical trial for full licensing of ONTAK
Study 93-04-11 Randomized Trial of DAB389-Il-2 in Stage IA-III CTCL patients
Principal Investigator at HRCC/JCC, International trial

2003-2004
Ligand pharmaceuticals, FDA approved clinical trial for full licensing of ONTAK
Study 93-04-14 Trial of DAB389-Il-2 for CD25- or refractory 93-04-11 CTCL patients
Principal Investigator at HRCC/JCC, International trial
D Publications
1. **MOST SIGNIFICANT PUBLICATIONS**

**PARADIGMATIC EXTENSIONS TO EVIDENCE-BASED MEDICINE**

1. **Jones, GW.** Data management, IAEA. Book, IAEA press, **2012.**

**NATIONAL GUIDELINES IN PSYCHOSOCIAL ONCOLOGY (CANADA)**


**MYCOSIS FUNGOIDES EXPERTISE (TEXTBOOK, GUIDELINE, META-ANALYSIS)**


**IAEA RANDOMIZED CONTROLLED TRIAL (ESOPHAGUS)**

2. PEER-REVIEWED PUBLICATIONS

Journal Articles (37)


35. Friedman E, Jones GW. Fetal outcome after exposure to maternal therapeutic radiation for


**Case and Case-Series Reports (6)**


**Abstracts (103)**

**PRESENTATIONS (59)**


2. Leung M, Higgins B, Myers R, Kim J, Marr T, Eustaquio J, Kano J, **Jones G**. Pain severity & impairment of activity between pegfilgrastim (P) and fixed dose filgrastim (F) in women with early stage breast cancer receiving chemotherapy, *ASCO*, May, **2012**.


Academic CV of G W Jones as of Apr 11 2012


MEETING POSTER DISCUSSIONS (4)


POSTERS (30)


**WORKSHOPS (10)**


9. **Jones GW**. CAN12349 Esophageal protocol. IAEA investigators’ meeting, Juravinski Cancer Centre,
10. Jones GW. The medical science of clinical spirituality. CMDS, At the interface of Spirituality and Medicine, Niagara Falls, May 1, 2004.

Books (2)

1. Jones, GW. Data management, IAEA, 2012

2. Jones, GW. A Justification and adaptation of a methodology of contingent valuation (Willingness-To-Pay) to measure social preferences for allocating medicare services under a binding budget with an example from Radiation Oncology. McMaster University, 1996 (MSc Thesis)

Books Edited (None at present)

Book Chapters (11)


Manuals (None at present)

Editorials (None at present)

Commentaries (None at present)

Letters to Editor (20)


Monographs (None at present)

Multimedia (None at present)
Other Publications (13)

GUIDELINES (2)


COLLABORATIVE WORKS (2)


ACKNOWLEDGMENTS (9)


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles (16)


Case Reports (None at present)

Abstracts (None at present)

Books (None at present)

Books Edited (None at present)

Book Chapters (None at present)

Manuals (None at present)

Editorials (None at present)

Commentaries (None at present)
Letters to Editor (7)


Monographs (3)


Multimedia (4)

4 TELEVISION SHOWS

1. Faith and healing. Connie Smith. CH TV, June/04, 30 mins.

Other Publications (9)

9 WRITTEN CITATIONS

4. SUBMITTED PUBLICATIONS

Journal Articles (2)

Case Reports (None at present)

Abstracts (2)

PRESENTATIONS (1)

WORKSHOPS (1)

Books (None at present)

Books Edited (None at present)

Book Chapters (None at present)

Manuals (None at present)

Editorials (None at present)

Commentaries (None at present)

Letters to Editor (None at present)

Monographs (None at present)

Multimedia (2)
1. AFROG AFRES
2. AFROG In-context learning

Other Publications (None at present)
E. Presentations and Special Lectures
Each of the following are presentations, without formally published abstracts. Published abstracts are listed under Publications.

**PRESENTATION AWARDS**

Presentation by Dr. Jones
2008  Best speaker, PMH-UofT-RMP Conf: Global perspectives, Local outcomes. April, 2008

Presentation by Dr. Wright
1993  Wright J, Jones GW, Lukka H. Patient Preference for dose rate in brachytherapy for cervix cancer. (CARO, Royal College, Sep/93, presented by Wright, won second prize in resident competition out of 18 submitted papers)
1. INTERNATIONAL

Abstracts and Other Papers
PENDING: ASTRO Cancer Disparities Symposium speaker, Boston MA, Oct 29 or 30, 2012

Invited Lectures and Presentations
2011 Nov    AORTIC, invitation to present at bi-annual meeting, Cairo EGY, Nov 2011
(canceled)
2009 May    NAHU seminar series, Vienna AU: “Health economics and evidence-based oncology, an expanded decision-making framework for allocating resources and improving outcomes”
2008 Sep    NAHU seminar series, Sept 9 2008, Vienna AU: Data management in clinical research in developing countries, including good clinical practice (strategy for GCP compliance)
2002 Nov    Johannesburg, Dept. of Radiation Oncology, South Africa
             Recent advances in the management of Mycosis Fungoides
2002 Sep    Yale University, Dept. of Radiation Oncology, Connecticut USA
             The electron beam paradigm for managing Mycosis Fungoides:
             A competitive clinical management strategy improved by recent advances
2002 Sep    Boston University Medical School, CTCL Meeting
             An Update on Electron Beam for CTCL (Mycosis Fungoides)
1999 Nov    Haifa and Tel Aviv, Israel: 3 presentations plus one main meeting
             Israel Dermatology Society, CTCL conference, Tel Aviv IS
1998 Sep    EORTC & International Society Cutaneous Lymphomas meeting
             Cutaneous T-Cell lymphoma, Consensus conference on radiotherapy
             (plenary speaker), Vienna AU
1996 Nov    The survival experience of 583 patients with Mycosis Fungoides
             Yale School of Medicine, Connecticut USA
1995 Dec    Soft-Tissue Sarcoma Collaborators’ meeting: Clinical Background & Making the Case
             For Adjuvant Chemotherapy (prior to a Patient-specific Meta-analysis Type III)
             Cambridge, United Kingdom
1994 Oct    Boston University Consensus Conference: Total Skin Electron Radiation in MF
             International Consensus Conference in Cutaneous T-Cell Lymphoma, Boston MA

Media Appearances
None at present

Other Presentations
None at present
2. NATIONAL

Abstracts and Other Papers
None at present

Invited Lectures and Presentations
2004 May
   At the interface of Spirituality and Health Care
   Annual National Conference, Niagara ON, Christian Medical-Dental Society
   Workshop: The Medical Science of Clinical Spirituality
2000 Apr
   National Care-Path Conference: linking wisdom, knowledge and technology
   Burlington, ON
1998 Jun
   Mycosis Fungoides, Canadian Dermatology Society, Toronto, ON
1993 Jun
   Regent College: Economic Allocation under a binding budget
   Clinical Bioethics Conference, Vancouver, British Columbia
1993 Apr
   McGill University: Clinical studies in Mycosis Fungoides

Media Appearances
None at present

Other Presentations
None at present
3. PROVINCIAL/REGIONAL

Abstracts and Other Papers
None at present

Invited Lectures and Presentations
2009 Apr Cancer survivorship & Thrivorship, McMaster, Albert Lager, to public, Apr. 14
2008 Jan Princess Margaret Hospital, RMP rounds, Clinical trials of IAEA of United Nations
2004 May Princess Margaret Hospital, Rad. Onc. Division, MF Management & Research
2003 Jun Body, Mind & Spirit: from cancer to an experience with cancer, and “core” spirituality
Keynote speech, Breast Cancer Support Services Inc
2003 Annual General Meeting, Burlington Arts Centre
1999 Apr Sunnybrook Dermatology: MF general talk and update
1997 Jun Panel member—Law, Ethics & Health Economics. London, ON
1997 Apr Sunnybrook Dermatology: MF general talk and current findings
1995 May Toronto-Bayview Cancer Centre OCTRF: Economic Evaluations
1994 May OMA-Radiation Symposium: Cost and preferences for brachytherapy
1994 May OAMRT annual meeting: "Who chooses? High vs. low dose rate brachytherapy"
1992 Oct Kingston Cancer Centre: Mycosis Fungoides -- TSEB results
1992 Oct Kingston Cancer Centre: Meta-analyses in medical oncology
1992 Jun Sunnybrook Dermatology: MF 1956-91 Beam methods and outcomes
1992 Jun London Cancer Centre: Meta-analyses in oncology
(Printed in: Resource issues in the practice of Radiation Oncology in the 90's)

Media Appearances
None at present

Other Presentations
None at present
4. LOCAL

Abstracts and Other Papers
None at present

Invited Lectures and Presentations
2004 Mar Forming and Maturing Spiritual Wisdom, Medical-Dental Society/Hamilton Chapter
1997 Mar Hamilton Dermatology Rounds, MF: old concepts, new directions
1995 Feb Hamilton Plastic Surgery Rounds: Mycosis Fungoides
1993 Sep Patient and Staff preferences for dose-rate in brachytherapy for cervix cancer
1991 May Hamilton Dermatology Rounds, MF: old concepts, new directions
1990 Oct GU Rounds - McMaster University: PDT in GI malignancies
1990 Oct Surgical Grand Rounds - McMaster University: PDT in Urologic Cancers
1990 Oct Supportive Cancer Care Unit Rounds, HRCC

Media Appearances
None at present

Other Presentations

 ROUNDs

 CVH ROUNDS

• ROR = Regional Oncology Rounds at Credit Valley Hospital (CVH)
• RTQA = Radiotherapy Quality Assurance and Educational Rounds at CVH
• PRCC = Peel Regional Cancer Centre

2011 RTQA: Prostate planning parameters in 480 PORT, Dec 2011
2011 ROR: Prostate plans and clinical outcomes in 250 PORT, Sep 2011
2011 Clinical Rad. Onc. Rounds: Prostate plans and clinical outcomes in 128 PORT, May 1
2009 ROR, Integrating health economics and evidence based medicine, CVH, Jun 10
2009 ROR, Malignant pleural effusions: Benchmark to practice change, CVH, Mar 23
2009 Hudson J, Jones D, Higgins B, Goulbourne M, Kiteley C, Young B, Jones GW
2009 RT QA ICARO summary: planning, QA, toxicity, fractionation and anatomic
atlases in radiotherapy: Present trends and new evidence, CVH, Sep 2009
2009 RT QA Benchmark strategies: DVH in prostate cancer, CVH Feb 2009
2009 RT QA MF-CTCL: an introduction, CVH, Feb 19, 2009
2009 Psychology rounds, Emotions and Cancer, CVH, Jan 23, 2009
2008 Nursing Rounds, MF CTCL, Feb 19, 2008, CVH
2007 ROR: Systematic assessments of physical and emotional symptoms Sep 2007
2007 ROR: The OOHH as a measure of patient needs and distress Jan 2007
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<th>Year</th>
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<tr>
<td>2006</td>
<td>ROR: Randomized trials of the IAEA Sep 2006</td>
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<td>2006</td>
<td>ROR: Aligning evidence &amp; funding priorities with preferences Jun 7, 2006</td>
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<td>2006</td>
<td>ROR: Limitations of Evidence-Based Medicine: A “progress trap”? Apr 2006</td>
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<td>2005</td>
<td>RT QA rounds: infra-diaphragmatic HD techniques, Nov 2005</td>
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<td>2005</td>
<td>RT QA rounds: supra-diaphragmatic HD techniques, Nov 2005</td>
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<td>2005</td>
<td>ROR: Interwoven journeys: pt. &amp; medical staff perspectives on radiotherapy, Sep’05</td>
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<td>2005</td>
<td>Tumor Board: Rectal Cancer policy for PRCC, GI Regional DST, Jan 2005</td>
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<td>2004</td>
<td>Tumor Board: The cancer experience in women with Breast Cancer, Dec 2004</td>
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<td>2004</td>
<td>Nursing Rounds, Radiation Oncology program, Oct 2004</td>
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<tr>
<td>2004</td>
<td>Family Medicine Rounds, Radiation Oncology services and plans at PRCC, Sep 2004</td>
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**TRILLIUM ONCOLOGY ROUNDS**

2008  Distress in patients with cancer, measurement and meaning, Jan 2008

**GRCC REGIONAL ONCOLOGY ROUNDS**

2005  The complex relationship of spiritual values and cancer, Sept. 2005

**HRCC/JCC REGIONAL ONCOLOGY ROUNDS**

2004  MF care-paths and research avenues
2001  Listserv experience = social capital? America Cancer On-line Resources (ACOR.org)
2001  Spirituality and Spiritual Care
2000  Health choice, Care-paths and Spiritual care
1997  A Theory of Medical Choice
1997  The World's Largest Experience with Cutaneous T-Cell Lymphoma
1996  Health Care Funding: Past, Harris, Future
1992  High dose vs. low dose rate brachytherapy for carcinoma of the cervix
1991  Adjuvant chemotherapy in soft-tissue sarcomas: A meta-analysis
1989  Cutaneous T cell Lymphoma: A descriptive review (1981-87) of our experience
1989  Hodgkin's Disease: who should undergo a staging laparotomy?
1989  Photo-Dynamic Therapy: The Radiation Oncology Perspective

**HRCC/JCC CLINICAL PRACTICE GUIDELINE ROUNDS**

2000  Dynamic care-paths & Disease Site Group cultural development
2000  Professional learning cultures for Disease-site groups
1999  Oncology-stress: from burnout to engagement with work
1997  Theories of Medical Choice
1996  Adjuvant chemotherapy and patient preferences in sarcoma management
1996  Sarcoma adjuvant chemotherapy: individual patient-data meta-analysis (MRC-UK)
1991  Malignant Gliomas in Adults: Prognosis and photodynamic therapy

**HRCC DISEASE SITE TEAM COUNCIL ROUNDS**

2004  MF progression in, and challenges for, small DST’s

**HRCC HEALTH SERVICES RESEARCH ROUNDS**

2000  Spiritual care within supportive care
2000  Evolving care-paths: technology; patient needs

**HRCC RADIATION ONCOLOGY DEPARTMENT ROUNDS**
1992  Thyroid Ophthalmopathy of Graves' Disease—Radiation Management
1992  Lymphoma of the Testis—Case series
1992  Methods of statistical analysis—a sample, clinical data set
1990  Stage I Mixed Cellularity Hodgkin's Disease—Management controversies
1990  Second malignancies in Hodgkin's
1990  Rare Vascular Malignancies: Cases, Review of Literature
1989  Thymic Carcinomas: Cases, Vancouver Experience (n=44) & World Literature
1989  Medulloblastoma in pregnancy: A formal decision-analysis with utilities
1989  Histiocytosis X

**HRCC DISEASE SITE TEAM ROUNDS**
2004  10-yr outcomes and node pathology in 738 JCC colorectal cases ('94-'99)
2003  ASTRO summary: advances in GI Oncology and GI Radiation Therapy
2002  Assessing Whole-Person needs of the Patient with Cancer
2000  Health choice, Care-paths and Spiritual care
2000  Evolving care-paths: technology; patient needs
2000  Professional learning cultures for Disease-site groups
1999  Oncology-stress: from burnout to engagement with work
1996  Adjuvant chemotherapy and patient preferences in sarcoma management
1996  Sarcoma adjuvant chemotherapy: individual patient-data meta-analysis
1994  Management of high-neck IA Hodgkin's

5. **OTHER PRESENTATIONS**

**PRESENTATIONS BY OTHERS (LOCAL, REGIONAL, NATIONAL, AND INTERNATIONAL)**
Not responsible for presenting (i.e. others presenting but work done in preparation by me; no published abstracts)

1. Trishala Menon, Rectal and Bladder Structure and Function in patients receiving radiotherapy for prostate cancer, BIO400Y Internship Presentations, U of Toronto, Mississauga ON, Apr 2012
2. Ceeja Vaidhyan, The relationship between dimensions of distress and coping strategies in patients with breast cancer at the Peel Regional Cancer Centre, BIO400Y Internship Presentations, U of Toronto, Mississauga ON, Apr 2012
3. Carlone M. Quality Assurance in Radiation Oncology, Radiation Medicine Program, RMP PMH-UHN, Feb 2012
5. Nina Mazze. Clinical outcome of patients receiving 78 gray prostate only 3D conformal radiotherapy at Peel Regional Cancer Centre, BIO400Y Internship Presentations, U of Toronto, Mississauga ON, 2011
6. Tina Madzima. Relationship between adverse events and radiation dose distribution for patients receiving prostate only radiotherapy, BIO400Y Internship Presentations, U of Toronto, Mississauga ON, 2011.


11. Merrimen JL, Jones GW, Leung CS, Kapusta LR, Srigley JR. Atypical small acinar proliferation when combined with prostatic intraepithelial neoplasia on biopsy has a higher rate of cancer detection on subsequent biopsies than when diagnosed alone, United States and Canadian Academy of Pathology, 2009.


17. Peters VG. Use of an electron reflector to improve dose uniformity to the vertex during total skin electron therapy. Canadian Oncology Medical Physics, June 1996.


24. Muller P, Wilson BC, Jones GW. PDT of primary brain tumours: The Threshold Effect. 27th Canadian...
Congress of Neurological Sciences, Winnipeg, June 1992
25. Muller PJ, Wilson BC, Jones GW, Multivariant Analysis of 52 Cases of Primary Brain Tumours Treated with Photodynamic Therapy, 27th Canadian Congress of Neurological Sciences, Winnipeg June 1992

F. Teaching and Design
1. UNDERGRADUATE EDUCATION

**HRCC DOSIMETRY AND PHYSICS ROUNDS**
1996 Apr  Total body irradiation (TBI) dose-rate issues and meta-analysis of literature outcomes

**HRCC RADIOTHERAPIST ROUNDS**
1996 Sep  Electron Dose
1996 Apr  Techniques and uses of Total Skin Electron Radiotherapy
1990 Oct  Logistical issues in scheduling patients for accelerator treatments
1990 Apr  Technical issues in Non-Hodgkin's Lymphoma
1989 Sep  Agenda of clinical studies in Mycosis Fungoides
1989 Sep  Architecture of Clinical Studies
1989 Aug  Radiobiology for Radiation Technologists
1989 May  Photodynamic Therapy: a complete review

**ACADEMIC RADIOTHERAPIST STUDENT COURSE COORDINATOR**
Responsible for organizing the course
1986 Coordinator for Basic Sciences, Technologist Training Program
Cancer Control Agency of BC, Vancouver, British Columbia

**ACADEMIC RADIOTHERAPIST STUDENT TRAINING**
For institutional credit, responsible for parts of courses (3 h/session)
1992 Mar  Management of Lymphomas
1991 May  Chemotherapy
1991 Apr  A strategic look at Lymphoma, Leukemia, and Plasma cell malignancy
1991 Apr  Management and Radiation Techniques in Thyroid, adrenal, and pituitary

**RADIOTHERAPIST STUDENT TECHNICAL PAPERS**
For institutional credit, responsible for marking of a paper
1996 Jun  TBI for leukemias #42-94103, Mitchener Institute

**CLINICAL SUPERVISION, ROTATION, RADIOTHERAPY STUDENTS (1-5 d each)**
1994-99  1 to 4 students per year
1994 Mar  Marta Evans
1993 Dec  Steve Gauld
1993 Sep  Mandy Coalvad
1993 Aug  James Runkel
1993 Mar  Steve Cooper
1991     Mike Godfrey
2. GRADUATE EDUCATION

None at present
3. UNDERGRADUATE MD

ACADEMIC CLINICAL COURSES, MEDICAL SCHOOL
For institutional credit, responsible for each complete course

Medical school, UNIT teaching, tutor/leader, McMaster U students
Sep-Nov/00 Unit 1 (6 first year students, 100 h of tutorials plus related administration, marking)
Sep-Dec/98 Unit 1 (5 first year students, 100 h of tutorials plus related administration, marking)

Medical school, International Student Elective Support, McMaster U students
2003 Assist Sheryl Alger, (McMaster U), Two countries in Africa
1997 Assist Rosemary Zacharias (McMaster U), Zambia
1995 Assist Dale Needham (McMaster U), West Africa

MEDICAL STUDENTS

MEDICAL STUDENTS, SELF-DIRECTED STUDENT LECTURE SERIES (CATS)
2001 Critical Thinking, 100-Student Symposium workshop:
Mind & Spirit in Medicine: Physiology, Assessment, Measurement & Care

STUDENT RETREATS COURSES AND WORK-SHOPS (2hr/session)
1992 "Workshops: Economics" Medical Student Winter Retreat, Toronto
1992 "Workshops: Euthanasia" Medical Student Winter Retreat, Toronto
1992 "2 cases:cancer, fetal-tissue transplantation, mifepristone", 3 2 hr sessions, Toronto
1991 "Beyond the rules: A call to ethical excellence" 4 biweekly 1.5 hr sessions, Hamilton
1989 "Principles and Modern Ethics" 9 weekly 2 hr sessions, Hamilton
1989 "Meaningful Priorities, Personal Resource Management and Social Impact" Medical Student Leadership Conference, Aurora, ON

ISOLATED LECTURES, MEDICAL-DENTAL SOCIETY (2hr/session)
2005 “SHAPE as a way to focus one’s own purpose and avoid burnout”, Hamilton
2002 “Meaning of recent international meetings about spirituality & health care”, Hamilton
2001 “Patient Understanding of Spirituality in Health Crisis”, Hamilton
2001 “Conducting spiritual histories & administering spiritual care”, Hamilton
2000 “Spirituality vs. Religion”, Hamilton
1998 “Diversity and Pluralism in Medicine”, Hamilton
1997 "Values and Practice Guidelines", Hamilton
1996 "Small group dynamics", Hamilton
1995 "Health Care Funding and the Rise and Demise of the Welfare State", Hamilton
1994 "Finite budgets & Health Economics: Ethical Questions", Hamilton
1991 "Fetal Tissue Transplantation: Hype and Science" Hamilton
1991 "Defining Quality of Life: The current conceptual confusion" Hamilton
1990 "Applying ‘Quality of Life' in Medicine" Hamilton
1990 "Principles in office management" Hamilton
1990 "Leadership" Medical Student Leadership Conference, Aurora, ON
CLINICAL SUPERVISION, ROTATION, MEDICAL STUDENTS, McMaster U
2003  Orli Goldberg, 1 week Research elective, (Unit 5, McMaster U)
1996  1 week clinical, R Verhaaghe
4. POSTGRADUATE MD

CLINICAL SUPERVISION, ROTATION, RADIATION ONCOLOGY RESIDENTS
2011  1 month, Fazilat Mohammed, PGY5 PMH (Apr)
2010  1 month, Junaid Youusuf, PGY5 PMH (July)
2010  1 month, Joda Kuk, PGY5 PMH (Sept)
2010  1 month, Crystal Hann, PGY5 PMH (Sept)
2009  1 month, Hany Soliman, PGY5 PMH (May)
2009  1 month, Sarah Rauth, PGY5 PMH (May)
2003  2 months, Kim, HRCC
2001  1 month, F Mothaffer, HRCC (Kuwaiti resident)
1998  3 months, M Leoffleman, HRCC
1997  3 months, D DeSouza, HRCC
1995  2 months, J Wright, HRCC
1995  3 months, W Koll, HRCC
1994  3 months, S Ahmed, HRCC
1994  2 months, N Ahmed, HRCC
1994  3 months, S Senthalel, HRCC
1994  3 months, B Strang, HRCC
1993  3 months, N Ahmed, HRCC
1993  3 months, D Hoegler, HRCC
1993  2 months, W MacMillan, HRCC
1992  3 months, J Wright, HRCC
1992  3 months, E Friedman, HRCC
1990  3 months, O Agboola, HRCC
1989  2 months, K Schnieder, HRCC

CLINICAL OCSE, ONTARIO ONCOLOGY RESIDENTS (all-day event)
1994 Apr  Full day, examination of residents in epidemiology; discussions about lymphomas

CLINICAL MOCK EXAMINATIONS, ONCOLOGY RESIDENTS (1-4 h/session)
1995  one resident (W Koll)
1994  one resident (B Strang)
1994  OSCE in Radiation Oncology (Provincial)
1994  one resident (S Senthalel)
1994  one resident (S Ahmed)
1992  two residents (J Wright, N Ahmed)
1992  one resident (E Friedman)
1991  one resident (O Agboola)
1990  two residents (O Agboola, K Schnieder)

ACADEMIC COURSES, ONCOLOGY RESIDENTS
Responsible for each complete course

1997  Clinical Epidemiology & Ethics (3 h/session)
1997 Dec Biomedical Ethics (Discussion Group)
1997 Dec Informed Consent
1997 Jul Screening & Diagnosis (Tutorial in Appraisal)
1997 Jul Therapy (Tutorial in Appraisal)
1997 Jun Prognosis; Etiology & Histories (Discussion Group)
1997 Jun Randomized Controlled Trials (Discussion Group)
1997 Jun The philosophy of Evidence-Based Medicine (Lecture)
1997 Jun Etiology & Prognosis (Tutorial in Appraisal)
1997 May Measurement; Diagnosis (Discussion Group)

1995: Clinical Epidemiology (3 h/session)
1995 Jan Exposure and Etiology
1995 Jan Diagnosis and Classification
1995 Jan Prognosis and Outcomes
1995 Jan Therapeutics and Statistics

1993: Clinical Epidemiology (3 h/session)
1993 Feb Core Issues
1993 May Clinical Judgement -- What it is, and how to develop it.

1992: Clinical Epidemiology (3 h/session)
1992 Dec Outcome Measures and Decision Analysis
1992 Nov Prognosis
1992 Oct Diagnosis
1992 Sep Etiology
1992 Aug Epidemiology: Therapeutics--Critical Appraisal PBL exercise
1992 Aug Epidemiology: Therapeutics--Design and Analysis
1992 Aug Therapeutics—Appraisal
1992 Jul Introduction to Clinical Epidemiology

1991-1992: Clinical Epidemiology (3 h/session)
1992 Jan Why Randomize for therapy questions?
1992 Jun Controversies in randomized trials
1992 May Analysis strategies in randomized trials
1992 Apr Sample Size in randomized trials
1992 Mar Assembly and Randomization issues
1992 Feb Research Questions
1991 Dec Prognosis
1991 Nov Etiology
1991 Oct Decision Analysis
1991 Sep Odds, Likelihood, and Bayes Theorem
1991 Aug Diagnosis
1991 Jul Definition and Meaning of Epidemiology

ACADEMIC LECTURES, ONCOLOGY RESIDENTS
Responsible for parts of courses
**External resident academic teaching programs (2 h/session)**

- **2005 Jun**  Princess Margaret Hospital, Rad Onc Res (Design, Measurement, Analysis and Interpretation in clinical studies)

- **2004 May**  Princess Margaret Hospital, Rad Onc Res (“Visiting Professor”, radiobiology, MF)

- **1999 Nov**  Haifa Centre: Colorectal cancer, Sarcomas (“Visiting Professor”)

- **1996 Nov**  Yale Radiation Oncology Residents (“Visiting Professor”)

- **1993 Apr**  McGill Centre: Tolerance & Staging concepts (“Visiting Professor”)

- **1992 Oct**  Kingston Centre: Cutaneous Lymphomas (“Visiting Professor”)

**Local oncology resident academic training program courses (3 h/session)**

- **2003-2004**
  - **2003 Aug**  Spirituality in Medicine and Oncology

- **2001-2002**
  - **2002 Jun**  MF and TSEB

- **1999-2000**
  - **2000 Jul**  Ethics frameworks and Sacred spaces for sharing in ethical decision-making

- **1998-1999**
  - **1999 May**  Ethics applied to several cases
  - **1999 May**  Economics and Healthcare decision-making
  - **1999 May**  Professionalism and Knowledge Management
  - **1999 May**  Overview of Epidemiology
  - **1999 Apr**  Ethics overview
  - **1998 Oct**  Benign diseases
  - **1998 Oct**  Economics in general
  - **1998 Oct**  Health Economics and Contingent Valuations

- **1997-1998**
  - **1998 Jun**  Total Body Irradiation
  - **1998 Jun**  Lymphoma

- **1996-1997**
  - **1997**  locally advanced rectal carcinoma planning and combined therapy
  - **1997 Apr**  Anal Carcinoma (critical appraisal exercise of RTOG & ECOG trials)
  - **1997 Apr**  Esophageal Carcinoma Management

- **1995-1996**
  - **1996 Mar**  TBI, TSE, and Cutaneous Lymphomas
  - **1995 Nov**  Radiation techniques for benign & aggressive disorders

- **1994-1995**
  - **1995 Feb**  Lymphomas: A reprise
  - **1995 Jan**  Rappaport and Working Formulation Pathology Classifications
1994 Nov 4 Benign & Marginal Disorder Case
1994 Oct Justice in Clinical Ethics

1993-1994
1994 Mar Spleen & Abdomen techniques; Hodgkin's--anatomy & controversy
1994 Feb Advances in Etiology and Pathology of Hodgkin's
1994 Feb Meta-analysis of all Randomized trials in Stages I-II Hodgkin's
1993 Nov Benign & Marginal Disorders & Mycosis Fungoides
1993 Aug Hodgkins Disease, Autologous Transplantation
1993 Jul Myeloma Chemotherapy

1992-1993
1993 Basal Cell Carcinoma
1993 Mar Short Mantle for early Stage Hodgkin's--Rationale and technique
1993 Mar Mycosis Fungoides & Total Body Irradiation for Leukemias
1992 Quality of Life as an Endpoint of Therapy
1992 Lung Cancer-Kirsh et al & LCSG randomized trial
1992 Mycosis Fungoides: Kaye et al NCI-USA randomized trial
1992 Esophageal Cancer, adjuvant radiation and/or chemotherapy, 2 trials

1991-1992
1992 Randomized Trials in Hodgkin's Disease
1992 Early Hodgkin's Disease: Management & Techniques
1992 HD-6 Hodgkin's techniques
1992 Jun Experimental radiation therapies & PDT; Cost, Preference outcome measures
1992 Feb Early Stage Hodgkins Disease; Stage 1A non-Hodgkin's Lymphoma Techniques
1992 Feb Total Body Irradiation Techniques and Results

1990-1991
1991 TBI Technique
1991 Hodgkin's Work-up and Triage
1990 Jul Basic Principles of Patient Management in Oncology
1991 Jun Experimental Modalities in Cancer

1989-1990
1990 Apr Non-Hodgkin's Lymphoma: cause to cure; evolution of current treatment strategies
1990 Apr Hodgkin's Lymphoma: cause to cure; a review
1990 Apr Hodgkin's Lymphoma: A rational strategy for Clinical Stages I-IIA
1990 Feb Waldeyers-ring techniques in Lymphomas
1990 Jan Hodgkin's Disease: The Mantle Technique
1989 Dec Widefield and nodal radiation strategies for benign diseases
1989 Nov Critical Appraisal and Meaningful Research
1989 Aug Cutaneous oncology
1989 Mar Hodgkin's Disease: Predictive and Prognostic Factors
G. Research Supervision
Subsequent to 1989, and with a McMaster appointment commencing in 1991, I was responsible for teaching medical students and residents. My primary roles have been to provide “advanced” teaching to residents (and staff) regarding more special topics and skills, including evidence based decision-making and research. I have developed a strong theme with research internships and mentoring, shifting my affiliation recently from McMaster to University of Toronto to pursue this further. I have also been involved more with mentoring Radiotherapist staff (research mentoring for RT-led research projects) and senior under-graduate students in research internships (U of Toronto) or co-operative research semesters (U of Waterloo). I now plan to expand my post-graduate level activities, applying for Graduate Studies cross-appointment, to supervise U of T and international MSc and PhD candidates. I am also writing books on evidence-based medicine and research, data management and statistics, with target audiences of junior staff and early investigators.

1. UNDERGRADUATE EDUCATION

ACADEMIC RESEARCH PROJECTS-MENTORING
For institutional credit, responsible for each complete internship with mentored projects

High School, research projects (HSC = Hillfield Strathallen College)
2009 Science fair, Hillfield-Strathallen College, HSC, Hamilton
2008 Jones S. Patient understanding of clinical outcome language/terms. HSC, Hamilton
2008 Jones K. IMRT in prostate treatments. HSC, Hamilton

ACADEMIC RESEARCH COURSES-MENTORING
For institutional credit, responsible for each complete courses with respective research projects

High School, research course
1999-2000 Amy Wright, Patient Needs and spiritual care, Westmount HS, Grade 11 co-op

Undergraduate, U of Western Ontario & McMaster U, research course with respective research project
1994 Donna Marie, Approval Voting, Psych Student, U Western ON & McMaster U

Undergraduate, McMaster U, research course
2000 2 PT/OT students, Survey of rehab needs in out-patient cancer setting, McMaster U
1999 Leila Krieg, Patient Needs, Kinesiology III, McMaster U

PENDING: Meenu V, 4th year research internship, Prince CHARMing (distress and coping in men with prostate cancer), Sept 2012 – Apr 2013, 175 h

Undergraduate, U of Waterloo, Co-op courses with respective research projects
2009 Nathan Jones, Waterloo Nanotechnology Yr 2 Co-op program, 400h
Management of Malignant Pleural Effusions; Patient communication aids

2008 Nathan Jones, Waterloo Nanotechnology Yr 1 Co-op program, 400 h
Radiation planning decisions for prostate cancer; Patient communication aids
Undergraduate, U of Toronto, BIO400 research internships, with respective research projects

2011-2012  Trishala Menon, Rectal and Bladder outcome data extraction and scoring (PROSTATE study)
            U of Toronto BIO400 internship, 200 h

2011-2012  Ceeja Vaidhyan, Appraisal Theory and Coping with breast cancer (CHARM study)
            U of Toronto BIO400 internship, 200 h

2011  Venus Marwah, Bladder outcome data extraction and scoring (PROSTATE study)
       U of Toronto BIO400 internship, 75 h

2010-2011  Nina Mazze, Prostate data base, presentation and planning (PROSTATE study)
            U of Toronto BIO400 internship, 200 h

2010-2011  Tina Madzima, Prostate data base, outcomes and pathology core data coding
            (PROSTATE study)

2009  S Saraf, Psychosocial referral form evaluation
       U of Toronto BIO400 internship, 180 h
       U of Toronto BIO400 internship, 200h

2008-2009  William He, Comprehensive loco-regional toxicity assessments in women receiving Adjuvant RT for breast cancer: validation of a patient self-reporting communication Aid and variables that predict toxicities
            U of Toronto, BIO400 internship, 200 h

2008-2009  Nayae Kim, Patient preference regarding the use of self-report, communication aids During breast cancer radiotherapy: preference and strength of preference using Contingent valuation methodology (ESAS study)
            U of Toronto, BIO400 internship, 200 h

PENDING: Sept 2012-Apr 2013: 2 additional students, 200 h each

Undergraduate, Redeemer College, research internship

2011-2012  Christina Garchinski, Psychology 4th year, 200 h
2. GRADUATE EDUCATION

POST-GRADUATE MSc THESES
For institutional credit, project supervisor or thesis committee

2010-2011 Brenda Lunscombe, Leadership characteristics, Anglia University UK
1996-1999 Marcia Smoke, Project supervision and thesis committee, Radiotherapy

POST-GRADUATE MEDICAL FELLOWSHIPS
For institutional credit, project supervisor or thesis committee

2010-2011 Tsauria Erlwanger, Harare, Zimbabwe, Spinal cord overall survival as predicted by a prognostic scoring system, thesis RO fellowship
2007-2008 Jennifer Merriman, Urology Pathology Fellowship, CVH
1995-1997 Lori Stewart, Imaging in Mycosis Fungoides, Radiology Resident, 1 project, HRCC
1992-1995 Elena Savillo, Mycosis Fungoides, Pathology Resident, 2 projects), HRCC

RADIOTHERAPIST RESEARCH MENTORING COURSE, CVH-PRCC
Responsible for each complete course with internship and mentoring

RT research course
2009-2011 Course, PROPELLOR, Research methods and statistics (8 lectures x 1 hr each)
Seminar discussions for research projects (avg. of 1 per month, 1 hr each)

RT research projects (CVH ethics approved)
- 2009-present: Kovacs M, Marshall D, Smith C, Jones GW. A randomized trial comparing Skin Toxicity and quality of life when Antiperspirant / Deodorant and axillary shaving are used in patients receiving tangential radiation to the breast (STADS)
- 2009-present: Rinaldo A, Whate A, Jones GW. Radiotherapist perspectives on capacities for, and interests in psychosocial support for patients undergoing radiation therapy at CVH

RT projects (not requiring CVH ethics approval)
- 2009-present: Larsen T; Patient understanding of Well-Being and a critical review of the concept in the literature; limited relationships of those to the well-being in ESAS
- 2009-2010: Medlam G; More insightful way to classify variance in radiotherapy.
- 2009-2010: Kailin, Annie; Use of prostate clips post-prostatectomy as fiducial markers for the administration of radical radiation treatments.
- 2009-2010: Robin; Potential improvements in prostate boost planning for 2-phase radical treatment course using a second CT simulation, after phase one
3. UNDERGRADUATE MD

ACADEMIC RESEARCH PROJECTS-MENTORING
For institutional credit, responsible for each complete internship with mentored projects

Medical Students, research internships
2003   Olit Goldberg, T3 disease of MF, McMaster U
2003   Abby, Esophageal radical therapy (chemo-tele/brachytherapy), McMaster U
1991   Peter Vijnevic Ivan Smith fellowship McMaster University: MF presentation

PENDING DECISION:
CREMS University of Toronto student exchange, PRINCE CHARMING study
4. POSTGRADUATE MD

Radiation Oncology Residents, research projects
2003  Kerba, Thymomas and Thymic Carcinomas
1999  LeBlanc, Zero-7-21 QOL in head and neck cancer
1996-1997  Michael Lock & Dave Habling, TBI meta-analysis
1995  Willilam Koll, NHL CS IA: Chance of Cure after Radiation, a meta-analysis
1995  William Koll, Prostate implant, quality assurance, randomized trial
1993  William MacMillan, Mycosis Fungoides: Quality of Life Tools
1992-1993  Elaine Friedman, Case report: Fetus & radiation
1992-1993  Jim Wright, Patient Preferences: Cervix
CURRICULUM VITAE

Name: Dr. Juhu Kamra, MD, FRCPC, PhD(c)

Business Address: Department of Oncology
Royal Victoria Regional Health Centre
201 Georgian Drive
Barrie, ON L4M 6M2

Business Phone: 705-728-9090 x43352
Business Fax: 705-728-1122
Business Email: kamraj@rvh.on.ca

Last Updated: March 2012

Signature: Date: October 1st, 2013

EDUCATION

York University’s Schulich School of Business

Stepping Stones
Faculty of Medicine, University of Toronto

1998 – 2005 Doctor of Philosophy, candidate level
Department of Health Care & Epidemiology
Faculty of Medicine, University of British Columbia
Vancouver, British Columbia

1994 – 1998 Residency (PGY2 – PGY5)
Faculty of Medicine, McMaster University
Hamilton, Ontario

1993 – 1994 Internship (PGY1)
Faculty of Medicine, Dalhousie University
Halifax, Nova Scotia

1989 – 1993 Doctor of Medicine
Faculty of Medicine, Dalhousie University
Halifax, Nova Scotia

1986 – 1989 Bachelor of Science, Physics / Biology
Faculty of Science, University of New Brunswick
Fredericton, New Brunswick
CERTIFICATION

1998 Fellow, Royal College of Physicians and Surgeons of Canada

AWARDS

2008 Cancer Care Ontario, Quality Innovation Award – Canada’s First Portable Radiation Treatment Unit. Garth Matheson, Janice Skot, Tracey Keighley-Clarke, Juhu Kamra, RVH Corporate/Clinical/Support Teams, Harvey Emberley

2007 Peter’s Boyd Academy Award for Undergraduate Clinical Teaching for 2006 - 2007, Faculty of Medicine, University of Toronto

2005 Peter’s Boyd Academy Continuing Education Award for Excellence in Course Coordination, Faculty of Medicine, University of Toronto Ontario GI Multidisciplinary Oncology Conference 2004

2000 – 2001 Simon Foundation Doctoral Scholarship ($10,000) University of British Columbia

1999 – 2000 Charles C. C. Wong Scholarship ($16,000) St. John’s College, University of British Columbia

1994 First Prize for Original Research Atlantic Health Care Journal

1986 – 1993 Silver D, Faculty of Medicine Dalhousie University

APPOINTMENTS

2008 – 2012 Regional Lead, Radiation Oncology North Simcoe Muskoka Cancer Care Ontario

2008 – 2012 Program Head, Radiation Oncology Royal Victoria Hospital Barrie, Ontario

2008 – Present Radiation Oncologist, Consultant Staff Odette Cancer Centre, Sunnybrook Hospital Toronto, Ontario

2001 – 2008 Radiation Oncologist, Active Staff Odette Cancer Centre, Sunnybrook Hospital Toronto, Ontario

2001 – Present Member, Medical/Dental/Midwifery Staff Sunnybrook & Women’s College Health Sciences Centre

2000 – 2001 Locum Radiation Oncologist Vancouver Island Cancer Centre, Victoria B.C.
APPOINTMENTS (con’t)

1998 – 2001  Academic Fellowship  
Department of Radiation Oncology,  
British Columbia Cancer Agency  
Vancouver, British Columbia

MEMBERSHIPS

1994 – Present  Canadian Association of Radiation Oncologists (CARO)
1994 – Present  American Society for Therapeutic Radiation Oncology (ASTRO)
1993 – Present  Canadian Medical Protective Association (CMPA)
1994 – 2000  American College of Radiology

PROFESSIONAL ACTIVITIES

2012 – Present  Chair, Simcoe Muskoka Article Review for Therapeutic (S.M.A.R.T.)  
Oncology
2008 – 2012  Chair, Radiation Clinical Operations Committee  
Department of Oncology, Royal Victoria Regional Health Centre
2008 – 2012  Chair, Radiation Steering Committee  
Department of Oncology, Royal Victoria Regional Health Centre
2009 – 2011  Chair, Updates in Oncology, Simcoe Muskoka Annual Regional  
Conference
2004 – 2008  Director, Undergraduate Medical Education, Department of Radiation  
Oncology, Faculty of Medicine, University of Toronto
2004 - 2008  Conference Director, Ontario Gastrointestinal Multidisciplinary Oncology  
Conference in Association with the 11th Annual Update on Digestive  
Diseases
2004 – 2008  Undergraduate Electives Committee, Faculty of Medicine, University of  
Toronto
2004 – 2008  Member, Radiation Program Education Advisory Committee, Department  
of Radiation Oncology, Toronto Sunnybrook Regional Cancer Centre
2004 – 2008  Member, Postgraduate Medical Education Committee, Department of  
Radiation Oncology, Faculty of Medicine, University of Toronto
2004 – 2005  Member Organizing Committee, Toronto Radiation Medicine Conference,  
Department of Radiation Oncology, Faculty of Medicine, University of  
Toronto
2004 – Present  Member, CARO Symptom Control Committee
PROFESSIONAL ACTIVITIES (Cont…)

2004 – 2008 Member, Clinical Trials Committee, Toronto Sunnybrook Regional Cancer Centre

2004 – 2008 Member, Hematology Site Group, Toronto Sunnybrook Regional Cancer Centre

2004 – 2008 Member, Skin Site Group, Toronto Sunnybrook Regional Cancer Centre

2001 – Present Member, GI Site Group, Toronto Sunnybrook Regional Cancer Centre


2003 – Present Member, CCO GI evidence based clinical practice guidelines group

2002 – 2008 Undergraduate Medical Advisory Committee
Department of Radiation Oncology
Faculty of Medicine, University of Toronto

2002 Site Group Coordinator, Gastrointestinal Radiation Oncology Site Group
Toronto Sunnybrook Regional Cancer Centre

2001 – Present Member-at-Large, Gastrointestinal Cancer Tumour Group
Toronto Sunnybrook Regional Cancer Centre

2001 – 2008 Radiation Oncology Associates Group,
Toronto Sunnybrook Regional Cancer Centre

2001 – 2003 Member, Palliative Radiation Oncology Group
Toronto Sunnybrook Regional Cancer Centre

2001 – 2002 Member, Rapid Response Radiotherapy Program
Toronto Sunnybrook Regional Cancer Centre

2000 – 2001 Member, Vancouver Island Cancer Centre
British Columbia Cancer Agency Breast Tumour Group

2000 – 2001 Member, Vancouver Island Cancer Centre
British Columbia Cancer Agency Lung Tumour Group

1999 – 2000 Member, Curriculum Advisory Committee
Departmental Curriculum Restructuring Committee
Department of Health Care & Epidemiology
Faculty of Medicine, University of British Columbia

1996 – 1998 Chairperson, Committee of Residents and Fellows
Canadian Association of Radiation Oncologists

1997 – 1998 Chief Resident, Radiation Oncology Residency Program
Faculty of Medicine, McMaster University
PROFESSIONAL ACTIVITIES (Cont…)

1997 – 1998
Resident Representative, Department of Radiation Oncology
Postgraduate Education Committee
Faculty of Medicine, McMaster University

Research Activities

2011 – 2012
SC.23: A Phase III Double-Blind Study of Dexamethasone versus Placebo in the Prophylaxis of Radiation-Induced Pain Flare following Palliative Radiotherapy for Bone Metastases
Primary Investigator, Simcoe Muskoka Regional Cancer Program

GRANTS – Awarded

Research Grants

2005
“Development of a Virtual Elective in Radiation Oncology” ($73,204.21)
Hayter C (PI), Nyhof-Young J (PI), Kamra J (PI)
2003 RSNA World Wide Web-Based Educational Program Grant Radiological Society of North America.

2002
“Becoming fluent in ‘web:’ Development of a virtual elective in radiation oncology” ($18,000)
Hayter C (PI), Nyhof-Young J (PI), Kamra J, Danjoux C, Lagan E, Mah K, Meiers R, Pearce A, Spayne J, Spero L, Tsao M, Wiljer D.
Toronto Sunnybrook Regional Cancer Centre, Princess Margaret Hospital, University of Toronto Dean’s Excellence Fund for Medical Education

2001
“Gabapentin for the treatment of hot flashes in women diagnosed with carcinoma of the breast” ($44,000)
Kamra J (PI), Bernstein V, Prior J.
British Columbia Cancer Agency, Vancouver Island Cancer Centre
University of British Columbia
Canadian Breast Cancer Foundation BC/Yukon Chapter

2001
“A phase III evaluation of gabapentin for the treatment of hot flashes in prostate cancer patients undergoing androgen deprivation therapy.” ($23,900)
Lock M (PI), Kamra J (PI), Warde P, Choo R, Bernstein V, Pai H, Dinniwell R, Ringash J, Panzerella, Kroll B.
Toronto Sunnybrook Regional Cancer Centre, Princess Margaret Hospital
University of Toronto
British Columbia Cancer Agency, Vancouver Island Cancer Centre
University of British Columbia
Canadian Association of Radiation Oncologists ACURA Award
Educational Grants (Unrestricted)

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
<th>Chair(s)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Simcoe Muskoka Article Review in Therapeutic Oncology</td>
<td>Kamra J. (Chair)</td>
<td>$7,200</td>
</tr>
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<td>2011</td>
<td>Oncology Updates 2011</td>
<td>Kamra J. (Chair)</td>
<td>$28,500</td>
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<td>2010</td>
<td>Oncology Updates 2010</td>
<td>Kamra J. (Co-Chair)</td>
<td>$17,000</td>
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<td>2009</td>
<td>Oncology Updates, 2009</td>
<td>Kamra J. (Co-Chair)</td>
<td>$30,000</td>
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<td>2006</td>
<td>Ontario GI Multidisciplinary Oncology Conf. 2006</td>
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<td>$65,000</td>
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<tr>
<td>2004</td>
<td>Ontario GI Multidisciplinary Oncology Conf. 2004</td>
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<td>$112,344</td>
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</tbody>
</table>

PUBLICATIONS

Refereed Publications / Abstracts


Refereed Publications / Abstracts (con’t)


Non-refereed Publications

1. Kamra J. Worried Residents Watch and Wait. CMAJ. 1997 Aug 1;157(3):253

PRESENTATIONS – PEER REVIEWED


PRESENTATIONS – PEER REVIEWED (con’t)


PRESENTATIONS – INVITED


2. Kamra J. Evidence Based Medicine Facilitator, Year 2 University of Toronto Family Medicine Residency Program, Toronto, Ontario, 2010 – Present

3. Kamra J. Annual Lecture, Mechanisms, Manifestations and Management of Disease (MMMD), formerly Pathobiology of Disease and Foundations of Medical Practice, University of Toronto Undergraduate Medical Education, Year 2, Toronto, Ontario, 2006 – Present


Curriculum Vitae

Irene Karam
MDCM, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information
Primary Office
Department of Radiation Oncology
Sunnybrook Odette Cancer Centre
2075 Bayview Avenue, T-wing
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-840-5000 ext 2749
Cellphone 647-824-9680
Email irene.karam@sunnybrook.ca

1. EDUCATION

Degrees
2004 - 2008 Doctor of Medicine, M.D.,C.M. Faculty of Medicine, McGill University, Montreal, Quebec, Canada
2003 - 2004 Medical Preparatory Program, Med- P, Faculty of Medicine, McGill University, Montreal, Quebec, Canada

Postgraduate, Research and Specialty Training
2014 Jul 1 - 2014 Oct 31 Clinical Research Fellowship, Gyne Oncology & Brachytherapy, Princess Margaret Cancer Centre, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Michael Milosevic, Dr. Lisa Barbera
2013 Jul 1 - 2014 Jun 30 Clinical Research Fellowship, Head & Neck Radiation Oncology, Princess Margaret Cancer Centre, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Brian O'Sullivan, Dr. John Waldron
2008 - 2013 Residency Training, Radiation Oncology, British Columbia Cancer Agency, University of British Columbia, Vancouver, British Columbia, Canada

Qualifications, Certifications and Licenses
2014 - present Certificate of Registration for Independent Medical Practice, College of Physicians and Surgeons of Ontario, Toronto, Ontario, Canada, License / Membership #: 101253
2013 - present Fellow, Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada
2009 - present Licentiate – Parts 1 & 2, Medical Council of Canada
2013 - 2014 Certificate of Registration for Postgraduate Education, College of Physicians and Surgeons of Ontario, Toronto, Ontario, Canada, License / Membership #: 101253
2008 - 2013 Certificate of Registration for Postgraduate Education, College of Physicians and Surgeons
2. EMPLOYMENT

Current Appointments

2014 Nov 3 - present  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2014 Nov 3 - present  Radiation Oncologist, Department of Radiation Oncology, Sunnybrook Odette Cancer Centre, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL
Received

2012  7th Annual Dr. Peter Poon Memorial Radiation Oncology Research Award, University of British Columbia, Vancouver, British Columbia, Canada. (Research Award)
Excellence in producing a peer-review manuscript. Total Amount: 500 CAD

2005  Canadian Institute of Health Research Health Professional Student Research Scholarship, McGill University, Montreal, Quebec, Canada. (Research Award)
Excellence in producing a medical scientific proposal. Total Amount: 4,200 CAD

2004  Dean's Honor's List, Medical Preparatory Program, McGill University, Montreal, Quebec, Canada. (Distinction)
To students in the Medical Preparatory Program with the highest academic standing.

2003  J. W. McConnell Entrance Scholarship, McGill University, Montreal, Quebec, Canada. (Distinction)
To the incoming pre-med student with high academic standing. Total Amount: 500 CAD

2003  McGill Certificate of Merit, McGill University, Montreal, Quebec, Canada. (Distinction)
Based on academic standing.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2014 Nov - present  Member, Ontario Medical Association, 1228691
2013 - present  Member, College of Physicians & Surgeons of Ontario
2010 - present  Member, American Society of Therapeutic Radiology and Oncology (ASTRO)
2009 - present  Member, Canadian Medical Protective Association (CMPA)
2008 - present  Member, Canadian Association of Radiation Oncology (CARO)
2008 - 2013  Member, British Columbia Medical Association (BCMA)
2008 - 2013  Member, Canadian Medical Association
2008 - 2013  Member, College of Physicians & Surgeons of British Columbia
Administrative Activities

INTERNATIONAL
Other Organizations

PROVINCIAL / REGIONAL
Other Organizations
2014 Nov - present  HN Community of Practice member, Toronto, Ontario, Canada.

BC Cancer Agency – Vancouver Centre
2011 - 2012  Member, Radiation Therapy Quality Assurance Committee, Vancouver, British Columbia, Canada.

Cancer Care Ontario
2015 Dec - present  CCO Oropharyngeal Cancer Pathway Map Working Group, Ontario, Canada.

LOCAL
University of British Columbia

2012 - 2013  Member, Residency Training Committee, Department of Radiation Oncology, BC Cancer Agency, Postgraduate MD, Vancouver, British Columbia, Canada.

2012  Member, CaRMS interview panel, Resident Selection Committee, Resident Selection Committee, Department of Radiation Oncology, BC Cancer Agency, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Vancouver, British Columbia, Canada.

2012  Co-Organizer, Academic Half-Day curriculum, Department of Radiation Oncology, Postgraduate MD, Vancouver, British Columbia, Canada.
Position: Organize and design the summer academic half-day for the Department of Radiation Oncology residency program.

University of Toronto
2014 Jul 1 - 2014 Oct 17  Chief Fellow, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2016 Jun - 2016 Jun 30  Healthcare Policy—Politiques de Santé, Number of Reviews: 1
2016 May  Supportive Care in Cancer, Number of Reviews: 1
2015 Aug  Clinical Oncology, Number of Reviews: 1
2015 Jul  Radiation Oncology, Number of Reviews: 1
2015 Mar  Radiotherapy and Oncology, Number of Reviews: 1
2015 Jan - 2015 Feb  Journal of Cancer Research and Therapeutics, Number of Reviews: 1
Other Research and Professional Activities

NEW INVESTIGATOR CLINICAL TRIALS COURSE
2015 Aug 12 - 2015 Aug 14  New Investigator Clinical Trials Course. NCIC Clinical Trials Group. Ontario, Canada. To familiarize new investigators with the essentials of clinical trial conduct in the Canadian research environment. An important component of the NCIC Clinical Trials Group.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. SUBMITTED PUBLICATIONS

Journal Articles


2. Irene Karam, MD, FRCPC, Min Yao, MD, PhD, Dwight E. Heron, MD, MBA, FCR, FACRO, Ian Poon, MD, FRCPC, Shlomo A. Koyfman, MD, Sue S. Yom, MD, PhD, MAS, Farzan Siddiqui, MD, PhD, Eric Lartigau, MD, Mustafa Cengiz, MD, Hideya Yamazaki, MD, Wendy Hara, MD, FACR1, Jack Phan, MD, PhD, John A. Vargo, MD3, Victor Lee, MBBS, FRCR, FHKCR, FKAM12, Robert L. Foote, MD, FACR13, K. William Harter, MD, FACR14, Nancy Y. Lee, MD, FACR15, Arjun Sahgal, MD, FRCPC, Simon S. Lo, MD, FACR. Survey of Current Practices from the International Stereotactic Body Radiotherapy Consortium (ISBRTC) for Head and Neck Cancers. 2016 Jul 4. Principal Author.

E. Presentations and Special Lectures

1. INTERNATIONAL

Presented and Published Abstracts


Publication Details:
Huan Yu, Young Lee, Mark Ruschin, Irene Karam, Arjun Sahgal. Tissue Segmentation-based MR


**Publication Details:**


**Publication Details:**


**Publication Details:**
Treatment Patterns and Locoregional Recurrence Outcomes in Patients with pN0(i+) Breast Cancer. **Principal Author.**


**Publication Details:**


**Publication Details:**


**Publication Details:**
2. NATIONAL

Presented and Published Abstracts


Publication Details:  


Publication Details:  


Publication Details:  


Publication Details:  


Publication Details:  


Publication Details:  
Outcomes After Brain Radiotherapy in Patients with Metastatic Breast Cancer in the Pre- and Trastuzumab Eras. Radiother Oncol. 2011;100(Suppl 1):S29. **Principal Author.**

**2010 Sep**

**Publication Details:**

**2008 Sep**

**Publication Details:**

### 3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**


**2010 Apr 22**  Managing Differentiated Thyroid Cancer. BC Cancer Agency Radiation Oncology Grand Rounds. Vancouver, British Columbia, Canada. (Continuing Education).

**Presented Abstracts**


**2008 May**  PET/CT for Radiotherapy Treatment Planning for Patients with Extremity Soft Tissue Sarcomas. MUHC Sarcoma Day. Montreal, Quebec, Canada. Presenter(s): **Karam I**. (Oral Presentation).
4. LOCAL

Invited Lectures and Presentations


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2011  **Co-Supervisor.** Year 2. Gavin Wilson. Supervisee Institution: University of British Columbia Medical School, Vancouver, BC, Canada. Retrospective Comparison of Two Feeding Tube Approaches for Head & Neck Cancer Patients Receiving Concurrent Chemo-Radiation Therapy (Summer student research project). Supervisor(s): Dr. Robert Olson.

2010  **Co-Supervisor.** Year 4. Sarah Hamilton. Supervisee Institution: University of British Columbia Medical School, Vancouver, BC, Canada. Outcomes after Brain Radiotherapy in Patients with Metastatic Breast Cancer in the Pre-Trastuzumab and Trastuzumab Eras (Summer student research project). Supervisor(s): Dr. Scott Tyldesley.

Continuing Education

Curriculum Vitae

John Kim
MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office  Princess Margaret Hospital
                University Health Network
                610 University Avenue
                Toronto, Ontario
                M5G 2M9

Telephone  416-946-2919
Fax  416-946-6561
Email  john.kim@rmpuhn.on.ca

1. EDUCATION

Degrees
1985 - 1989  MD, Dept of Medicine, University of Toronto
1983 - 1985  Arts and Science, University of Toronto, (2 year undergraduate education)

Postgraduate, Research and Specialty Training
1995 - 1998  Clinical / Research Fellow, Department of Radiation Oncology, University of Toronto /
             Princess Margaret Cancer Centre and, Department of Medical Biophysics, University of
             Toronto
1995 - 1998  Clinical and Research Fellow, Radiation Oncology, Department of Radiation
             Oncology/Department of Medical Biophysics, University of Toronto, Toronto, Ontario,
             Canada, Supervisor(s): UTDRO staff, Dr. Sam Benchimol
1992 - 1995  Resident, Department of Radiation Oncology, University of Toronto
1990 - 1991  Resident, General Internal Medicine, Department of Medicine, University of Toronto
1989 - 1990  Comprehensive Intern, General Medicine, Department of Medicine, University of Toronto

Qualifications, Certifications and Licenses
2010 Nov - 2011 Apr  UHN-Rotman Leadership Development Program, University of Toronto, Toronto, Ontario,
                    Canada
2009 Apr  UHN Principles of Clinical Practice, University Health Network, Ontario, Canada
1997  USMLE Step 2, Federation of State Medical Boards (FSMB) / National Board of Medical
      Examiners (NBME)
1997  Diplomate, Certification in Radiation Oncology (ABR), American Board of Radiology
1996  USMLE Step 1, Federation of State Medical Boards (FSMB) / National Board of Medical
      Examiners (NBME)
1995  Fellow (FRCPC), Radiation Oncology, Royal College of Physicians of Canada
1990  Licentiate (LMCC), Medical Council of Canada
2. EMPLOYMENT

Current Appointments

2015 Jun - present  Associate Professor, Radiation Oncology, University of Toronto, Ontario, Canada
2015 Feb - present  Ontario Head and Neck Cancers Lead, Cancer Care Ontario, Ontario, Canada
  *Position Accepted. February 2015 start date*
2010 - present  Radiation Treatment Program Head and Neck Community of Practice Co-Leader, Cancer Care Ontario, Ontario, Canada
2001 Jun - present  Staff, Radiation Oncologist, Princess Margaret Cancer Centre
2001 Jun - present  Staff, Radiation Medicine Program, Princess Margaret Hospital, University Health Network

Previous Appointments

CLINICAL

HOSPITAL
2008 - 2010  Courtesy Staff, Radiation Medicine, Dept. of Medicine, Southlake Regional Health Centre
2005 - 2007  Courtesy Staff, GI Oncology Collaborative Clinic, Royal Victoria Hospital
2004 Oct - 2015 Sep  Radiation Medicine Program GI Site Group Physician Leader, Radiation Medicine Program, Princess Margaret Cancer Centre, Ontario, Canada
1998 - 2001  Staff Radiation Oncologist, Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre
1998 - 2001  Staff, Radiation Oncology, Sunnybrook and Women's College Health Sciences Centre, Toronto, Ontario, Canada

UNIVERSITY - RANK
2001 Jun - 2015 Jun  Assistant Professor, Radiation Oncology, University of Toronto
1998 - 2001  Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2012 Sep  *Exceptional Service Commitment*, Canadian Association of Radiation Oncology, Ottawa, Ontario, Canada. (Distinction, Specialty: Radiation Oncology)
*Award given for outstanding years of service on CARO executive board and as CARO Treasurer. Presented at 2012 CARO ASM, Ottawa, Ontario.*

PROVINCIAL / REGIONAL
Received
2010 - present  *Co-Lead, Executive Committee, Radiation Treatment Program Community of Practice in H&N Cancer*, Cancer Care Ontario, Ontario, Canada. (Distinction)
2015 Feb  *Ontario Head and Neck Cancers Lead (Start date Feb. 2015)*, Cancer Care Ontario (CCO), Ontario, Canada. (Distinction)
LOCAL
Received
2013 Oct RMP Staff Recognition Awards, Most Inspiring Team Members, Princess Margaret Cancer Centre. (Staff Recognition Award)
1996 RS Bush Award, University of Toronto. (Research Award) For Academic Excellence in Research by a Fellow in the Department of Radiation Oncology.
1995 WJ Simpson Award, University of Toronto. (Research Award) For Academic Excellence in Research by a Resident in the Department of Radiation Oncology.
1994 Jan - 1994 Jun Senior Resident, Department of Radiation Oncology, University of Toronto. (Distinction) Toronto-Sunnybrook Regional Cancer Centre (overlapping period as Chief Resident from April 1, 1994).
1994 - 1995 Chief Resident, Department of Radiation Oncology, University of Toronto. (Distinction)
1983 - 1985 JS McLean Entrance Scholarship, University College, University of Toronto. (Distinction)

Teaching and Education Awards
LOCAL
Received
2012 Jul The Advanced Education Program (AEP) “Putting Innovation to Work” Award - Exceptional Contribution to the AEP Program, Dept of Medicine, Radiation Medicine Program, Princess Margaret Hospital, Ontario, Canada. (Continuing Education) Awarded for course development creativity and teaching. Liver Image Guided Radiation Therapy Course (IGRT) was highlighted.
2012 Professional Mentorship Award, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital. (Postgraduate MD)
2011 Clinical Teaching Award, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital. (Postgraduate MD)
2011 Professional Mentorship Award, Radiation Medicine Program, Princess Margaret Hospital. (Postgraduate MD)
2009 Best Resident Half-Day Lecture, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Ontario, Canada. (Postgraduate MD)
2006 Radiation Medicine Program Education Award for Research Supervision, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital. (Faculty Development) Head and Neck Research Project Supervision Radiation Therapist Project.

Student/Trainee Awards
NATIONAL
Received
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Radiation Oncology (ASTRO)
Canadian Association of Radiation Oncology (CARO)
Canadian Medical Association (CMA)
Ontario Medical Association (OMA)
The College of Physicians and Surgeons of Ontario, CPSO No. 61067
The Royal College of Physicians and Surgeons of Canada, ID No. 478131

Administrative Activities

INTERNATIONAL

East-West Symposium on Nasopharyngeal Cancer
2005 Jun Local Faculty, Organizing Committee
Princess Margaret Hospital, University of Toronto.

NRG (formerly RTOG)
2009 - present Member, Head and Neck Cancer Committee (formerly Steering)

Princess Margaret Cancer Centre
2011 Member, Quality Course Organizing Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Canada.

University Health Network
2014 May GI Radiation Oncology representative, UHN-Kuwait Partnership, GI and H&N Oncology Kuwait visit, Kuwait.

NATIONAL

Canadian Association of Radiation Oncology (CARO)
2009 - 2012 Treasurer/Secretary, Canadian Association of Radiation Oncology
2009 - 2012 Member, Executive Board, Canadian Association of Radiation Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
2012 Dec - present Member, Cancer Imaging Program, H&N Synoptic Reporting Expert Panel, Ontario, Canada.
2010 - present Co-Lead, Executive Committee, Radiation Treatment Program Community of Practice in H&N Cancer, Ontario, Canada.
2015 Feb Lead, Ontario Head and Neck Cancers Lead (Start date February 2015), Ontario, Canada.

Royal Victoria Hospital
2005 - 2007 Member, Development, GI Collaborative Oncology Clinic

Southlake Regional Health Centre
2008 - 2010 DRO GI Site Group Leader, Radiation Oncology GI Site Group Leader, Ontario, Canada.
LOCAL

Princess Margaret Cancer Centre

2012 Feb **Contributor**, Cancer Program Website, GI Site Group Professional Page
2011 - 2012 **RMP representative**, Cancer Program EReferral Initiative
2010 - 2011 **GI Radiation Oncology Lead**, Cancer Program Ambulatory Care Redesign Process
2006 Oct **Member**, Organizing Committee, The 6th Princess Margaret Hospital Conference - New Developments in Cancer Management, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2003 **Member**, Quality Assurance Task Force

Radiation Medicine Program, Princess Margaret Cancer Centre

2014 Feb - present **Chair**, Radiation Medicine Program (RMP) Space Transformation Working Group, Ontario, Canada.
2010 - present **Editor**, Radiation Medicine Program Newsletter, ConneXions, Ontario, Canada.
2013 May - 2013 Dec **Leader**, Performance Excellence Radiation Medicine - Team (PERM-T), Toronto, Ontario, Canada.
2012 - 2013 **Member**, CT Simulation Process Working Group
2007 **Chair**, Department of Radiation Oncology (DRO) Partnership
2005 Sep **Organizer**, Radiation Medicine Program GI DRO Site Group Colorectal Surgeons Evening, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Ontario, Canada.
2005 - 2007 **Radiation Oncology Representative**, Team investigating treatment incidents, QUality INvestigation Consultants (QUINCY)
2005 - 2006 **Treasurer**, Department of Radiation Oncology (DRO) Partnership
2004 Nov 1 - 2015 Sep 1 **DRO GI Site Group Leader**, Radiation Medicine Program GI Site Group Physician Leader
2003 - 2006 **Member**, Head and Neck IMRT Working Group

Toronto-Sunnybrook Regional Cancer Centre

2000 - 2001 **Chair**, Full Medical Staff Meeting
2000 - 2001 **Member**, General Treatment Services Process Review Committee
2000 - 2001 **Site Group Leader**, Multidisciplinary Head and Neck Site Group
2000 - 2001 **Member**, Quality Assurance Committee
2000 **Member**, Referring Physician Needs Assessment Survey, Multidisciplinary Head and Neck Site Group

University Health Network

2012 Jul 17 **Member**, Search Committee Chief, Radiation Oncology & Radiation Medicine Program, Princess Margaret, Ontario, Canada.

University of Toronto

2011 **Report Committee Leader**, End of Term Faculty Report for Department Chair, Dr. Mary Gospodarowicz, Department of Radiation Oncology
2011 **Examiner**, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.
2008 **Examiner**, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.
2007 - 2008 **Examiner**, PGY Planning Planning Drill, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD, Toronto, Ontario, Canada.

2005 **Examiner**, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.

2003 **Examiner**, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.

2001 **Canadian Resident Matching Service (CaRMS) Interviewer**, Department of Radiation Oncology

2000 - 2003 **Coordinator**, Treatment Planning Drill, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Ontario, Canada.

2000 - 2003 **Member**, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1999 **Examiner**, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1999 **Canadian Resident Matching Service (CaRMS) Interviewer**, Department of Radiation Oncology

1998 - 2004 **Examiner**, PGY Planning Planning Drill, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD, Toronto, Ontario, Canada.

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**Peer Review Activities**

**GRANT REVIEWS**

**External Grant Reviewer**

2005 National Health and Medical Research Council (NHMRC, Australia), Project Grant applications

**Internal Grant Reviewer**

2012 Jul 1 PMH UHN IDEAS Grant

**MANUSCRIPT REVIEWS**

**Reviewer**

2012 - present European Journal of Cancer

2012 - present Practical Radiation Oncology

2010 - present Clinical Oncology

2004 - present Head and Neck

2003 - present International Journal of Radiation Oncology, Biology, Physics

2008 Technology in Cancer Research and Treatment, Head and Neck

2007 Diseases of the Colon and Rectum

2006 - 2007 Clinical Cancer Research

2005 Clinical Oncology

**MEETING ABSTRACT AND PRESENTATION REVIEWS**

**Reviewer**

2009 Canadian Association of Radiation Oncology (CARO), Annual Meeting

2008 Canadian Association of Radiation Oncology (CARO), Annual Meeting

2005 Jun East-West Symposium on Nasopharyngeal Cancer, Toronto
John KIM

PROVINCIAL GUIDELINES REVIEWER: CLINICAL PRACTICE GUIDELINE HN-001
Reviewer
2012 Jul 19 - 2012 Sep 7 Alberta Health Services, The Organization and Delivery of Healthcare Services for Head and Neck Cancer Patients

Other Research and Professional Activities

EXPERT PANEL ON STANDARDIZED RADIOLOGY REPORTING
2012 Dec 4 - present Expert Panel Member. Cancer Care Ontario, Cancer Imaging Program, Ontario, Canada. Cancer Imaging Program, Cancer Care Ontario (CCO), Synoptic Radiology Reporting Clinical Expert Panel Member.

EXPERT PANEL/WORKING GROUP

H&N PROJECT GRANT REVIEWER
2005 H&N Project Grant Reviewer. National Health and Medical Research Council, Australia.

LOCAL INSTITUTIONAL PI


NRG ONCOLOGY


2009 - 2013 H&N Liaison. Advanced Technology Integration Steering Committee (ATIC) Head and Neck
C. Academic Profile

1. RESEARCH STATEMENTS

2001 Jul - present
Research Focus.
The scope of my research activities is highlighted in my Creative Professional Activity (CPA) profile. My major research streams include:
3. Prospective evaluation of IMRT for anal canal cancers.
4. Collaborative research evaluating liver stereotactic body radiation therapy (SBRT) and conformal/IMRT/IGRT for upper GI cancers.

2. TEACHING PHILOSOPHY

My teaching philosophy has remained constant but the spectrum of teaching avenues and opportunities have evolved in my teaching career. I am actively involved undergraduate, postgraduate teaching, Continuing Medical Education and Professional (Faculty) Development.

I have modelled a teaching approach emphasizing the following principles:
1. Rigorous application of radiation treatment planning principles in a technically advanced and complex radiation oncology environment.
2. Translation of anatomic and cancer route of spread knowledge from a previous 2-dimensional era to the current 3-dimensional planning and treatment era.
3. Translation of evidence-based guidelines into clinical practice.
4. Incorporation of best practice models and standards into clinical practice.
5. Quality and safety.

My resident teaching effectiveness evaluations have highlighted my content expertise but I place significant emphasis on knowledge translation of complex radiation oncology principles into actual clinical practice. Because my clinical practice has been regarded as technically complex by radiation oncology residents and my practice style has been perceived to be very rigorous and detailed, I have typically worked with PGY5's and senior PGY4s. I value the opportunity to work with our excellent residents and I have won numerous teaching and mentorship awards. I am currently a Royal College of Canada specialty certification examiner for Radiation Oncology.

Over the past 2-3 academic years, I have been asked by the University of Toronto, Department of Radiation Oncology resident training leadership to work with more junior residents since the experience on my service emphasizes practice standards and radiation planning skills development. I have been tasked to help junior residents transition between...
learner to expert as this is inherently a challenging transition.

My principle-based teaching extends well to the CME and Professional Development environment in line with my Creative Professional Activity profile. CME and Professional Development has become a major focus of my teaching career. I have been active locally, nationally and internationally in lecturing/presenting, teaching administration and meeting/program development activities.

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

Over the past decade, the landscape of radiation oncology has changed with tremendous advancements in technical radiation therapeutics including intensity-modulated radiation therapy (IMRT) and image-guided radiation therapy (IGRT). Implementing and evaluating these technologies in an environment of quality and standardization of practice has been a major focus of my Creative Professional Activities in both of my disease sites, H&N and GI.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2003


3-year funding (extended 1 year). Study closed due to slow accrual.

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2002 Jun - 2005 Jun


3-year funding. Average annual award $209,868.

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2002 Jan - 2004 Jan


2-year funding. Average annual award $132,231.00.

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2000 Feb

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   This paper is the first report of our prospective evaluation of IMRT for anal and perianal cancers. While the patient numbers may seem modest, this is the largest prospective cohort of IMRT for anal canal cancer patients with quality of life outcomes and dosimetric evaluation to our knowledge. This database now contains more than 100 patients. This first report is the culmination of the implementation of a comprehensive multidisciplinary anal canal IMRT program at the Princess Margaret with standard institutional practices including treatment guidelines, contouring and planning nomenclature, contouring guidelines, dose prescriptions, dose-volume criteria for IMRT plan evaluation, daily cone beam CT scan image guidance and peer review quality assurance. I led the development and implementation of all aspects of our anal canal IMRT program.


   Radiation dose-sparing of midline lower neck normal organs of risk (larynx, pharynx and esophagus) is an important goal of H&N IMRT planning attempting to limit acute and late swallowing toxicity. However, midline lower neck dose-sparing is extremely challenging in actual practice. This paper reports an audit in oropharynx cancer patients evaluating dosimetric compliance to our institutional lower neck normal organs at risk IMRT dose-volume planning criteria. A novel clinically applicable model is applied to evaluate and predict the success of normal tissue radiation dose-sparing. For this paper, I supervised a radiation therapist (L. Morley, Principle Author) and a radiation therapy student (S. Tang).


   Preventing and treating perineural invasion and spread is a major challenge in the radiotherapy management of head and neck cancers particularly salivary gland cancers. This paper addresses this challenge with a radiation oncology perspective of application to radiation therapy planning.


   This paper represents the first RTOG (now NRG) H&N clinical trial to evaluate a molecular targeted agent in combination with IMRT for nasopharynx cancer. I was a Radiation Oncology Co-Chair (development of the radiation therapy component and expert peer reviewer of radiation treatment plans).

This paper was a state-of-the-art review of the clinical importance of cancer cell repopulation as it applies to radiation therapy and systemic therapy. With respect to radiation oncology, the implementation of intensity-modulated radiation therapy (IMRT) required a re-evaluation of “standard” dose-fractionation schedules given the emergence of non-standard fraction sizes in clinical practice with IMRT. Overcoming cancer cell repopulation is a fundamental principle of all radiation dose-fractionation regimens. According to Google Scholar, this paper has been cited 320 times.

2. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


64. **Kim, J.** and Tannock, I.F. Repopulation of cancer cells during radiotherapy and chemotherapy: an important cause of treatment failure. Nature Reviews Cancer. 2005;5:516-525. **Co-Principal Author.**


Letters to Editor


In Preparation


In Revision

3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


4. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


John Kim

California, United States. Presenter(s): Kim J.


2014 May 7 Invited Speaker. Esophagus and GE Junction Cancers, Radiation Oncology Grand Rounds. Kuwait Cancer Control Center. Kuwait. Presenter(s): Kim J.


2013 Feb 8 Session Organizer. GI Session, ASTRO Cancer Imaging and Radiation Therapy Symposium. ASTRO. Orlando, Florida, United States. Presenter(s): Co-Organizer - Isaac Francis, MD.

2012 Jul 23 Chair. Lunch with the Professors: Tumor Board: Pharynx/Larynx. 8th International Conference on Head and Neck Cancer. Toronto, Ontario, Canada. Presenter(s): Dr. John Kim, Dr. Arlene Forestiere, Dr. Bayardo Perez-Ordonez, Dr. Jay Boyle, Dr. Hady Seikaly, Dr. Brian Burkey. Case based Multidisciplinary Cancer Conference.


2011 May 18 Invited Speaker. Image Fusion and Registration. Kuwait Cancer Control Center. Kuwait. Presenter(s): Kim J.


2011 May 12 Invited Speaker. The Principles of IGRT for Pelvic Cancers. Kuwait Cancer Control Center. Presenter(s): Kim J.


2011 May 9 Invited Speaker. Does Mesorectal Fascia Involvement Need Tailored Treatment? Kuwait Cancer Control Center. Kuwait. Presenter(s): Kim J.


Presented Abstracts


2012 May Evaluation of Inguinal Region Set-Up Accuracy using Cone-Beam CT in Anal Cancer Patients Treated with IMRT. European Society for radiotherapy and Oncology (ESTRO) Annual Meeting. Barcelona, Spain. Presenter(s): Johnston, M., P. Lindsay, T. Craig, R. Dinniwell, and J. Kim. Poster Presentation (M. Johnston, clinical fellow), Senior Responsible Author. (Trainee Presentation).


2008 Nov Validation of a Vascular Surrogate Class Solution for Inguinal Nodal Clinical Target Volume Delineation in


1997 Oct A short U-rich sequence within the p53 3’ UTR mediates translational repression of human p53 mRNA. San Francisco Symposium 1997 Translational and Stability of mRNA. San Francisco. Fu L, Ma W, Kim JJ and Benchimol S.


Presented and Published Abstracts

2016 Apr 29 Invited Lecturer. The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. Poster (PO-0631). European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Turin, Italy.

Publication Details:


Publication Details:

*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*

John KIM


2015 Oct
Impact of Surgical Margins on Outcomes in Oral Cavity Squamous Cell Carcinomas Following Postoperative Intensity Modulated Radiation Therapy. American Society for Radiation Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Poster Discussion. (Trainee Presentation)

Publication Details:

2014 Sep

Publication Details:

2014 Sep
Gastrointestinal Toxicity in Patients With Inflammatory Bowel Disease Treated With Pelvic Radiotherapy. American Society for Radiation Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States. Presenter(s): Glick D, Warde P, Su J, Xu W, Milosevic M, Kim J. (Trainee Presentation)

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:

2014 Sep
Role of Radiation Therapy in Management of Nasal and Sinonasal Squamous Cell Carcinomas. American

**Publication Details:**

2014 Sep


**Publication Details:**

2014 Sep


**Publication Details:**

2014 Sep


**Publication Details:**

2014 Sep


**Publication Details:**

2014 Apr 4

Definitive radiation therapy for advanced stage oral cavity squamous cell carcinoma (OCSCC). European Society for Radiotherapy and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria. Poster presentation.
Publication Details:


Publication Details:

2013 Oct Altered fractionation radiotherapy for elderly patients with locally advanced head and neck cancer. ESTRO. Amsterdam, Netherlands.

Publication Details:

2013 Oct A Randomized Controlled Trial of Lorazepam to Reduce Organ Motion in Patients Receiving Upper Abdominal Radiotherapy. American Society for Therapeutic Radiology and Oncology (ASTRO) 55th Annual Meeting. Atlanta, Georgia, United States.

Publication Details:

2013 Apr Altered fractionation radiotherapy for elderly patients with locally advanced head and neck cancer. 2nd ESTRO Forum. Genève (fr), Switzerland.

Publication Details:

2013 Jan Outcomes following stereotactic body radiotherapy for patients with child-pugh b/c hepatocellular carcinoma. American Society of Clinical Oncology (ASCO) GI Meeting. San Francisco, California, United States.

Publication Details:


Publication Details:

2012 Oct

Phase I study of sorafenib and SBRT for advanced hepatocellular carcinoma. American Society for Radiation Oncology (ASTRO) 54th Annual Meeting. Boston, Massachusetts, United States.

**Publication Details:**

2012 Oct


**Publication Details:**

2011 Oct


**Publication Details:**

2011 Oct


**Publication Details:**

2011 Oct


**Publication Details:**

2011 Oct


**Publication Details:**
2011 Oct


2011 Oct


2011 Oct


2011 October


2011 May


2010 Nov
Phase II Study of Concurrent and Adjuvant Chemotherapy with Intensity-Modulated Radiation Therapy (IMRT) or Three-Dimensional Conformal Radiotherapy (3D-CRT) + Bevacizumab (BV) For Locally or Regionally Advanced Nasopharyngeal Cancer (NPC)[RTOG 0615]: Preliminary Toxicity Report.
American Society for Radiation Oncology (ASTRO) 52nd Annual Meeting. San Diego, California.

Publication Details:

2010 Nov

Publication Details:

2007 Sep

Publication Details:

2006 Oct

Publication Details:

Other Presentations


2011 Jan 27  **Presenter.** H&N Disease Site Report, Advanced Technical Integration Committee. RTOG Semi-Annual Meeting. San Diego, California, United States. Presenter(s): **Kim J.**


**Workshop Presenter**


2. NATIONAL

**Invited Lectures and Presentations**

2013 Sep 18  **Invited Speaker.** Management of Esophageal and GE Junction Cancers. 2013 CARO Annual Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): **Kim J.** CARO UPDATE COURSE.


2012 Oct 14  **Invited Speaker.** Role of IMRT in the Treatment of Pelvic Tumours: Standardization for Practice. McGill University: Integration of New Radiation Technologies in the Multi-modality Treatment Approaches in Cancer Therapy. Montreal, Quebec, Canada. Presenter(s): **Kim J.**


2008 May 2  **Invited Speaker.** Update of PMH H&N Nomenclature System. National Cancer Institute of Canada (NCIC) Spring Meeting, Delta Chelsea Hotel. Toronto, Ontario, Canada. Presenter(s): **Waldron JN, Kim J.**

2007 Apr 27  **Invited Speaker.** A Standardized IMRT/Conformal RT Nomenclature System. National Cancer Institute of Canada (NCIC) Spring Meeting, Delta Chelsea Hotel. Toronto, Ontario, Canada. Presenter(s): **Kim J.**


**Presented Abstracts**


2000 Sep Presenter. IRF-1 Mutations Are Common In Head and Neck Squamous Cell Carcinoma. Royal College of Physicians and Surgeons Annual Meeting. Edmonton, Canada. Presenter(s): Kim JJ, Pathai S and Jordan RCK.


Presented and Published Abstracts


Publication Details:


Publication Details:

Publication Details:

2015 Sep 9 Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Poster Discussion.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Sep 9 Metastatic risk groups in human papillomavirus-related oropharyngeal cancer treated with definitive

**Publication Details:**

2014 Aug  

**Publication Details:**

2014 Aug  

**Publication Details:**

2014 Aug  

**Publication Details:**

2014 Aug  

**Publication Details:**

2014 Aug  

**Publication Details:**

2014 Aug


**Publication Details:**

2014 Aug


**Publication Details:**

2011 Sep


**Publication Details:**

2011 Sep


**Publication Details:**

2011 Sep


**Publication Details:**
John KIM

2011 Sep

Publication Details:

2011 Sep
Applying control charts to improve decisions in image-guided radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Winnipeg, Manitoba, Canada. Presenter(s): Loudon J, Cerase C, Naccarato N, Kim J, Breen S.

Publication Details:

2009 Sep
Intensity modulated radiotherapy (IMRT) and concurrent chemotherapy (CTH) for anal and perianal cancer: Preliminary report of acute toxicity. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada. Presenter(s): Han K, Cummings B, Bayley A, Brierley J, Dawson L, Dinniwell R, Ringash J, Wong R, Krzyzanowska M, Mackay H, Moore M, Chen E, Craig T, Kim JJ. (Trainee Presentation)

Publication Details:

Other Lectures and Presentations

2013 Jan 30 Chair. Quality in the Clinic. 4th Annual COMP Winter School. Canada. Presenter(s): Kim, J.

2009 Oct Moderator. GI Paper session. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec, Canada. Presenter(s): Kim J.

2008 Sep Workshop Organizer. IMRT: Established Technology, Novel Processes. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Kim J.

2006 Sep Moderator. H&N Paper session. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Kim, J.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2013 Apr 19 Invited Speaker. Role of IMRT in Gastrointestinal Malignancies. COMRADS. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).


2011 May 18  **Invited Speaker.** IMRT for H&N Cancers. CCO IMRT Coaching Visit, London Regional Cancer Centre. Presenter(s): **Kim J.**

2011 May 5  **Invited Speaker.** Conformal Radiotherapy for Pelvic GI Cancers. CCO Coaching Visit, Grand River Regional Cancer Centre. Kitchener, Ontario, Canada. Presenter(s): **Kim J.**

2011 May 5  **Invited Speaker.** Pelvic IMRT for GI Cancers. CCO IMRT Coaching Visit, Grand River Regional Cancer Centre. Kitchener, Ontario, Canada. Presenter(s): **Kim J.**

2011 Apr 11  **Invited Speaker.** IMRT for H&N Cancers. CCO IMRT Coaching Visit, Juravinski Cancer Centre. Hamilton, Ontario, Canada. Presenter(s): **Kim J.**

2011 Feb 21  **Invited Speaker.** IMRT for GI Cancers. CCO IMRT Coaching Visit, Sudbury Regional Cancer Centre. Sudbury, Ontario, Canada. Presenter(s): **Kim J.**

2011 Feb 21  **Invited Speaker.** The Multi-Disciplinary Approach to Rectal Cancer Management: Radiation Oncology Perspective. Sudbury Regional Cancer Centre. Sudbury, Ontario, Canada. Presenter(s): **Kim J.**

2010 May 27  **Invited Speaker.** IMRT: Established Technology, Establishing Implementation: The Uncomplicated Cure. Department of Radiation Oncology, University of Toronto, Target Insight Conference. Toronto, Ontario, Canada. Presenter(s): **Kim J.**


2009 Feb 13  **Invited Speaker.** Altered Fractionation in Head and Neck Radiotherapy. Sudbury Regional Hospital, North East Regional Cancer Program. Sudbury, Ontario, Canada. Presenter(s): **Kim J.**

2008 Oct 16  **Invited Speaker.** IMRT and IGRT in the management of head and neck cancer. The 8th Princess Margaret Hospital Conference: Developments in Cancer Management: Conquering Cancer in our Lifetime Princess Margaret Hospital's 50th Anniversary. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2007 May 18  **Invited Speaker.** Nasopharynx Cancer. Radiation Oncology Resident Seminar, Cancer Centre of Southeastern Ontario at Kingston General Hospital. Kingston, Ontario, Canada. Presenter(s): **Kim J.**

2007 May 18  **Invited Speaker.** A Standardized IMRT/Conformal RT Nomenclature System. Grand Rounds, Cancer Centre of Southeastern Ontario at Kingston General Hospital. Kingston, Ontario, Canada. Presenter(s): **Kim J.**


**Presented Abstracts**

Other Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations

2016 May 27  **Presenter.** HPV-Associated Oropharynx Cancer: Dispelling the Myths. 18th Annual Wharton/Elia Day. Princess Margaret Cancer Center. Toronto, Ontario, Canada.


2014 Nov 14  **Invited Speaker.** RMP GI Site Group Perspective. UTDRO Symposium to Honour the Career and Legacy of Dr. Bernard J. Cummings. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2014 Jun 5  **Invited Speaker.** Vignettes: Practice Innovations - Standardization of H&N Nomenclature. Quality and Safety in Radiation Therapy (QSRT), Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Kim J.** (Continuing Education).


2014 Apr 5  **Invited Speaker.** Standardization of Practice. Princess Margaret Hospital IGRT Course: Image Guided Radiation Therapy in H&N Cancer. Toronto, Ontario, Canada. Presenter(s): **Kim J.** (Continuing Education).


2012 Nov 15  **Invited Speaker.** Standardization of H&N Nomenclature – the Princess Margaret and CCO Community of Practice Experience. Princess Margaret Cancer Centre: Quality & Safety in Radiation Therapy Education Course. Toronto, Ontario, Canada. Presenter(s): **Kim J.** (Continuing Education).

2012 Nov 12  **Invited Speaker.** Vignettes: Practice Innovations - Standardization of H&N Nomenclature. Quality and Safety in Radiation Therapy (QSRT), Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Kim J.** (Continuing Education).


2012 Mar 30  **Facilitator.** Contouring Exercise. Princess Margaret Hospital IGRT Course: Image Guided Radiation Therapy in H&N Cancer. Toronto, Ontario, Canada. Presenter(s): John Kim MD, Biu Chan MRT(T), Michael Holwell MRT(T), Amanda Caissie MD, Gary Mok MD, Meredith Giuliani MD, Jeppe Friborg MD. (Continuing Education).


2011 Oct 17  **Invited Speaker.** Cancer Care Ontario H&N Communities of Practice. Cancer Care Ontario, Gyne
Communities of Practice Workshop. Toronto, Ontario, Canada. Presenter(s): John Kim.

2010 Nov 26 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist's Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).

2010 May 27 Invited Speaker. IMRT: Established Technology, Establishing Implementation: Post-Implementation. department of Radiation Oncology, University of Toronto, Target Insight Conference. Toronto, Ontario, Canada. Presenter(s): Kim J.


2009 Sep 18 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist’s Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).


2009 Apr 9 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist’s Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).

2009 Feb 27 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist’s Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).


2008 Jun 8 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist’s Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).

2006 Nov 18 Invited Speaker. Image Guided Radiation Therapy for Liver Cancer. Princess Margaret Hospital IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.


2004 Jun Invited Speaker. Potential for Biologic Agents with Altered Fractionation. 5th Annual Wharton Day, Clinical Trials in Head and Neck Oncology, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.


2004 Apr 13 Invited Speaker. Update of clinical trial - A Phase I/II Trial of Celecoxib with Preoperative Chemoradiation for Resectable Rectal Cancer with In Vivo Analysis of Celecoxib Effector Pathways. Princess Margaret Hospital GI Site Group Miniretreat, Delta Chelsea. Toronto, Ontario, Canada. Presenter(s): Kim J.


1999 Jun Invited Speaker. Molecular Prognostic Markers in Head and Neck Squamous Cell Cancers. Presented at Future Directions in Radiation Oncology, Continuing Medical Education Course, Department of Radiation Oncology, University of Toronto. Ontario, Canada. Presenter(s): Kim J. (Continuing Education).

Presented Abstracts

2016 Feb 22 Presenter. Radiation Oncology. AZ/Medimmune Head and Neck Cancer Preceptorship. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Kim, J.

Other Lectures and Presentations

2014 Oct 3 Invited Lecturer. Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Kim J.

2014 Jan 27 Invited Lecturer. Larynx and Nasopharynx Cancers. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Kim J.

2013 Sep 23 Invited Lecturer. Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Kim J.

2013 Jan 14 Invited Lecturer. Larynx and Nasopharynx Cancers. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Kim J.

2012 Dec 13 Presenter. Standardization in Radiation Oncology: A Framework for Personalized Care. RMP Grand Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.

2011 Sep 26 Invited Lecturer. Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Kim J.
2010 Sep 27 **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Kim J.

2010 Sep 17 **Lecturer.** Head and Neck Anatomy. Radiation Oncology Resident Half-Day Teaching, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.

2010 May 28 **Lecturer.** Radiotherapy Management of Liver Metastases. Radiation Oncology Resident Half-Day Teaching, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.

2010 Feb 1 **Lecturer.** Radiotherapy in Upper GI Malignancies. University of Toronto Surgical Oncology Fellows Lecture, Princess Margaret hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.

2010 Jan 21 **Presenter.** The Clinical Implications of Consensus CTV Contouring. RMP Grand Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.

2010 Jan 13 **Invited Lecturer.** Clinical Reasoning and Decision Making in Radiotherapy. Course II Treatment and Technical Factors MHSC - Masters Health Sciences, Princess Margaret Hospital, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Kim J.

2009 Oct 19 **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): Kim J.

2009 Apr 17 **Lecturer.** IMRT planning for carcinoma of the anal canal. Radiation Oncology Resident Half-Day Teaching, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.

2008 Sep 29 **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): Kim J.

2008 Jun 26 **Presenter.** Avoiding Paradigm Paralysis in Search of the Uncomplicated Cure. RMP Grand Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.

2008 Jan 24 **Invited Lecturer.** Larynx and Nasopharynx Cancers. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Kim J.

2007 Oct 4 **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): Kim J.

2007 Feb 15 **Presenter.** Defining Head and Neck Target Volumes: Certain Uncertainties. RMP Grand Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.

2007 Jan 19 **Invited Lecturer.** Larynx and Nasopharynx Cancers. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): Kim J.

2006 Oct 6 **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): Kim J.

2006 Jun 2 **Lecturer.** Radiologic Anotomy of Head and Neck Cancers. Resident Half-Day Teaching Session, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J.

2005 Nov 10 **Presenter.** PCR?...PCR?...Translating the Science of Rectal Cancers. RMP Grand Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J, Brierley J and Wilson S.

2005 Oct 14 **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada.
Presenter(s): **Kim J.**

2005 Sep  **Speaker.** Rectal Carcinoma Translational Studies. RMP GI DRO Site Group Colorectal Surgeons Evening, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2004 Sep 24  **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): **Kim J.**

2004 Jul 23  **Lecturer.** Carcinoma of Larynx. Resident Half-Day Teaching Session, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2004 May  **Co-Chair.** PMH H&N IMRT Workshop. Radiation Medicine Program, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J, Breen S and Ryan M.**

2004 Mar 16  **Invited Lecturer.** Radiation Therapy for GI Malignancies. General Surgery Resident Teaching, Mount Sinai Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2002 Mar  **Presenter.** IMRT QA Rounds. Radiation Medicine Program (RMP) Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): O’Sullivan B, Lam T, **Kim J.**

**Other Presentations and Lectures**

1998 Nov 18  **Presenter.** Molecular Prognostic Marker In Head and Neck Squamous Cell Cancers: Challenges For Future Research. Grand Rounds, Department of Radiation Oncology, University of Toronto. Ontario, Canada. Presenter(s): **Kim J and Jordan R.** (Continuing Education).

**G. Teaching and Design**

1. **INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION**

- 2014 Feb - present  Chair, Organizing Committee, Multi-Disciplinary Annual Gastro-Intestinal Cancer (MAGIC) Update, Continuing Education, Faculty of Medicine, University of Toronto CEPD
- 2012 Feb - present  Contributing Faculty, Quality & Safety in Radiation Therapy Education Course, Continuing Education, Radiation Medicine Program, Princess Margaret Hospital. Toronto, Ontario, Canada.
- 2011 Mar - present  Organizing Committee, Multi-Disciplinary Annual Gastro-Intestinal Cancer (MAGIC) Update, Continuing Education, Faculty of Medicine, University of Toronto CEPD
- 2008 - present  Contributing faculty, Intensity-Modulated Radiotherapy (IMRT) Education Course, Continuing Education, Princess Margaret Hospital
- 2006 - present  Contributing faculty, Image-Guided Radiotherapy (IGRT) Education Course, Continuing Education, Princess Margaret Hospital
- 2009  CARO ASM Workshop Organizer and Presenter, IMRT: EstablishedTechnology, Novel Processes, Multilevel Education, Canadian Association of Radiation Oncology
  
  **Kim J, Breen S.**
- 2008 Jul - 2010 Jun  Co-Recipient of Educational Grant. Co-Director, IMRT in Theory and Clinical Practice: A Continuing Medical Education Course, Continuing Education, Cancer Care Ontario
- 2008  CARO ASM Workshop Organizer and Presenter, IMRT: EstablishingTechnology, Novel Processes, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Radiation Oncology
  
  **Kim J, Breen S.**
- 2004 May  Radiation Medicine Program Head and Neck IMRT Workshop. Faculty Development, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
  
  Workshop designed to facilitate the implementation of H&N IMRT at PMH through case presentations and interactive discussions. Co-Chair and Presenter. Audience ~50.
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Postgraduate MD


2013 Jul - 2014 Jun  Primary Supervisor. Core Program. Daniel Glick. Supervisee Institution: Princess Margaret Cancer Centre, University of Toronto. Gastrointestinal Toxicity in Patients with Inflammatory Bowel Disease Treated With Pelvic Radiation Therapy, Non-thesis Project.


2009 Jul - 2010 Jun  Primary Supervisor. Clinical Fellow. David Fitzpatrick. Supervisee Institution: Princess Margaret Cancer Centre, University of Toronto. A RANDOMIZED STUDY EVALUATING SET-UP REPRODUCIBILITY USING CONE BEAM CT (CBCT) WITH AND WITHOUT A
CUSTOMIZED VACUUM IMMOBILIZATION DEVICE (CVID) IN RECTAL CANCER PATIENTS TREATED WITH PREOPERATIVE PELVIC RADIATION THERAPY., Non-thesis Project.

2008 Jul - 2014 Jun  

2008 Jul - 2009 Jun  

2007 Feb - 2008 Nov  
**Primary Supervisor.** Clinical Fellow. Chen Liu. *Delivery of less than intended cisplatin (CDDP) dose intensity in patients with locally advanced head and neck squamous cell carcinoma (LA-HNSCC) receiving concurrent chemoradiation (CRT) correlates with poorer outcome and Audit of a Standardized Nomenclature System for Head and Neck (H&N) IMRT Cont, Non-thesis Project.*

2002 Jul - 2003 Jun  

**Faculty Development**

2009 Jul - 2013 Jun  

2005 Jul - 2006 Jun  

I. Creative Professional Activities

1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2001 Jul 1 - present  
**GOAL:** TO IMPROVE HEAD AND NECK (H&N) CANCER OUTCOMES THROUGH THE IMPLEMENTATION OF HIGH QUALITY RADIATION THERAPY STANDARDS AND STANDARDIZATION OF PRACTICE.  
My goal is to improve H&N cancer outcomes by standardizing radiation therapy practices and improving the quality of radiation therapy delivery for patients with H&N cancer. Radiation therapy is often the primary curative treatment modality for H&N mucosal cancers. Over the past 10 years, there has been a tremendous change in the technical landscape of radiation therapy with the development and implementation of intensity-modulated radiation therapy (IMRT) and image-guided radiation therapy (IGRT). There is level 1 evidence demonstrating the importance of IMRT for H&N cancers. The implementation of these advanced technologies has required new quality assurance and system management processes. Unwanted variations in practice have been shown in phase II and III H&N clinical trials to compromise locoregional control and disease-free survival. Standardization of practice is one approach to limiting unwanted variation.

My creative professional activity (CPA) in this area has been to provide clinical, research, education and thought leadership to promote high quality H&N radiation therapy in an advanced technical environment.
As a member of the Princess Margaret Cancer Centre, Radiation Medicine Program (RMP) H&N Site Group, I played a prominent and leadership role in the development and implementation of many of our now well established H&N IMRT practice standards. Two practice changing examples are: 1) I developed a standardized H&N nomenclature system for radiation targets and normal organs-at-risk with our lead physicist (Dr. Stephen Breen) and our Site Group Leader at that time (Dr. Brian O'Sullivan). This system is integral to the way we plan and deliver radiation therapy. I led the implementation of this new system and I audited and reported our compliance. 2) I developed our institutional IMRT planning dose-volume constraint guidelines and I facilitated the implementation these guidelines by obtaining consensus support from our large H&N team. Impact: I have audited and reported our institutional outcomes in some H&N subsites. Taken together with other institutional audits, our institutional H&N cancer control outcomes are excellent. The development of our H&N IMRT program led the implementation of H&N IMRT in Ontario.

Automatic computer generation or delineation of normal organs and neck lymph node regions (autosegmentation) is a technology that may limit unwanted variation in clinical practice. I was the principle clinical investigator in a Princess Margaret Cancer Centre radiation physics autosegmentation project (PI - Dr. David Jaffray, radiation physics) in partnership with Philips Research. This research contributed to the development of a now commercially available autosegmentation software platform for H&N radiation therapy planning (SPICE, Philips Pinnacle v.9.6 planning system - trademark).

I have been a strong advocate for implementation of best practices and standardization of practice leading to a number of collaborative activities and leadership opportunities. I am currently a member of the Cancer Care Ontario (CCO), Cancer Imaging Program Synoptic Radiology Reporting Clinical Expert Panel. I was invited to co-lead of the CCO Radiation Therapy Program (RTP), H&N Community of Practice (CoP) working toward the development of best practice recommendations for H&N radiation medicine in Ontario. One of my first actions was to advocate for an executive team that reflected the 3 core disciplines of radiation medicine: radiation oncology; radiation physics; and radiation therapy. As standardization of practice is inherently a collaborative process, I have championed interdisciplinary and multidisciplinary collaboration as a core value to promoting quality of care for cancer patients. The H&N CoP general membership is comprised of representatives of the 3 core disciplines of radiation medicine from each of the 10 cancer centres treating H&N cancer patients with radiation therapy. Impact: The H&N CoP was the first RTP disease site CoP and is regarded as a successful model of collaboration among CCO cancer centres. The H&N CoP general membership selected the development of a provincial H&N nomenclature system and H&N IMRT dose-volume constraints as the first two provincial initiatives undertaken. Our Princess Margaret H&N nomenclature system was acknowledged as the foundation of the provincial nomenclature recommendation document. The RTP H&N CoP productivity output includes the development of recommendation documents that are available on the CCO website, successful collaborative meetings, development of a H&N CoP knowledge sharing and collaborative website, regular reporting to RTP leadership (I represent the H&N CoP leadership team at these meetings), a Canadian Organization of Medical Physicists (COMP) project gallery and an American Society of Clinical Oncology (ASCO) poster presentation. The recommendation documents demonstrate effective province wide collaboration in the radiotherapy management of H&N cancer.

My career trajectory in the promotion of H&N IMRT quality and standards extends to clinical trials research. The major North American radiation oncology clinical trials cooperative group is NRG Oncology (formerly Radiation Therapy Oncology Group, RTOG). I was invited to be the H&N Disease Site Liaison for the NRG Radiation Oncology Working Group. In my NRG H&N Liaison role, I am involved in the development of radiotherapy quality standards for NRG H&N clinical trials. I am also a member of the NRG Oncology Head and Neck Cancer Committee (formerly Steering Committee). I am the Radiation Oncology Co-Chair of 2 RTOG
trials, RTOG 0615 and RTOG 1008 evaluating H&N IMRT with system therapies in two disease specific subsites, nasopharynx cancer and salivary gland cancer respectively. I have contributed to the literature in these two disease subsites by institutional audit and presentations, peer reviewed publications and book chapters. As well, I was the expert radiation oncology quality assurance reviewer for RTOG 0615 and I am currently the expert reviewer for RTOG 1008. I was an expert reviewer for the “HEADSTART” trial, conducted jointly by the Trans-Tasman Radiation Oncology Group (TROG) and Sanofi-Aventis [Phase III randomized trial of concomitant radiation, cisplatin and tirapazamine (SR259075) versus concomitant radiation and cisplatin in patients with advanced head and neck cancer].

Impact: I have played a leadership role in the promotion of H&N IMRT quality and radiation therapy standards for major North American radiation oncology clinical trials.

As a result of my leadership in our institutional implementation of H&N IMRT and my reputation as an effective collaborator, I have been invited to 6 CCO cancer centres to facilitate their IMRT implementation as content expert (e.g. CCO coaching IMRT program) and to speak about IMRT implementation and radiation therapy quality. I have lectured widely on topics relevant to this CPA stream. A major focus of my teaching is Continuing Medical Education (CME) and faculty development. I have demonstrated a strong commitment to knowledge transfer through trainee teaching and CME by my record of collaboration in course development (including educational funding), consistent teaching efforts, teaching effectiveness scores and teaching/mentorship awards.

Impact: I have actively and collaboratively promoted the implementation of quality H&N IMRT programs provincially, nationally and internationally.

As further evidence of my credible leadership, I have successfully applied for a peer reviewed H&N cancer provincial leadership position. I have accepted the new CCO position of Ontario Head and Neck Cancers Lead. This position will start in February, 2015. I will be the provincial multidisciplinary H&N Disease Site Leader with a disease site portfolio that will include all H&N mucosal cancers and thyroid cancers. Among my responsibilities, I will be leading the development of clinical care disease pathways and overseeing CCO activities related to H&N and thyroid cancers.

2001 Jul 1 - present

**GOAL: TO IMPROVE GASTROINTESTINAL (GI) CANCER OUTCOMES THROUGH THE IMPLEMENTATION OF HIGH QUALITY RADIATION THERAPY STANDARDS AND STANDARDIZATION OF PRACTICE.**

My goal is to better define practice standards in an era of advanced radiation therapeutics for the adjuvant treatment of rectal adenocarcinomas and primary treatment of anal canal squamous cell cancers. The role of conformal radiation therapy or intensity-modulated radiation therapy (IMRT) is less well defined in the pelvis. Hence, there is an ongoing need to develop and evaluate effective processes and advanced technological standards in the context of our current understanding of radiation dose-fractionation and classical radiation biology. Parallel to my efforts in H&N cancer, my lower GI CPA extends from my institutional GI leadership activities to international consensus and best practice contributions in the management of rectal and anal canal cancers.

I developed and implemented our current comprehensive anal canal IMRT program through protocol and policy development including: the creation of a lower GI nomenclature system for radiation targets and organs-at-risk; multidisciplinary training sessions; treatment policies and guidelines; and leadership of quality assurance rounds. I led the development of a research ethics board (REB) approved prospective anal canal IMRT database. Our initial evaluation was recently published demonstrating excellent disease and quality of life outcomes.

Impact: To our knowledge, ours is the largest published prospective evaluation of IMRT in the treatment of anal canal cancer in the literature with quality of life and radiation dosimetric correlation. Since our initial evaluation, we have accrued more than 100 patients with this rare disease. The development of our peer reviewed database will enable us to evaluate a larger cohort and we plan to publish longer term outcomes including patterns of failure and
late toxicity. Currently, there is no publication of late toxicity with pelvic IMRT in this disease.

I was the only Canadian radiation oncologist invited to be an expert panel member in the development on the RTOG Contouring Consensus Guidelines for Elective Clinical Target Volumes for Conformal Therapy in Anorectal Cancer: An RTOG Consensus Panel Contouring Atlas. This Atlas is available online and in published format. The RTOG Atlases are regarded as high impact guidelines that are widely used as standard guides for practicing radiation oncologists inside and outside of clinical trials. As recognition of my content expertise, I was invited to be an Anal Cancer Scientific Session discussant at the 2014 American Society for Radiation Oncology (ASTRO) Annual Meeting held Sept 15, 2014 in San Francisco, California, United States. ASTRO is the most prominent North American radiation oncology society.

Further to my institutional leadership in rectal cancer radiotherapy management, I wrote the Canadian pelvic radiotherapy standards for the National Cancer Institute of Canada (NCIC) CTG CO.16/MRC CR07: A randomised trial comparing pre-operative radiotherapy and selective post-operative chemoradiotherapy in rectal cancer together with my British Columbia radiation oncology colleague, Dr. John Hay. I was recently invited to join the ASTRO Working Group - Best Practice Statement on Rectal Cancer. An ASTRO Best Practice publication (Appropriate Customization of Radiation Therapy for Stage II and III Rectal Cancer: An ASTRO Best Practice Statement) is near submission.

Parallel to my teaching, CME and professional development efforts in my H&N CPA stream, I have also lectured and presented widely in my lower GI CPA stream. This year, I am chair of the organization committee for (M)ultidisciplinary (A)nnual (G)astrointestinal (C)ancer (MAGIC) Update held annually in Toronto. The event is accredited by the Office of Continuing Education and Professional Development (CEPD), Faculty of Medicine, University of Toronto.

Impact: I am regarded as an international content expert in pelvic radiotherapy and I have influenced international practice standards.

2. EXEMPLARY PROFESSIONAL PRACTICE

2001 Jul 1 - present COLLABORATIVE RESEARCH, PROGRAM DEVELOPMENT and EDUCATION in SUPPORT of LEADING UPPER GI SUBSPECIALITY PROGRAMS.
My clinical, academic and teaching contributions include upper GI subsites (e.g. liver stereotactic body radiation therapy (SBRT) and upper GI malignancies) that are not my main areas of clinical and research focus. However, my contributions extend beyond expectations of my Site Group membership and clinical practice. I have been very committed to collaborative clinical research and education in my roles as content expert and Princess Margaret Cancer Centre, Radiation Medicine Program (RMP) GI Site Group Physician Leader. I have supported our programs locally, nationally and internationally. I was recently invited as an expert consultant in the development of an International Atomic Energy Agency (IAEA) liver stereotactic radiotherapy randomized clinic trial as another example of my radiotherapy quality expertise contribution to clinical trials.

As the RMP GI Site Group Physician Leader, I oversaw or actively led the implementation of state-of-the-art radiation therapy technologies for the GI Site Group including 4-dimensional (4D) CT scanning, 3D image guidance, 4D image guidance, motion management technologies (ABC, abdominal compression), magnetic resonance simulation/fusion, IMRT and most recently volumetric-modulated arc therapy (VMAT). These technologies are fundamental to our research programs and our ability to deliver leading edge and world class upper GI radiation therapy. My co-authorship on several high impact institutional publications support my effective research collaboration.
Curriculum Vitae

Normand Laperriere
MD

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

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Princess Margaret Hospital
Department of Radiation Oncology
610 University Ave, Rm 5-961
Toronto, Ontario, Canada
MSG 2M9

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Email norm.laperriere@rmp.uhn.on.ca

1. EDUCATION

Degrees
1974 Sep - 1978 Jun MD, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada
1972 Sep - 1974 Apr BSc, Science, Faculty of, Western University, London, Ontario, Canada

Postgraduate, Research and Specialty Training
2008 Oct - 2009 May UHN- Rotman Leadership Development Program, University of Toronto Rotman School of Management Executive Programs, University Health Network, Toronto, Ontario, Canada
1980 Jul - 1984 Jun Resident (PGY1-4), Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1978 Jul - 1980 Jun Resident (PGY1-2), Family Medicine, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
1978 Jul - present Licence CPS, College of Physicians and Surgeons of Ontario, Canada
2009 Oct FRANZCR(Hon), Honorary Fellow, Royal Australian and New Zealand College of Radiology
1984 Dec FRCPC, Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1984 Nov C.S.P.Q., Certification, Radiotherapy, Province of Quebec, Canada
1984 Jul - 1985 Licence CPS, Collège des médecins du Québec, Canada
1984 Jun D.A.B.R., Certification, Therapeutic Radiology, American Board of Radiology, United States
1980 May Certificant, C.C.F.P. College of Family Physicians of Canada (The), Canada
1978 Jun License (LMCC), Medical Council of Canada, Canada
2. EMPLOYMENT

Current Appointments

2011 Jul - present  Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1998 Jan - present  Active Staff, Division of Hematology/Oncology, The Hospital for Sick Children, Toronto, Ontario, Canada
1992 Jul - present  Active Staff, Division of Neurosurgery, Toronto Western Hospital/UHN, Toronto, Ontario, Canada
1985 Nov - present  Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario, Canada

Previous Appointments

CONSULTING
1985 Nov - 1997 Dec  Consultant, Division of Hematology/Oncology, The Hospital for Sick Children, Toronto, Ontario, Canada

HOSPITAL
1984 Jul - 1985 Oct  Staff Radiation Oncologist, Montreal General Hospital, Royal Victoria Hospital, Jewish General Hospital, Montreal, Quebec, Canada

UNIVERSITY - RANK
1999 Jul - 2011 Jun  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1989 Jul - 1999 Jun  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1985 Nov - 1989 Jun  Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1984 Jul - 1985 Oct  Assistant Professor, Radiation Oncology, McGill University, Montreal, Quebec, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2011 Oct  D'Angio Lecture, 43rd Congress of the International Society of Paediatric Oncology (SIOP), Aukland, New Zealand. (Distinction)
               Advances in Photon Radiation Therapy for Pediatric Tumours: New Opportunities and Lessons Learned.
2009 Oct - 2009 Nov  The 2009 Carestream Professorship, Royal Australian and New Zealand College of Radiology. (Distinction)
2009 Oct  FRANZCR(Hon), Honorary Fellow, Royal Australian and New Zealand College of Radiology. (Distinction)
1992 Nov  Mahaley Award, Congress of Neurological Surgeons, United States. (Research Award)
Teaching and Education Awards

LOCAL

Received

2008  **Best Radiation Medicine Rounds for 2007/2008**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada. (Postgraduate MD)

2008  **Postgraduate Advocacy and Mentorship Award, Department of Radiation Oncology**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

2006  **Mentorship Award, Radiation Medicine Program**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto, Ontario, Canada. (Postgraduate MD, Clinical Fellow)

2005  **Best Clinical Teacher, Radiation Medicine Program**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada. (Postgraduate MD)

2005  **Postgraduate Advocacy and Mentorship Award, Department of Radiation Oncology**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

2001  **Residents’ Award for Excellence in Clinical Teaching**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

Student/Trainee Awards

NATIONAL

Received

1999 Sep  **Second prize (the Nucletron Award)**, Supervisor, Awardee Name: Andrew Loblaw (Postgraduate Trainee, Department of Radiation Oncology). Canadian Association of Radiation Oncology’s Resident Research Award Competition, Canada

For his project, “A population-based study of malignant spinal cord compression”.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

  - **Member**, American Society for Therapeutic Radiology and Oncology
  - **Member**, Canadian Association of Radiation Oncologists
  - **Member**, Canadian Brain Tumour Consortium
  - **Member**, Canadian Medical Association
  - **Member**, European Society for Radiotherapy and Oncology
  - **Member**, Fellow of The Royal College of Physicians and Surgeons of Canada
  - **Member**, Joint Section on Tumors, American Association of Neurological Surgeons and Congress of Neurological Surgeons
  - **Member**, Ontario/Canadian Medical Association
Administrative Activities

INTERNATIONAL

15th International Symposium on Pediatric Neuro-Oncology
2012 Jun Member, Organizing Committee, Toronto, Ontario.

International Brain Tumour Research and Therapy Meeting
2010 - 2012 Member, Local Organizing Committee

Pediatric Radiation Oncology Society (PROS) Annual Meeting
2014 Oct Member, Local Organiser, Organizing and Scientific Committee, Toronto.

SIOP Annual Meeting
2014 Oct Member, Local Organizing Committee, Toronto.

Society of Neuro-Oncology
2012 - 2014 Member, Local Organizing Committee

The 19th International Brain Tumour Research and Therapy Conference
2012 Jun Member, Organizing Committee, Niagara Falls, Ontario.

NATIONAL

11th Biennial Canadian Neuro-Oncology Meeting
2004 May Member, Organizing committee, Toronto.

13th Biennial Canadian Neuro-Oncology Meeting
2008 May Member, Organizing committee, Banff.

Brain Tumour Foundation of Canada
2008 Participant, Think Tank
One day Think Tank for members of board. London, Ontario.

Canadian Association of Medical Radiation Technologists

Canadian Brain Tumour Consortium
2004 - present Vice Chair
2000 - present Founding Member of Board

Fifth Canadian Neuro-Oncology Meeting
1992 Jun Member, Organising Committee, Deerhurst, Ontario.
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National Cancer Institute of Canada
1993 - 1995 Chair, Site Specific Advisory Group for Brain Tumours of the Canadian Committee on Cancer Staging

National Cancer Institute of Canada/Clinical Trials Group
1995 - 2000 Member, Executive, Central Nervous Site

Royal College of Physicians and Surgeons of Canada
1993 - 2003 Member, Examination Board in Radiation Oncology

The College of Physicians and Surgeons of Ontario
2000 - present Member, Advisory Committee on Radiation Oncology

PROVINCIAL / REGIONAL

Other Organizations
2014 Apr Co-Director, Personalized High Precision Radiotherapy for Brain Tumours, Toronto.
1988 Member, Task Force for the establishment of a French language community health center in Toronto

Cancer Care Ontario
2004 - present Co-Chair, Neurologic Disease Site Group, Evidence Based Program
1998 - 2004 Member, Neurologic Disease Site Group, Evidence Based Program

Centre Medico-Social Communautaire Inc.
1989 - 1991 Founding Member of Board, Toronto, Ontario. a french language community health center.

Pediatric Oncology Group of Ontario Aftercare Education
2007 Jan Member, Organising committee, Toronto.

Provincial Pediatric Oncology Planning
2004 Jul - 2005 May Member, 2010 Steering Committee
2004 - 2005 Chair, Radiotherapy committee

Radiation Therapy Oncology Group (RTOG)
1997 - 2005 Member, Brain Tumour Committee

LOCAL

Other Organizations
1992 - present Leader, Department of Radiation Oncology Central Nervous System Site Group
1998 - 2009 Director, Adult Aftercare Program for survivors of Pediatric Malignancies
1997 - 2004 Leader, Central Nervous System Quality Management Team
1995 - 1996 Member, Medical Advisory Committee (MAC)
1994 - 2005 Leader, Central Nervous System Accreditation Team
1994 - 1995 Member, Transition Management Team
1993  Member, Rules & Regulations Review Committee
1992 - 1993  Team leader, Continuous Quality Improvement demonstration project: Patient waiting in Testicular Cancer clinic
1992 - 1993  Member, Medical Advisory Committee (MAC)
1991 - 1992  Secretary, Medical Advisory Committee (MAC)
1990  Member, CT selection committee
1990  Member, Imaging user group
1989 - 1993  Chair, Ambulatory Care Committee
1989 - 1991  Member, Comprehensive Cancer Center ad hoc planning group
1989  Member, Clinical Organisation and Planning Committee
1988 - 1989  Member, Medical Advisory Committee (MAC)
1987 - 1990  Member, Executive, Medical Staff Association

Princess Margaret Hospital
2000 - present  Member, Cancer Committee
1996 - present  Leader, Central Nervous System Site Group
2008 - 2009  Chair, Cancer Committee
2008 - 2009  Member, Advisory Committee on Oncology
2008 - 2009  Member, Cancer Program Medical Leadership Committee
1995 - 1996  President, Medical Staff Association
1995 - 1996  Member, Board of OCI/PMH
1991 - 1994  Member, OCI/PMH Family Canvas Committee, Capital Campaign
1986 - 1994  Member, Radiation Protection Committee

University Health Network
2008 - 2009  Member, Medical Advisory Committee

University of Toronto
2010 - present  Member, Teaching Effectiveness Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
1989  Member, Search committee, for the Head of the Interdepartmental Division of Oncology, Faculty of Medicine, Dept of Radiation Oncology
1988  Member, Ad hoc committee on academic affairs for the Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
1987 - 1990  Functional Program Liaison Coordinator, Rehabilitation Medicine
1987 - 1990  Secretary, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology

Peer Review Activities

ASSOCIATE OR SECTION EDITING
Editor
Neuro-Oncology (Associate Editor)
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDED

2010 - 2015

Sponsor: NCIC CTG, Schering Plough (Merk).


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Normand LAPEPERRIERE


28. Combs SE, **Laperriere N** and Brada M. Clinical Controversies: Proton Radiation Therapy for Brain and Skull Base Tumors. Semin Radiat Oncol. 2013 Apr;23(2):120-6. **Coauthor or Collaborator**.


Normand LAPERRIERE


Journal Articles, Randomized Controlled Trial


Book Chapters


Editorials


Letters to Editor


Monographs


Multimedia


2. Tumours of the Central Nervous System. An educational CD-rom for patients. **Expert Medical Editor**.

3. Radiation therapy. IMS Creative Communications, University of Toronto. An educational videotape for patients. **Medical adviser**.

3. SUBMITTED PUBLICATIONS

Journal Articles


5. D'Agostino NM, Guger SL, Greenberg ML, Gupta A, Hodgson D, **Laperriere N**, Nathan P, Millar BA. Knowledge and Self-Care in Survivors of Childhood Cancer: Transitioning to Adult Care. Psychooncology. **Coauthor or Collaborator**.

6. Ahmadi N, **Laperriere N**, Hodaie M. Assessment of Barriers to Access Gamma Knife Radiosurgery in Ontario. Can Med Assoc J. **Coauthor or Collaborator**.


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2014 May Evolution of the Role of Radiotherapy in the Management of Pediatric Brain Tumours. 3rd Annual Meeting of the Pan Arab Society of Paediatric Oncology International Congress in Pediatric Neuro-Oncology. Annaba, Algeria.

2014 May Re-irradiation for Pediatric Brain Tumours. 3rd Annual Meeting of the Pan Arab Society of Paediatric Oncology International Congress in Pediatric Neuro-Oncology. Annaba, Algeria.


2013 May Radiation Therapy for Pediatric Craniopharyngiomas. Pediatric Neuro-Oncology Basic and Translational Research Conference. Fort Lauderdale, United States.


2011 Feb Image Guided Photon IMRT for Skull Base Chordomas and Chondrosarcomas. 21st North American Skull
Base Society Meeting. Phoenix, United States.


2010 Oct  The Role of Temodal with Radiation in Malignant Gliomas. Shanghai Brain Tumour Interest Group. Shanghai, China.


2009  State of the Art in Radiation Treatment of High Grade Gliomas. Turkish Multidisciplinary Neurooncology Symposium. Istanbul, Turkey.


2009  Effect of Radiation Treatment on Non-Involved Brain. 36th Annual Meeting of the Clinical Oncology Society of Australia. Gold Coast, Australia.
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2009 Radiation for Brain Metastases. 36th Annual Meeting of the Clinical Oncology Society of Australia. Gold Coast, Australia.


2009 Radiation Oncology and National Cancer Institute of Canada (NCIC) Portfolio of CNS Trials. Cooperative Trials Group for Neuro-Oncology (COGNO) 2nd Annual Scientific Meeting. Gold Coast, Australia.


2009 Visiting Professor. The Management of Brain Metastases. Carestream Professor, the Combined Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Brisbane, Australia. Including the Faculty of Radiation Oncology (FRO), The Australian Institute of Radiography (AIR) and the Australasian College of Physical Scientists & Engineers in Medicine (ACPSEM).

2009 Visiting Professor. Temozolomide in Gliomas: current state of the art. Carestream Professor, the Combined Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Brisbane, Australia. Including the Faculty of Radiation Oncology (FRO), The Australian Institute of Radiography (AIR) and the Australasian College of Physical Scientists & Engineers in Medicine (ACPSEM).

2009 Visiting Professor. NCIC/EORTC/TROG Trial: Glioma in the Elderley. Carestream Professor, the Combined Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Brisbane, Australia. Including the Faculty of Radiation Oncology (FRO), The Australian Institute of Radiography (AIR) and the Australasian College of Physical Scientists & Engineers in Medicine (ACPSEM).

2009 Visiting Professor. Radiation Therapy for Malignant Gliomas: an Evidence Based Review. Carestream Professor, Department of Radiation Oncology, Mater Hospital Brisbane. Brisbane, Australia.

2009 Visiting Professor. Overview of CNS radiotherapy: Gliomas and Metastases. Department of Radiation Oncology, Townville Hospital. Townsville, Australia.

2009 Visiting Professor. Management of Brain Metastases. Department of Radiation Oncology, Royal Brisbane and Women’s Hospital and Royal Brisbane Children’s Hospital. Brisbane, Australia.

2009 Visiting Professor. Management of Pediatric Brain Tumours: Pilocytic Astrocytomas, Medulloblastomas, Ependymomas. Department of Radiation Oncology, Royal Brisbane and Women’s Hospital and Royal Brisbane Children’s Hospital. Brisbane, Australia.

2009 Visiting Professor. Management of Brain Metastases. Department of Radiation Oncology, Westmead Hospital. Sydney, Australia.

2009 Visiting Professor. Management of Brain Metastases. Department of Radiation Oncology, Liverpool Hospital. Sydney, Australia.


2009 Visiting Professor. Craniopharyngiomas, Medulloblastomas, Ependymomas. Department of Radiation Oncology, Auckland Hospital and Children’s Hospital. Auckland, New Zealand.


2008 Strategies for Treatment and New Frontiers in Elderly Patients with GBM. IVth International Conference on Future Trends in the Treatment of Brain Tumors. Bologna, Italy.


2008 Update on EORT-NCIC 4 Year Results. Current Trends in the Management of Malignant Gliomas II. Rio de Janeiro, Brazil.


2008 Pseudoprogression in High Grade Glioma after Radiotherapy and Temozolomide: is it an Issue? Perspectives in Central Nervous System Malignancies. Warsaw, Poland.


2006  Glioblastoma: Recent Advances and Future Studies. 7th Annual Turkish Radiation Oncology Congress. Fethiye, Turkey.


2006  Pseudoprogession in Malignant Gliomas: Possible Value of Newer MRI Techniques. Department of Radiation Oncology, University of Tehran. Iran, Islamic Republic of.


2005  Case Presentation: Brain Metastases. 3rd International Conference on Future Trends in the Treatment of Brain Tumors. Padua, Italy.


2005  Randomized Study of Temozolomide and Radiation Therapy in Elderly Patients with Glioblastoma: an NCIC CTG/EORTC Study. Satellite Meeting at the Second Quadrennial Meeting of the World Federation of NeuroOncology and the Sixth Meeting of the European Association for NeuroOncology. Edingburgh, United Kingdom.

2005  Experimental MRI Sequences in the Assessment of Patients with Glioblastoma Multiforme: Proposal for a Prospective Study in 30 Patients. Satellite meeting at the Second Quadrennial Meeting of the World Federation of NeuroOncology and the Sixth Meeting of the European Association for NeuroOncology. Edingburgh, United Kingdom.


2005  NCIC/EORTC Study in Elderly Patients with High Grade Glioma. Temozolomide International Research
2004 Evidence Based Guidelines for Radiation in Malignant Gliomas. World Federation of Neurosurgical Societies, Tumor Section Meeting. Jaipur, India.

2004 Role of Radiation in Adult Neuro-Oncology. World Federation of Neurosurgical Societies, Tumor Section Meeting. Jaipur, India.


2004 Evidence Based Guidelines for Radiation in Adult Low Grade Gliomas. World Federation of Neurosurgical Societies, Tumor Section Meeting. Jaipur, India.

2004 Simplified Approach to Classification and Indications for RT in Paediatric Brain Stem Gliomas. World Federation of Neurosurgical Societies, Tumor Section Meeting. Jaipur, India.


2004 Evidence Based Guidelines for Radiation in Malignant and Low Grade Gliomas. World Federation of Neurosurgical Societies, Tumor Section Meeting, Satellite Conference. Kolkata, India.


2001 Low Grade Gliomas: The Case for Early Radiotherapy. Second International Clinic of Neurological Surgery. New Delhi, India.


Presented Abstracts


Normand LAPERRIERE


<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
<th>Event</th>
<th>Collaborators</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 Sep</td>
<td>Principal Author</td>
<td>Focal Stereotactic radiotherapy for macular/peripapillary retinoblastoma. 15th International Society for Genetic Eye Disease, 12th International Retinoblastoma Symposium, and the 12th International Congress of Ocular Oncology. Whistler, British Columbia, Canada.</td>
<td>Laperriere NJ, Sahgal A, Millar BA, Michaels H, Jaywant S, Chan H, Heon E, Gallie B.</td>
</tr>
</tbody>
</table>
2. NATIONAL

**Invited Lectures and Presentations**

2013 Nov  
**The Central Role of MRI in the Radiotherapeutic Management of CNS Tumours.** 8th Annual MRI Symposium, Ontario MRI Technologists. Toronto, Ontario.

2012 Jun  
**Invited Lecturer.** What’s New and What you Need to Know About Radiotherapy and Brain Tumours. Resident Review Course: Neuro-Oncology. 47th Annual Congress of the Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada.

2011 Oct  
**Speaker.** The Evolving Role of Radiation in High Grade Gliomas. Saskatchewan Cancer Agency Provincial CNS Malignancies Meeting. Regina, Saskatchewan.

2011 Oct  
Radiotherapy in the Management of Malignant Gliomas. Alberta Provincial Neuro-Oncology Tumour
2011 Jul  

2011 Feb  

2011 Feb  

2011 Feb  

2011 Feb  

2011 Jan  

2011 Jan  

2010 May  
Challenges in the Assessment of T1 Gadolinium and T2 Flair Images in the RESCUE Study. RESCUE Volumetric Study. Montreal, Quebec.

2010 May  

2010 May  

2010  

2010  

2010  

2010  

2010  

2009  

2009  

2009  

2008  

2008  
New Approaches to Understanding Pseudoprogression. Temozolomide Canadian Research Update
Meeting. Banff, Alberta.

2008

2007
Pseudoprogression in High-Grade Glioma after Concurrent Radiotherapy and Temozolomide: a Multi-Parametric MRI study. Dr. H. Bliss Murphy Cancer Centre. St John’s, Newfoundland and Labrador.

2007
Pseudoprogression in High Grade Glioma after Radiotherapy and Temozolomide. 25th Annual Meeting of the Quebec Association of Radiation Oncology. Orford, Quebec.

2006

2006

2006
Pseudoprogression in Glioblastoma Multiforme. Clinical Investigators Meeting, A phase II trial of continuous dose-intense temozolomide chemotherapy after progression on conventional 5/28 day temozolomide in patients with recurrent malignant gliom. Montreal, Quebec.

2004

2004

2003
Radiotherapy for Malignant Gliomas: Current Approaches and Future Directions. 38th Annual meeting of the Canadian Congress of Neurological Sciences. Quebec City, Quebec.

2003
Radiosurgery for Meningiomas and Vestibular Schwannomas. Canadian Association of Radiation Oncologists (CARO), Annual Scientific Meeting. Montreal, Quebec.

2000

1998

1997

1996

1995
Radiation Therapy for Brain Tumours: an Overview. Annual Meeting of the Canadian Association of Radiologists and the Canadian Association of Medical Radiation Technologists. Montreal, Quebec.

1990

**Presented Abstracts**

2009 Oct

2008 Jun

Page 34 of 42
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CONFIDENTIAL DOCUMENT
Laperriere N, Simpson ER.


1999 Senior Responsible Author. A retrospective analysis of 52 cases of spinal cord glioma. 2nd Annual Canadian Brain Tumour Network Conference. Toronto. Rodrigues GB, Waldron JN, Wong CS, Laperriere NJ.

1999 Principal Author. Stereotactic Radiation Therapy for Vestibular Schwannomas. 2nd Annual Canadian Brain Tumour Network Conference. Toronto. Laperriere NJ.

1995 Sep Principal Author. Accelerated Radiation Therapy for Primary Lymphoma of Brain. 64th Annual Meeting of The Royal College of Physicians and Surgeons of Canada and The Canadian Association of Radiation Oncologists. Montreal, Canada. Laperriere NJ, Wong CS, Milosevic MF, Simpson WJ.


1994 May Collaborator. Permanent myelopathy following re-irradiation of the spinal cord. 6th Canadian Neuro-Oncology Meeting. Lake Louise, Alberta. Wong CS, Van Dyk J, Milosevic M, Laperriere NJ.

1994 May Principal Author. A wait and see approach to radiation therapy is best for patients with low grade astrocytoma. Debate on low grade astrocytoma. 6th Canadian Neuro-Oncology Meeting. Lake Louise, Alberta. Laperriere NJ.


Lectures and Other Presentations


2010 Late Effects of Treatment of Sarcomas in Childhood: a Story in Evolution. 3rd Annual International Sarcoma Awareness Week Symposium. Toronto, Ontario. (Presentation to Patients/Public).


2010 New Developments in Radiation Therapy for Brain Tumours. Canadian Brain Tumour Foundation, Patient information day. Calgary, Alberta. (Presentation to Patients/Public).

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2009  Pseudoprogression in High Grade Glioma. The Ottawa Regional Cancer Centre. Ottawa, Ontario.


2008  MRIs, Malignant Gliomas, Temozolomide, Pseudoprogression. Thunder Bay Regional Cancer Centre. Thunder Bay, Ontario.


2000  Ocular Oncology Program at Princess Margaret Hospital. Ottawa Regional Cancer Centre. Ottawa, Ontario.


1990  Radiation Implants for Brain Tumors. Ontario Oncology Association for Health Professionals. Toronto, Ontario.


1987  New Strategies for Treating Patients with Malignant Brain Tumours. Ontario Oncology Association for Health Professionals. Toronto, Ontario.

1983  Carcinoma of the Thyroid. Review of the Cross-Canada Survey, Oncological Clinical Day. Sudbury,
Presented Abstracts


1990 Mar  Principal Author. Primary CNS Lymphoma. Third Annual Metro Toronto Group Meeting. Toronto, Ontario. Laperriere NJ.

Lectures and Other Presentations


2008  Recurrence Patterns in Gliomas. Medical Options in Neuro-Oncology.


4. LOCAL

Invited Lectures and Presentations


Ontario.


2001  **Participant.** Role of Radiation in Low Grade Gliomas. E. Harry Botterell Professorship in Neurosurgery, University of Toronto. Toronto, Ontario.


1999  Predictive Factors for Brain Tumours. Future Directions in Radiation Oncology, CME course sponsored by The Department of Radiation Oncology, University of Toronto, and Princess Margaret Hospital. Toronto, Ontario.


1994  Dose-Fractionation Studies in Malignant Gliomas. Clinical Aspects of Radiation Biology, CME course, Department of Radiation Oncology, University of Toronto. Toronto, Ontario. (Continuing Education).

1993  **Participant.** Brachytherapy for Malignant Brain Tumors. Keith Professorship in Neurosurgery, University of Toronto. Toronto, Ontario.

1992  Choroidal Melanomas. CME course, Department of Radiation Oncology, University of Toronto. Toronto, Ontario. (Continuing Education).

1992  Malignant Gliomas of Brain. CME course, Department of Radiation Oncology, University of Toronto. Toronto, Ontario. (Continuing Education).

Presented Abstracts


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


Postgraduate MD


2004 - 2006  **Primary Supervisor.** Resident. A. Sahgal. *Stereotactic radiotherapy in the treatment of*
Normand LAPERRIERE

*juxtapapillary choroidal melanoma.*


2. OTHER SUPERVISION

Graduate Education

Thesis Examination Committee


Curriculum Vitae

Justin Lee

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre (T-Wing)
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada

Telephone 416-480-4998
Fax 416-480-6002
Email Justin.Lee@sunnybrook.ca

1. EDUCATION

Degrees
2007 Jul - 2010 Aug MSc, Masters Medical Biophysics, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1999 Sep - 2002 Jun MD, Doctor of Medicine, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada
1994 Sep - 1999 Aug BSc, Bachelors Electrical Engineering and Management (Not completed), Engineering, Faculty of, McMaster University, Canada

Postgraduate, Research and Specialty Training
2007 Jul - 2009 Oct Clinical Research Fellow, Department of Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences, Toronto, Ontario, Canada
2005 Senior Resident, Toronto Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada
2002 Jul - 2007 Jun Resident, Radiation Oncology, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2007 - present Fellow, Royal College of Physicians and Surgeons of Canada (FRCPC), Canada
2002 - present Licentiate, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2015 - present Courtesy Staff, North York General Hospital, North York, Ontario, Canada
2014 Jul 1 - present  Affiliate Scientist, Radiation Oncology, Sunnybrook Research Institute, Toronto, Ontario, Canada
2014 - present  Courtesy Staff, Rouge Valley Centenary, Scarborough, Ontario, Canada
2011 - present  Courtesy Staff, The Scarborough Hospital, Scarborough, Ontario, Canada
2010 Jul - present  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2009 - present  Active Staff, Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2008 - 2009  CBCF Physician Fellowship Award, Canadian Breast Cancer Foundation, Canada. (Distinction)  
Total Amount: 107,250

2007 - 2009  EIRR 21st Award, Excellence in Radiation Research Program, Canada. (Distinction)  
(CIHR funded Research Training Program). Total Amount: 28,500

2001  Ivan Smith Memorial Studentship, Canadian Cancer Society, Canada. (Distinction)

LOCAL

Received

2005  WJ Simpson Resident Research Award, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada. (Research Award)

Teaching and Education Awards

LOCAL

Received

2015 Oct  Post Graduate Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

Nominated

2007 Mar  2007 PAIRO Trust Fund Resident Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2008 - present  American Institute of Ultrasound in Medicine (AIUM)
Administrative Activities

PROVINCIAL / REGIONAL

Cancer Care Ontario (CCO)
2014 - present Breast Pathway, Toronto, Ontario, Canada.
2013 Nov 22 - present Program in Evidence Based Care - Head and Neck Disease Site Group, Ontario, Canada.
2015 Dec Systemic Therapy in the Curative Treatment of Head and Neck Squamous Cell Cancer - DSG reviewer, Toronto, Ontario, Canada.

College of Physicians and Surgeons of Ontario (CPSO)
2013 Aug 12 - 2013 Nov 5 CPSO Peer Assessor - Radiation Oncology, Ontario, Canada.

LOCAL

NRG Oncology
2014 Aug 7 - present NSABP Site Representative, Toronto, Ontario, Canada.

Odette Cancer Centre, Radiation Oncology
2013 Jul 1 - present Head and Neck Disease Site Group Lead, Toronto, Ontario, Canada.

Odette Cancer Centre, Sunnybrook Health Sciences Centre
2013 May 9 - present Concurrent Therapy Advisory Committee, Toronto, Ontario, Canada.
2013 Jan 1 - 2013 Dec 30 Radiation Planning Redesign Committee, Toronto, Ontario, Canada.

Sunnybrook Health Sciences Centre, SRI

University of Toronto
2002 - 2005 Resident Rep, Post-Graduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

Peer Review Activities

GRANT REVIEWS

External Grant Reviewer
2013 Canadian Breast Cancer Foundation, CBCF-PNWT Region’s 2013 Breast Cancer Research Grant Competition, Number of Reviews: 1
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2014 Feb - 2019 Jan

The major goal of the project is to translate MRI-controlled HT mediated drug delivery into the clinic.

2013 Feb - 2015 Feb


2012 Jul - 2015 Jun


2008 Jul - 2010 Jun


2008 Jul - 2009 Jun


NON-PEER-REVIEWED GRANTS

FUNDED

2016 - present

Principal Site Investigator. NRG HN002: A randomized phase II trial for patients with p16
positive, non-smoking associated, locoregionally advanced oropharyngeal cancer (head and neck disease site group). [Clinical Trials]

2016 - present  Principal Site Investigator. A phase II randomized trial of radiation fractionation schedules for once-a-day accelerated partial breast irradiation (OPAR) (breast disease site group). [Clinical Trials]


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


**In Preparation**

1. Stinson J, Chow E, Lee J, DeAngelis C. Managing chemotherapy-induced nausea and vomiting (CINV) in head and neck patients receiving cisplatin chemotherapy with concurrent radiation. **Coauthor or Collaborator.**


3. Lee JW, Ravi A, Skliarenko J. Evaluation of skin dose distribution in head and neck cancer patients requiring radiation therapy with coverage of the tracheostomy site. **Principal Author.**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Book Chapters**


**Newsletter**

3. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:
Efficacy of the anti-emetic regimens for prophylaxis of chemotherapy-induced nausea and vomiting in head and neck cancer. MASCC/ISOO International Symposium on Supportive Care in Cancer. Copenhagen, Denmark.

Publication Details:

Low tech solutions in a high tech world - positioning to decrease radiation induced breast toxicity. 3rd Estro Forum. Barcelona, Spain.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Identifying knowledge translation opportunities in the treatment of locally advanced breast cancer.


Publication Details:
Responsible Author.

2011
Automatic segmentation of non-small cell lung carcinoma using 3D texture features in co-registered FDG PET/CT images. The American Association of Physicists in Medicine (AAPM) Canadian Organization of Medical Physicists (COMP).

Publication Details:

2009

Publication Details:

2008

Publication Details:

2008

Publication Details:

2006
Clinical impact of F-18 Fluorodeoxyglucose (FDG) positron emission tomography (PET) on the management of primary tumors of the thymus. American Society for Radiation Oncology (ASTRO).

Publication Details:
Lee J, MacManus M, Ball D, Hicks R, Hogg A. Clinical impact of F-18 Fluorodeoxyglucose (FDG) positron emission tomography (PET) on the management of primary tumors of the thymus. Int J Radiat Oncol Biol Phys. 2006;717(S1). Principal Author.

2005

Publication Details:
2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

2016 Margin determination for hypofractionated partial breast irradiation. Canadian Association of Radiation Oncology (CARO). Banff, Alberta, Canada. Presenter(s): Gready C.

Publication Details:

2012 Predictors of radiotherapy failure in non melanoma skin cancer. Canadian Association of Radiation Oncology (CARO).

Publication Details:

2012 Evaluation of skin dose distribution in head and neck cancer patients requiring radiation therapy with coverage of the tracheostomy site. Canadian Association of Radiation Oncology (CARO).

Publication Details:


Publication Details:

2009 Non-invasive ultrasound monitoring of radiation and vascular disrupting microbubble treatment effects. Canadian Association of Radiation Oncology (CARO). Quebec City, Quebec, Canada.
Publication Details:

Principal Author.

2008
Ultrasound microbubble-potentiated enhancement of tumour response to radiation: Preliminary results. Canadian Association of Radiation Oncology (CARO). Montreal, Quebec, Canada.

Publication Details:

2008
Novel low-frequency ultrasound monitoring of tumor cell death in vivo, in response to therapy. Canadian Association of Radiation Oncology (CARO). Montreal, Quebec, Canada.

Publication Details:

2005

Publication Details:

Principal Author.

2005
Assessment of quality of life during combined, sequential radiation therapy and androgen suppression post radical prostatectomy for prostate cancer. Canadian Association of Radiation Oncology (CARO). Victoria, British Columbia, Canada.

Publication Details:

2004

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations
2011 Jun 13
Locally advanced breast cancer – A radiation oncologist’s perspective. Scarborough Hospital, TEGH, Sunnybrook OCC, Multidisciplinary Breast Meeting. Toronto, Ontario, Canada.
Presented Abstracts

2004  Impact of severe acute respiratory syndrome on patient access to palliative radiation therapy. Provincial Conference on Palliative Care, Toronto, Ontario, Canada. Poster presentation.

4. LOCAL

Invited Lectures and Presentations


Presented and Published Abstracts

2016 Apr 22  Hypofractionated partial breast irradiation for unresected locally advanced breast cancer in metastatic and medically inoperable patients. UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Hahn E.

Publication Details:

2016 Apr 22  Can intratreatment PET CT based adaptive radiotherapy reduce treatment margins in head and neck cancers? UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Farha G.

Publication Details:

5. OTHER

Presented and Published Abstracts

2014 Jun  A retrospective analysis of factors affecting treatment outcome and patient experience in elderly head and neck cancer patients: The Odette Cancer Centre experience.

Publication Details:
F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD


Postgraduate MD


Curriculum Vitae

Eric Leung
BASc, MD, MSc, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
2075 Bayview Avenue, T-Wing
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-6165
Email eric.leung@sunnybrook.ca

1. EDUCATION

Degrees
2008 - 2011 MSc, Full-time graduate school program completed during residency training, Medical Biophysics, University of Toronto
2003 - 2007 MD, Memorial University of Newfoundland
1998 - 2002 BASc, Electrical Engineering Program, University of Toronto

Postgraduate, Research and Specialty Training
2012 Radiation Oncology Clinical Fellowship, Gynecologic Oncology Fellowship; MRI-guided brachytherapy, Department of Radiation Oncology, University of Toronto
2007 - 2012 Radiation Oncology Residency (FRCPC), Department of Radiation Oncology, Odette Cancer Centre and Princess Margaret Cancer Centre, University of Toronto

2. EMPLOYMENT

Current Appointments
2014 - present Radiation Oncologist, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
Clinical Site Groups: Gynecologic Oncology, Breast
2014 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2014 - present Affiliate Scientist, Sunnybrook Research Institute, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
Clinical Site Groups: Gynecologic Oncology, Breast Oncology

2013 - 2014  Associate Scientist, Lawson Health Research Institute, London, Ontario, Canada

UNIVERSITY - RANK
2013 - 2014  Assistant Professor, Oncology, Western University, London, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2010  Merit Award, American Society of Clinical Oncology. (Distinction)

NATIONAL
Received
2011  Resident Award for Basic Science and Translational Research, Canadian Association of Radiation Oncology (CARO). (Research Award)
2010  Oncology Young Clinical Investigator Award, Novartis. (Distinction)

LOCAL
Received
2011  WJ Simpson Research Award, Department of Radiation Oncology, University of Toronto. (Research Award)
2007  Scholarship, Dr. H. Bliss Murphy Cancer Care Foundation. (Distinction)
2003 - 2007  Graduation Oncology Award, Memorial University of Newfoundland. (Distinction)
1998 - 2002  Gordon Cressy Leadership Award, University of Toronto. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Canadian Medical Association (CMA)
College of Physicians & Surgeons of Ontario (CPSO)
Ontario Medical Association (OMA)
Royal College of Physicians and Surgeons of Canada (FRCPC)

Administrative Activities

NATIONAL
NCIC CTG Committee
2015 - present  Member, CTG Disease Site Committee, Ontario, Canada.
OCREB - Ontario Cancer Research Ethics Board
2015 - present Member, OCREB - Ontario Cancer Research Ethics Board, Ontario, Canada.

Rectal Cancer Alliance of Canada
2013 - present Site Lead, Radiation Oncology
• Quicksilver Phase II multicentre national trial
• Site Lead for Radiation Oncology in London.

PROVINCIAL / REGIONAL
London Regional Cancer Program
2013 - 2014 Vice Chair, Radiation Oncology Associate Group

LOCAL
Odette Cancer Centre
2014 - present Gynecologic site group representative, Brachytherapy Steering Committee

University of Toronto
2015 - present Member, Post-Graduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2015 Jul Reviewer, CaRMS, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2013 - 2014 Coordinator, Hematologic Oncology Rotation, Radiation Oncology Rotation, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
• Coordinate clinical rotations in hematologic oncology.
2010 - 2011 Postgraduate, Resident Elect, Radiation Oncology Residency Training Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1998 - 2002 Vice President, Engineering Student Society

Western University
2013 - 2014 Postgraduate Coordinator, Radiation Oncology Lymphoma Residency Training, Department of Hematology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED
Feasibility and Acceptability of Measuring Cervical Cancer Specific Patient-Reported Outcomes in Clinical Practice.

2015


Cancer Imaging Network of Ontario Research Grant.

2014


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Abstract


Manuscript


2. NON-PEER-REVIEWED PUBLICATIONS

In Preparation


Abstract


Manuscript


3. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts

2015 Jun **Presenter**. DEVELOPMENT OF A NOVEL E-EDUCATION TOOL TO MEET THE NEEDS OF OUR ENDOMETRIAL CANCER PATIENTS UNDERGOING VAGINAL VAULT BRACHYTHERAPY. MASCC/ISOO Annual Meeting on Supportive Care in Cancer. Copenhagen, Denmark. DEVELOPMENT OF A NOVEL E-EDUCATION TOOL TO MEET THE NEEDS OF OUR ENDOMETRIAL CANCER PATIENTS UNDERGOING VAGINAL VAULT BRACHYTHERAPY.


2. NATIONAL

Presented Abstracts


2011 Sep Relapse patterns in stage I seminoma: overall impact on total treatment burden. Canadian Association of Radiation Oncologists 20th Annual Scientific Meeting. Winnipeg, Manitoba. Authors: Leung E, Warde P,
Eric LEUNG


2008 Sep  Effects of radiotherapy on tumour architecture and fluid dynamics. Canadian Association of Radiation Oncologists 22th Annual Scientific Meeting. Montreal, Quebec. Authors: Leung E, Milosevic M, Lunt S, Hill R.

2006 Sep  Carboplatin-based synchronous chemoradiation therapy to attain local control with minimal toxicities for bladder cancer patients not candidates for radical therapy. Canadian Association of Radiation Oncologists 20th Annual Scientific Meeting. Calgary, Alberta. Authors: Leung E, Greenland J, Tompkins B, McCarthy J.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2016 Feb 4  Invited Speaker. Interstitial Brachytherapy in Gyne Malignancies. Cancer Centre of Southeastern Ontario. Kingston, Ontario, Canada. A review of Interstitial Brachytherapy in Gyne Malignancies, (cervix, endo and vagina) and specifically the different equipment and treatment planning principles/policies typically used.


4. LOCAL

Invited Lectures and Presentations


2013  Invited Lecturer. ASTRO 2013 Highlights, Division of Radiation Oncology. Western University. London, Ontario, Canada.

5. OTHER

Presented and Published Abstracts

2014  Adjuvant Treatment of Stage IA Type II Endometrial Cancers: Is Observation a Valid Strategy?

2014;90(1S):S497-S498.

2013 **Principal Author.** Neutrophils modulate vascular function in locally advanced cervical cancer and impair response to radiation therapy. Ontario, Canada.

**Publication Details:**

2013 **Principal Author.** The effects of neutrophils on the vascular function and radiation response of locally advanced cervical cancer. Ontario, Canada.

**Publication Details:**

2013 **Principal Author.** The effects of glycolysis targeting on the radiation response of hypoxic solid xenograft tumours.

**Publication Details:**

2013 **Co author.** Phase I/II study of palliative radiation and sorafenib for metastatic renal cell carcinoma and bone metastases.

**Publication Details:**

2013 **Principal Author.** A High-resolution system for metabolic imaging of cancer.

**Publication Details:**

2013 **Coauthor or Collaborator.** Effects of Radiotherapy on Tumour Architecture and Fluid Dynamics.

**Publication Details:**

2011 **Principal Author.** Metabolic targeting by HIF-1 inhibition of glycolysis enhances radiation response in hypoxic solid tumours.

**Publication Details:**

2011 **Principal Author.** Targeting tumour metabolism through HIF-1 inhibition enhances radiation response in cervix and head and neck xenograft tumours.
Publication Details:
tumour metabolism through HIF-1 inhibition enhances radiation response in cervix and head and neck
xenograft tumours. Radiotherapy and Oncology: Journal of the European Society for Therapeutic
Radiology and Oncology. 2011;100(S1):S33.

2011
Relapse patterns in stage I seminoma: overall impact on total treatment burden.

Publication Details:
J, Chung P. Relapse patterns in stage I seminoma: overall impact on total treatment burden.
Radiotherapy and Oncology: Journal of the European Society for Therapeutic Radiology and Oncology.
100(S1):S69.

2010 May
Principal Author. Total treatment burden in stage I seminoma patients. Ontario, Canada.

Publication Details:
J, Warde P. Total treatment burden in stage I seminoma patients. Journal of Clinical Oncology. 2010

Principal Author. Case-based study to assess the potential of carboplatin-based synchronous
chemoradiation therapy to attain local control with minimal toxicities for bladder cancer patients not
candidates for radical therapy.

Publication Details:
Leung E, Greenland J, Tompkins B, McCarthy J. Case-based study to assess the potential of carboplatin-
based synchronous chemoradiation therapy to attain local control with minimal toxicities for bladder
cancer patients not candidates for radical therapy. Radiotherapy and Oncology: Journal of the European
Society for Therapeutic Radiology and Oncology. 80(S1):S67.

Other Presentations
2015 Jan
Pathology, Grand Rounds, Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada. Talk on:
"Interstitial Radiotherapy: What? How? and Future Directions”.

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD
2015 - present
Primary Supervisor. Year 2. Yonatan Weiss, Medical Science. Supervisee Institution:
McMaster University Medical Centre. Gynecologic malignancies treated with interstitial
brachytherapy.

2014 - 2015
Primary Supervisor. Matthew Florczynski. Supervisee Institution: Schulich School of
Medicine & Dentistry, Department of Oncology, Division of Radiation Oncology. Case Report:
Radiation Myositis after Pelvic Radiation.

Postgraduate MD
2014 - 2015
Primary Supervisor. Jelena Lukovic. Supervisee Institution: Schulich School of Medicine &

Eric LEUNG

Dentistry, Department of Oncology, Division of Radiation Oncology. *Pathological Complete Response in Low Rectal Tumours after Chemoradiation.*

2013 - 2015

**Primary Supervisor.** Vikram Velker. Supervisee Institution: Schulich School of Medicine & Dentistry, Department of Oncology, Division of Radiation Oncology. *Adjuvant Treatment of Stage IA Type II Endometrial Cancers: Is Observation a Valid Strategy?*. Awards: CARO Resident Award 2014.
Curriculum Vitae

Wilfred Levin
MB, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

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Princess Margaret Hospital
Department of Radiation Oncology
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-2127
Fax 416-946-4442
Email wilfred.levin@rmp.uhn.on.ca

1. EDUCATION

Degrees
1972 M. Med, Radiotherapy, University of Cape Town, Cape Town, Western Cape, South Africa
1966 M.B. Ch.B. Distinction in Physics, University of Cape Town, South Africa

Qualifications, Certifications and Licenses
1989 Fellow (FRCPC), Radiation Oncology, Royal College of Physicians of Canada, Canada
1972 F.F. Rad (T.), College of Medicine of South Africa, South Africa

2. EMPLOYMENT

Current Appointments
2000 - present Director of ARLEC (Adult Radiation Late Effects), University of Toronto, Toronto, Ontario, Canada
1998 - present Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario, Canada
1988 - present Assistant Professor, University of Toronto, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
2006 Physician Investigator - QUINCY, Princess Margaret Hospital
2003 - 2007 Administrative Director of Palliative Radiation Services, Princess Margaret Hospital, Toronto, Ontario, Canada
1980 - 1988 Senior Specialist, Head of Firm, Department of Radiotherapy, Groote Schuur Hospital, Cape Town, South Africa
1973 - 1980 Senior Specialist, Provincial Hospital, Port Elizabeth, South Africa
1972 - 1973 Registrar, Department of Radiotherapy, Groote Schuur Hospital, Cape Town, South Africa
1968 - 1970 Registrar, Department of Medicine, Groote Schuur Hospital, Cape Town, South Africa
1967 Staff, Groote Schuur Hospital, Cape Town, South Africa

UNIVERSITY
1989 - 1992 Gynaecology Site Group Leader, University Health Network/Princess Margaret Hospital, Toronto, Ontario, Canada

UNIVERSITY - RANK
1980 - 1988 Senior Lecturer, University of Cape Town, Cape Town, South Africa

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards
LOCAL
Received
2008 Dec Gerald Kirsh Humanitarian Award, Princess Margaret Hospital. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
1989 Member, Canadian Association of Radiation Oncologists
1988 Member, International Society of Gynaecological Oncologists
1988 Member, Ontario Medical Association
1984 - 1998 Member, European Society of Hyperthermia Oncology
1982 - 1988 Member, Medical Association of South Africa
1975 - 1988 Member, South African Society of Radiotherapists

Administrative Activities
NATIONAL
S.A. Society Radiotherapists
1978 Convenor, 5th National Congress, Port Elizabeth, South Africa.

LOCAL
Princess Margaret Hospital
2003 Member, Accreditation Committee, Breast Site Group, Toronto, Ontario, Canada.
2003 Member, Radiation Services Committee - Breast Site Group, Toronto, Ontario, Canada.
1995 Member, Ambulatory Care Committee, Toronto, Ontario, Canada.

University of Toronto
C. Academic Profile

1. RESEARCH STATEMENTS


1981 - 1984 Laboratory: in vivo study in mice to assess the effect of ischaemia induced by tourniquet on the responses of tumours to radiation and heat.


D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


1982 - 1984 Principal Investigator. Vascular occlusion and hyperthermia in murine tumours treated with
radiation. Medical Research Council of South Africa. [Grants]


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Evaluation Studies, Journal Articles


Journal Articles, Multicenter Study


Journal Articles, Multicenter Study, Randomized Controlled Trial

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

Book Chapters

Monographs

F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations
2009 Adult Radiation Late Effects Clinic – A clinic dedicated to the management of patients with complications of radiation therapy. 2009 PREVENT Conference. Brussels, Belgium. (poster presentation).
1996 Hypoxia in cervix cancer - Polarographic Electrode measurements correlate with radiation response. European Society of Therapeutic Radiology. Montreal, Quebec, Canada. Fyles A, Milosevic M, Sun A,
Kavanagh MC, Levin W, Manchul L, Hill R.

1995

1995

1995

1994

1994

1994

1993

1992

1980
The use of the Pettigrew Technique for whole body hyperthermia results with radiation. 3rd International Hyperthermia Congress. Colorado, United States.

1980
The use of 433MHz microwaves to augment tumour temperatures in patients undergoing whole body hyperthermia. 3rd International Hyperthermia Congress. Colorado, United States. Presenter(s): Levin W.

1980
Clinical experience with the use of misonidazole in patients undergoing whole body hyperthermia. 3rd International Hyperthermia Congress. Colorado, United States. Presenter(s): Levin W.

Presented Abstracts

2014 Nov

2014 Nov

2003 Jun
The role of an HBO physician in the team. UHMS Annual Scientific Meeting. Evans AW, Austin L, Levin W.

2001 Feb
Tumor oxygenation is an independent predictor of nodal metastasis and of radiation treatment outcome in node negative patients with cervix cancer. ISRO-ICRO meeting. Melbourne, Australia.

2. NATIONAL

Invited Lectures and Presentations


2008  Living well with RT late effects. Canadian Cancer Society Conference, Princess Margaret Hospital. Toronto, Ontario, Canada.

2008  Presenter. Bone metastases Grid - coping with multiple previous treatment fields in a technological age. CARO Conference. Montreal, Quebec, Canada. Presenter(s): Levin W. Podium presentation.

2008  Palliative Radiotherapy – How to cope with Multiple previous Treatment Volumes in the Electronic Age. CARO Annual Scientific Meeting. Quebec, Canada. (Oral presentation).

2007  Radiation Proctitis. CPROG Teleconference, Princess Margaret Hospital. Toronto, Ontario, Canada.

2006  Presenter. Clinical aspects of normal tissue effects of radiation therapy. CARO. Edmonton, Alberta, Canada.


1993  Granulosa cell tumour of the ovary - Princess Margaret Hospital experience. Canadian Association of Radiation Oncology Meeting. Vancouver, British Columbia, Canada. Levin W, Richmond H, Banerjee D, Fyles W, Pintilie M.

1985  Salvage radiotherapy in cancer of the ovary. SA Society of Radiation Therapists.


1980  Hyperthermia - The Poor Man’s Neutrons! SA Society of Radiation Therapists.


Presented Abstracts

2002  Radiation related breast injuries referred to a dedicated late effects clinic - analysis of three years experience. Dept. of Radiation Oncology, Princess Margaret Hospital, Hyperbaric Medicine, University Health Network, University of Toronto, CARO. Toronto, Ontario, Canada. Levin W, Evans AW, Matheson B, Austin L, Gilhooly K, Buckley CA, Charman P, Chan P, Levin W, Bezjak A.

2001  Radiation Late Effects Clinic - A Good Idea? CARO. Canada.


Media Appearances


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations

2010  Radiation complications: Challenges, rewards and opportunities. Radiation Medicine Program Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Levin, W.


G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2010 Primary Supervisor. Melanie Finkbeiner, Ivan Smith.
2010 Primary Supervisor. Chris Smith, University of Memorial.
2010 Primary Supervisor. Jing Yan, Princess Margaret Hospital.
2010 Primary Supervisor. Robert Thompson, Dalhousie.
2009 Primary Supervisor. Jing Yan, Princess Margaret Hospital.
2009 Primary Supervisor. A. Walsh, University of Toronto.
2008 Primary Supervisor. Jing Yan.
2008 Primary Supervisor. Behzad Hassani, University of Toronto.
2008 Primary Supervisor. A. Walsh, University of Toronto.
2008 Primary Supervisor. William Dubinski, University of Toronto.
2007 Primary Supervisor. Yong Yin Wan, Queens University.
2007 Primary Supervisor. Eman Al-Duhaby.
### Primary Supervisors:

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Kate Barrett, University of British Columbia.</td>
</tr>
<tr>
<td>2007</td>
<td>Lindsay Crabbe.</td>
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<tr>
<td>2007</td>
<td>David Esho, Elective, Queens University.</td>
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<tr>
<td>2007</td>
<td>Andrew Sparrow, Queens University.</td>
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<tr>
<td>2007</td>
<td>Michael Detsky, Queens University.</td>
</tr>
<tr>
<td>2007</td>
<td>Kate Barrett, University of British Columbia.</td>
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<tr>
<td>2007</td>
<td>Jing Jim.</td>
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<td>2007</td>
<td>Lara Hugal.</td>
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<td>2007</td>
<td>Martin Betts.</td>
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<td>2007</td>
<td>Nelson Leong.</td>
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<td>2007</td>
<td>Andrew Sum.</td>
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<td>2006</td>
<td>Sylvia Cael, University of UFR, France.</td>
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<td>2006</td>
<td>Selvan Rajakesari, McGill University.</td>
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<td>2006</td>
<td>Hasina Visram, Queens University.</td>
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<td>2006</td>
<td>Anita Chakraborty, Palliative Medicine.</td>
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<td>2006</td>
<td>Peter De Maio, University of Sydney.</td>
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<td>2006</td>
<td>Trissia Brown, University of West Indies.</td>
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<td>2006</td>
<td>David Esho, Queens University.</td>
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<td>2006</td>
<td>Andrew Sparrow, Queens University.</td>
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<td>2006</td>
<td>Michael Detsky, Queens University.</td>
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<td>2005</td>
<td>J. Sollazzo.</td>
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<td>2005</td>
<td>A. Organer.</td>
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<td>2005</td>
<td>B. Yanagawa.</td>
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<td>2005</td>
<td>D. Provan.</td>
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<td>J. Barron.</td>
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<td>S. Singer.</td>
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<td>A. Pinto.</td>
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<td>D. Ricciuto.</td>
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<td>2005</td>
<td>A. Scheer.</td>
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<td>2005</td>
<td>J. Panczuk.</td>
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### Undergraduate MD

<table>
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<tr>
<th>Year</th>
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<tbody>
<tr>
<td>2007</td>
<td>D. Esho.</td>
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<td>2007</td>
<td>A. Sparrow.</td>
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<td>2007</td>
<td>M. Detsky.</td>
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<td>2006</td>
<td>J. McKinney.</td>
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<td>2006</td>
<td>L. Zand.</td>
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<td>2006</td>
<td>B. Hui.</td>
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<td>2006</td>
<td>I. Imanirad.</td>
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<td>2006</td>
<td>S. Cael.</td>
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<td>2006</td>
<td>S. Rajakesari.</td>
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<td>2006</td>
<td>H. Visram.</td>
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<td>2006</td>
<td>Anita Chakraborty.</td>
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<td>2006</td>
<td>S. Cael.</td>
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<td>2005</td>
<td>J. Sollazzo.</td>
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<td>2005</td>
<td>A. Organer.</td>
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<td>2005</td>
<td>B. Yanagawa.</td>
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<td>2005</td>
<td>D. Provan.</td>
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<td>2005</td>
<td>J. Barron.</td>
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<td>2005</td>
<td>A. Scheer.</td>
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<td>2005</td>
<td>J. Panczuk.</td>
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</tbody>
</table>
Postgraduate MD

2010  Primary Supervisor. Michael Skler, University of Saskatchewan.
2010  Primary Supervisor. K. Pope.
2009  Primary Supervisor. K. Pope.
2009  Primary Supervisor. Ernie Mak.
2009  Primary Supervisor. Andrea Walsh.
2009  Primary Supervisor. Matthew Knox.
2009  Primary Supervisor. Kayla Lam.
2009  Primary Supervisor. Dusan Sajic.
2009  Primary Supervisor. Fatima Alfaraj.
2008  Primary Supervisor. Titelayo Olipona.
2008  Primary Supervisor. Stanley Liu.
2008  Primary Supervisor. Cindy So.
2008  Primary Supervisor. A. Potter.
2008  Primary Supervisor. Titelayo Olipona.
2007  Primary Supervisor. D. Fitzpatrick.
2007  Primary Supervisor. Y. Wang.
2007  Primary Supervisor. Eman Al-Duhaby.
2006  Primary Supervisor. S. Rauth.
2006  Primary Supervisor. L. Fenkell.
2006  Primary Supervisor. N. Dhani.
2006  Primary Supervisor. P. De Maio.
2006  Primary Supervisor. A. Mansour.
2005  Primary Supervisor. M. Finlay.
2005  Primary Supervisor. C. Booth.
2004  Primary Supervisor. C. Elder.
2003  Primary Supervisor. P. Haddad.
2003  Primary Supervisor. K. Jones.
2003  Primary Supervisor. A. Sturdza.
2003  Primary Supervisor. T. Nageeti.
2002  Primary Supervisor. L. Austen.
2002  Primary Supervisor. A. Brade.
2001  Primary Supervisor. B. Matheson.
2000  Primary Supervisor. R. Benson.
CURRICULUM VITAE

JD (Jidong) Lian, MSc, MD, FRCPC
Tel: 905-813-1100 Ext. 5127
Email: jlian@cvh.on.ca

QUALIFICATION:
2007-2008 Assistant Professor (Adjunct), University of Western Ontario
July 2006 FRCPC, Canada
1991-1994 M.Sc, Department of Oncology, University of Alberta, Canada
1979-1984 M.D., Second Military Medical University, Shanghai, China
October 2002 Qualifying Examination, Medical Council of Canada
October 1999 Clinical Skills Assessment and ECFMG, USA
March 1999 USMLE (United States Medical Licensing Examination)

LICENSE AND CERTIFICATE:
August 2007 Radiation Oncology (Registration No. 87473), Ontario, Canada
2003-2004 Physician Extender (Registration No. S10238), Alberta, Canada
October 2002 LMCC Registration (Registration No. 92550), MCC, Canada
November 1999 ECFMG Certificate (Certificate No. 0-588-660-1), USA

CLINICAL EXPERIENCE:
December 2008 Radiation Oncologist, Peel Regional Cancer Centre, Canada
2007-2008 Radiation Oncologist, Windsor Regional Cancer Centre, Canada
2006-2007 Fellow in Radiation Oncology, Cross Cancer Institute, Canada
2001-2006 Resident in Radiation Oncology, University of Alberta, Canada
2000-2001 Resident in Neuropathology, University of Calgary, Canada
1988-1989  Neurologist in Neurology, No.401 Hospital, China
1986-1987  Resident in Neurology, No.401 Hospital, China
1984-1985  Resident in Internal Medicine, No.401 Hospital, China

RESEARCH EXPERIENCE:

2006-2007  Clinical Research Fellow in Radiation Oncology, Cross Cancer Institute, Canada
           Research area: gynecologic and lung cancers using IMRT-based Technique

1999-2000  Clinical Research Fellow in neuromuscular diseases, Division of Neurology, University of Alberta, Canada
           Research Area: cell death and protection

1994-1999  Technologist and Lab Supervisor, Neuromuscular Diseases Laboratory, Division of Neurology, University of Alberta Hospitals

1991-1994  MSc Student, Department of Medicine, University of Alberta
           MSc thesis: Platelet Activation by Collagen

TEACHING EXPERIENCE:

2007-2008  Preceptor for the rotating 3rd year medical students from the University of Western Ontario and radiation therapy students from the University of Toronto

December 2008 Involvement in teaching medical residents and radiation therapy students from the University of Toronto

PRESENTATION:  Assessment of extended–field radiotherapy for stage IIIIC endometrial cancer using 3DCRT, IMRT and helical tomotherapy. CARO 2007, Toronto

Platelet activation by immobilized collagen involves integrin and is responsive to mechanical force. American Society of Hematology Thirty-fourth Annual Meeting, 1992, San Diego

JOURNAL REVIEWER:

Since May 2008  Reviewer for Radiotherapy & Oncology
 COMMITTEE:
Since Dec. 2008 IMRT Working Group, Peel Regional Cancer Centre
2007-2008 Research Committee, Windsor Regional Cancer Centre (WRCC)
Quality Assurance, WRCC
IMRT study group (protocol development), WRC

 PUBLICATION:


**ABSTRACT:**

1) Tak Hing, Patricia Tai, Avi Assouline, Edward Yu, **Jidong Lian**, Tong Zhu, Joseph Kurian, Cyrus Chargari, Claude Krzisch. Clinical/Disease sites : Other tumour sites (*ESTRO 29, 2010*)


**CLINICAL TRIALS:**

I have been involving in the RAPID study since March 2008

I participated in the following clinical trials at the WRCC in 2007-2008:

1. CUOG/OCOG trial: A randomized comparison of immediate versus deferred androgen deprivation therapy using goserelin for recurrent prostate cancer after radical radiotherapy (ELAAT).
2. NCIC CTG PR.11: A phase III study of active surveillance therapy against radical treatment in patients diagnosed with favorable risk prostate cancer (START).
3. NCIC CTG SC 20: A phase III international randomized trial of single versus multiple fractions for re-irradiation of painful bone metastases.

**PROJECT AND GRANT APPLICATION:**

1. Retrospective analysis of factors influencing the outcome in breast cancer patients without adjuvant treatments (2008)
   - J. Lian, Radiation Oncologist, Windsor Regional Cancer Centre
   - C. Hamm, Medical Oncologist, Windsor Regional Cancer Centre
   - Julie Durocher, Manager to HIS, Windsor Regional Cancer Centre
   - **Funded:** $23,000

2. Proposal for summer student research project (2008)
   - C. Hamm, Medical Oncologist, Windsor Regional Cancer Centre
   - J. Lian, Radiation Oncologist, Windsor Regional Cancer Centre
   - S. Kanjeekal, Medical Oncologist, Windsor Regional Cancer Centre
   - Y. Alam, Medical Oncologist, Windsor Regional Cancer Centre
   - D. Sicheri, Medical Oncologist, Windsor Regional Cancer Centre
   - C. Springer, Radiation Oncologist, Windsor Regional Cancer Centre
   - K. Schneider, Radiation Oncologist, Windsor Regional Cancer Centre
   - **Funded:** $10,000

**AWARD:**

1991-1994   Graduate Scholarship
Department of Medicine, University of Alberta, Canada
August 1988    Second-Prize winner in National Epidemiological Study of Neurological Diseases, Department of Health, China
1979-1984    First-Class Student Award in each university year

**PROFESSIONAL AFFILIATION:**

August 2007    College of Physicians and Surgeons of Ontario
2001 - Present    Canadian Association of Radiation Oncologists
2001 - Present    American Society for Therapeutic Radiology and Oncology
2001 - Present    American College of Radiology
2000 - 2007    College of Physicians and Surgeons of Alberta
2000 - 2008    Canadian Medical Association
1986 - 1989    Chinese Neurology Association
Curriculum Vitae

Fei-Fei Liu
MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office 610 University Avenue, Room 5-975
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2123
Fax 416-946-2038
Email fei-fei.liu@rmp.uhn.on.ca

1. EDUCATION

Degrees
1980 MD, University of Toronto, Canada

Postgraduate, Research and Specialty Training
1987 - 1988 Hyperthermia Research Fellow, Stanford University Medical Center, United States
1983 - 1986 Resident 4-6, Radiation Oncology, Princess Margaret Hospital, Canada
1980 - 1983 Intern – R3, Internal Medicine, University of Toronto, Canada

Qualifications, Certifications and Licenses
1986 FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1984 FRCPC, Internal Medicine, Royal College of Physicians and Surgeons of Canada, Canada
1980 College of Physicians and Surgeons of Ontario, Canada

2. EMPLOYMENT

Current Appointments
2012 Aug - present Chief, Radiation Medicine Program, Princess Margaret Cancer Centre
2012 Aug - present Head, Department of Radiation Oncology, University Health Network
2012 Jul - present Chair, Radiation Oncology, University of Toronto, Canada
2002 - present Professor, Radiation Oncology, University of Toronto, Canada
2002 - present Professor, Medical Biophysics, University of Toronto, Canada
2002 - present Professor, Otolaryngology, University of Toronto, Canada
1992 - present Senior Scientist, Ontario Cancer Institute, Canada
1988 - present Staff Radiation Oncologist, Princess Margaret Cancer Centre, Canada
Previous Appointments

CONSULTING
1994 - 1996 Consultant Staff, Wellesley Hospital, Canada

RESEARCH
2005 - 2010 Head, Division of Applied Molecular Oncology, Division of Applied Molecular Oncology, Ontario Cancer Institute, Canada

UNIVERSITY - CROSS APPOINTMENT
1996 - 2002 Associate Professor, Medical Biophysics, University of Toronto, Canada
1995 - 1996 Assistant Professor, Medical Biophysics, University of Toronto, Canada

UNIVERSITY - RANK
1996 - 2002 Associate Professor, Radiation Oncology, University of Toronto, Canada
1988 - 1996 Assistant Professor, Radiation Oncology, University of Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2016 Ted Phillips Distinguished Speaker, University of California San Francisco. (Distinction)
Incorporating Genomics Information in Personalized Radiation Medicine.

2014 Dolly Huang Memorial Lecture, 10th Asia Pacific Multidisciplinary Meeting for Cancer Research. (Distinction)
Novel Insights into NPC Biology via the micro-RNA Lens.

2013 2013 Best of ASTRO Award, American Society for Radiation Oncology. (Research Award)

2012 Women of Action 2012, Israel Cancer Research Fund. (Research Award)

2012 Vical Award for Most Innovative Abstract, 9th International Conference for Cancer Gene Therapy, San Diego, California, United States. (Research Award)

1987 Gordon E. Richards Fellowship, Stanford University Medical Center, United States. (Research Award)

NATIONAL

Received

2013 2013 Best Abstract in Science and Applied Technology, 27th CARO Annual Scientific Meeting. (Research Award)

2012 Focus on Science, Women in Cancer Research. (Distinction)

2012 Gordon Richards Lecturer 2012, Canadian Association of Radiation Oncologists (CARO), Canada. (Research Award)

2009 Award for Best Abstract in Science and Applied Technology, Canadian Association of Radiation Oncologists, Quebec City, Quebec, Canada. (Research Award)

1984 Second Prize, Radiation Oncology Congress Award Competition, Canadian Association of Radiologists, Canada. (Distinction)
“Primary Lymphoma of the Breast”.

“Primary Lymphoma of the Breast”.
PROVINCIAL / REGIONAL

Received

1980  K.J.R. Wightman Award, Dana-Farber Cancer Institute, Canada. (Distinction)

LOCAL

Received

2012 - 2017  Elia Chair in Head & Neck Cancer Research (Re-appointment), University of Toronto & Princess Margaret Cancer Centre, Canada. (Distinction)
Joint Research Chair.

2012  Successful Mentor, WinC. (Distinction)

2011  Most Influential Research Publication, Radiation Medicine Program, Princess Margaret Cancer Centre. (Research Award)

2001 - 2012  Elia Chair in Head & Neck Cancer Research, University of Toronto & Princess Margaret Cancer Centre, Canada. (Distinction)
Joint Research Chair.

1977 - 1978  Physicians' Services Incorporated Scholarship, Toronto Western Hospital, Canada.
(Distinction)

Teaching and Education Awards

LOCAL

Received

1985  Teaching bursary, Faculty of Medicine, Princess Margaret Hospital, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Association for Cancer Research
American Society of Gene Therapy
American Society of Therapeutic Radiology and Oncology
Canadian Association of Radiation Oncologists
Canadian Medical Association
North American Hyperthermia Society
Ontario Medical Association
Radiation Research Society
Women in Cancer Research

Administrative Activities

INTERNATIONAL

American Head and Neck Society

2016 - 2017  Member, 9th International Conference on Head & Neck Cancer
Chinese University of Hong Kong – NPC
2012 - present  Member, Advisory Board

National Cancer Institute
2010  Member, Tumor Biology & Imaging (TB&I) Task Force
2005 - 2007  Member, Subcommittee D
2003  Member, Special Emphasis Panel
2003  Member, US Site Visit Review of P01 Re-submission Henry Ford Health Sciences Center, Dr. Svend Freytag Molecular Gene and Radiation Therapies for Cancer
2002  Member, US Site Visit Review of MD Anderson Cancer Center, Dr. Kiang Ang Extension of Radiotherapy Research
2002  Member, US TJU P01 Re-review
2002  Member, US Site Visit Team at Henry Ford Health Sciences Center, Dr. Svend Freytag Molecular Gene and Radiation Therapies for Cancer
2001  Member, US Site Visit Team at Thomas Jefferson University, Dr. Dennis Leeper Modification of Hyperthermia Response
2001  Member, US Site Visit Team at Georgetown University, Dr. Rupert K. Schmidt-Ullrich Molecular Radiation Oncology Clinical Trials Consortium
2001  Member, Reporting Team to Parent Committee D, Washington, District of Columbia.
2000  Member, US Site Visit Team at Duke University, Dr. Mark Dewhirst Investigations into Hyperthermia and Gene Therapy

National Institutes of Health
2010  Member, Head and Neck Steering Committee
2003  Invited participant, NIH-sponsored workshop on Radiology Education and Training

North American Hyperthermia Society Meeting
2001  Member, Scientific Organizing Committee, Puerto Rico.

Oak Ridge Associated Universities
2015  Member, Florida Department of Health’s Biomedical Research Programs

University of Pennsylvania
2012 - present  Member, Advisory Board; Research Training Program

NATIONAL

Canadian Breast Cancer Foundation
2000 - 2003  Chair, Professional advisory Committee of the Ontario Chapter
1999 - 2000  Vice Chair, MAC of the Ontario Chapter
1998 - 1999  Member, Medical Advisory Board of the Ontario Chapter
1995 - 1998  Member, Medical Advisory Board

Canadian Cancer Society
2005  Member, Terry Fox Program Project Review Team Dr. P Brodt: The IGF System: From Biology to Therapy
2004  Member, Terry Fox Program Project Review Team Dr. J Bell: Oncolytic Virus Consortium
National Cancer Institute of Canada
2006 - 2012 Member, Advisory Committee on Research (ACOR)

PROVINCIAL / REGIONAL
Ontario Cancer Institute
2008 - 2012 Chair, Appointments Committee

LOCAL
Princess Margaret Hospital
1992 - 1998 Member, In-Patient Care Sub-committee of the Medical Advisory Committee

University Health Network
2015 - present Co-Chair, Delegated Order Sets, Medical Acts Committee
2015 - 2017 Vice Chair, Medical Advisory Board

University of Toronto
2008 - 2012 Member, Executive of UT-Department of Radiation Oncology, Faculty of Medicine, Department of Radiation Oncology
2008 - 2011 Member, Decanal Promotions Committee, Faculty of Medicine
2008 - 2010 Member, Executive of the Medical Biophysics Graduate Division, Faculty of Medicine, Dept of Medical Biophysics
2005 Chair, East-West Symposium on Nasopharyngeal Carcinoma 2005 Combined with the Wharton Day, Toronto, Canada.
2005 Chair, Breast Cancer Symposium 2005; Advances in Breast Cancer: Molecularly targeted therapies, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
1997 - 1999 Member, Promotion Committee, Faculty of Pharmacy, Faculty of Medicine, Dept of Pharmaceutical Sciences
1994 - 2005 Director, University of Toronto Fellowship Program, Faculty of Medicine

Peer Review Activities

EDITORIAL BOARDS
Section Head Editor
2010 - 2012 BMC Cancer

GRANT REVIEWS
Reviewer
2015 - 2016 Canadian Cancer Society Research Institute, Innovation Grants Review Panel
2015 - 2016 Canadian Cancer Society Research Institute, Innovation to Impact Grants Review Panel
2015 Hong Kong Special Administrative Region Grants
2015 Research Grants Council for the University Grants Committee, HKSAR and the People’s Republic of China
2015 Canadian Foundation for Innovation, Funding for Research Infrastructure Review Panel
2015 Canadian Institutes of Health Research, CPT Panel
2014 Research Grants Council (RGC) of Hong Kong
2012  Canadian Cancer Society Research Institute
2012  CIHR Catalyst
2012  Israel Cancer Research Fund, 2012 Review Panel
2012  NCI-US Special Emphasis Panel
2007 - 2012  Canadian Institutes of Health Research, CPT Panel

Ad Hoc Reviewer
Association for International Cancer Research (UK)
Biomedical Research Council for Singapore
Canadian Breast Cancer Foundation, Alberta Chapter
Dutch Cancer Society
Health Services Utilization and Research Commission – Saskatchewan
Innovation and Technology Fund of the Hong Kong Government
Research Grants Council of Hong Kong
United States-Israel Binational Science Foundation

Chair
2000 - 2003  Canadian Breast Cancer Foundation, Grant Review Panel

Member
2006  Canadian Breast Cancer Research Alliance, IDEA grant review panel
2002 - 2006  National Cancer Institute of Canada/Clinical Trials Group, Grant Panel J
2001 - 2006  Canadian Institutes of Health Research, Cancer Panel B
1998 - 2002  National Cancer Institute of Canada/Clinical Trials Group, Grant Panel E
1996 - 2000  Canadian Breast Cancer Foundation, Grant Panel

MANUSCRIPT REVIEWS
Ad Hoc Reviewer
Annals Surg Oncol
BMC Cancer
Br J Cancer
Cancer
Cancer Detection Prevention
Cancer Gene Therapy
Cancer Res
Cell Death Disease
Clin Can Res
Clin Chemistry
Clin Oncol
Eur J Nucl Med
Experimental Hematology
Head/Neck
Human Gene Therapy
Int J Cancer
Int J Hyperthermia
Int J Radiat Biol
Int J Radiat Oncol Biol Phys
J Clin Oncol
C. Academic Profile

1. RESEARCH STATEMENTS

My research focuses on several aspects of translational molecular oncology, including the development of biomarkers for head and neck cancers, identification and development of novel anti-cancer therapeutics, and stem cell regenerative therapy. Over the years, we have continued to seek a greater understanding of the determinants of human cancer development and progression, with an overall objective to identify clinically useful biomarkers, as well as potential novel therapeutic targets. We have also extensively evaluated the role of micro-RNAs (miRNAs) in human cancers using global miRNA profiling of FFPE tissues. We profiled several different tumour types, seeking potential prognostic
signatures, including cervix, head & neck squamous cell carcinoma (HNSCC), breast, soft-tissue sarcomas, and nasopharyngeal carcinoma (NPC). Importantly, candidate signatures have been validated for the latter two malignancies. Furthermore, using a siRNA high throughput screen, we identified uroporphyrinogen decarboxylase (UROD) as a novel radiosensitizing target, mediated through generation of reactive oxygen species (ROS), by exploiting the iron dysregulation in human cancers. Targeting UROD appears to sensitize a broad spectrum of human cancer models, as well as also chemo-sensitizing. Based on this research, we were granted 3 national and international Patents. Additionally, we will continue to investigate more potent novel synthetic UROD inhibitors, with a number of promising candidates that warrant further validation. Our future studies will also focus on further defining the head & neck cancer (HNC) landscape, which is continually evolving. The two most pressing issues in HNSCC management relate to: a) HPV-positive oropharyngeal carcinoma (OPC); and b) oral cavity squamous cell carcinoma (OSCC). We plan to continue investigating additional molecular signatures that might inform on how to further improve patient stratification, prognosis and outcome. Lastly, our studies also focus on a major clinical issue with radiation therapy, radiation fibrosis, which is an irreversible scarring of normal tissues that can result in significant functional morbidity. We are interested in understanding how adipose-derived stem cells may aid in tissue regeneration after treatment with ionizing radiation.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

Mitigating Radiation Therapy Side-Effects.

Investigations of Cancer Therapy.

Investigations of Molecular Cancer Therapy.


Issues Relevant to Breast Cancer.


2007 - 2008  **Principal Investigator.** Quest for the “stem cell” in nasopharyngeal carcinoma. Canadian Institutes of Health Research (CIHR). Collaborator(s): Alajez N, Bastianutto C. 110,553 CAD.
2007

*Issues Relevant to Breast Cancer.*

2006 - 2007

**Principal Investigator.** HTS for identification of novel anti-cancer radiosensitizers. Ontario Institute for Cancer Research. Collaborator(s): Durocher D. 130,000 CAD.  
*Investigations of Molecular Cancer Therapy.*

2005

**Principal Applicant.** Funding for the East-West Symposium on Nasopharyngeal Carcinoma. National Cancer Institute of Canada (NCIC). 10,000 CAD.  
*Issues Relevant to Breast Cancer.*

2005

**Principal Applicant.** Funding for the East-West Symposium on Nasopharyngeal Carcinoma. Canadian Institutes of Health Research (CIHR). 20,000 CAD.  
*Issues Relevant to Breast Cancer.*

2005

**Principal Investigator.** Local radiotherapy contributes to leukemia in breast cancer by recruitment of hematopoietic stem cells. Canadian Breast Cancer Research Alliance. IDEA. Collaborator(s): Bastianutto C, Medin J, Minden M, Crump M. 82,401 CAD.  
*Issues Relevant to Breast Cancer.*

2004 - 2008

**Principal Investigator.** The next generation of gene transfer therapy for human nasopharyngeal cancer. Canadian Institutes of Health Research (CIHR). Collaborator(s): Reilly R, Jurisica I. 560,525 CAD.  
*Investigations of Molecular Cancer Therapy.*

2003 - 2009

*Training Program.*

2003 - 2006

**Principal Investigator.** Innovative gene therapy approaches for nasopharyngeal carcinoma. Ontario Cancer Research Network. 417,898 CAD.  
*Investigations of Molecular Cancer Therapy.*

2003 - 2006

*Investigations of Molecular Cancer Therapy.*

2001 - 2006

**Principal Investigator.** The kiss of death: exploitation of an endogenous virus in nasopharyngeal cancer therapy. Princess Margaret Hospital Foundation (The). Elia Chair in Head & Neck Cancer Research. 625,000 CAD.  
*Investigations of Molecular Cancer Therapy.*

2001 - 2004

**Principal Investigator.** Development of novel gene transfer strategies for nasopharyngeal carcinoma. Canadian Institutes of Health Research (CIHR). Collaborator(s): Klamut H, Wu S. 329,405 CAD.  
*Investigations of Molecular Cancer Therapy.*
*Issues Relevant to Breast Cancer.*

*Issues Relevant to Breast Cancer.*

*Investigations of Molecular Cancer Therapy.*

*Issues Relevant to Breast Cancer.*


*Equipment support for the PMH/OCI Clinical Hyperthermia Program. Operating component ($65,000).*


1989  **Principal Investigator.** Relationship between intracellular pH regulation and thermosensitivity in vitro. University of Toronto. Dean’s Research Grant. 4,000 CAD. [Grants]
NON-PEER-REVIEWED GRANTS

Funded


Issues Relevant to Head & Neck Cancer.

2006 - 2009  Principal Investigator. Investigating the effect of Seliciclib in human nasopharyngeal carcinoma. Cyclocel Ltd. 54,600 GBP. [Industrial Grants]

Issues Relevant to Head & Neck Cancer.

2005 - 2006  Principal Investigator. The potential efficacy of combining GX-015 with radiation therapy for human nasopharyngeal carcinoma. Geminix Advanced Oncology Therapeutics. 12,000 CAD. [Industrial Grants]

2003 - 2005  Principal Investigator. Evaluation of potential efficacy of 5A1 in human nasopharyngeal carcinoma. Senesco Technologies Inc. 64,000 USD. [Industrial Grants]

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


94. Yip KW, Ito E, Mao X, Au PY, Hedley DW, Mocanu JD, Bastianutto C, Schimmer A, **Li FF**. Potential use of alexidine dihydrochloride as an apoptosis-promoting anticancer agent. Mol Cancer Ther. 2006 Sep;5(9):2234-40.


96. Au PY, Martin N, Chau H, Moemeni B, Chia M, **Li FF**, Minden M, Yeh WC. The oncogene PDGF-B provides a key switch from cell death to survival induced by TNF. Oncogene. 2005 Apr;24(19):3196-205.


Commentaries

Letters to Editor


Invited Reviews


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Books

Book Chapters


Editorials

F. Intellectual Property

1. PATENTS

2012 Jan Sensitizing Agents for Cancer Therapy, Methods of Use and Methods for the Identification thereof. Granted. Patents #: No. 8,637,481, United States. Joint Holder Name(s): Ito E, Kim I, Liu FF. No. 8,637,481 (US); PCT/CA2010/000569 (CAN); 2010237572 (AUS).


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Jan 26  Visiting Professor. Future opportunities in personalized radiation therapy. MD Anderson Cancer Center. Houston, United States.

2015 Oct 4 Invited Speaker. Recent advances in radiation science shaping the future of radiation therapy. National Taiwan University Yonglin Biomedical Engineering Center. Taiwan, Province Of China.


2014 Dec 1 Invited Speaker. Quality & Safety in Radiation Medicine. Westmead Radiation Oncology Department, Grand Medical Rounds. Sydney, Australia.


2014 Oct 14 Invited Speaker. Understanding NPC; an East-West Symposium. IAEA. Vienna, Austria.


2013 Jun Visiting Professor. Transformative Radiation Medicine – the Next 10 Years. Stanford University Department of Radiation Oncology. Palo Alto, California, United States.


2012 Nov Visiting Professor. “Micro-RNAs in Human Cancers – What have we learned?”. Peking Union Medical College. Beijing, China.

2012 Aug 24 Visiting Professor. PMH Head & Neck Cancer Translational Research Program. AC Camargo Cancer
2011 Dec 7  Invited Co-Chair. Lessons Learned from Radiation Oncology Clinical Trials. NCI-US Workshop. Bethesda, Maryland, United States. Dec 7-8th, 2011.


2008 Oct 6  Invited Speaker. HTS for radio-sensitizers. Molecular Radiation Therapeutics Branch, NCI-US. Bethesda, Maryland, United States.


Presented Abstracts


Proteomic Profiling of Head and Neck Squamous Cell Carcinoma Cell Lines. 102nd Annual Association


Potential therapeutic role of seliciclib in combination with ionizing radiation for human nasopharyngeal...


Lectures and Other Presentations


2000 May  Visiting Professor. Humboldt University. The potential of p53 gene therapy combined with either radiation or hyperthermia. Berlin, Germany.


Webinar

2. NATIONAL

Invited Lectures and Presentations

2013 Apr  Invited Speaker. Transformative Radiation Medicine – the next 10 years! Tom Baker Cancer Centre. Calgary, Alberta, Canada.


Presented Abstracts


2005 Mar 9  Radiation and Cisplatin activation of EBV in nasopharyngeal cancer. Oncolytic viruses as cancer...


1986 Jun Review of extremity soft tissue sarcomas at Princess Margaret Hospital. Canadian Association of Radiologists. Montreal, Quebec, Canada. Liu F-F, O’Sullivan, B, Bell, R, Fornasier, V, Cummings, BJ and Quirt, IC.

1984 Jun Primary lymphoma of the breast. Canadian Association of Radiologists. Montreal, Quebec, Canada. Liu F-F, and Clark, RM.

1981 Sep Spectrum of disease associated with Clostridium difficile. Canadian Association of Microbiologists. Liu F-F, Devlin , R, and Spence, L.

Lectures and Other Presentations


2006 Mar Invited Speaker. Chinese Cancer Information Forum For the Canadian Cancer Society. (Continuing


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


2004 May 2 The use of bioluminescent imaging (BLI) to evaluate biodistribution and kinetics of nasopharyngeal
Fei-Fei LIU


Lectures and Other Presentations

2010 Apr 22 **Visiting Professor.** Current status of HPV in HNC. Regional Cancer Rounds at Juravinski Cancer Center. Hamilton, Ontario.

2009 Apr **Invited Speaker.** Healthy Living EXPO 2009 For the Mississauga Asian Community. Mississauga, Ontario. (Continuing Education).


1993 Sep **Visiting Professor.** The relationship between Na+/H+ antiport function and thermosensitivity in vitro. Queen’s University, Kingston Regional Cancer Clinic. Kingston, Ontario.

1993 Sep **Visiting Professor.** An update on Clinical Hyperthermia. Queen’s University, Kingston Regional Cancer Clinic. Kingston, Ontario.

4. LOCAL

**Invited Lectures and Presentations**


2016 Jan 11 **Invited Speaker.** Invited speaker at a Ride to Conquer Cancer fundraising event. Ride to Conquer Cancer. Toronto, Ontario, Canada.


2014 Apr **Speaker.** The Why’s and How’s of Academic Promotion. Department of Radiation Oncology, University of Toronto. Toronto, Ontario, Canada.

2014 Apr **Speaker.** TRCP Radiation Oncology Update. Cancer Care Ontario - Toronto Regional Cancer Program Steering Committee. Toronto, Ontario, Canada.


2010 Nov 23 Invited Speaker. Biology of HNC; HPV & OPC. Amgen Preceptorship, PMH. Toronto, Ontario, Canada.

2010 Feb 5 Invited Speaker. UROD – a novel radiosensitizing target for HNC. OCI Faculty Seminar. Toronto, Ontario, Canada.

2010 Jan 7 Invited Speaker. HPV and Micro-RNAs in HNC. PMH Combined DMO/DRO Rounds. Toronto, Ontario, Canada.


2009 May  Invited Speaker. HSC Trafficking in Response to RT. PMH/OCI Breast Retreat. Toronto, Ontario, Canada.

2009 May  Invited Speaker. HPV Determination in OPC. NCIC-CTG Spring Meeting. Toronto, Ontario, Canada.


2006 Apr 6 Invited Speaker. HTP screens for discovering novel cancer therapeutic compounds. City-Wide Chemical and High Throughput Biology rounds, University of Toronto. Toronto, Ontario, Canada.


2004 Jun 10 Organizer and Debater. This House Believes that by 2014, Molecular Pathology will be Used for the management of head & neck cancer patients. 2nd Annual Elia Research Afternoon in Head & Neck Cancer. Toronto, Ontario, Canada.


2004 Apr Invited Lecturer. Why the Liu lab has not yet won the war on cancer. Radiation Medicine Program Rounds. Toronto, Ontario, Canada.


2002 Apr Invited Lecturer. Onto the Road to Cure for Nasopharyngeal Cancer Gene Therapy. Faculty of Pharmacy, University of Toronto. Toronto, Ontario, Canada.


1999 Jun  **Invited Speaker.** From the Bench to the Bedside and Back: Predictive Factors in Cancer Therapy. UT-DRO Course - Future Directions in Radiation Oncology. Toronto, Ontario, Canada.


1989 Nov  **Workshop Speaker.** HIV Infections - What We Need to Know. University of Toronto, Mt. Sinai Hospital. Toronto, Ontario, Canada.

### Presented Abstracts


1996 Jul 28 Inhibition of Na+/H+ antiport function is not the sole mechanism for enhanced thermal sensitivity induced by Amiloride. Canadian Association of Radiation Oncologists. Toronto, Ontario, Canada. Liu F-F, Diep K, Hill RP. September 14 - 17, 1994, pp 701.


Lectures and Other Presentations

2014 May Invited Speaker. Partners in Care: Continuing to enhance a seamless connection with Primary Care and the Princess Margaret Cancer Centre. Princess Margaret Cancer Centre - ELLICSR. Toronto, Ontario, Canada. (Continuing Education).


2011 May Invited Speaker. PMHF Behind-the-Scenes. Toronto, Ontario, Canada. (Continuing Education).

2009 Nov Invited Speaker. PMH Foundation Team Meeting. Toronto, Ontario, Canada. (Continuing Education).


Session Moderator

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

2013 - present  Primary Supervisor. PhD. Xiao Zhao MD. Investigating the use of adipocyte-derived stem cells to repair radiation injury.
2010 - 2012  Primary Supervisor. MSc. Ronald Wu. c-met inhibition in HNC.
1998 - 2000  Primary Supervisor. MSc. Laura Weinrib. Cisplatin chemotherapy combined with p53 gene therapy for NPC.

Postdoctoral Research Fellow (PhD)

2014  Primary Supervisor. Jeff Bruce. Analysis of genome-scale data sets from molecular profiling experiments of cancer patient samples.


2010 - 2012  Primary Supervisor. Takashi Kawanaka MD. micro-RNAs in cervix cancer.

2007 - 2010  Primary Supervisor. Hisayuki Kato MD. Molecular therapies for HNSCC.


2004 - 2005  Primary Supervisor. Joe Martin MD. Molecular therapies for HNSCC.


2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2016 - present  MSc. Meghan Lambie. 'Mimicking a Radiosensitivity Signature using Pharmaceuticals in Squamous Cell Carcinomas.'

2016 - present  MSc. Anna Pan. PTCHD4 as a potential modifier of Li-Fraumeni Syndrome.


2008 - present  PhD. Keira Pereira. HNC stem cells & their niches. Collaborator(s): co-supervisor Laurie Ailles.

2012 - 2014  MSc. Elina Korpela. Targeting the Angiopoietin-1/Tie2 pathway to decrease normal tissue damage in radiotherapy.

2011 - 2014  MSc. Daria Taiakina. The effects of hypoxia on mitotic centrosome function and genetic instability in prostate cancer.

2010 - 2013  MSc. Badr Idsaid. miR-605 as a novel genetic modifier in Li-Fraumeni Syndrome.


<table>
<thead>
<tr>
<th>Year</th>
<th>Degree</th>
<th>Student</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>2008-2012</td>
<td>PhD</td>
<td>Sonali Fonseca</td>
<td>Mitochondrial peptides for nucleic acid delivery.</td>
</tr>
<tr>
<td>2007-2009</td>
<td>PhD</td>
<td>Nilva Cervigne</td>
<td>Biomarkers of progression in oral carcinomas.</td>
</tr>
<tr>
<td>2006-2010</td>
<td>PhD</td>
<td>Andrea Fung</td>
<td>EGFR inhibitors in preventing repopulation during chemotherapy.</td>
</tr>
<tr>
<td>2006</td>
<td>MSc</td>
<td>Jamil Sawani</td>
<td>Indole potentiated thermoradiosensitization.</td>
</tr>
<tr>
<td>2005-2012</td>
<td>PhD</td>
<td>Craig Simpson</td>
<td>Sensitization to Fas/TRAIL &amp; anoikis.</td>
</tr>
<tr>
<td>2004-2006</td>
<td>MSc</td>
<td>Liang Tzung Lin</td>
<td>Innate immunity and HCV replication.</td>
</tr>
<tr>
<td>2004-2005</td>
<td>MSc</td>
<td>Julie Perry</td>
<td>Gene therapy for Alport Syndrome.</td>
</tr>
<tr>
<td>2004-2005</td>
<td>PhD</td>
<td>Grant Westmead</td>
<td>CD150 &amp; measles virus – a study of virus-host interactions.</td>
</tr>
<tr>
<td>2002-2005</td>
<td>MSc</td>
<td>Adam Tunis</td>
<td>Ultrasound monitoring of cell and tissue changes.</td>
</tr>
<tr>
<td>2002-2004</td>
<td>MSc</td>
<td>Mark Jarvi</td>
<td>Combined photodynamic therapy and hyperthermia.</td>
</tr>
<tr>
<td>1997-2000</td>
<td>PhD</td>
<td>Peixiang Li</td>
<td>Molecular approaches to breast cancer treatment.</td>
</tr>
</tbody>
</table>

**Thesis Examiner**

<table>
<thead>
<tr>
<th>Year</th>
<th>Degree</th>
<th>Student</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Jul</td>
<td>PhD</td>
<td>Rebecca Macalpine Towle</td>
<td>The Molecular Characterization of the Progression of Oral Squamous Cell Carcinoma.</td>
</tr>
<tr>
<td>2016 Jun</td>
<td>PhD</td>
<td>Xin (Kevin) Wang</td>
<td>Unmasking novel epigenetic mechanisms of medulloblastoma pathogenesis.</td>
</tr>
<tr>
<td>2014 Dec</td>
<td>MSc</td>
<td>Daria Taiakina</td>
<td>The effect of hypoxia on centrosome function in prostate cancer.</td>
</tr>
<tr>
<td>2014 Aug</td>
<td>MSc</td>
<td>Jonathan Trick</td>
<td>Identification of cancer susceptibility loci by high-resolution cancer gene microarray analysis.</td>
</tr>
<tr>
<td>2014 Apr</td>
<td>MSc</td>
<td>Elina Korpela</td>
<td>Improving Cancer Radiotherapy Outcomes with Vasculotide, an Angiopoietin-1 Mimetic.</td>
</tr>
<tr>
<td>2014 Apr</td>
<td>PhD</td>
<td>Mengshu Xu</td>
<td>Developmental control throughout the budding yeast lifecycle by JHD2.</td>
</tr>
<tr>
<td>2012 Jul</td>
<td>PhD</td>
<td>Shane Harding</td>
<td>Role of 53BP1 in DNA damage response.</td>
</tr>
<tr>
<td>2012 Jan</td>
<td>MSc</td>
<td>Natali Thawe</td>
<td>Contributions of EBNA and the FR region to EBV replication.</td>
</tr>
<tr>
<td>2011 Dec</td>
<td>MSc</td>
<td>Naum Papanicolau</td>
<td>Conventional frequency ultrasound for cancer treatment monitoring.</td>
</tr>
<tr>
<td>2011 Aug</td>
<td>PhD</td>
<td>Humberto Lara-Guerra</td>
<td>EGFR inhibitors for lung cancer.</td>
</tr>
<tr>
<td>2011 Aug</td>
<td>PhD</td>
<td>Niro Sivachandran</td>
<td>Contributions of EBNA1 to epithelial cell infections.</td>
</tr>
<tr>
<td>2011 Jul</td>
<td>MSc</td>
<td>Carl Fisher</td>
<td>Modulating survival signals with PDT for GBM therapy.</td>
</tr>
<tr>
<td>2011 Mar</td>
<td>MSc</td>
<td>Bahar Davoudi</td>
<td>OCT for monitoring radiation complications.</td>
</tr>
<tr>
<td>2011 Mar</td>
<td>MSc</td>
<td>Harshika Seepany</td>
<td>Chromatin re-assembly after DNA DSBs; Ctf18, Ctf4 &amp; H3K56.</td>
</tr>
<tr>
<td>2011 Jan</td>
<td>MSc</td>
<td>Tiffany Chan</td>
<td>Characterization of JPO2, in medulloblastoma.</td>
</tr>
<tr>
<td>2011 Jan</td>
<td>PhD</td>
<td>Shadi Mamaghani</td>
<td>GSK-3 inhibition for pancreatic cancer.</td>
</tr>
<tr>
<td>2010 Sep</td>
<td>MSc</td>
<td>Mathew Scaife</td>
<td>Lentiviral gene therapy for Fabry disease.</td>
</tr>
<tr>
<td>2010 Aug</td>
<td>PhD</td>
<td>Anthony Kim</td>
<td>Quantitative fluorescence guidance for glioma resection.</td>
</tr>
<tr>
<td>2010 Aug</td>
<td>PhD</td>
<td>Norm Chan</td>
<td>Hypoxia suppressed DNA repair.</td>
</tr>
<tr>
<td>2010 May</td>
<td>MSc</td>
<td>Natasha Malik</td>
<td>Investigating EBNA1-Host Protein Interactions in NP &amp; Gastric Cancers.</td>
</tr>
</tbody>
</table>
Fei-Fei LIU

2010 Jan  MSc. Stephanie Yee. *Subset of RB lacking RB1 mutations with MYCN amplification.*
2009 Dec  PhD. Aleks Pandyra. *Role of statins as anti-cancer agents in MM & AML.*
2009 Jun  PhD. Tim To. *Role ARF and p53 in RB development.*
2009 Jan  MSc. Brent Williams. *Immunotherapy of leukemic stem cells.*
2008 Jul  MSc. Emma Coe. *Investigating the sensitization of AML cells to As2O3.*
2007 Nov  MSc. Tim To. *Barrier to malignant transformation: Retinoma.*
2007 Jun  MSc. Nirojini Sivanchandran. *Functions of the EBV EBNA1 protein in NPC.*
2007 Apr  PhD. Helen Dimaras. *The molecular progression of RB & role of p75NTR.*
2006 Dec  MSc. Suzanne Lau. *Validation of putative prognostic markers for NSCLC.*
2006 May - 2006 Jul  PhD. Xia Wu. *Multiple focus acoustic lens transducer combinations for HIFU therapy.*
2006 Apr  MSc. Beau Standish. *Quantification of microvascular blood flow during PTD using DOCT.*
2005 Aug  MSc. Gloria Spirou. *An Investigation of pulsed and frequency domain photoacoustics and their Applicability to biomedical studies.*
2004 May  PhD. Scott Harvey. *Type IV collagen in development and disease: Alport Syndrome.*
2004 Feb  PhD. Scott Harvey. *Type IV collagen in development and disease: Alport Syndrome.*
2003 Nov  PhD. Claire McCann. *A novel radiofrequency coil for interstitial thermal therapy.*
2003 Jun  PhD. Jason Barlow. *Studies of the p53 regulated genes in Li-Fraumeni.*
2002 Sep  MSc. Sandra Aswald. *Efficient adv-mediated transgene expression in human AML.*
2002 Aug  PhD. Jeffrey Donovan. *The role of p27 in G1 cell cycle arrest by antiestrogens and by TGF-B.*
2002 Jun  PhD. Carl Kumaradas. *Theoretical Analysis of Superficial MW HT.*
2000 Apr  MSc. Erinn Soucie. *Investigating the role of the Myc oncogene in apoptosis.*
Fei-Fei LIU

2000 Feb  MSc. Dr. Saul Mandelbaum. A model of cancer immunotherapy of gene modified tumour cells.


1997 Jul  MSc. Susan Randall. Interactions among the MAPK cascades and novel cdc-2-related PK.

1997 Mar  PhD. Dennis Mah. Portal imaging with amorphous selenium.

1990 Oct  MSc. Xi-Lian Li. Factors Influencing Tumor Response to HT in Two Rodent Tumors.

Qualifying/Reclass Examiner

2014 May  PhD. Simon Wisnovsky. Mitochondria-targeted DNA damaging agents as probes of mitochondrial biology.


External Appraisor

2014 Aug  PhD. Annette May Ling Lim. Defining the molecular profile of oral tongue squamous cell carcinomas and its impact on patient outcome.


2009 Sep  MSc. Olayinka Akinlolu. Combination of 111In and 177Lu-DOTATOC with ddVV for sstr2 tumors.

PhD Defence Chair


2006 Sep  PhD. Christopher Thomson. Role of FcRγ in DN Treg cell function.
A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Department of Radiation Oncology
2075 Bayview Avenue, T2-142
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-4998
Fax 416-480-6002
Email stanley.liu@sunnybrook.ca

1. EDUCATION

Degrees
2000 - 2004 MD, University of Toronto
1995 - 2000 PhD, Medical Biophysics, University of Toronto, Supervisor(s): Dr. J. McGlade
1991 - 1995 BSc, Biochemistry Honours SSP, Queen’s University at Kingston, Ontario

Postgraduate, Research and Specialty Training
2009 - 2010 Post-Doctoral Research Fellowship, Gray Institute Radiation Oncology and Biology,
University of Oxford, United Kingdom, Supervisor(s): Profs. Adrian Harris and Ruth Muschel
2004 - 2009 Radiation Oncology Residency, University of Toronto

Qualifications, Certifications and Licenses
2009 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2009 Certificate of Registration for Independent Practice, College of Physicians and Surgeons of Ontario
2005 Licentiate (LMCC), Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2015 Jan - present Consulting Staff, Scarborough General Hospital, Toronto, Ontario, Canada
2013 Jan - present Director, Biobanking Facility, Odette Cancer Centre, Canada
2011 Sep - present Assistant Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2009 ASCO Young Investigator Award, American Society of Clinical Oncology. (Research Award)
48 awarded internationally. Total Amount: 50,000 CAD

NATIONAL

Received

2014 Movember Rising Star Award, Prostate Cancer Canada. (Research Award)
2011 Clinician-Scientist Award, Prostate Cancer Canada. (Research Award)
Total Amount: 150,000 CAD

2009 Canadian Research Award for Specialty Residents - Division of Medicine, Royal College of Physicians and Surgeons of Canada. (Research Award)
1 awarded per year in Canada. Total Amount: 2,000 CAD

2009 NCIC Dorothy J. Lamont Fellowship Award, National Cancer Institute of Canada. (Research Award)
Highest-ranking fellow in Post-MD Research competition. Total Amount: 5,000 CAD

2009 Terry Fox Foundation Post-MD Research Fellowship, National Cancer Institute of Canada. (Research Award)
10 awarded across Canada. Total Amount: 46,250 CAD

1999 Cancer Research Studentship, Cancer Research Society Inc. (Research Award)
$15,050/yr for 3 yr; 14 awarded across Canada. Total Amount: 45,150 CAD

1999 Doctoral Research (Biomedical) Award, Medical Research Council of Canada. (Research Award)
$19,030/yr for 3 yr; 122 awarded across Canada. Total Amount: 57,090 CAD

1999 Student Travel Award, National Cancer Institute of Canada. (Distinction)
Total Amount: 1,500 CAD

1999 Terry Fox Research Studentship, National Cancer Institute of Canada. (Research Award)
$21,000/yr for 3 yr; 14 awarded across Canada. Total Amount: 63,000 CAD

PROVINCIAL / REGIONAL

Received

2015 Early Researcher Award, Ministry of Research and Innovation. (Research Award)
2011 OICR Early Stage Career Investigator Award, Ontario Institute for Cancer Research. (Research Award)
Total Amount: 65,000 CAD
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 - present  Full Active Member, Canadian Urological Oncology Group (CUOG)
2008 - present  Active Member, American Society of Clinical Oncology (ASCO)
2004 - present  Active Member, Canadian Association of Radiation Oncologists (CARO)
2004 - present  Active Member, Canadian Medical Protective Association (CMPA)
2000 - present  Active Member, Canadian Medical Association
2000 - present  Active Member, Ontario Medical Association

Administrative Activities

INTERNATIONAL

American Association for Cancer Research (AACR)
2012  Committee Member, 2013 Annual Meeting Program, United States.
      Preclinical Radiotherapeutics Section of the Experimental and Molecular Therapeutics Subcommittee.
NATIONAL
Canadian Association of Radiation Oncologists
2013 Apr  Abstract Reviewer - Basic and Translational Biology, 27th Annual Scientific Meeting, Canada.
2012 Apr  Abstract Reviewer - Basic and Translational Biology, 26th Annual Scientific Meeting, Canada.

Terry Fox Foundation (TFF) Strategic Training Initiative for Excellence in Radiation Research for the 21st Century (EIRR21) at CIHR
2012 - present  Mentor, EIRR21 Training Program

PROVINCIAL / REGIONAL
Ontario Institute for Cancer Research
2012 - present  Ontario Tumor Bank Material Access Review Committee member, Ontario, Canada.

LOCAL
Odette Cancer Centre
2010 - 2012  Secretary for minutes, Department of Radiation Oncology, Toronto, Ontario, Canada.
                 Monthly staff meetings.

Sunnybrook Research Institute
2012 - present  Member, Recruitment Committee - Biological Sciences Platform, Toronto, Ontario, Canada.

University of Toronto
2010 - 2012  Member, Data Warehouse Working Group
                 As part of the Department of Radiation Oncology Strategic Plan.
2007 - 2008  Member, Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
                 Resident Representative.

Peer Review Activities

ASSOCIATE OR SECTION EDITING
Reviewer
2014  Content reviewer for “Research in Radiation Therapy” for Canadian Cancer Society (external website)

GRANT REVIEWS
External Grant Reviewer
2016 Jun  Foundation for Polish Science - First TEAM expert reviewer, Number of Reviews: 1
2015 Oct - 2015 Oct 30  MRC (Medical Research Council UK) grant, Number of Reviews: 1
2015  Czech Science Foundation GACR
2014  Cancer Care Manitoba Foundation Research Operating Grant
<table>
<thead>
<tr>
<th>Year</th>
<th>Funding Body/Activity</th>
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<tr>
<td>2014</td>
<td>Prostate Cancer UK</td>
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<td>2012</td>
<td>Czech Science Foundation GACR</td>
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<td>2011</td>
<td>Cancer Association of South Africa (CANSA)</td>
</tr>
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</table>

**Reviewer**

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Juravinski Hospital &amp; Cancer Centre, Juravinski Hospital and Cancer Centre Foundation Research Grant, Number of Reviews: 1</td>
</tr>
<tr>
<td>2016</td>
<td>Prostate Cancer Canada Discovery Grants, Movember – therapeutics panel</td>
</tr>
<tr>
<td>2014</td>
<td>Canadian Breast Cancer Foundation (CBCF) - Ontario Region, Panel A - laboratory and pre-clinical investigations</td>
</tr>
<tr>
<td>2014</td>
<td>Prostate Cancer Canada Discovery Grants, Movember – therapeutics panel</td>
</tr>
<tr>
<td>2012</td>
<td>Canadian Breast Cancer Foundation (CBCF) - Ontario Region, Panel A - laboratory and pre-clinical investigations</td>
</tr>
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</table>

**MANUSCRIPT REVIEWS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Journal/Number of Reviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>Cancer Medicine, Number of Reviews: 1</td>
</tr>
<tr>
<td>2015</td>
<td>International Journal of Oncology, Number of Reviews: 1</td>
</tr>
<tr>
<td>2015</td>
<td>Cancer Research, Number of Reviews: 1</td>
</tr>
<tr>
<td>2015</td>
<td>International Journal of Radiation Oncology Biology Physics, Number of Reviews: 2</td>
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<td>2015</td>
<td>BMC Cancer, Number of Reviews: 1</td>
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<td>2015</td>
<td>Journal of Urology, Number of Reviews: 1</td>
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<td>2014-2016</td>
<td>Oncotarget, Number of Reviews: 3</td>
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<tr>
<td>2014-2015</td>
<td>Molecular Cancer Research, Number of Reviews: 3</td>
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<tr>
<td>2014</td>
<td>BBA - Reviews on Cancer, Number of Reviews: 1</td>
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<td>2014</td>
<td>International Journal of Radiation Biology, Number of Reviews: 1</td>
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<td>2013-2015</td>
<td>Urologic Oncology, Number of Reviews: 4</td>
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<tr>
<td>2012-2014</td>
<td>European Journal of Cancer, Number of Reviews: 3</td>
</tr>
<tr>
<td>2012-2014</td>
<td>International Journal of Radiation Biology, Number of Reviews: 2</td>
</tr>
<tr>
<td>2012</td>
<td>Radiation Oncology, Number of Reviews: 1</td>
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**PRESENTATION REVIEWS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Journal/Number of Reviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>American Association for Cancer Research (AACR) 2013 Annual Meeting Program, Preclinical Radiotherapeutics Section of the Experimental and Molecular Therapeutics Subcommittee</td>
</tr>
</tbody>
</table>

**Other Research and Professional Activities**

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity</th>
</tr>
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<tbody>
<tr>
<td>2016</td>
<td><strong>Co-investigator.</strong> Phase I Trial of Stereotactic Body Radiotherapy (SBRT) with Radium-223 for Patients with Oligometastatic Castration Resistant Prostate Cancer with Bone Only Metastases. NCIC Clinical Trials Group, Canada. Collaborator(s): Cheung P, Soliman H, Emmenegger U, Berry S, Loblaw DA.</td>
</tr>
<tr>
<td>2015</td>
<td><strong>Correlative Studies Coordinator.</strong> A Phase II Randomized Feasibility Study Comparing Stereotactic Body Radiotherapy (SBRT) Versus Conventional Palliative Radiotherapy (CRT) for Patients with Spinal Metastases (NCIC-CTG SC.24). NCIC Clinical Trials Group, Canada.</td>
</tr>
</tbody>
</table>
C. Academic Profile

1. RESEARCH STATEMENTS

Improving radiotherapy outcomes for cancer patients through biology and biomarkers. Radiotherapy is a major treatment modality for prostate cancer patients, however despite delivery of a high dose of radiation, up to one-third of patients will recur following treatment. Patients who develop locally recurrent disease are at significant risk of subsequently developing distant metastases, and have a poor prognosis, highlighting the importance of elucidating mediators of cancer radioresistance.

To address this important clinical problem, my laboratory generated radiation resistant cancer models and discovered that they possess an aggressive phenotype that mimics the clinical scenario. We are investigating the role of microRNA in promoting this phenotype, since they are known to possess pleotropic oncogenic effects by targeting multiple downstream gene targets. My laboratory has identified and is elucidating the mechanism of several candidate microRNA that are involved in mediating cellular response to radiation. Translational relevance is provided by the finding that these microRNA may serve as novel targets to sensitize tumor cells to radiation treatment. Additionally, pre-treatment microRNA expression levels may serve as predictive biomarkers to identify which patients’ tumors may respond better to radiation treatment. To this end, we are investigating microRNA profiling of patient biofluids to identify potential predictive signatures that can be used to improve clinical decision making.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDIED


Tiffin Foundation. PI: Chung, H. Collaborator(s): Loblaw A, Morton G. 90,000 CAD. [Grants]

2014 Jul - 2016 Jul


2014 Apr - 2017 Apr


2014 Apr - 2017 Apr


2014 Apr - 2015 May


2014 Jan - 2017 Jan

Principal Investigator. MicroRNA: Elucidating their Biology and Significance in Prostate Cancer. Prostate Cancer Canada. Movember Rising Star. 450,000 CAD. [Grants]

2013 Jul - 2015 Jul


2013 May - 2015 Apr

Principal Investigator. DLL4-Notch as a novel strategy to improve tumor radiation response. Canada Foundation for Innovation. Canadian Foundation - Infrastructure Operating Grant. 20,524 CAD. [Grants]

2013 May - 2014 Apr


2013 May - 2014 Apr

Principal Investigator. Characterization of microRNA as novel mediators of radiation resistance and cancer aggression. Dean’s Fund. Faculty of Medicine, University of Toronto. 20,000 CAD. [Grants]

2012 Dec - 2013 Nov


2012 Aug - 2013 Jul


2012 Jul - 2015 Jun


2012 Jul - 2013 Jun

Principal Investigator. DLL4-Notch as a novel strategy to improve tumor radiation response. Canada Foundation for Innovation-MEDI ORF. 180,505 CAD. [Grants]
**E. Publications**

1. **MOST SIGNIFICANT PUBLICATIONS**


   *This topical review highlights the current insights on the major ways that microRNA may contribute to tumour radiation response and whether their levels reflect treatment success. We conclude by applying the potential framework of future roles of miR in personalised radiotherapy using prostate cancer clinical management as an example.*


   *The prostaglandin E2 (PGE2) pathway promotes tumor progression and is implicated in recurrence following radiotherapy. We demonstrated that miR-620 contributes to radiation resistance in cancer cells by targeting HPGD, which is a key regulator of PGE2 metabolism. Our results led us to propose a novel model regulating cancer radiation resistance: miR-620 targets HPGD, resulting in accumulation of HPGD’s substrate, PGE2, and signaling by PGE2 through the EP2 receptor results in cancer radiation resistance. Furthermore, we demonstrated that specific blockade of the EP2 receptor had therapeutic efficacy in reversing radioresistance. Specific inhibitors of PGE2 signaling such as EP2 antagonists may be desirable, since they may potentially limit or avoid side-effects seen with cyclooxygenase-2 (COX-2).*


   *Most cancer patients are treated with radiotherapy, but the treatment can also damage the surrounding normal tissue. Acute skin damage from cancer radiotherapy diminishes patients’ quality of life, yet effective biological interventions for this damage are lacking. Protecting microvascular endothelial cells from irradiation-induced perturbations is emerging as a targeted damage-reduction strategy. We discovered that administration of a vascular modifying agent reduces acute skin radiation damage in mice. This radiation protection approach may have clinical impact for cancer radiotherapy patients by reducing the severity of their acute skin radiation damage.*

Radiation resistance poses a major clinical challenge in cancer treatment, but little is known about how microRNA may regulate this phenomenon. In this study, we used a novel approach to identify functionally relevant microRNA: next-generation sequencing and an unbiased comparison of microRNA expression in prostate cancer cells rendered resistant to fractionated radiation treatment. We detected the enrichment of microRNA-95 in radiation resistant cells, and performed in vitro and in vivo characterization experiments. This seminal publication identified the little-studied microRNA-95 as a major mediator of radiation resistance in tumors, and elucidated that the sphingosine-1-phosphate (S1P) signaling pathway is specifically targeted by microRNA-95. Additionally, we demonstrated that resistance was reversed with a clinically approved inhibitor of S1P signaling.


My research detailed for the first time that blockade of the DLL4-Notch pathway with a blocking DLL4 antibody can be used advantageously when given after radiation treatment to promote ineffective tumor vasculature function, extreme tumor hypoxia (low oxygen levels), and profound tumor cell death. This novel strategy greatly improved the efficacy of radiotherapy, meaning that the same dose of radiation worked much better in preventing tumor regrowth in different types of tumors, indicating the broad relevance of this treatment strategy. A patent based upon these findings (combination of DLL4 antibody with radiotherapy) has been awarded to my co-investigators and I. The ultimate goal will be to translate the findings from this novel research to an early phase clinical trial in a range of cancer patients undergoing radiotherapy.

2. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


6. Korpela E, Vesprini D, **Liu SK**. MicroRNA in radiotherapy: miRage or miRador? British J Cancer. 2015;112:777 (Trainee publication). **Senior Responsible Author.**


29. Schmandt RS, Liu SK, McGlade CJ. The cloning and characterization of a novel Shc binding protein, mPAL. Oncogene. 1999;18:1867-1879. **Co-Principal Author.**

30. Liu SK and McGlade CJ. Gads is a novel SH2 and SH3 domain-containing adaptor protein that binds to tyrosine-phosphorylated Shc. Oncogene. 1998;17:3073-3082. **Principal Author.**


3. NON-PEER-REVIEWED PUBLICATIONS

Magazine Entries

1. Finding an Answer to Prostate Cancer. Chill Magazine. 2011 Sep. Interviewed for article. **Acknowledged in Publication (Not Author).**

2. Sunnybrook Research Institute (SRI) Nexus. 2011;Spring(Issue 5). Highlighted as new Investigator at SRI. **Acknowledged in Publication (Not Author).**

3. Liu S and Molckovsky A. UTMJ still going strong. MAA (Medical Alumni Association) Matters. 2002;Winter 9. **Principal Author.**

Correspondence

1. Liu SK, Muschel RJ, Harris AL. Response: Re: Delta-Like Ligand 4-Notch Blockade and Tumor Radiation Response. J Natl Cancer Inst. **Principal Author.**

4. SUBMITTED PUBLICATIONS

F. Intellectual Property

1. PATENTS


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Invited Lecturer. MicroRNA and prostate cancer therapy response. 31st ESTRO Meeting on Clinical and Experimental Research in Radiation Oncology. France. Presenter(s): Liu SK.

2016 Invited Lecturer. MicroRNA and tumor radioresistance. International Summit on Biomarkers and Therapeutic Advances in Radiation Oncology. Quebec, Canada. Presenter(s): Liu SK.


2013 Invited Lecturer. MicroRNA and tumor radiation response. 28th ESTRO Meeting on Clinical and Experimental Research in Radiation Oncology (CERRO). France. Presenter(s): Liu SK.


1998 Invited Lecturer. Gads, a novel SH3-SH2-SH3 adaptor protein is associated with SLP-76 and TCR zeta-chain in activated T cells. 4th Annual Tyrosine Phosphorylation and Cell Signaling meeting. La Jolla, United States. Liu SK and McGlade CJ.

Presented Abstracts


2007 Poster Presentation. A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. 10th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatigen, Switzerland. Liu S (Principal Author), Coackley C, Bristow RG.

2007 Poster Presentation. A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. American Society for Therapeutic Radiology and Oncology (ASTRO) 49th Annual Meeting. Los Angeles, California, United States. Liu S (Principal Author), Coackley C, Bristow RG.
Stanley K. LIU

1999 **Poster Presentation.** Characterization of the adaptor protein Gads in hematopoietic signalling pathways. Oncogenes & Growth Control meeting. La Jolla, United States. **Liu S** (Principal Author), and McGlade CJ.


**Presented and Published Abstracts**

2016 Sep 26 **ePoster presentation.** Serum exosomal microRNAs (miRNAs) as non-invasive biomarkers to guide post-operative radiotherapy in prostate cancer (PCa) patients treated with radical prostatectomy (RP). American Society for Radiation Oncology (ASTRO). Boston, Massachusetts, United States. Presenter(s): Fotouhi Ghiam A. (Trainee Presentation)


2016 Sep 26 **Oral presentation.** The biological role and clinical significance of long non-coding RNA urothelial carcinoma associated 1 (UCA1) in prostate cancer (PCa). American Society for Radiation Oncology (ASTRO). Boston, Massachusetts, United States. Presenter(s): Fotouhi Ghiam A. (Trainee Presentation)


**2. NATIONAL**

**Invited Lectures and Presentations**


2016 **Invited Lecturer.** Tumor microenvironment and radiotherapy. McGill Molecular & Clinical Radiobiology Workshop. Quebec, Canada.

2015 **Invited Lecturer.** Normal tissue radiotoxicity; Tumor microenvironment and radiotherapy. McGill Molecular & Clinical Radiobiology Workshop. Quebec, Canada.


2014 **Invited Lecturer.** MicroRNA 330-3p and tumor radiation response. Canadian Association of Radiation Oncology (CARO). St. John’s, Newfoundland and Labrador, Canada. Presenter(s): **Liu SK**.


2012 **Invited Lecturer.** Investigational biomarkers for tumors vasculature response to therapy. Canadian Association of Radiation Oncologists (CARO) 2012 Annual Scientific Meeting. Ottawa, Ontario, Canada.
2011

**Invited Lecturer.** Inhibition ofDll4-Notch signaling enhances tumor response to radiation. CARO (Canadian Association of Radiation Oncology) 25 Annual Scientific Meeting. Winnipeg, Manitoba, Canada. **Liu SK**, Bham S, Fokas E, Beech J, Cho S, Im J, Muschel R, Harris AL.

2008

**Invited Lecturer.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under hypoxia. McGill Cancer Centre, McGill University. Montreal, Quebec, Canada. **Liu SK**, Coackley C, Krause M, Jalali F, Chan N, Bristow RG.

2007

**Invited Lecturer.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. Canadian Prostate Cancer BioNet Annual Meeting. Montreal, Quebec, Canada. **Liu SK**, Coackley C, Bristow RG.

2007

**Invited Lecturer.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. Department of Oncology, University of Alberta. Edmonton, Alberta, Canada. **Liu SK**, Coackley C, Bristow RG.

**Presented Abstracts**

2007

**Poster Presentation.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. Canadian Association of Radiation Oncology (CARO). Toronto, Ontario, Canada. **Liu S** (Principal Author), Coackley C, Bristow RG.

2007

**Poster Presentation.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. Canadian Prostate Cancer Research Initiative (CPCRI). Toronto, Canada. **Liu S** (Principal Author), Coackley C, Bristow RG.

2002

**Poster Presentation.** Assessing the Informational Needs of Prostate Cancer Patients: A Pilot Study. Canadian Association of Radiation Oncologists (CARO) 16th Annual Scientific Meeting. Toronto, Canada. **Liu S** (Principal Author), Gospodarowicz M, Friedman A, Nyhof-Young J.

2002


**Presented and Published Abstracts**

2016 Sep

**Poster presentation.** Serum exosomal microRNAs (miRNAs) as non-invasive biomarkers to guide post-operative radiotherapy in prostate cancer (PCa) patients treated with radical prostatectomy (RP). Canadian Association of Radiation Oncology (CARO). Banff, Alberta, Canada. Presenter(s): Fotouhi-Ghiam A. (Trainee Presentation)

*Publication Details:*
Fotouhi Ghiam A, Vesprini D, Taeb S, Jahangiri S, Huang X, Ray J, Hoey C, Loblaw DA, Fokas E, **Liu S**. Serum exosomal microRNAs (miRNAs) as non-invasive biomarkers to guide post-operative radiotherapy in prostate cancer (PCa) patients treated with radical prostatectomy (RP). Radiother Oncol. 2016. **Senior Responsible Author.**

2016 Sep

**Oral presentation.** The biological role and clinical significance of long non-coding RNA urothelial carcinoma associated 1 (UCA1) in prostate cancer (PCa). Canadian Association of Radiation Oncology (CARO). Banff, Alberta, Canada. Presenter(s): Fotouhi Ghiam A. (Trainee Presentation)

*Publication Details:*
Media Appearances


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts

2011  **Poster Presentation.** Inhibition of Dll4-Notch signalling in tumor and vasculature enhances the response to radiation. Ontario Institute for Cancer Research (OICR) 4th Annual Scientific Meeting. Alliston, Ontario, Canada. **Liu S** (Principal Author), Bham S, Fokas E, Im J, Muschel R, Harris AL.

4. LOCAL

Invited Lectures and Presentations


2013  **Invited Lecturer.** Urinary biomarkers for prostate cancer. Odette Cancer Centre Genitourinary Research Rounds. Toronto, Ontario, Canada. Presenter(s): **Liu SK**.

2013  **Invited Speaker.** MicroRNA Biology and Translation: In the lab and beyond? Sunnybrook Research Institute Biology Seminar Lunch and Learn Series. Toronto, Ontario, Canada. Presenter(s): **Liu SK**.

2013  **Invited Speaker.** Tackling Aggressive Prostate Cancer: from the lab to the clinic. Prostate Canada Cancer Network - Orillia Awareness Group. Orillia, Ontario, Canada. Presenter(s): **Liu SK**.

2013  **Invited Lecturer.** MicroRNA Biology and Biomarkers in Prostate Cancer. University of Toronto - University of Sao Paulo Joint Oncology Conference. Ontario, Canada. Presenter(s): **Liu, SK**.

2012  **Invited Lecturer.** Enhancing tumor radiation response - how to kill more cancer cells with less. Department of Medical Biophysics summer research lecture series, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Liu SK**.

2012  **Invited Lecturer.** Enhancing tumor radiation response – how to kill more cancer cells with less. Department of Medical Biophysics Annual Retreat. Orillia, Ontario, Canada. Presenter(s): **Liu SK**.

2011  **Invited Lecturer.** Inhibition of Dll4-Notch signaling in tumor and vasculature enhances the response to radiation. Radiation Oncology Research Rounds, Sunnybrook Health Sciences Centre. Toronto, Ontario. **Liu SK**, Bham S, Fokas E, Im J, Muschel R, Harris AL.

2011  **Invited Lecturer.** Inhibition of Dll4-Notch signaling enhances tumor response to radiation. Department of Radiation Oncology rounds, University of Toronto. Toronto, Ontario, Canada. **Liu SK**, Bham S, Fokas E, Beech J, Cho S, Im J, Muschel R, Harris AL.

2011  **Invited Lecturer.** Microbubble contrast ultrasound to monitor in vivo tumor perfusion in response to Notch

2007

**Invited Lecturer.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. Annual Department of Radiation Oncology (DRO) Research Day. Toronto, Ontario, Canada. Liu SK, Coackley C, Bristow RG.

**Presented Abstracts**

2011

**Poster Presentation.** PEA 3 is a potential downstream target of Notch signalling. IMS Summer Research Program Day. Toronto, Ontario, Canada. Lin C, Taeb S, Harris A, Liu SK.

1999

**Poster Presentation.** The adaptor protein Gads is implicated in coupling the tyrosine-phosphorylation of Hematopoietic Progenitor Kinase-1 with T cell receptor activation. Hospital for Sick Children Research Institute Retreat. Toronto, Canada. Liu S (Principal Author), Smith CA, Arnold R, Kiefer F, McGlade CJ.

**Presented and Published Abstracts**

2016 Apr 22


*Publication Details:*

2016 Apr 22

**Poster presentation.** microRNA-198 targets Wnt signaling to regulate prostate cancer aggression. UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Ray J. (Trainee Presentation)

*Publication Details:*

**H. Research Supervision**

1. PRIMARY OR CO-SUPERVISION

**Undergraduate Education**

2015 May - 2015 Aug


2015 Jan - 2015 Aug


2014 May - 2014 Dec

**Primary Supervisor.** B. Sc. Ivan Cadonic. Supervisee Position: Co-op research student, Supervisee Institution: University of Waterloo. PGE2 and radiation resistance.

2014 May - 2014 Aug


2013 May - 2013 Sep

**Primary Supervisor.** B. Sc. Gurkeet Lalli. Supervisee Position: Summer research student, Supervisee Institution: Western University. microRNA and radiation response.


**Graduate Education**

2015 Jan - present | **Primary Supervisor.** MSc. Jessica Ray, Medical Biophysics. Supervisee Institution: University of Toronto. *The role of miR-198 in prostate cancer progression.*

2015 Jan - present | **Primary Supervisor.** MSc. Christianne Hoey, Medical Biophysics. Supervisee Institution: University of Toronto. *miR-106a as a mediator of prostate cancer aggression and therapy resistance.* Awards: Queen Elizabeth II Graduate Scholarship ($15,000).

2012 Jan - 2014 Jun | **Primary Supervisor.** MSc. Elina Korpela. Supervisee Institution: University of Toronto. *Targeting the Angiopoietin-1/Tie2 Axis to Decrease Normal Tissue Damage During Cancer Radiotherapy.* Awards: Queen Elizabeth II Grad Scholarships in Science and Technology, Jan-Dec 2012, $15,000; Paul Starita Graduate Student Fellowship, Sep 2012–Aug 2013, $6,000; Scace Grad Fellowship in Prostate CA Research, Sep 2012–Aug 2013, $6,000; Frederick Banthing and Charles Best Canada Grad Scholarships Master’s Award, CIHR, Sep 2012–Aug 2013, $17,500; Best Oral Presentation Award, James Lepock Memorial Student Research Symposium, May 2013, $150; Richard P. Hill Award for Academic Excellence, June 2013, $200.

**Undergraduate MD**

2012 Jul - present | **Primary Supervisor.** Aruz Mesci. Supervisee Position: CREMS Research Scholar, Supervisee Institution: University of Toronto. *PEA3 as a pro-metastatic factor in colorectal cancer.* Awards: Clinician Investigator Trainee Association of Canada (CITAC) Annual Meeting and Conference Travel Award $2,000.


**Postgraduate MD**

2015 Jul - present | **Primary Supervisor.** Clinical Fellow. Alireza Fotouhi. Supervisee Institution: University of Toronto. *Serum exosomal microRNAs as non-invasive biomarkers to guide therapy or surveillance for Prostate Cancer.* Awards: CARO Fellowship Award $80,000 (only 1 awarded across Canada), 2015-2016 Postgraduate Awards UofT Faculty of Medicine (Heidi Sternbach, Chisholm Memorial, Timeposters and Joseph M. West Family).

**Postdoctoral Research Fellow (PhD)**


**Other**

## 2. OTHER SUPERVISION

### Graduate Education

#### Thesis Committee Member

<table>
<thead>
<tr>
<th>Date</th>
<th>Degree</th>
<th>Supervisee Institution</th>
<th>Project Title</th>
<th>Supervisor(s)</th>
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<tbody>
<tr>
<td>2015 Jan - present</td>
<td>PhD</td>
<td>James Pemberton, Medical Biophysics</td>
<td>Deciphering the mechanism of the BH3-only protein PUMA and how it contributes to neuronal cell death in stroke.</td>
<td>Dr. V. Venkateswaran</td>
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<tr>
<td>2015 Jan - present</td>
<td>MSc</td>
<td>Michelle Mayer</td>
<td>Metformin and Docetaxel treatment in castrate resistant prostate cancer.</td>
<td>Dr. V. Venkateswaran</td>
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<tr>
<td>2013 May - present</td>
<td>PhD</td>
<td>Zoey Cheng</td>
<td>The role of p53 in regulating adult neurogenesis post-irradiation.</td>
<td>Dr. S. Wong</td>
</tr>
<tr>
<td>2013 May - present</td>
<td>PhD</td>
<td>Anna Khorsidi</td>
<td>Regulation of microRNA-17 expression in human breast cancer.</td>
<td>Dr. B. Yang</td>
</tr>
<tr>
<td>2012 Nov - present</td>
<td>MSc</td>
<td>Colin Gram</td>
<td>Investigating Changes to Vascular Density in Relation to Radiation-induced Late Effects.</td>
<td>Dr. B. Nieman</td>
</tr>
<tr>
<td>2016 Jan</td>
<td>PhD</td>
<td>Robert Sheng Xu</td>
<td>Registration of Real-Time and Prior Images for MRI-Guided Cardiac Interventions.</td>
<td>Dr. Graham Wright</td>
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<tr>
<td>2016 Jan</td>
<td>PhD</td>
<td>Tracy Smith</td>
<td>Characterization of Tie2 signalling during acute inflammation.</td>
<td>Dr. Jane McGlade</td>
</tr>
<tr>
<td>2012 Jun - 2015 Jan</td>
<td>PhD</td>
<td>Natalie Venier</td>
<td>Chemopreventive and therapeutic of capsaicin.</td>
<td>Dr. V. Venkateswaran</td>
</tr>
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<td>2012 Jan - 2013 Oct</td>
<td>MSc</td>
<td>Xiangfeng Ge</td>
<td>The influence of diet and exercise on the progression of prostate cancer.</td>
<td>Dr. V. Venkateswaran</td>
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</table>

#### Thesis Examiner

<table>
<thead>
<tr>
<th>Date</th>
<th>Degree</th>
<th>Supervisee Institution</th>
<th>Project Title</th>
<th>Supervisor(s)</th>
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<tbody>
<tr>
<td>2015 Jan</td>
<td>PhD</td>
<td>Natalie Venier</td>
<td>Capsaicin as a Novel Chemopreventive and Therapeutic Option for Prostate Cancer.</td>
<td>Dr. V. Venkateswaran</td>
</tr>
<tr>
<td>2014 Dec</td>
<td>MSc</td>
<td>Daria Taiakina, Medical Biophysics</td>
<td>The Effects of Hypoxia on Centrosome Function in Prostate Cancer.</td>
<td>Robert Bristow</td>
</tr>
<tr>
<td>2014 Aug</td>
<td>MSc</td>
<td>Dushyandi Rajendran</td>
<td>Identification of Novel Regulators of Numb Alternative Splicing.</td>
<td>Dr. J. McGlade</td>
</tr>
<tr>
<td>2014 May</td>
<td>MSc</td>
<td>Sarah Di Clemente</td>
<td>The Role of the Src-like Adaptor Protein in the Regulation of GM-CSFR Signaling.</td>
<td>Dr. J. McGlade</td>
</tr>
<tr>
<td>2014 Jan</td>
<td>MSc</td>
<td>Alexandra Chung</td>
<td>The regulation of the inflammatory response in Tie-2-expressing monocytes by Tie-2 ligands.</td>
<td>Dr. D. Dumont</td>
</tr>
<tr>
<td>2013 Dec</td>
<td>MSc</td>
<td>Benjamin Mora</td>
<td>The effects of serum from obese patients and adipocyte-derived cytokines on growth of prostate cancer cells in vitro.</td>
<td>Dr. V. Venkateswaran</td>
</tr>
<tr>
<td>2012 Oct</td>
<td>PhD</td>
<td>Kristopher Dennis</td>
<td>Addressing Factors Contributing to Variation in the Management of Radiation Therapy-induced Nausea and Vomiting.</td>
<td>Dr. E. Chow</td>
</tr>
<tr>
<td>2012 Sep</td>
<td>MSc</td>
<td>Diana Tran</td>
<td>Functional Characterization of a Novel Substitution in the Human DNA Repair Protein APLF.</td>
<td>Dr. A. Koch</td>
</tr>
</tbody>
</table>
| 2012 Sep | PhD | Christine Ichim | The Orphan Nuclear Receptor NR2F6 is a Leukemia Oncogene and Novel Regulator of Hematopoietic Stem Cell | }
### Homeostasis and Differentiation
Supervisor(s): Dr. R. Wells.

<table>
<thead>
<tr>
<th>Year</th>
<th>Degree</th>
<th>Name</th>
<th>Institution</th>
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<tbody>
<tr>
<td>2012 Aug</td>
<td>PhD</td>
<td>Aida Gordanpour</td>
<td>University of Toronto</td>
<td><em>MicroRNAs as prognostic biomarkers in prostate cancer</em></td>
</tr>
<tr>
<td>2012 Aug</td>
<td>PhD</td>
<td>Mojib Javadi</td>
<td>University of Toronto</td>
<td><em>Negative Regulation of Cytokine Signalling in the Myeloid Lineage. Investigating the Roles of Cbl and SH2B1</em></td>
</tr>
<tr>
<td>2012 Jun</td>
<td>MSc</td>
<td>Vanessa Zannella</td>
<td>University of Toronto</td>
<td><em>AMPK regulates metabolism and survival in response to ionizing radiation</em></td>
</tr>
</tbody>
</table>

### Qualifying/Reclass Examiner

<table>
<thead>
<tr>
<th>Year</th>
<th>Degree</th>
<th>Name</th>
<th>Institution</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 May</td>
<td>MSc</td>
<td>Brandon Zanette</td>
<td>Detection of Radiation Induced Lung Injury using the Dissolved Phases of Hyperpolarized 124Xe</td>
<td></td>
</tr>
<tr>
<td>2015 Jan - 2016 May</td>
<td>MSc</td>
<td>Rozhin Yousefi</td>
<td>Medical Biophysics</td>
<td><em>Diffusion Evaluation of Cancer Therapies</em></td>
</tr>
<tr>
<td>2014 Feb</td>
<td>PhD</td>
<td>Rozhin Yousefi</td>
<td>University of Toronto</td>
<td><em>Diffusion evaluation of cancer therapies</em></td>
</tr>
<tr>
<td>2012 Sep</td>
<td>MSc</td>
<td>Zoey Cheng</td>
<td>University of Toronto</td>
<td><em>The role of p53 in regulating adult neurogenesis post-irradiation</em></td>
</tr>
</tbody>
</table>
Curriculum Vitae

Douglas Andrew Burr Loblaw

A. Date Curriculum Vitae is Prepared: 2016 May 6

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-4806
Fax 416-480-6002
Email andrew.loblaw@sunnybrook.ca

1. EDUCATION

Degrees
2010 - 2011 OMA Physician Leadership Development Program, Schulich School of Business, York University, Toronto, Ontario, Canada
2008 - 2009 Sunnybrook-Schulich Advanced Leadership Development Program, Schulich School of Business, York University, Toronto, Ontario, Canada
1996 - 2002 MSc, Health Policy Measurement and Evaluation, University of Toronto, Toronto, Ontario, Canada
1991 - 1994 MD, Queen’s University, Kingston, Ontario, Canada
1987 - 1991 BSc, Physics, The University of British Columbia, Vancouver, British Columbia, Canada

Postgraduate, Research and Specialty Training
1996 - 2002 Clinical Investigator Program, University of Toronto, Toronto, Ontario, Canada
1995 - 2000 Princess Margaret Hospital / Toronto Sunnybrook Regional Cancer Centre, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1991 - 1993 Summer Research Student, Department of Medical Biophysics, BC Cancer Research Centre, Vancouver, British Columbia, Canada

Qualifications, Certifications and Licenses
2000 FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada

2. EMPLOYMENT

Current Appointments
2014 Jul 1 - present Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada
2014 Jul 2 - present  Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2013 Jul - present  Courtesy Staff, Medicine, Rouge Valley Health System, Toronto, Ontario, Canada
2008 - present  Scientist, Sunnybrook Research Institute, Toronto, Ontario, Canada
2007 - present  Courtesy Staff, Department of Surgery, North York General Hospital, Toronto, Ontario, Canada
2000 - present  Active Staff, Radiation Oncology, Odette Cancer Centre, Toronto, Ontario, Canada
2000 - present  Active Staff, Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2002 - 2008  Associate Scientist, Sunnybrook Research Institute, Toronto, Ontario, Canada

UNIVERSITY - CROSS APPOINTMENT
2008 - 2014 May  Associate Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK
2007 Jul - 2014 May  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2000 - 2007  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2009  Frank Ellis Medal, Royal College of Radiologists, United Kingdom. (Research Award)
2008  Clinician Scientist Award, Ontario Association of Radiation Oncology, Canada. (Research Award)
2007  Fellowship Award, CUOG/AstraZeneca. (Research Award)
Awarded for proposal: ‘The Role of Bound Prostate Specific Antigen in Predicting Risk of Progression in the Active Surveillance Population with Low Risk Localized Prostate Cancer’.

2003  Award of Merit, American Society of Clinical Oncology, United States. (Research Award)
Awarded for scientific paper: “Hormones may break their bones: is there an increased risk of fracture in men with prostate cancer treated with androgen ablation”.

1998  Award of Merit, American Society of Clinical Oncology, United States. (Research Award)
Awarded for scientific paper: “Development and testing of a new visit-specific patient satisfaction questionnaire: the Princess Margaret Hospital Satisfaction with Doctor Questionnaire (PMH/PSQ-MD)".

NATIONAL
Received

1999  Resident Lecture Award (Nucletron), Canadian Association of Radiation Oncology, Canada. (Research Award)
Awarded for scientific paper: “A population based study of malignant spinal cord compression”.

1994  Award of Merit, Canadian Cancer Society, Canada. (Research Award)
Awarded for outstanding achievement related to Cancer Research.
PROVINCIAL / REGIONAL

Received

1993  
**A. Maxwell Evans Award for Cancer Research**, BC Cancer Agency, Canada. (Research Award)  
*Awarded to top medical applicant to BC Summer Studentship.*

1992  
**J. M. Warren Award for Cancer Research**, BC Cancer Agency, Canada. (Research Award)  
*Awarded to top applicant to BC Summer Studentship.*

1987  
**Scholarship**, Government of British Columbia, Canada. (Distinction)

LOCAL

Received

2014 Jul - 2015 Jun  
**Excellence in Research Leadership**, University of Toronto Department of Radiation Oncology. (Research Award)

1995  
**Aesculapian Award**, Queen’s University, Canada. (Distinction)  
*Awarded for invaluable service to the Queen’s medical school community over M.D. training.*

1995  
**Michael Brown Memorial Award in Oncology**, Queen’s University, Canada. (Distinction)  
*Top Medical Student in Oncology.*

1993  
**Aesculapian Society Award of Merit**, Queen’s University, Canada. (Distinction)  
*Awarded for outstanding service to the society (Queen’s medical student council) during term in office.*

1992  
**Athletic Letter**, Queen’s University, Canada. (Distinction)

1991  
**Deans Honour List**, The University of British Columbia, Canada. (Distinction)

1991  
**Science Scholar**, The University of British Columbia, Canada. (Distinction)  
*One of top 10 in Faculty of Science.*

1991  
**Volkoff Scholarship in Science**, The University of British Columbia, Canada. (Distinction)

1990  
**Charles and Jane Banks Scholarship**, The University of British Columbia, Canada. (Distinction)

1989  
**Carl and Elsie Halterman Scholarship**, The University of British Columbia, Canada. (Distinction)

1987  
**Entrance Scholarship**, The University of British Columbia, Canada. (Distinction)

Student/Trainee Awards

INTERNATIONAL

Received

2016 Jun  
**NOYCIA**, Awardee Name: Joelle Helou. Novartis Oncology Young Canadian Investigator Awards, United States  
*Total Amount: 5,000 USD*

2013 Feb  
**Conquer Cancer Foundation Merit Awards**, Oncology, Primary Author, Awardee Name: Suneil Jain. Conquer Cancer Foundation, United States  
*Total Amount: 1,000 USD*

2004 Jul - 2005 Jun  
**Award of Merit**, Primary Author, Awardee Name: Hanna Carolan. American Society of Clinical Oncology, United States  
*Total Amount: 1,000 USD*
NATIONAL

Received

2009 Jul - 2010 Jun  Travel Award, Primary Author, Awardee Name: Harvey Quon. Canadian Radiation Oncology Foundation
  Total Amount: 2,500 CAD

2009  Award. Genitourinary Cancer Symposium
  Awarded for scientific paper: “Prospective study of pelvic radiotherapy with concomitant hypofractionated accelerated IMRT boost for localized high-risk prostate cancer: Acute and late toxicities”.

2009  First Annual Flims Grant. Canadian Radiation Oncology Foundation, Canada

2009  Research Award. CUOG-AZ, Canada
  Awarded for grant: “Matched control analysis of salvage prostatectomy versus salvage radiotherapy for T1-2 low or intermediate risk prostate cancer”.

2006 Jul - 2007 Jun  CUOG-AstraZeneca Fellowship Award, Primary Author, Awardee Name: Colin Tang. Canadian Urology Oncology Group
  Total Amount: 5,000 CAD

PROVINCIAL / REGIONAL

Received

2013 Jan - 2013 Dec  2013 Applied Health Sciences Co-op Student of the Year. Supervisor, Awardee Name: Perakaa Sethukavalan. University of Waterloo, Ontario, Canada

LOCAL

Received

2013 Jul - 2014 Jun  Summer Student Program Poster Competition, 3rd Prize Evaluative Clinical Sciences, Primary Author, Awardee Name: Perakaa Sethukavalan. Sunnybrook Research Institute
  Total Amount: 200 CAD

2012 Aug - 2013 Jul  SRI poster competition, 3rd place, Supervisor, Awardee Name: Perakaa Sethukavalan. Sunnybrook Research Institute, Toronto, Ontario, Canada
  Research award for summer student for “Improved Wait Time Intervals for Prostate Cancer Patients in a Multi-Disciplinary Rapid Diagnostic Unit Compared to a Community-Based Referral Pattern”.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

  Member, American Society of Clinical Oncology
  Member, Canadian Association of Radiation Oncologists
  Member, Canadian Medical Association
  Member, Canadian Urologic Association
  Member, Canadian Urologic Oncology Group
  Member, Ontario Medical Association
Administrative Activities

INTERNATIONAL

Agency for Healthcare Research and Quality
2006 Apr - present  **Member**, Technical Expert Panel, Comparison of Local Therapies for Clinically Localized Prostate Cancer, United States.

American Society of Clinical Oncology
2012 Oct - present  **Co-Chair**, Genitourinary Guidelines Advisory Group, United States.
2004 - present  **Member**, Expert Panel, Management of Androgen-Resistant Recurrent or Metastatic Prostate Cancer, Health Services Committee, United States.
2004 - 2013  **Co-Chair**, Expert Panel, Management of Androgen-Resistant Recurrent or Metastatic Prostate Cancer, Health Services Committee, United States.
2002 - 2007  **Member**, Methodology Subcommittee, Health Services Committee
2002 - 2006  **Chair**, Writing Committee, Health Services Committee, United States.  
*Management of Androgen-Sensitive Recurrent or Metastatic Prostate Cancer.*
2002 - 2005  **Member**, Health Services Committee

AstraZeneca
2006 - 2007  **Member**, Global Speaking Bureau
2006  **Faculty**, Futurology 2006, Hamburg, Germany.

NATIONAL

Canadian Association of Radiation Oncology
2004 - 2007  **Co-Chair**, Symptom Control Research (SCORE) Awards
2003 - 2007  **Co-Chair**, Spinal Cord Compression Research Initiative
2003 - 2007  **Member**, Symptom Control Advisory Committee

Canadian Prostate Cancer Research Foundation
2004 Nov - 2005 Mar  **Member**, Scientific and Medical Advisory Committee

Canadian Urologic Oncology Group
2007 - present  **Member**, Executive, Canada.

Medical Career Services, Incorporated
2004 - 2013  **Co-Founder**, Ontario, Canada.
2004 - 2013  **Secretary**, Ontario, Canada.

National Cancer Institute of Canada
2007 - present  **Executive**, Genitourinary Site Group, Canada.
2007 - present  **Co-Chair**, Early Prostate Cancer Disease Oriented Group, Genitourinary Site Group, Canada.
2004 - present  **TSRCC Representative**, Genitourinary Site Group, Canada.
2003 - present  **Member**, Advanced Prostate Cancer Disease Oriented Group, Genitourinary Site Group, Canada.
2001 - present  **Member**, Early Prostate Cancer Disease Oriented Group, Genitourinary Site Group, Canada.
2003 - 2009 Co-Chair, Spinal Cord Compression Research Initiative

Prostate Cancer Canada
2012 Nov - present Member, Health Education Review Committee, Canada.
2009 Sep - 2012 Oct Member, Public and Patient Education Committee, Canada.

PROVINCIAL / REGIONAL

AstraZeneca
2010 Oct 6 Co-Organizer, New Insights 2010
2010 Oct 6 Co-Founder, New Insights 2010
2010 Oct 6 Co-Chair, New Insights 2010
Forty community and academic Urologists, Radiation and Medical Oncologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $10,000 educational grant obtained from AstraZeneca to run event.

2010 Apr 7 Co-Organizer, GU Conversations, Mississauga.
2010 Apr 7 Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 3 speakers, 20 hours of planning; $12,000 educational grant obtained from AstraZeneca to run event.

2009 Oct 6 Co-Organizer, New Insights into Old Controversies in Prostate Cancer
2009 Oct 6 Co-Chair, New Insights into Old Controversies in Prostate Cancer
Thirty community and academic Urologists, Radiation and Medical Oncologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $10,000 educational grant obtained from AstraZeneca to run event.

2009 Apr 8 Co-Organizer, GU Conversations, Mississauga.
2009 Apr 8 Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $15,000 educational grant obtained from AstraZeneca to run event.

2008 Oct 29 Co-Organizer, New Insights into Old Controversies in Prostate Cancer
2008 Oct 29 Co-Chair, New Insights into Old Controversies in Prostate Cancer
Fifty community and academic Urologists, Radiation Oncologists and Radiologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $15,500 educational grant obtained from AstraZeneca to run event.

2008 Apr 2 Co-Organizer, GU Conversations, Mississauga.
2008 Apr 2 Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $15,000 educational grant obtained from AstraZeneca to run event.

2007 Sep Co-Organizer, New Insights into Old Controversies in Prostate Cancer
2007 Sep Co-Chair, New Insights into Old Controversies in Prostate Cancer
Fifty community and academic Urologists, Radiation Oncologists and Radiologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $15,500 educational grant obtained from AstraZeneca to run event.

2007 Mar Co-Organizer, GU Conversations, Mississauga.
2007 Mar Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $8000 educational grant obtained from AstraZeneca to run event.

2006 Sep Co-Chair, New Insights into Old Controversies in Prostate Cancer
Fifty community and academic Urologists, Radiation Oncologists and Radiologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $8,500 educational grant obtained from AstraZeneca to run event.

2006 Sep  Co-Chair, New Insights into Old Controversies in Prostate Cancer
2006 Mar 29  Co-Organizer, GU Conversations, Mississauga.
2006 Mar 29  Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $8000 educational grant obtained from AstraZeneca to run event.

2005 Sep - 2009 Oct  Co-Founder, New Insights into Old Controversies in Prostate Cancer
2005 Sep  Co-Organizer, New Insights into Old Controversies in Prostate Cancer
2005 Sep  Co-Chair, New Insights into Old Controversies in Prostate Cancer
Fifty community and academic Urologists, Radiation Oncologists and Radiologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $8,500 educational grant obtained from AstraZeneca to run event.

2005 Mar 23  Co-Organizer, GU Conversations, Mississauga.
2005 Mar 23  Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $8000 educational grant obtained from AstraZeneca to run event.

2004 Mar 31  Co-Founder, GU Conversations, Mississauga.
Fifty community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $7000 educational grant obtained from AstraZeneca to run event.

2004 Mar 31  Co-Organizer, GU Conversations, Mississauga.
2004 Mar 31  Co-Chair, GU Conversations, Mississauga.
2003 Apr  Organizer, Urological Conversations, Toronto.
2003 Apr  Chair, Urological Conversations, Toronto.
Fifty community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $5000 educational grant obtained from AstraZeneca to run event.

2002 Apr  Organizer, Urological Conversations, Toronto.
2002 Apr  Chair, Urological Conversations, Toronto.
Fifty Radiation Oncologists and Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $5000 educational grant obtained from AstraZeneca to run event.

Cancer Care Ontario
2010 - present  Member, Prostate Disease Management Committee, Ontario, Canada.
2008 - present  Co-Chair, Provincial Genitourinary Disease Site Group, Program in Evidence Based Care, Ontario, Canada.
2004 - present  Member, Provincial Genitourinary Disease Site Group, Program in Evidence Based Care, Ontario, Canada.
2000 - 2004  Member, Provincial Neuro-Oncology Disease Site Group, Program in Evidence Based Care

Ontario Medical Association
2013 Dec 1 Radiation Oncology Executive, Ontario, Canada.
1997 - 2000  Resident Representative, Radiation Oncology Section, Toronto.

Professional Association of Resident and Interns of Ontario
1996 - 2000  Representative, General Council, Toronto.
1996 - 1997  Member, Human Physician Resources Committee, Toronto.
Sanofi-Aventis

2009 Sep 23  Co-Founder, Active Surveillance Educational Evening
2009 Sep 23  Organizer, Active Surveillance Educational Evening
2009 Sep 23  Chair, Active Surveillance Educational Evening

Thirty community and academic Urologists, Radiation Oncologists attended from around Ontario. Two-hour event, 3 speakers, 10 hours of planning. $4,000 educational grant obtained from Sanofi-Aventis to run event.

LOCAL

Odette Cancer Centre

2013 Oct - present  Chair, GU Site, Toronto, Ontario, Canada.
2011 Jul - present  Chair, GU Radiation Oncology Trials, Toronto, Ontario, Canada.
2008 - 2009  Head, Clinical Trials & Epidemiology
2007 - 2008  Acting Head, Clinical Trials & Epidemiology
2007 - 2008  Member, Clinical Trials Strategic Committee
2007  Deputy Chair, Clinical Trials & Epidemiology
2006 - 2009  Member, Clinical Trials Decision Making Working Group
2006 - 2009  Director, Radiation Oncology Research
2006 - 2009  Chair, Research Advisory Committee
2004 - 2006  Chair, Radiation Oncology Associates of the Toronto Sunnybrook Regional Cancer Centre
2002 - 2004  Site Director, Residency Program, (Toronto Sunnybrook Regional Cancer Centre), Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2000 - 2003  Advisor, HOTSPOT Newsletter, Rapid Response Radiotherapy Program

Queens University

1994 - 1995  Organizer, CARMS Mentor Program
1993 - 1994  Director, Corporate Finance, Queen’s Medical Outreach
1992 - 1993  Treasurer, Queen’s Medical Outreach
1992 - 1993  Vice President (Internal), Aesculapian Society
1992 - 1993  Chair, A. A. Traville Award Committee, Aesculapian Society
1992 - 1993  Chair, Aesculapian Award Committee, Aesculapian Society
1992  Chair, Orientation and Welcoming Week, Aesculapian Society
1992  Co-Producer, Medical Variety Night
1991 - 1992  Representative, Class of Medicine ‘95

University of Toronto

2000 - present  Research Director, Medical Advancement Steering Committee, Office of Student Affairs, Faculty of Medicine
1996 - present  Co-Chair, Medical Advancement Steering Committee, Office of Student Affairs, Faculty of Medicine
1999  Member, Internal Review Committee, Faculty of Medicine
Peer Review Activities

ASSOCIATE OR SECTION EDITING

Editor
2007 Jul - 2015 Jun 30 Clinical Oncology, Regional Editor, North America

EDITORIAL BOARDS

Member
2010 Jul - present J Supp Oncol

Member
2010 - present Journal of Supportive Oncology
Can J Urol (past)
Our Voice

Regional Editor, North America
2007 - present Clinical Oncology

MANUSCRIPT REVIEWS

Ad Hoc Reviewer
Ann Oncol
BMC Cancer
Br J Cancer
Can J Urol
Cancer
Clin Neurol Neurosurg
Clin Oncol
Eur Urol
Exp Rev Anticancer Ther
International Journal for Quality in Health Care
J Clin Oncol
J Supp Oncol
Lancet Oncol
Radiother Oncol
Spine

C. Academic Profile

1. RESEARCH STATEMENTS

Improving outcomes for men with prostate cancer.

2. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

1: Professional Interests
My research and clinical interest is to improve the outcomes of men with prostate cancer through the design and conduct of clinical trials and on the generation of clinical practice guidelines.
Using my formal training and expertise in clinical trial design, conduct and analysis, I have been awarded a number of grants investigating new radiotherapy techniques and hormonal maneuvers. The main thrust of my research was to document the feasibility, tolerability and efficacy of stereotactic ablative radiotherapy (SABR) using standard linear accelerators. Our group is among a few internationally who have been recognized for this paradigm-changing work. Since my last promotion, I am the PI or co-PI on 8 prospective clinical trials: 6 of which have peer-reviewed grants supporting them, 2 of them are randomized controlled trials and one of these is being performed in a multicentre study context.

The foundation of evidence-based medicine is the systematic review and the resultant clinical practice guideline (CPG). The latter is the clinical application of the data on a given topic and is represents the product most likely to represent the truth. As such, these CPGs are widely disseminated and are used for funding decisions and audits of quality of care. Since my last promotion, I have been invited to co-chair both Cancer Care Ontario’s Program in Evidence-Based Care Genitourinary Group and the American Society of Clinical Oncology’s Genitourinary Guidelines Advisory Group. I continue to lead guidelines for the management of androgen-sensitive prostate cancer, management of castrate-resistant prostate cancer and management of malignant spinal cord compression, of which prostate cancer patients are at greatest risk.

2: Impact
Our group has shown that 5 treatments of SABR can be iso-effective and iso-toxic compared to 38 treatments of external beam radiation for low-risk prostate cancer patients. Furthermore, we’ve shown that 33 fewer visits are more convenient for patients, save almost $2,000 in out-of-pocket costs, increase radiotherapy throughput by 7-fold and decrease per patient departmental costs by 80%. As a result, I have been awarded more peer-reviewed funding to further study and refine these approaches, including a national, multicentre, phase 2 randomized study; I have been invited to lead an international consortium on prostate SABR; and I have received various national and international speaking invitations to share our work and vision.

These guidelines have been published in high impact peer-reviewed journals and have led to setting and changing practice standards internationally. The work has been widely cited in top-named journals; I have been invited to speak, join committees and Editorial boards nationally and internationally. Furthermore, I have taken the lead on new questions arising from the work to further strengthen the evidence addressing these topics. An example of this is the multicentre, randomized study of early versus late androgen deprivation therapy (ELAAT). An example where a guideline in which I was senior author has a significant impact on patient and healthcare outcomes was the recent Cancer Care Ontario guideline on the use of low-dose rate brachytherapy. This conclusions of this guideline led to a Cancer Care Ontario funding decision, allow patients with intermediate-risk disease to have access to this highly effective (97% 5-year biochemical control) with only one outpatient treatment (compared to 16-39 treatments).

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS
PEER-REVIEWED GRANTS

FUNDDED

2016 Jul - 2020 Jun  Co-Principal Investigator. A phase III multi-centre open-label randomized controlled trial of multi-parametric magnetic resonance imaging (MRI)-targeted biopsy compared to systematic trans-rectal ultrasound (TRUS) guided biopsy for the diagnosis of prostate cancer in men without prior biopsy. Prostate Cancer Canada. Translation Acceleration Grant. PI: Klotz, L. Collaborator(s): Haider, M (co-PI), Loblaw, A (co-PI), Milot L, Earle C. 1,500,000 CAD. [Clinical Trials]


2016 Jul - 2017 Jun  Co-Principal Investigator. A phase III multi-centre open-label randomized controlled trial of
multi-parametric magnetic resonance imaging (MRI)-targeted biopsy compared to systematic trans-rectal ultrasound (TRUS) guided biopsy for the diagnosis of prostate cancer in men without prior biopsy. OICR. Clinical Trial Initiative. PI: Klotz, L. Collaborator(s): Haider, M (co-PI), Loblaw, A (co-PI), Milot L, Earle C. 519,399 CAD. [Clinical Trials]

Phase 1/2 study.

Phase 1/2 study.


Phase 2 single institutional study.

Phase 2 study.

Phase 2 study.

Phase 2 study.

phase 2 multicentre study of SBRT for high risk prostate patients.

2013 Jun - 2020 Jun  Co-Principal Investigator. A Randomized Phase II Trial of High Dose-Rate Brachytherapy as Monotherapy in Low and Intermediate Risk Prostate Cancer. abbvie-ACURA Award. PI: Morton, Gerard. Collaborator(s): Loblaw, Andrew; Chung, Hans; Cheung, Patrick, Ravi, Ananth; Nam, Robert. 30,000 CAD. [Clinical Trials]


2011 - 2013  Principal Investigator. Nomogram predicting the 7-year biochemical disease free survival after external beam radiation therapy (EBRT) and androgen deprivation therapy (ADT) for high risk prostate cancer patients. CASARIA. Collaborator(s): D’Souza N, Loblaw DA (SRA), Cheung P, Kattan M. 12,000 CAD. [Grants]


2010 - 2011 **Principal Investigator.** Assessing the Radiosensitizing Capacity of Capsaicin. RACZER. Award. Collaborator(s): Loblaw DA (CPI), Venkatesawaran V, Klotz L, Venier N, Colquhoun A, Fleshner N. 25,500 CAD. [Grants]

2010 - 2011 **Co-Investigator.** Integration of MRI into Prostate Radiotherapy. Motorcycle Ride for Dad. Collaborator(s): Chu W, Loblaw DA (C), Cheung P, Quon H, Haider M, Stanicz G, Cunningham C. 39,000 CAD. [Grants]

2009 - 2010 **Principal Investigator.** Matched control-analysis of salvage prostatectomy (SP) versus salvage radiotherapy (SRT) for T1 or T2 low or intermediate risk prostate cancer. CUOG. Research Award. Collaborator(s): Quon H, Loblaw DA (SRA). 12,500 CAD. [Grants]


2009 **Principal Investigator.** Matched control-analysis of salvage prostatectomy (SP) versus salvage radiotherapy (SRT) for T1 or T2 low or intermediate risk prostate cancer. Canadian Radiation Oncology Foundation. Fellowship Grant. Collaborator(s): Quon H, Loblaw DA (SRA). 5,000 CAD. [Grants]


2007 - 2008 **Principal Investigator.** The role of bound prostate specific antigen in predicting risk of progression in the active surveillance population with low risk localized prostate cancer. CUOG-AstraZeneca. Fellowship Award. Collaborator(s): Tang C, Loblaw DA (SRA), Klotz L. 9,940 CAD. [Grants]


**NON-PEER-REVIEWED GRANTS**

**FUNDED**


2010  **Principal Investigator.** Educational grant for CME event, GU Conversations, Mississauga,
2010


2009

**Principal Investigator.** Educational grant for CME event, GU Conversations, Mississauga, April 8, 2009. AstraZeneca. Collaborator(s): Dayes I. 15,000 CAD. [Grants]

2009


2009


2009

**Principal Investigator.** Educational grant for CME event, Future Directions of University of Toronto Radiation Oncology Research, Toronto, Oct 8, 2009. AstraZeneca. Collaborator(s): Catton C. 4,000 CAD. [Grants]

2008

**Principal Investigator.** Educational grant for CME event, GU Conversations, Mississauga, April 2, 2008. AstraZeneca. Collaborator(s): Dayes I. 15,000 CAD. [Grants]

2008


2008

**Principal Investigator.** Educational grant for CME event, Future Directions of University of Toronto Radiation Oncology Research, Toronto, Nov 27, 2008. AstraZeneca. Collaborator(s): Catton C. 6,000 CAD. [Grants]

2007 - 2015


2007 - 2008


2007

**Principal Investigator.** Educational grant for CME event, GU Conversations, Mississauga, March 28, 2007. AstraZeneca. Collaborator(s): Dayes I. 15,000 CAD. [Grants]

2007


2006 - 2020


2006  **Principal Investigator.** Educational grant for CME event. GU Conversations, Mississauga, March 29, 2006. AstraZeneca. Collaborator(s): Dayes I. 8,000 CAD. [Grants]


2003  **Principal Investigator.** Educational grant for CME event, Urological Conversations, April 2003. AstraZeneca. 5,000 CAD. [Grants]

2002 - 2006  **Principal Investigator.** Prevention of neurologic sequelae from malignant spinal cord compression: development and testing of a tailored educational intervention and comprehension questionnaire. Aventis Pharmaceuticals. Collaborator(s): **Loblaw DA**, Bezjak A. 10,000 CAD. [Grants]


2. SALARY SUPPORT AND OTHER FUNDING

Personal Salary Support


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   Based on a systematic review of the literature led by Dr. Loblaw, this clinical practice guideline makes recommendations on the use of systemic therapies for men with castrate resistant prostate cancer. This will help refine current practice and set practice standards in North America and globally.


   This reports our group’s 5-year prospective phase I/II experience with stereotactic ablative radiotherapy for low-risk prostate cancer. It is the only series to only use standard linear accelerators and one of the largest and longest series reported to date of SABR for prostate cancer. 12 citations (Google Scholar Aug 2014).

Evidence-based medicine lies in the centre of high-quality provision of care. However, there are many areas where there exists uncertainty and limited evidence where traditional systematic reviews of the literature cannot be performed. This methodologic paper describes ASCO’s development of guidelines on topics for which limited evidence is available by using a formal consensus process. 17 citations (Google Scholar Aug 2014).


This reports our group’s early phase I/II experience with stereotactic ablative radiotherapy for low-risk prostate cancer. It is the only series to only use standard linear accelerators and one of the largest and longest series reported to date of SABR for prostate cancer. 45 citations (Google Scholar Aug 2014).


This work systematically identified, collected and synthesized the evidence on the initial use of androgen deprivation for defined groups of men with prostate cancer. This refined current practice, particularly surrounding the issue of bicalutamide combined androgen blockade and the timing of androgen deprivation therapy for the disease population. 336 citations (Google Scholar Aug 2014).


This work systematically identified, collected and synthesized the evidence on the management of malignant spinal cord compression. This is an update of one of the first evidence-based guidelines produced on this topic (created by the author) and further refined current practices, particularly surrounding the role of surgery versus radiotherapy. 240 citations (Google Scholar Mar 2015).


This work systematically identified, collected and synthesized the evidence on the initial use of androgen deprivation for defined groups of men with prostate cancer. This refined current practices but also identified gaps in research knowledge to focus future research efforts. 182 citations (Google Scholar Mar 2015).


This was the first population-based study of malignant spinal cord compression (MSCC) published. This work reported the risk of MSCC in the last five years of life and set the stage for risk-based interventions to prevent the neurologic sequelae of MSCC. 193 citations (Google Scholar Mar 2015).

This was the first outpatient satisfaction with physician questionnaire. It was short, clear and demonstrated strong reliability and validity testing. 88 Citations (Google Scholar Mar 2015).


This work systematically identified, collected and synthesized the evidence on the management of malignant spinal cord compression. This was the first evidence-based guideline of malignant spinal cord compression (MSCC) published in the literature. Google Scholar (Mar 2015): 356 citations.

## 2. PEER-REVIEWED PUBLICATIONS

### Journal Articles


45. Sethukavalan P, Zhang L, Jethava V, Stevens C, Flax S, Buckley R, Bonyd S, **Loblaw A**. Improved Wait Time Intervals for Prostate Cancer Patients in a Multi-Disciplinary Rapid Diagnostic Unit Compared to a Community-Based Referral Pattern. Cdn Urol Assoc J. 2013;7(7-8):244-50. **Senior Responsible Author.**


Douglas Andrew Burr LOBLAW


54. Young S, Bansa P, Vella E, Finelli A, Levitt C, **Loblaw A**, and the Prostate Cancer Referral Expert Panel. Referral of Suspected Prostate Cancer by Family Physicians and Other Primary Care Providers. EBS 24-3. CancerCare Ontario guidelines. **Coauthor or Collaborator**.


60. **Loblaw DA**. The Overuse of Intensity-modulated Radiotherapy and the Role of the Healthcare Payer. Clin Oncol (R Coll Radiol). 2012 Sep;24(7):459-60. **Principal Author**.


65. **Loblaw DA**. Be it resolved that in the modern era, the best method for dose escalation is brachytherapy: The con position. Can Urol Assoc J. 2012 Jun;6(3):199-201. **Principal Author**.


84. **Loblaw DA.** A New Dawn in Prostate Cancer Management: Do We Have the Trials to Support it? CUAJ. 2011 Jun;5(3):180-1. **Principal Author.**


90. Jankovic B, **Nam R,** **Loblaw DA.** Capsaicin May Slow PSA Doubling Time: Case Report And Literature Review. CUAJ. 2010 Feb;4(1):9-11. **Senior Responsible Author.**


Books Edited


Book Chapters


Clinical Care Guidelines


Conference Publications


**Comment, Journal Article**


3. **NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Douglas Andrew Burr LOBLAW


Books


**Books Edited**


**Book Chapters**


9. **Loblaw DA**, Enright K, McWhirter E. Malignant spinal cord compression. In: TSRCC breast site group treatment policies, ed, Clemons M, Toronto Sunnybrook Regional Cancer Center, Toronto; 2003. **Principal Author.**


Letters to Editor


In Preparation


4. SUBMITTED PUBLICATIONS

Journal Articles


**F. Presentations and Special Lectures**

1. **INTERNATIONAL**

**Invited Lectures and Presentations**

2014 Jun 26 **Visiting Professor**. Image-Guided Diagnosis and Treatment: The Future of Prostate Cancer Care has Arrived. Queen’s University. Belfast, Belfast, United Kingdom. Presenter(s): **Loblaw A**.

2014 Jun 26 **Keynote Speaker**. Update in the Management of Prostate Cancer for the Clinical Oncologist. Janssen UK. Belfast, Belfast, United Kingdom. Presenter(s): **Loblaw A**.


2014 Mar 28 **Invited Speaker**. SBRT Techniques for treating Prostate Cancer. Elekta Next Meeting. Dallas, Texas, United States. Presenter(s): **Loblaw A**.

2011 Oct 4 Active Surveillance for Low Risk Prostate Cancer: Recent Data and Future Directions. European School of Oncology. Milan. (Continuing Education).

2011 Jul 7 **Visiting Professor**. Rationale and Feasibility of Focal Therapy for Localized Prostate Cancer. Division of Urology, Munich University. Munich, Germany. July 7 – 8, 2011.

2010 Nov 22 **Visiting Professor**. Active Surveillance and Lifestyle / Dietary interventions. Grand Rounds, Peter MacCallum Cancer Centre, University of Melbourne. Melbourne, Australia. (Continuing Education).

2010 Nov 22 **Visiting Professor**. Radiobiology for residents. Peter MacCallum Cancer Centre, University of Melbourne. Melbourne, Australia.

2010 Nov 17 **Visiting Professor**. Hypofractionation in prostate cancer. Calvary Mater Hospital, University of Newcastle. Newcastle, Australia. (Continuing Education).

2010 Nov 17 **Visiting Professor**. Radiobiology for residents. Calvary Mater Hospital, University of Newcastle. Newcastle, Australia.

2010 Nov 17 **Visiting Professor**. Active Surveillance: current approaches and future directions. Calvary Mater Hospital, University of Newcastle. Newcastle, Australia. (Continuing Education).

2010 Nov 16 **Visiting Professor**. Salvage Therapy in Prostate Cancer. Calvary Mater Hospital, University of Newcastle. Newcastle, Australia. (Continuing Education).


2010 Feb 20 **Invited Panelist.** Be it resolved that the recent screening trials validate that prostate cancer screening adds significant value to health care. Issues & Controversies in Prostate Care. Las Vegas, United States. (60 attendees). (Continuing Education).


2007 Nov 6 **Invited Speaker.** Ongoing Controversies in Androgen Deprivation Therapy for Prostate Cancer. Slovenia Urologic Congress. Ljubljana, Slovenia. (50 attendees). (Continuing Education).

2007 Nov 6 **Invited Speaker.** Ongoing Controversies in Androgen Deprivation Therapy for Prostate Cancer. Slovenia Urologic Congress. Ljubljana, Slovenia. (50 attendees). (Continuing Education).


**Presented Abstracts**

2013 Sep 23 **Senior Responsible Author.** Comparison of Biochemical and Toxicity Outcomes from a Contemporaneous Cohort Study of Low-Risk Prostate Cancer Treated with Different Radiation Techniques. ASTRO. Atlanta, Georgia, United States. Presenter(s): Sethukavalan P. abstract# 2121. (Trainee Presentation).

2012 Oct 31 **Senior Responsible Author.** Dose Escalation of Five-Fraction Radiotherapy for Prostate Cancer: Quality of Life Comparison of Two Prospective Trials. ASTRO. Boston, Massachusetts, United States. Presenter(s): Andrew Loblaw. (Trainee Presentation).


**2008 Nov 20**  

**2008**  

**2008**  

**2007**  

**2007**  

**2007**  

**2006 May**  
Modeling prostate specific antigen (PSA) kinetics in prostate cancer patients during surveillance. Statistical Society Annual Conference. London. Zhang L, **Loblaw DA**, Klotz L.

**2006 Feb**  
Updated Follow-up of Active Surveillance with Selected Delayed Intervention for Localized Prostate Cancer. ASCO / AUA / SUO Prostate Cancer Symposium. San Francisco. (500 attendees). (Continuing Education).

**2006**  

**2005**  

**2004**  

**2003 Sep**  

**1999 Nov**  

**1998 May**  

Presented and Published Abstracts

2016 Jan 8  Co-author. Early toxicity in a randomized trial of high dose-rate (HDR) brachytherapy as monotherapy for low- and intermediate-risk prostate cancer. GU Cancer Symposium. San Francisco, California, United States. Presenter(s): Morton G.

Publication Details:

2016 Jan 8  Co-author. MRI response to focal salvage HDR prostate brachytherapy for locally recurrent prostate cancer after external-beam radiotherapy. GU Cancer Symposium. San Francisco, California, United States. Presenter(s): Chung HT.

Publication Details:

2016 Jan 8  Senior Responsible Authors. Phase I/II study of stereotactic ablative radiotherapy including regional lymph node irradiation for patients with high-risk prostate cancer (SATURN): Early results. GU Cancer Symposium. San Francisco, California, United States. Presenter(s): Musunuru HB. (Trainee Presentation)

Publication Details:

2016 Jan 8  Senior Responsible Authors. Predictive parameters of symptomatic haematochezia following 5-fraction gantry-based SABR in prostate cancer. GU Cancer Symposium. San Francisco, California, United States. Presenter(s): Musunuru HB. (Trainee Presentation)

Publication Details:

2015 Oct  Two Stereotactic Ablative Radiotherapy Treatments (2STAR) for Localized Prostate Cancer: Feasibility and Early Results. American Society for Therapeutic Radiology and Oncology. United States. (Trainee Presentation)

Publication Details:

Publication Details:

Coauthor or Collaborator.

2015 Oct


Publication Details:

2015 Oct


Publication Details:

2015 Oct


Publication Details:

Media Appearances

2013 Feb 27


2007 Apr 18

People Living With Cancer. ASCO. http://www.plwc.org/portal/site/PLWC/menuitem.169f5d85214941ccfd74f68ee37a01d/?vgnextoid=33d24 1eca8daa010VgnVCM100000ed730ad1RCRD.

2. NATIONAL

Invited Lectures and Presentations

2015 Nov 21

Invited Speaker. Improving patient care collaboratively – A multidisciplinary formal consensus based
patient information guide. GUROC. Toronto, Ontario, Canada. (Continuing Education).


2015 Nov 11 Invited Speaker. What’s the Best Ablative Treatment for Localized Prostate Cancer? AbbVie. Montreal, Quebec, Canada. (Continuing Education).


2013 Mar 8 Be it resolved that in the modern era, the best method for dose escalation is brachytherapy. Issues and Controversies in Prostate Care. Whistler. (Continuing Education).

2012 Mar 10 Be it resolved that men with locally advanced prostate cancer are under treated and the breast cancer model of sequential therapy should be applied. Issues and Controversies in Prostate Care. Whistler. (Continuing Education).

2012 Mar 9 Adjuvant Radiation in High Risk Disease – It’s not whether you need it, it’s in whom you recommend it. Issues and Controversies in Prostate Care. Whistler. (Continuing Education).


2011 Feb 23 Radiation Trials Update. Prostate Cancer Consultant Meeting. Whistler. (Continuing Education).


Presented Abstracts

2009 Oct Presenter. Active Surveillance with Selected Delayed Intervention for Localized Prostate Cancer: Outcomes after 13 Years of Follow-up. CARO Annual Scientific Meeting. Quebec City. (Continuing Education).

2009 Phase 2 study evaluating post-operative radiotherapy (RT) plus 2-year androgen suppression (AS) for
post-radical prostatectomy patients with pt3 and/or positive surgical margins. 22nd CARO Annual Scientific Meeting. Choo R, Danjoux C, Gardner S, Morton G, Szumacher E, Loblaw A, Cheung P, Pearse M.

2009 The dosimetric significance of catheter displacement in prostate high dose rate (HDR) brachytherapy. 22nd CARO Annual Scientific Meeting. Solliman H, Sankreacha R, Hunt D, Loblaw D, Morton G.


2002 Oct Lessons learned from an electronic database comparison and chart reabstraction audit of a population-based, linked administrative database. Canadian Association of Radiation Oncology Annual Meeting. Toronto. (Continuing Education).


Presented and Published Abstracts

2017 Apr 1  Presenter. FIGHTING PROSTATE CANCER WITH OUR EYES OPEN: IMPACT OF MRI STAGING ON RISK ASSESSMENT AND RADIATION THERAPY. Canadian Association of Radiation Oncologists (CARO). Banff, Alberta, Canada. Presenter(s): Carmen Ji. abstract 116. (Trainee Presentation)

Publication Details:
FIGHTING PROSTATE CANCER WITH OUR EYES OPEN: IMPACT OF MRI STAGING ON RISK ASSESSMENT AND RADIATION THERAPY. Senior Responsible Author.


Publication Details:


Publication Details:


Publication Details:
Quality of Life (QOL) and Toxicity Outcomes of a Pilot Study of Focal Salvage High Dose Rate (HDR) Prostate Brachytherapy in Patients with Local Recurrence after Definitive External-Beam Radiotherapy (XRT). Radiotherapy and Oncology. 2015 Sep;116(Supp 1):S26.

2015 Sep **Co-Author or Collaborator.** High Dose Rate Brachytherapy for Localized Prostate Cancer: Is There an Optimal Implant? Canadian Association of Radiation Oncologists (CARO). Presenter(s): Helou J, Morton G, Davidson M, Chung H, **Loblaw A**, D’Alimonte L, Ravi A. Poster Presentation
Abstract 103.

Publication Details:

Abstract 140.

Publication Details:

2015 Sep **Presenter.** Testosterone Flare in Patients with High-Risk Localized Prostate Cancer Receiving Luteining Hormone Releasing Hormone Agonists in a Prospective Non-Randomized Clinical Trial. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Musunuru HB, Klotz L, Vesprini D, Zhang L, Sethukavalan P, Mamedov A, Jethava V, Jain S, Tamamoto T, **Loblaw A**. Poster Presentation
Abstract 141.

Publication Details:
Musunuru HB, Klotz L, Vesprini D, Zhang L, Sethukavalan P, Mamedov A, Jethava V, Jain S, Tamamoto T, **Loblaw A**. Testosterone Flare in Patients with High-Risk Localized Prostate Cancer Receiving Luteining Hormone Releasing Hormone Agonists in a Prospective Non-Randomized Clinical Trial. Radiotherapy and Oncology. 2015 Sep;116(Supp 1):S51. **Principal Author.**

**Lectures and Other Presentations**


## 3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**

2014 Apr 11 **Visiting Professor.** Advancements in the Management of Metastatic Prostate Cancer. Northeastern Ontario Regional Cancer Centre. Sudbury, Ontario, Canada. Presenter(s): **Loblaw A**.

2014 Apr 10 **Visiting Professor.** What’s New in GU? Sudbury Uro-Oncology. Sudbury, Ontario, Canada. Presenter(s): **Loblaw A**.

2013 Apr 15 **Invited Speaker.** Improving Patient Care with a Multidisciplinary, Rapid Diagnosis Prostate Centre. Niagara Urology Group. Niagara Falls, Ontario, Canada. Presenter(s): **Loblaw A**.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Location</th>
<th>Presenter(s)</th>
</tr>
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<tbody>
<tr>
<td>2013 Mar 27</td>
<td><strong>Visiting Professor.</strong> Doing More with Less in Prostate Cancer. Ottawa Regional Cancer Centre. Ottawa, Ontario, Canada.</td>
<td>Presenter(s): Loblaw A.</td>
<td></td>
</tr>
<tr>
<td>2013 Mar 26</td>
<td><strong>Visiting Professor.</strong> When will SBRT be the new standard treatment for prostate cancer? Ottawa Regional Cancer Centre. Ottawa, Ontario, Canada.</td>
<td>Presenter(s): Loblaw A.</td>
<td></td>
</tr>
<tr>
<td>2012 Jan 18</td>
<td><strong>Invited Speaker.</strong> Improving Prostate Outcomes, Treatment Capacity and Cost through Biological Dose Escalation. GU Disease Site Team Meeting. London, Ontario.</td>
<td>Presenter(s): Loblaw A.</td>
<td></td>
</tr>
<tr>
<td>2010 Sep 20</td>
<td><strong>Invited Speaker.</strong> Prostate Cancer Clinic: A Care Model. University of Western Ontario Fall Review in Uro-Oncology. Niagara-on-the-Lake, Ontario, Canada.</td>
<td>Presenter(s): Loblaw A.</td>
<td>(Continuing Education)</td>
</tr>
<tr>
<td>2008 Apr 3</td>
<td><strong>Invited Speaker.</strong> Prostate Radiotherapy &amp; Salvage Therapies. Quebec Radiation Oncology Forum. Montreal, Quebec. (30 attendees).</td>
<td>Presenter(s): Loblaw A.</td>
<td>(Continuing Education)</td>
</tr>
<tr>
<td>2006 Sep 19</td>
<td>Ongoing Controversies in Androgen Deprivation Therapy for Prostate Cancer. Ottawa, Ontario.</td>
<td>Presenter(s): Loblaw A.</td>
<td></td>
</tr>
<tr>
<td>2006 Jun 22</td>
<td><strong>Visiting Professor.</strong> The Optimal Timing of Androgen Deprivation Therapy for Recurrent Prostate Cancer after Radical Radiotherapy. Sudbury, Ontario. (20 attendees).</td>
<td>Presenter(s): Loblaw A.</td>
<td>(Continuing Education)</td>
</tr>
<tr>
<td>2006 Mar 29</td>
<td><strong>Speaker.</strong> The Optimal Timing of Androgen Deprivation Therapy for Recurrent Prostate Cancer after Radical Radiotherapy. GU Conversations. Toronto, Ontario.</td>
<td>Presenter(s): Loblaw A.</td>
<td>(Continuing Education)</td>
</tr>
<tr>
<td>2003 Nov</td>
<td>Residency selection made ridiculously simple. Ontario Medical Student Weekend. Huntsville, Ontario.</td>
<td>Presenter(s): Loblaw A.</td>
<td></td>
</tr>
<tr>
<td>2003 May</td>
<td><strong>Invited Speaker.</strong> Residency selection made ridiculously simple. School of Medicine, McMaster University. Hamilton, Ontario. Lecturer to 200 medical students from McMaster.</td>
<td>Presenter(s): Loblaw A.</td>
<td></td>
</tr>
<tr>
<td>2002 Oct</td>
<td><strong>Invited Speaker.</strong> Taking control of your future medical career. Ontario Medical Student Weekend. Toronto, Ontario. Lecturer for two 2-hour presentations of approximately 50 medical students from around</td>
<td>Presenter(s): Loblaw A.</td>
<td></td>
</tr>
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Ontario.


Presented Abstracts


Lectures and Other Presentations


2009 Sep 23  **Speaker.** Active Surveillance Educational Evening. (30 attendees). (Continuing Education).


2008 Jun 20  **Visiting Professor.** Defining The Optimal Timing Of Androgen Deprivation Therapy For Recurrent Prostate Cancer After Radical Radiation - The ELAAT Trial. GU Rounds, Kingston Regional Cancer Center. Kingston. (Continuing Education).


2007 Mar  **Speaker.** GU Conversations. Mississauga. (Continuing Education).

2006 Jun 23  **Visiting Professor.** ASCO Update on the Initial Androgen Treatment for Progressive, Metastatic or Recurrent Prostate Cancer. Oncology Grand Rounds, North East Ontario Regional Cancer Centre. (40 attendees). (Continuing Education).

2006  **Visiting Professor.** The Optimal Timing of Androgen Deprivation Therapy for Recurrent Prostate Cancer After Radical Radiotherapy. Sudbury.


4. LOCAL

Invited Lectures and Presentations

2013 Apr 9  Invited Speaker. When will SBRT be the new standard treatment for prostate cancer? Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Loblaw A.


2011 Dec 14  Invited Speaker. What is New in Prostate Cancer Management? Medical Grand Rounds, Women’s College Hospital. (Continuing Education).


2011 Apr 28  Radiation and hormones should be the standard of care for high risk localized prostate cancer. Toronto Urology Rounds. Toronto. (Continuing Education).

2011 Apr 28  The Value of Biological Dose Escalation in Prostate Cancer. Department of Radiation Oncology Rounds, University of Toronto. Toronto. (Continuing Education).


2005 Mar  Taking Control of Your Future Medical Career. 3rd Year Medicine, University of Toronto. Toronto, Ontario.

2004 Nov  Management of pathological fractures and spinal cord compression in palliative care. The Science and Art
of Pain and Symptom Management, University of Toronto. Toronto, Ontario. (100 attendees). (Continuing Education).


Presented Abstracts


Lectures and Other Presentations

2008 Apr 16 What Is Active Surveillance and is it the Best Management Option for my Prostate Cancer? Sunnybrook Speaking Series. (300 attendees). (Presentation to Patients/Public).

5. OTHER

Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Undergraduate MD

2011 Jul - 2012 Jun  Primary Supervisor. Andrew Chiang. 5 Alpha-Reductase Inhibitors in Men on Active Surveillance.

Postgraduate MD

2009 Jul - 2010 Jun  Primary Supervisor. Harvey Quon. Sequencing of Treatment Modalities for Localized Prostate Cancer after Recurrence. Awards: CUOG-AstraZeneca Award and Cdn Radiation Oncol Foundation Travel Award obtained for work.
2006 Jul - 2009 Jun  Primary Supervisor. Colin Tang. The Role of Bound Prostate Specific Antigen in Predicting
Risk of Progression in the Active Surveillance Population with Low Risk Localized Prostate Cancer. Awards: CUOG-AstraZeneca Fellowship Award.


2. OTHER SUPERVISION

Graduate Education

External Reviewer

H. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2013 Jul 1 - present  Improving Outcomes through Clinical Trials for Men with Prostate Cancer. Using my formal training and expertise in clinical trial design, conduct and analysis, I have been awarded a number of research grants investigating new radiotherapy techniques and hormonal maneuvers. The main thrust of my research work was to document the feasibility, tolerability and efficacy of stereotactic ablative radiotherapy (SABR) using standard linear accelerators. Our group is among a few internationally who have been recognized for this paradigm-changing work. Since my last promotion, I am the PI or co-PI on 8 prospective clinical trials: 6 of which have peer-reviewed grants supporting them, 2 of them are randomized controlled trials and one of these is being performed in a multicentre study context. We’ve shown that 5 treatments of SABR can be iso-effective and iso-toxic compared to 38 treatments of external beam radiation for low-risk prostate cancer patients. Furthermore, our group has shown that 33 fewer visits is more convenient for patients, saves that almost $2,000 in out-of-pocket costs, increases radiotherapy throughput by 7-fold and decreases per patient departmental costs by 80%. As a result, I have been awarded more peer-reviewed funding to further study and refine these approaches, including a national, multicentre, phase 2 randomized study; I have been invited to lead an international consortium on prostate SBRT; and I have received various national and international speaking invitations to share our work and vision.

2000 Aug - 2007 Jun  Medical Career Guidance Summary. Career selection is the single most stressful factor in medical students’ lives. Despite this, there was no nationally available career guidance program to address the students’ needs. When I moved to Toronto in 1995 to begin my residency, I co-founded the Medical Advancement Steering Committee (MASC), to address an unmet need for career guidance for the University of Toronto medical students. My Office of Student Affairs colleagues and I hired a project coordinator to develop a University of Toronto guide that was published in 1998 after securing sponsorship from the Canadian Medical Association and MD Management.
My role continued after I became Staff at the Toronto Sunnybrook Regional Cancer Center (now Odette Cancer Centre). Responding to numerous emails and verbal requests for the University of Toronto guide, MASC hired a series of project coordinators to develop a handbook that address the career needs of Canadian medical students. Included in the work were focus groups with students to identify their specific needs; developing and administering questionnaires for Program Directors about aspects of candidates that were highest regarded; engaging and coordinating a legion of medical student volunteers to write the specific book chapters on every direct entry residency program available in Canada; partnering with CaRMS to reproduce vital match statistics and Program Director Surveys; and performing exit interviews with graduating medical students on strategies they found most valuable in the CaRMS Match. In February 2001, we released the second edition of Taking Control of Your Future Medical Career, again with sponsorship from the CMA and MD Management.

MASC provided a copy to every English-speaking senior medical student in Canada distributed by the Canadian Federation of Medical Students (CFMS) and have sold over 1500 additional copies of the 2nd edition. As a result, I have been invited to present at the 2002 and 2003 Ontario Medical Student Weekends as well as at several universities.

I gained approval to survey Ontario Postgraduate Medical Residency Directors in 2003, hired a student to perform the work and oversaw data collection and analysis.

In 2004, two medical residents and I incorporated Medical Career Services, Inc (MCSI), on which I currently serve on the Board of Directors as Secretary and Director of Research. The objectives of MCSI are to produce high-quality research required for medical student career decision-making; to disseminate this data through lectures, web and print-based media; to provide consultation to medical schools on career decision-making resources and programs; and to liaise with financial partners and students to augment student financial knowledge and security.

MCSI partnered with RBC Insurance to produce the 3rd edition. I was Editor-in-Chief of this edition of which 2000 copies were printed in January 2005. Significant improvements were made to this edition in terms of layout, graphics, content and comprehensiveness of data. Most notable is that all Residency Program data were reviewed and approved by the respective Program Directors and their Postgraduate Medical Education Deans. Again, a copy was provided free to every English-speaking senior medical student in Canada distributed by CFMS representatives and all additional copies have been sold, some to students from the United States, Israel and Saudi Arabia.

I stepped down as Editor-in-Chief for the 4th edition, but remained on the Editorial Board. Data was updated and most significantly this edition was published in English and French in August 2006. A free copy has been provided to every senior medical student in Canada. Sales of the other copies are ongoing.

A website (www.medcareerservices.com) has been developed (currently under construction) and a national speaking series on career and financial planning for medical students has been established.

2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2013 Jul - present Improving the Quality of Care for Prostate Cancer.

The foundation of evidence-based medicine is the systematic review and the resultant clinical practice guideline (CPG). The latter is the clinical application of the data on a given topic and is represents the product most likely to represent the truth. As such, these CPGs are widely disseminated and are used for funding decisions and audits of quality of care. Since my last promotion, I have been invited to co-chair both CancerCare Ontario’s Program in Evidence-Based Care Genitourinary Group and the American Society of Clinical Oncology’s Genitourinary Guidelines Advisory Group. I continue to lead guidelines for the management of androgen-sensitive prostate cancer, management of castrate-resistant prostate cancer and management of malignant spinal cord compression, of which prostate cancer patients are at greatest risk.

These guidelines have been published in peer-reviewed journals of international stature and
have led to setting and changing practice standards internationally. The work has been widely cited in top-named journals; I have been invited to speak, join committees and Editorial boards nationally and internationally. Furthermore, I have taken the lead on new research questions arising from the work to further strengthen the evidence addressing these topics. An example of this is the multicentre, randomized study of early versus late androgen deprivation therapy (ELAAT). An example where a guideline in which I was senior author has a significant impact on patient and healthcare outcomes was the recent CancerCare Ontario guideline on the use of low-dose rate brachytherapy. This conclusions of this guideline led to a CancerCare Ontario funding decision, allow patients with intermediate-risk disease to have access to this highly effective (97% 5-year biochemical control) with only one outpatient treatment (compared to 16-39 treatments).
Curriculum Vitae

Lee Manchul
MD, MHPE, FRPC

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

Primary Office
Princess Margaret Hospital/University Health Network
Department of Radiation Oncology
610 University Ave
Toronto, Ontario, Canada
MSG 2M9
Telephone 416-946-2963
Email lee.manchul@rmp.uhn.on.ca

1. EDUCATION

Degrees
2002 MHPE, University of Chicago, Chicago, Illinois, United States
1983 MD, University of Toronto, Toronto, Ontario, Canada
1974 BSc, Honours, University of Toronto, Toronto, Ontario, Canada
Victoria Park Secondary School, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1985 Jul - 1988 Jun Radiation Oncology

Qualifications, Certifications and Licenses
1989 - present Fellow, Royal College of Physicians and Surgeons of Canada
1983 - present Licentiate, Medical Council of Canada, License / Membership #: CPSO 52635

2. EMPLOYMENT

Current Appointments
1992 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1990 - present Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1990 - present Courtesy Consultant, Credit Valley Hospital, Toronto, Ontario, Canada
1990 - present Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2000 - 2002 AMS/Wilson Senior Fellowship, Associated Medical Services. (Distinction)

PROVINCIAL / REGIONAL
Received
1970 Ontario Scholar, Government of Ontario. (Distinction)

LOCAL
Received
2003 MHPE Best Thesis Award, University of Illinois at Chicago. (Distinction)
1970 David Fear Fellowship in Continuing Education, University of Toronto. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, Alliance for Continuing Medical Education
Member, American Association for Cancer Education
Member, Association of American Medical Colleges
Member, Canadian Association of Medical Education
Member, Canadian Association of Radiation Oncologists
Member, College of Physicians and Surgeons of Ontario
Member, Northeast Group on Educational Affairs
Member, Ontario Medical Association
Member, Royal College of Physicians and Surgeons of Canada
Member, Society for Academic Continuing Medical Education
Member, University of Toronto Joint Centre for Bioethics

Administrative Activities

INTERNATIONAL
Other Organizations
2003 Member, Organizing committee “Advances in Breast Cancer: From Molecular Pathology and Imaging to Therapeutics” given June 20, 2003.

Association of American Medical Colleges
Lee MANCHUL

2011 - present  **Chair**, Northeast Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology
2006 - present  **Section leader**, Continuing Medical Education, Northeast Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2009 - 2011  **Chair Elect**, Northeast Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology
2004 - 2006  **Chair**, Continuing Medical Education Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2004 - 2006  **Chair**, CME Section, Group on Educational Affairs, Continuing Education
2003 - 2004  **Chair Elect**, CME Group on Educational Affairs, Continuing Education
2002 - 2004  **Chair Elect**, Steering Committee, CME Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

Northeast Group on Educational Affairs
2006 - 2008  **Chair**, CME Section, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

Society for Academic Continuing Medical Education
2003 - present  **Chair**, Education Research Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2002 - present  **Member**, Research Endowment Council, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2001 - present  **Member**, Organizing Committee, Fall and Spring meetings
2003 - 2004  **Chair**, Research Committee
2001 - 2002  **Vice Chair**, Research Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

NATIONAL
CME Congress 2004
2004 May  **Member**, Scientific program committee and abstract reviewer, Toronto.

RCPSC Accredited Provider’s Conference
2003 Nov  **Member**, Program Committee, Ottawa, Ontario.

LOCAL
Princess Margaret Hospital
1997 - present  **Member**, Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology
2003 - 2008  **Chair**, Breast Cancer Quality Committee
1998 - 2002  **Chair**, Radiation Medicine Education Committee, Faculty of Medicine, Dept of Radiation Oncology
1997 Dec  **Member**, Organizing Committee and Faculty, PMH CME Day “CME for the CME Provider”, Toronto.

University of Toronto
2010 - present  **Chair**, Continuing Education Awards Committee, Faculty of Medicine, Continuing Education
2005 - present  **Member**, Faculty Council
2002 - present  **Member**, Oncology Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
1997 - present  **Member**, Faculty Council Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
1997 - present  **Member**, Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology
1992 - present  **Member**, Undergraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD
2007  **Member**, Planning Committee, Radiation Therapy Program, Kingsbridge, Ontario. “**Interprofessional Working Practices and option of Innovations**”.
2006 - 2008  **Chair**, Faculty Council Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2006 - 2008  **Member**, Strategic planning working group, Office of Continuing Education and Professional Development, Faculty of Medicine, Continuing Education
2006 - 2008  **Member**, Defining and developing the research agenda, Office of Continuing Education and Professional Development, Faculty of Medicine, Continuing Education
2006  **Member**, Planning Committee, Radiation Therapy Program
“**Accelerating Interprofessional Practice**” presented to 100 radiation therapists and radiation therapy nurses in Kingbridge, Ontario, May 27, 2006.
2005 Apr  **Member**, Program Committee, Dept. of Radiation Oncology Program, Kingston, Ontario. “**The Multidisciplinary Management of Radiation Therapy Induce Acute Effects**” given to 145 therapists and nurses Kingsbridge Conference Centre, King City Ontario, April 2, 2005.
2005 - 2009  **Member**, Agenda Committee, Faculty Council
2005 - 2009  **Chair**, Continuing Education Council, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2004 Sep - 2010  **Leader**, Centre for Faculty Development Journal Club Leader “**Stepping Stones Program**”, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development  *Monthly, 3 hours per month*.
2004 May  **Member**, Program Committee, Department of Radiation Oncology program “**The Science and Management of Late Radiation Effects**”
1998 - 1999  **Member**, Undergraduate Medical Education Faculty Development Committee, Wightman-Berris Academy, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD
1997 - 2007  **Director**, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
1992 - 1998  **Member**, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1992  **Member**, Organizing Committee and Sessional Chair, University of Toronto Department of Radiation Oncology Academic Day “**Radiation Oncology 25 Years Later**”, Toronto.

**Peer Review Activities**

**ASSOCIATE OR SECTION EDITING**

**Associate Editor**
2009 - present  MedEdPORTAL, An electronic repository of medical educational materials
**Web Editor**
2007 - 2008  Association of American Medical Colleges, CME Section Website, Group on Educational Affairs

**PRESENTATION REVIEWS**

**Poster Judge**
1995  Faculty of Medicine Student Research Day
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


NON-PEER-REVIEWED GRANTS

Funded


1992 Co-Investigator. A Phase II trial to assess the effects of recombinant human granulocyte colony stimulating factor on neutropenia induced by whole abdominal radiation therapy. Amgen Canada Inc (Mississauga, ON). Collaborator(s): Fyles A, Manchul L. 60,000 CAD.
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2013 Aug  
“Essential Skills in Continuing Education and Professional Development, a two-day international course on CEPD”. Association for Medical Education of Europe Annual Meeting. Prague, Czech Republic. Authors: Manchul L, Tipping J, Bystrin M.

2011 Aug  
“Designing and Analysing Data from Focus Groups for Educational Research”. Association for Medical Education of Europe Annual Meeting. Vienna, Austria. Authors: Manchul L and Tipping J. Workshop.

2011 Jan 26  

2010 Nov 5  

2010 Sep 2  

2010 Sep 2  

2008  

2008  
Envisioning the New CME: better methods, better learning, better outcomes. Northeast Group on education Affairs, Association of American Medical Colleges annual educational retreat. United States. (Continuing Education).

2008  

2008  
Envisioning the New CME: better methods, better learning, better outcomes. Northeast Group on education Affairs, Association of American Medical Colleges annual educational retreat. United States. (Continuing Education).

2008  
The Development and Testing of an Instrument to Measure Faculty Development Needs of Clinician-Educators and Forming Academic Identity: Mentoring Faculty in the Rules of the Academic Game. AAMC meeting. United States.

2007  
Practice-based team learning: Professional competencies and CPD. Northeast Regional Group on Educational Affairs Annual meeting. Stony Brook.

2007  
Practice-based team learning: Professional competencies and CPD. Northeast Regional Group on Educational Affairs Annual meeting. United States.

2007  
Strategies to Promote Interprofessional Continuing Education for Health Care Professionals. Northeast Regional Group on Educational Affairs annual meeting. United States.

2006  
What can Practicing Physicians Teach and Learn from Residents and Students. Society for Academic CME annual spring meeting. United States. (Continuing Education).

2005 Nov  
Predicting Clinical Performance, Research in Medical Education. Association of American Medical Colleges annual meeting. United States.
2005  What can practicing physicians teach and learn from medical students and residents? Association of American Medical Colleges annual meeting. United States.

2004 Apr  Conflict of Interest in Medical Education. Northeast Group on Educational Affairs Spring meeting. United States.


2004  Interprofessional Education (IPE) and the learning organization CPD at work. Association for Medical Education in Europe. Edinburgh, Scotland.


2003  SARS: Lessons for CME. Plenary session American Association of Medical Colleges Annual meeting. United States.

2003  Practice-based team learning at work. Society of Academic Continuing Medical Education Annual Spring Meeting. United States.

2003  SARS: Lessons for CME. American Association of Medical Colleges annual meeting. United States.


2002  ACGME Core Competencies and CME: Practice-based team learning--two for the price of one. Society for Academic Continuing Medical Education Fall Meeting. United States.


2002  The role of tumour conferences and quality assurance rounds in continuing professional development. The Alliance for Continuing Medical Education annual meeting. United States.

2002  Interpersonal and communication skills: Views from the cancer patient’s perspective. American Association for Cancer Education annual meeting. Toronto.


2001  The interprofessional continuing education needs of the radiation oncology team. Society for Academic Continuing Medical Education Fall meeting. United States.

2001  The interprofessional continuing education needs of the cancer health care team. American Association for Cancer Education annual meeting. United States. (Continuing Education).

2000  Strategies to promote interprofessional continuing education. Society for Academic Continuing Medical
Lee MANCHUL

Education Congress meeting. United States.

2000
Tumour conferences at a comprehensive cancer centre can provide objective learning needs. Annual Association for Cancer Education meeting. United States.

1999
Promoting interprofessional continuing education in cancer care: A cervix cancer course for cancer care professionals. Annual Association for Cancer Education meeting. United States.

Presented Abstracts

2004 Sep
Interprofessional Education and the learning organization: CPD at work. Association for Medical Education in Europe Annual Meeting. Edinburgh, Scotland, United Kingdom. Presenter(s): Manchul L.

2003

2001

2. NATIONAL

Invited Lectures and Presentations

2012 Apr 14

2011 Apr 13

2011 Apr 13

2011 Apr 13

2010

2010

2008
From strategic plan to scholarly activity: Moving beyond ideas to advance research and scholarship in CME. CME Congress. Vancouver. (Continuing Education).

2008
Defining Educational scholarship in a Continuing Education/Professional Development Environment. Workshop delivered at the CME Congress. Vancouver.

2008
The creation and evaluation of a breast cancer treatment policy manual for the Princess Margaret Hospital/University Health Network Breast Cancer Group. Canadian Association of Medical Oncology Annual Meeting. Toronto.


2006 How well have we translated the state of the art? An audit of continuing education events. Canadian Association of Continuing Health Education annual meeting. St. John’s.


2004 Sep Essential Components of a Section I Accredited Activity. RCPSC Providers Accreditation Conference. (Continuing Education).

2004 Working and learning together: Creating and evaluating interprofessional education initiatives. CME Congress meeting. Toronto. (Continuing Education).


2004 Interprofessional Education and the Radiation Oncology Team. Canadian Association of Medical Oncologists Annual Meeting. Halifax. Presenter(s): Gelula M.


2003 Interprofessional education and the learning organization. Association of Canadian Medical Colleges/Canadian Association for Medical Education Annual Meeting. Quebec.

2003 A randomized trial of Tamoxifen with or without breast radiation in women over 50 years of age with T1/2 N0 disease. Radiother Oncol CARO. Victoria.

2003 Lack of benefit of chemo-radiation in cervix cancer is not solely related to anemia-induced hypoxia. Radiother Oncol CARO. Victoria.


2003 Learning together across the disciplines Plenary session. Canadian Association for Continuing Education. Halifax.


2001 Practice review rounds. CPD and CQI at work. Canadian Association of Medical Educators and the Association of Canadian Medical Colleges annual meeting. Toronto.

Workshop presented to 30 participants.

2001 Preliminary results of a randomized study of Tamoxifen with and without breast irradiation in T1/2 N0 breast cancer in women over 50 years of age. Canadian Association of Radiation Oncologists annual meeting. Quebec.

2001 The interprofessional continuing education needs of the radiation oncology team. Canadian Association of Radiation Oncologists annual meeting. Quebec. (Continuing Education).

2001 When you don’t know what you need to know: Objective learning needs from QA rounds. Canadian Association of Radiation Oncologists annual meeting. Quebec.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


1998 Active Learning in Clinical Teaching. Conjoint Conference on Medical Education. Toronto.

Other Lectures and Presentations

1997 Paramedical Course, Commencement Address. Ontario School of Radiation Therapy Graduation Ceremony. (Continuing Education).

4. LOCAL

Invited Lectures and Presentations

2008 Creation and evaluation of a breast cancer treatment policy manual. Princess Margaret Hospital/University Health Network Breast Cancer Group. Breast Oncology Program, Princess Margaret Hospital (PMH), University Health Network (UHN), University of Toronto. Toronto.

2007 Looking Beyond: An Assessment of the Spiritual Needs of Breast Cancer Patients Undergoing Treatment at Princess Margaret Hospital. Princess Margaret Cancer Centre. Toronto.


1999 Expand Your Repertoire: How to Make Clinical Teaching Count in Your Career. University of Toronto Faculty. Toronto.

1999 The Teaching Dossier: Depth, Scope and Scholarship. University of Toronto faculty meeting. Toronto.

1997 Interdisciplinary Education at PMH. Continuing Education Day. Toronto. (Continuing Education).
Presented Abstracts


F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

1996 - present  Course Director, Medical Ethics, Radiation Oncology Residents and Surgical Oncology Fellows, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology

2006 May  Course Director: “Target Insight II: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology May 5-6, 2006. Presented to 135 radiation oncologists, therapists and physicists in Toronto.

2005 Feb  Course Director: “Update in Gynecologic cancer Prevention”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology Presented to 150 physicians and nurses, at the Old Mill.

2003 Sep 26  Director, “Changing Management of Cervical Dysplasia and Early Endometrial Cancer: Achieving a Consensus”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology

2001  Course Director, “Target Insight: Innovative Strategies to Improve Target Volume Definition in Radiation Therapy”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

1999 - 2000  Course Director, “Issues in Cervix Cancer Screening for Primary Health Care Providers”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto Oncology CE Course: 220 Physicians, nurses and other health professionals.

1998 May  Course Director, “Future Directions in Radiation Oncology”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto For 180 Radiation Oncologists, Therapists and Physicists and Clinician Scientists.

1996 - 1997  Design of a competency-based examination for radiation therapists, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology

1996  Organization of a series of workshops on continuing education for continuing education providers, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

1995 - 2000  Oncology Course Director, OSRT, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology Lectures, tutorials and student evaluation.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

<table>
<thead>
<tr>
<th>Year</th>
<th>Supervisor</th>
<th>Description</th>
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<tbody>
<tr>
<td>2002</td>
<td><strong>Primary Supervisor.</strong> UT Michener Radiation Sciences Program.</td>
<td>“Anemia in cervix cancer patients undergoing chemo-radiation therapy at Princess Margaret Hospital”.</td>
</tr>
<tr>
<td>2002</td>
<td><strong>Primary Supervisor.</strong> Year IV Radiation Sciences Program.</td>
<td>“Assessment of Fatigue in women Receiving Treatment of Cervix Cancer”.</td>
</tr>
<tr>
<td>1996 - 1997</td>
<td><strong>Primary Supervisor.</strong> Year 2.</td>
<td>“Sexual function in women who have received radiation therapy for cervix cancer.”</td>
</tr>
</tbody>
</table>

**Postgraduate MD**

<table>
<thead>
<tr>
<th>Year</th>
<th>Supervisor</th>
<th>Description</th>
</tr>
</thead>
</table>
CURRICULUM VITAE
THOMAS S. MCGOWAN MD MBA FRCPC

June 6, 2012
Name: **McGowan, Stanley, Thomas**

Title: Chief of Radiation Oncology  
Carlo Fidani Peel Regional Cancer Centre  
Credit Valley Hospital

Address: 2200 Eglinton Avenue West  
4th floor Administration  
Mississauga, ON L5M 2N1  
Phone 905-813-1100 x5000  
Fax 905-813-3962

E-mail: tmcgowan@cvh.on.ca

DOB: Nov. 20, 1960

**ADMINISTRATION POSITIONS**

July 2007 to Present  
Clinical and IS Consultant  
Pathology Checklist Reporting Project-Cancer Care Ontario  
Stage Capture Project Leadership Team-Cancer Care Ontario

April, 2005 to June 2007  
Clinical Lead  
Pathology Checklist Reporting Project-Cancer Care Ontario  
Stage Capture Project Leadership Team-Cancer Care Ontario

January, 2004 to Present  
Head of Radiation  
Credit Valley Hospital

September, 2003 to January 2004  
Head Clinical Programs  
Director, Analytic Unit  
Cancer Care Ontario

January, 2001 to June 2003  
President, Medical Director and Founder  
Canadian Radiation Oncology Services

Staff Radiation Oncologist  
Princess Margaret Hospital

April, 2000 - January 2001  
Executive Vice-president  
Cancer Care Ontario

January 1998 - March, 2000  
Coordinator Radiation Treatment  
Cancer Care Ontario
DEGREES, DIPLOMAS, LICENSURE
1995  MBA, University of Toronto
1991  Fellow, Royal College of Physicians of Canada (Radiation Oncology)
1987  General License State of Georgia
1986  General License Province of Ontario
1985  MD, Queen’s University, Kingston, Ontario
1982  BSc, Queen’s University, Kingston, Ontario

POSTGRADUATE TRAINING/EXPERIENCE
Radiation Oncology  1990 – 1991  Chief Resident in Radiation Oncology, University of Toronto, Radiation Oncology Training Program
1988-1990  Resident in Radiation Oncology, University of Toronto
General Practice  1986-1988  General Practice, Locums, Ontario and Quebec
Internal Medicine  1985-1986  Internship, Montreal General Hospital, McGill University, Montreal, Quebec

COURSES TAKEN
August, 1998  Medical Informatics A – American College of Physician Executives
A two day course on information technology as it applies to healthcare.
August, 1998  Financial Decision Making – American College of Physician Executives
A four day course on financial analysis and decision making as it applies to healthcare.

UNIVERSITY AND HOSPITAL APPOINTMENTS
University  1991- 1999  Lecturer
Department of Radiation Oncology,
Faculty of Medicine, University of Toronto
1996 - 1999  Lecturer (Cross appointed)
Department of Health Administration
Faculty of Medicine, University of Toronto

1999 – Present Assistant Professor (Cross appointed)  
Department of Radiation Oncology  
Department of Health Administration  
Faculty of Medicine, University of Toronto

**Hospital**  
May, 2004-Present  
Chief, Staff Radiation Oncologist, Credit Valley Hospital

May, 04  June 05  Grand River Regional Cancer Centre, Staff Radiation Oncologist

Sept, 2004-Present  
Staff Radiation Oncologist, Trillium Health Centre

Jan, 2005-Present  
Staff Radiation Oncologist, William Osler Health Centre, Mississauga Site

March, 2001 - Sept, 2003  
Staff Radiation Oncologist, Canadian Radiation Oncology Services - Consultant Radiation Oncologist, Toronto – SunnyBrook Regional Cancer Centre, SunnyBrook and Women’s Health Science Centre

March, 2001-2006  
Consultant Radiation Oncologist, Princess Margaret Hospital

October 1991 - Mar 01  
Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital (1991 – March 2001)

1991-1999  
Consultant Radiation Oncologist, Marvelle Koffler Breast Centre, Mount Sinai Hospital

**ADMINISTRATION/COMMITTEE WORK**

**Departmental**  
July 04 – present  
Chair, DRO Executive Committee

July 04 – present  
Chair, DRO Staff Committee

July 04 – present  
Chair, Peel Radiation Oncologists, Executive

2004 – present  
Member, PRCC Radiation Therapy technical Policy group
2004 – present Member, PRCC Executive Committee

2004 – present R.O. Rep, PRCC Radiation safety and monitoring Committee

1994 - 1995 Member at large, Partnership Executive, Radiation Oncologists

**Hospital**

Feb 04 – present Head, PRCC Department of Radiation Oncology

2004 – 2005 Member, Grand River Cancer Centre IMRT Committee

2004 – present Member, PRCC IM/IT Committee

Nov 96 – May 99 Chair, Radiation Services Quality Management Committee (PMH)

Jan 98 – Sept. 98 Chair, Cancer Committee, PMH
Vice-chair, TTH MAC
Member, Board of Directors, TTH
Member, Standing Committee on Oncology, TTH
Member, TTH Board Quality Subcommittee
Member, Joint University Hospital Relations Committee, TTH

Aug. 97 – Dec. 97 Chair, PMH Medical Advisory Committee (MAC)
Vice-chair, The Toronto Hospital (TTH) MAC
Member, Board of Directors, TTH/PMH
Member, Standing Committee on Oncology, TTH/PMH
Member, TTH Board Quality Subcommittee
Member, Joint University Hospital Relations Committee, TTH

Jan. 97 - July 97 President, PMH Medical Staff Association,
Member, Board of Directors PMH

July 96 - May 97 Chair, Radiation Services Accreditation Team (PMH)
Member, Hospital Accreditation Planning Committee (PMH)

July 96 - Nov 96 Member, Radiation Services Quality Management Committee (PMH)

Jan. 95 - Dec. 96 Vice President, Medical Staff Association (PMH)
Member, Medical Advisory Committee (PMH)
<table>
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<tr>
<th>Date</th>
<th>Position and Description</th>
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</table>
| Dec. 94 - June 95 | Member, Patient Care Committee of the Board of PMH  
Member, Princess Margaret Hospital (PMH) ambulatory care re-engineering team as part of a re-engineering project managed by the consulting firm of Deloitte and Touche. |
| **Provincial** |                          |
| July 03 – Jan 04 | Head, Clinical Programs, Cancer Care Ontario |
| 2004-present    | Director, Analytic Unit, Cancer Care Ontario |
| 2004-present    | Member, Clinical Council, Cancer Care Ontario |
| May 04 – present | Member, OARO Centre Representative |
| May 99 - Jan 01 | Chair, Business Case Working Group, Specialist Clinical Modules Subcommittees of the Cancer Care Ontario Knowledge Management Initiative |
| May 99 – Jan 01 | Chair, Radiation Equipment Selection Committee for the new Peel, Durham, and Kitchener-Waterloo Cancer Centres. |
| April 99 – June 01 | Chair, Radiation Funding Formula Committee of the Joint Policy and Planning Committee (A joint committee of the Ministry of Health, and the Ontario Hospital Association) |
| Jan 98 – Jan 01 | Chair, Radiation Treatment Advisory Committee  
Cancer Care Ontario |
| Jan 98 – Jan 01 | Member, Information Services Management Committee  
Cancer Care Ontario |
| Sept. 98 – Jan 01 | Member, Durham Regional Cancer Centre Planning and Development steering committee |
| Sept. 98 – Jan 01 | Member, Peel Regional Cancer Centre Planning and Development steering committee |
| May 99 – June 99 | Member, Central East Cancer Care Ontario Region Committee to examine the deployment of Radiation Services in the Greater Toronto Area |
Dec. 98 – April 99 Chair, Radiation Treatment Systems Working Group (CCO)

Dec. 98 – Mar 99 Vice-Chair, Ministry of Health Task Force on Human Resources for Radiation Services

July 98 – Dec. 98 Member, Selection Committee, CEO, London Regional Cancer Centre

1993-1995 Chair, Section of Radiation Oncology, Ontario Medical Association

Jan. 94-June 94 Member, Ministry of Health, Committee to examine recruitment and retention of Radiation Oncologists

National

2004-06 Member, Canadian Association of Pathologists, Pathology Reporting

Mar. 96 – Dec. 97 Member, Canadian Association of Radiation Oncologists Manpower and Standards of Care Committee

Private Sector

2004-06 Member, Advisory Board
Closing the Gap Healthcare Group
http://www.closingthegap.ca/advisoryboard.htm

HONOURS AND AWARDS

1999 Cancer Care Ontario received An Award of Excellence, Canadian Information Productivity Award Simulation of a Virtual Patient

1995 Dean’s List - University of Toronto Executive MBA
Highest grade point average in the class in final year

1994 Dean’s List - University of Toronto Executive MBA
Highest grade point average in the class in first year

1991 Residents Research Day Prize Winner
University of Toronto, Radiation Oncology Training Program
1983  Ivan Smith Scholarship, 
      Ontario Cancer Treatment and Research Foundation

1982  Ontario Heart Foundation Scholarship

1980  Annie Bentley Lillie Prize in Calculus 
      Queen’s University, Kingston, Ontario

**MEDICAL/SCIENTIFIC SOCIETY MEMBERSHIPS**
American Society of Therapeutic Radiology and Oncology

Canadian Association of Radiation Oncologists

Canadian Medical Association

Ontario Medical Association

American College of Physician Executives

**EDITORIAL BOARD, PEER REVIEW**

2007 Invited to peer review a paper submitted for publication. 
Radiotherapy & Oncology, Journal of the European Society for 
Therapeutic Radiology and Oncology

**LECTURES GIVEN**

*Invited Speaker*
Speaker, Winter COMP School, “Improving Quality in Clinical Practice”, Whistler, B.C., 

Speaker, Varian Medical Systems, “Upgrade Readiness: Preparing your Center”, Las Vegas, 

Speaker, Varian Medical Systems, “Radiation Oncology in a Paperless Environment”, Montreal, 
Quebec, January 20, 2010.

Speaker, Varian Medical Systems, “Radiation Oncology in a Paperless Environment”, 
Minneapolis, Minnesota, April 23, 2009

Speaker, Sanofi-Aventis, to The Departments of Medical and Radiation Oncology, and Urology of
The Credit Valley Hospital, “A discussion on the DART/NCICCTG PR.12 Study”, (Neoadjuvant Docetaxel and Androgen Suppression plus Radiation Therapy vs Androgen Suppression alone plus Radiation Therapy for High Risk Localized Adenocarcinoma of the Prostate).

Speaker, Webinar for VARIAN, Information Management in a Paperless Environment, January 18, 2008


Up-regulation of the Humanism in Science, A lecture series offered by the University of Toronto Department of Radiation Oncology as part of the EIRR21, Transdisciplinary Training Program. Leadership in Collaborative Groups, Oct 19, 2004 through May 10, 2005.


Capacity and Resource Constraints in the Delivery of Radiation in Ontario, Ontario Radiation Oncology Genito-urinary site group annual retreat, September 1999.

Informatics at Cancer Care Ontario, Community Oncologists of Metro Toronto Annual Retreat, July 1999.

Cancer Care Ontario and the Funding of Cancer Services How to Balance Cost, Access and the Availability of All Treatment Options for Patients with Prostate Cancer Cost Challenges and Conflicts in Cancer Care, Continuing Education Program, Faculty of Medicine, University of Toronto, June 1999.

Remuneration Models in Radiation Oncology, Ontario Medical Association Section of Radiation Oncology Symposium, May 1999.

Radiation Oncology in Ontario, Ontario Hospital Association Conference on Cancer Care Ontario, Toronto Ontario, February 1999.

Principles of Radiation Therapy, Preceptorship program at Mount Sinai Hospital, Toronto,

**Cost and Value Considerations in Treatment Verification**
Refresher course, "Translating Physics into Clinical Practice" University of Toronto, Department of Radiation Oncology, November 1996.

**Conservative Management of Multiple Invasive Foci of Breast Cancer,** Interdepartmental Division of Oncology Breast Cancer Rounds, University of Toronto, Faculty of Medicine, December 1995.

**Potential Benefits of Conformal Therapy,** Refresher course, "Selected Topics in Radiation Oncology", University of Toronto, Department of Radiation Oncology, May 1992.

**LECTURES GIVEN**

Credit Valley Hospital, Presentation to Physicians and other Medical Personnel, Topics in Prostate Cancer Management from the Perspective of Radiation Oncology, January 2009
Windsor Regional Hospital, April 2007.
Grand River Hospital, May 2007.
Princess Margaret Hospital/University Health Network, June 2007.
Credit Valley Hospital, Presentations to Clinical and Administrative staff: The Current Status, and Future Direction of Cancer Care Ontario’s Stage Capture Project, July 2007.
Kingston General Hospital, April 2007.
Thunder Bay Regional Hospital, April 2007.

Credit Valley Hospital, Presentations to Clinical and Administrative staff: Update from the Provincial Pathology Checklist Reporting Project and 2007 Indicator Results, April 2007.

**Health Sector Strategy and Organization,** Joseph L. Rotman School of Management (MBA) University of Toronto, October 12, 2006, October 01, 2007.

**Principals of Radiation Oncology,** Teaching to medical oncologists, and residents, 2000 to 2003.


**Accreditation, and Quality Management in Radiation Services at Princess Margaret Hospital** Department of Radiation Oncology Rounds, University of Toronto, Department of Radiation Oncology, April 1997.
Quality Assurance in Radiation Oncology, Department of Radiation Oncology Rounds
University of Toronto, Department of Radiation Oncology, March 1996.

Risk Factors for Lawsuits in Breast Cancer, Princess Margaret Hospital, Breast Cancer Rounds,
May 1994.

Multi-Leaf Collimators and Portal Imaging, Department of Radiation Oncology Rounds
University of Toronto, Department of Radiation Oncology, February 1993.

Review of the Hormonal Management of Prostate Cancer, Princess Margaret Hospital, Genito-

PANEL DISCUSSION PARTICIPANT
Graduate Department of Health, Policy, Management and Evaluation, University of
Toronto, January 8, 2004 Expert panelist – HAD5020: Canada’s Health System and Health
Policy II

The 3rd HEALNet Annual General Meeting, Toronto, November 1997
Panel discussion – Using Information to Increase Health Care Organizations’ Performance

Profits and Patients, Annual Round Table Discussion, Canadian HealthCare Manager,
Toronto, Published April 2002, http://www.chmonline.ca/

Research Grants

Currently Funded as Principle Investigator
Benjaafar N, Da Motta N, Glenn GW, Mahantshetty U, McGowan TS, Sarria G, Van Wijk L,
Zubizaretta E. Optimizing treatment of cervix cancer using radiotherapy and analysis of virally
associated cellular resistance, (Study E.3.30.24)Cervix(4-arm randomized trial testing chemo-
radiation plus HDR brachytherapy for survival, toxicity and tumour markers, multi-national
study. International Atomic Energy Association (IAEA). USD $300,000.00.

Previously Funded as Co-Investigator
Patient-centred cancer care at Princess Margaret Hospital. Philanthropic Gift, $500,000.00,

CLINICAL TRIALS

Feb 2009 A National “Patterns of Care” Study in Prostate Cancer Radiation Therapy, Feb
10, 2009 to Feb 9, 2010.

June 2007 Social, Prognostic and Therapeutic Factors Association with Breast Cancer
June 2005 Nursing and Oncologist Survey, “Meeting the Needs of the Cancer Patients and Families: Today and Tomorrow: Oncology Nurse Demographics and Clinical Role Functions. Patients selected by Dr. T. McGowan for survey/interview by Toronto Sunnybrook team.

Nov. 2004 Harnessing consumerism in Health and Healthcare: User tracking and analysis of publicly reported cancer treatment wait lists. Patients selected by Dr. T. McGowan for survey/interview by Toronto Sunnybrook team.

PEER REVIEWED PUBLICATIONS

Manuscripts


McGowan TS, Yong J. CEA of IMRT work, “value for money in cancer-IMRT as a case study”, Journal of Clinical Oncology (JCO).


McGowan TS., Does the private sector have a role in public healthcare? Healthcare Papers (4): 45–50, 2004


Abstracts


McGowan TS, Thomason C. Comparison of three commercially available portal imagers. JA, Medical Physics, (21): 888, 1994..


Dassinger C, Dehay-Turner S, Fox L, Jones GW, McGowan TS. Symptoms of mood affect are highly associated with distress in patients with breast and prostate cancer. International
ORAL PRESENTATIONS (Peer reviewed selected by competition)


POSTER PRESENTATIONS (Peer reviewed selected by competition)


Benk V, McGowan TS, Przybysz R, Paszat L, Bondy S. Delays in radiation therapy for cancer. Canadian Institutes of Health Research (CIHR), Institute of Health Services and Policy Research (IHSPR), Strengthening the foundations: health services and policy research Canadian Health Care, Montréal, Québec, November 22-24, 2003,


OTHER PRESENTATIONS

McGowan TS, Yong J. CEA of IMRT work, “value for money in cancer-IMRT as a case study”, 4th International Cancer Control Congress in Seoul, South Korea, November 2011.

Radiation Oncology. Credit Valley Hospital Board Meeting, Credit Valley Hospital, Mississauga. 2004

Questions and Answers, the state of the health care system in Canada. The Standing Senate Committee on Social Affairs, Science and Technology, (Chair, Senator Michael Kirby), Toronto, 2001
CURRICULUM VITAE

Name: Michael McLean
Address: Princess Margaret Hospital
610 University Avenue
Toronto, ON M5G 2M9 Canada
Telephone: (416) 946-2132
Fax: (416) 946-6561
Email: Michael.McLean@rmp.uhn.on.ca
Date Last Updated: August 2012

Education

Undergraduate Education
1965 – 1969 Queen’s University of Belfast
Distinctions: Prize Exams in Surgery and Pathology

Postgraduate Medical Training
1969 – 1970 Royal Victoria Hospital, Belfast

Biographical Information

Degrees
1969 M.B., B.Ch., B.A.O. QUB
1974 M.D. (by Thesis) QUB
1977 F.R.C.S.E. Edinburgh
1982 F.F.R., R.C.S.I. Dublin
1988 F.R.C.P. (C) Ottawa, Canada

Appointments
1969 – 1970 House Officer (Pre-Registration)
Royal Victoria Hospital, Belfast
1970 – 1973 Research Fellow, Department of Pathology, QUB.
1973 – 1979 Northern Ireland Surgical Rotation
1979 – 1984 Northern Ireland Radiotherapy Centre
Residency Program in Radiation Therapy
1984 – 1985 Consultant Radiotherapist
Derby Royal Infirmary, Derbyshire, England.
1985 – 1991 Radiation Oncologist
Ontario Cancer Treatment and Research Foundation/TBRCC
Director of the School of Radiotherapy.
1991 – present Radiation Oncologist, Princess Margaret Hospital, Toronto
Assistant Professor, University of Toronto

Professional Affiliations and Activities
1994 – present Senior Editor, Current Oncology
2004 – present Member, University Health Network (UHN) Research Ethics Board
(Princess Margaret Hospital)
Publications

Thesis
M.D. Thesis, Queen's University, Belfast, 1974.
"Studies in the Aetiology and Morbid Anatomy of Congenital Heart Defects" (induced by radiation therapy and temperature variations in the developing chick embryo).

Refereed Publications


Non-Refereed Publications


**Published Abstracts**


58. Crook JM, Yeung I, Borg J, McLean M, Lockwood G, Ma C. Ten years’ experience with Iodine-125 prostate brachytherapy for 1,111 patients in a university hospital setting.


Non-Published Abstracts


9. How can an Advanced Practice Nurse enhance an Academic Palliative Radiation Oncology Program? D Williams, A Bezjak, W Levin, M McLean. Poster presentation at
International Society of Nurses in Cancer Care (ISNCC) 12th International Conference

10. Haddad P, Wong R, Levin W, **McLean M**, Bezjak A. A descriptive study on the use of
computerized tomographic simulation in palliative radiotherapy: the Princess Margaret

helpful is prompt communication about a palliative radiotherapy visit? a survey on our
interim consultation report. Poster presentation at MASCC / ISOO 15th International
Symposium on Supportive Care in Cancer, Berlin, 2003.

12. Taussky D, Toi A, **McLean M**, Yeung I, Williams T, Pearson S, Pond G, Crook J.
Sequential evaluation of prostate edema following permanent seed prostate

13. Taussky D, Yeung I, Williams T, Pearson S, **McLean M**, Pond G, Crook J. Rectal wall
dose dependence on post plan timing after permanent seed prostate brachytherapy.
AUA/ASTRO/ASCO Multidisciplinary Prostate Cancer Symposium, Orlando, 2005.

Comparison of toxicity and biochemical outcomes of patients treated with permanent
prostate implant for low risk prostate cancer using two different seed types (poster

vs 2D planning techniques make a difference in palliative radiotherapy? (oral

16. McCarty H, Borg J, Craig T, **McLean M**, Menard C, Elantholiparameswaran S. Is there
any advantage is using stranded sees over loose sees in permanent radioactive seed
implant for low risk prostate cancer? (oral presentation) University of Toronto, Radiation

Levin W, Bezjak A, Wong KSR. The role of specialized palliative radiotherapy (RT)
programs a decade of the palliative radiation oncology (PROP) experience at PMH. (oral
Curriculum Vitae

Cynthia Ménard
MD

A. Date Curriculum Vitae is Prepared: 2013 June 28

B. Biographical Information

Primary Office
Radiation Medicine Program, Department of Radiation Oncology
Princess Margaret Hospital, University Health Network
610 University Ave., Rm 5-809
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946-2125
Fax (416) 946-2227
Email Cynthia.Menard@rmp.uhn.on.ca

1. EDUCATION

Degrees
1993 - 1996 May MD, Dept of Medicine, The University of Calgary, Calgary, Alberta, Canada
1990 - 1993 Biochemistry, microbiology and immunology, University of Ottawa, Ottawa, Ontario, Canada

Postgraduate, Research and Specialty Training
2001 - 2003 Research Fellow PGY6-7, Radiation Oncology, Radiation Oncology Branch, National Cancer Institute, National Institutes for Health, Department of Health and Human Services, Bethesda, Maryland, United States
2000 - 2001 Resident PGY4-5, Radiation Oncology, Cross Cancer Institute, University of Alberta, Edmonton, Alberta, Canada
1996 - 2000 Resident PGY1-4, Radiation Oncology, The University of Manitoba, Winnipeg, Manitoba, Canada

Qualifications, Certifications and Licenses
2004 - present License, College of Physicians and Surgeons of Ontario, 74547
2001 - present Certification, Radiation Oncology, American Board of Radiology, United States, 48567
2001 - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, 528438
2011 - 2012 Telemedicine Consultation License, College of Physicians and Surgeons of Newfoundland and Labrador
2002 - 2005 License, Maryland Board of Physicians, D0059048
2001 Fellow, Radio-oncologie, College des Medecins du Quebec
2000 - 2001 License, College of Physicians and Surgeons of Alberta
2000 Certification, United States Medical Licensing Examinations, United States
2. EMPLOYMENT

Current Appointments

2012 Nov - present  Affiliated Faculty, TECHNA Institute for the Advancement of Technology for Health, Toronto, Ontario, Canada
2009 - present  Associate Professor, Radiation Oncology, University of Toronto
2006 - present  Associate Member, Institute of Medical Science, University of Toronto
2004 - present  Clinician Scientist, Radiation Medicine Program, Princess Margaret Hospital

Previous Appointments

HOSPITAL
2003 - 2004  Staff Clinician, National Cancer Institute, National Institutes of Health, Department of Health and Human Services, United States

UNIVERSITY - RANK
2004 - 2009  Assistant Professor, Radiation Oncology, University of Toronto

WORK INTERRUPTIONS
2011 Jul - 2012 Jan  Maternity Leave, Radiation Medicine Program, University of Toronto, Princess Margaret Hospital, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2010  Judith Stitt Best Papers Award, American Brachytherapy Society (ABS). (Research Award)

2009  Transactions on Biomedical Engineering (TBME) best paper award for most citations in the last 5 years, IEEE Engineering in Medicine and Biology Society. (Research Award)

2005  International Travel Grant, American Society for Therapeutic Radiation Oncology. (Distinction)
Cynthia MéNARD

2003 Outstanding Clinical Scholar-in-Training Award, American Association for Cancer Research - GlaxoSmithKline. (Research Award)
For: Radiation alters serum proteomic patterns.

NATIONAL Received

2007 - 2012 New Investigator Award, Canadian Institutes of Health Research. (Research Award)
For: Individualized therapy for patients with prostate cancer by integrating interventional MRI in the radiotherapy planning process.

2004 Fellows Award for Research Excellence, National Institutes for Health. (Research Award)
For: Radiation alters serum proteomic patterns.

2001 - 2003 Translational Research Award, National Cancer Institute - American Society for Therapeutic Radiation Oncology. (Research Award)
For: Magnetic resonance and molecular profiling of prostate cancer.

2000 First Prize, Resident Research Podium Presentation, Canadian Association of Radiation Oncology. (Research Award)
For: Proton Magnetic Resonance Spectroscopy of Prostate Biopsies after RT.

1993 Science Scholarship, National Research Council Canada. (Distinction)

1990 - 1992 Scholarship of Canada for Science. (Distinction)

LOCAL Received

2008 Most Influential Research Publication - Radiation Medicine Program, Princess Margaret Hospital. (Research Award)

2006 Outstanding Research Potential Award, Department of Radiation Oncology, University of Toronto. (Distinction)

2003 Technology Transfer Award, National Cancer Institute - Center for Cancer Research. (Distinction)

2000 RJS and Ada Maude Wright Memorial Prize in Radiation Oncology, University of Alberta. (Distinction)

1996 Sandoz Prize in Medicine, The University of Calgary. (Distinction)
For achievement in Radiation Oncology.

1990 - 1992 Excellence Scholarship, University of Ottawa. (Distinction)

Teaching Awards

LOCAL Received

2009 Best Radiation Medicine Program Rounds, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital
For: iMRI Sim-Ending an Era of Radiation Therapy Blind to Prostate Cancer.

2006 Best Radiation Medicine Program Rounds, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital

2003 Teacher of the Year Award, Association of Residents in Radiation Oncology. (Postgraduate MD)
For teaching at: Resident Training Program, National Cancer Institute - Radiation Oncology
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

- **Member**, American Brachytherapy Society
- **Member**, American Society for Therapeutic Radiology and Oncology
- **Member**, Canadian Association for Radiation Oncology
- **Member**, Canadian Urologic Oncology Group
- **Member**, European Society for Therapeutic Radiology and Oncology
- **Member**, International Society for Magnetic Resonance in Medicine

Administrative Activities

INTERNATIONAL

**European Society for Therapeutic Radiation Oncology**
- 2010 Jul - present  
  MRI for Physicists Course (Annual), Faculty of Medicine, Dept of Radiation Oncology, Faculty Development

**AdMeTech Foundation**
- 2010  
  **Member**, Advisory Committee
- 2008  
  **Member**, Program Committee

NATIONAL

**Other Organizations**
- 2011 Jul - present  
  NaF MITNEC Study Executive Committee, Canada.

**Alberta Radiosurgery Center**
- 2007  
  **Program External Reviewer**, External Review, Alberta, Canada.

**Canadian Association of Radiation Oncology / Canadian Organization of Medical Physicists**
- 2007  
  **Chair**, Pre-conference Symposium, Faculty of Medicine, Dept of Radiation Oncology, Canada.

PROVINCIAL / REGIONAL

**Cancer Care Ontario**
- 2008  
  **Member**, MRI Simulator Advisory

LOCAL

**Radiation Medicine Program**
- 2011 - present  
  Interventional Radiotherapy Process Committee, Toronto, Ontario, Canada.
Princess Margaret Hospital
2010 - present Imaging Committee, Radiation Medicine Program, Toronto, Canada.

University of Toronto
2008 - present Member, Residency Competency Examination Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.

Peer Review Activities

ASSOCIATE OR SECTION EDITING
Editor
2013 Seminars in Radiation Oncology, MR in Radiotherapy, Number of Reviews: 8

GRANT REVIEWS
External Grant Reviewer
2013 Cancer Research UK, Number of Reviews: 1
2013 Cancer Care Manitoba, Number of Reviews: 1
2013 Prostate Cancer UK, Number of Reviews: 1
2012 Prostate Cancer UK Research Awards Spring 2012, Number of Reviews: 1
2010 National Institutes for Health, Subcommittee H - Radiation Physics Center
2009 - 2010 Department of Defense, Prostate Cancer Research “Development Award and Synergistic Idea Development”
2007 Health Research Board Ireland
2006 - 2007 Alberta Heritage Fund
2006 Dutch Cancer Society
Internal Grant Reviewer
2013 Canadian Cancer Society Research Institute, Innovation Grants Panel - Imaging and Technology Development, Number of Reviews: 6
2010 Canadian Cancer Society Research Institute, Grant Panel E
2009 National Institutes for Health, Study Section for PAR 08-225 “Quantitative Imaging for Evaluation of Responses to Cancer Therapies”
2008 National Cancer Institute of Canada, Panel E
2007 National Cancer Institute of Canada, Panel E (Imaging and Radiotherapy)
2007 Department of Defense, US, Breast Cancer Panel, Number of Reviews: 7
2006 - 2007 Department of Defense, US, Prostate Imaging Section, Number of Reviews: 12

MANUSCRIPT REVIEWS
Reviewer
2010 - present Radiation Research
2010 - present Physics in Medicine and Biology
2009 - present European Journal of Radiology
2008 - present Medical Image Computing and Computer Assisted Interventions
2008 - present Radiation Oncology, Number of Reviews: 5
2008 - present Journal Magnetic Resonance Imaging
2006 - present American Journal of Clinical Oncology
Cynthia MéNARD

2003 - present Cancer Research
2001 - present International Journal of Radiation Oncology, Biology, Physics, Number of Reviews: 16
2013 University of Toronto, IMS Laidlaw Manuscript Competition, Number of Reviews: 2

PRESENTATION REVIEWS
Reviewer
2008 - 2011 International Society for Magnetic Resonance in Medicine
2007 - 2011 Canadian Association of Radiation Oncology

Other Research and Professional Activities

KEY OPINION LEADERS MEETING
2010 Aug Participant. Clinical Indications for MRI Linac. Elekta, Netherlands

C. Academic Profile

1. RESEARCH STATEMENTS

STATEMENT OF SCHOLARLY AND PROFESSIONAL ACTIVITY.
The primary focus of my scholarly activity is to better individualize radiation therapy through
the development, validation, and clinical application of magnetic resonance imaging
techniques to radiation treatment planning, response assessment, and treatment adaptation.
I have specifically invested my efforts to improving radiotherapy to the brain and for prostate
cancer.

Improving Radiotherapy with MRI.
The role of magnetic resonance imaging in radiation oncology has long been expected to
bring improvements in targeting and assessment of radiation therapy. While the rationale
for these benefits draws upon the quality of MR images in depicting unique spatial and
biological characteristics of tissue targets for radiotherapy, the conversion of these perceived
benefits into robust and routine use of this modality in radiation oncology has been slow and
fragmented. This is in part due to complexities in the science and clinical practice of MRI,
and requires a focused dedicated effort for judicious integration in radiation oncology.

My activities in this newly emerging fields range from leadership in policy and infrastructure
development, to the design and oversight of educational programs, and finally to a body of
research which addresses unmet clinical needs in radiotherapy. Examples of such unmet
needs include: defining the target for radiotherapy after prostatectomy, characterizing organ
motion for radiotherapy planning, validating the spatial integrity of MRI-defined radiotherapy
targets, developing registration techniques for integration of MR images in radiotherapy,
validating MRI measures of tumor hypoxia, quantifying user uncertainties in MRI target
delineation, and exploring early MRI metrics of tissue response to radiotherapy.

Interventional MRI for Prostate Cancer.
This work is focused, first and foremost, on a pressing need to better tailor therapeutic
interventions for individual patients with prostate cancer. An ability to visualize the spatial
extent and biological profile of cancers within the prostate gland may address issues of
biopsy sampling error, enable appropriate patient selection for local therapy, guide local
therapy to the disease rather than to the entire prostate gland, and provide a non-invasive means of monitoring progression or response to therapy. To address this need, I have implemented a clinical and research program to develop and test novel techniques in interventional MRI.

Interventional MRI techniques specifically aim to precisely guide needles for biopsy and therapy into specific areas of suspected cancer burden within the prostate gland during the MRI examination. The program includes investigations in technical development, and well as clinical testing of both technical performance and clinical performance of MRI-guided prostate biopsy and MRI-guided prostate brachytherapy.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2011 Jul - present Co-Investigator. Discovery of biomarkers to guide individualized therapy in patient’s with brain metastasis receiving radiotherapy. Brain Tumor Foundation of Canada. REB#: 10-0743-C. [Clinical Trials]


2009 Jul - present Principal Investigator. MRI-Guided Biopsy for Suspicion of Locally Recurrent Prostate Cancer after External Beam Radiotherapy. DOD PCRFC USA. REB#: 05-0641-C. [Clinical Trials]

2009 Jul - present Principal Investigator. MRI-Guided HDR Brachytherapy for Prostate Cancer. National Institutes of Health (NIH) (USA). REB#: 09-0026-C. [Clinical Trials]

2009 Jul - present Co-Investigator. A Phase I Study of Stereotactic Radiosurgery Concurrent with Sunitinib in Patients with Brain Metastases. Pfizer Canada Inc. REB#: 09-0115-C. [Clinical Trials]

2008 Jul - present Principal Investigator. Salvage Prostatectomy after Radiotherapy Whole-mount Histopathological Validation from Tumor-Targeted Salvage HDR Brachytherapy. National Institutes of Health (NIH) (USA). REB#: 08-0350-CE. [Clinical Trials]
2008 Jul - present **Co-Investigator.** Hypofractionated and Adaptive Stereotactic Radiotherapy (HFA-SRT) for Large-Volume Brain Metastases. Industry (Elekta) and Institutional Support. REB#: 08-0602-C. [Clinical Trials]


2011 May - 2012 Jan **Principal Investigator.** Hypoxia imaging in patients with high-risk localized prostate cancer using F18-FAZA PET and MRI. Canadian Association of Radiation Oncologists (CARO). Uro-Oncologic Radiation Award (ACURA). 20,000. [Grants]


2008 Jul - 2012 May **Principal Investigator.** Fiducial Localization and Individualized Radiotherapy for Prostate Cancer. Abbott Laboratories / Canadian Association of Radiation Oncologists (CARO). Uro-Oncologic Radiation Award (ACURA). REB#: 08-0271-C. [Clinical Trials]

2008 Jul - 2012 Jan **Co-Investigator.** Validating the Accuracy of a Relocatable Frame for Perfexion Based Stereotactic Radiotherapy. Industry (Elekta) and Institutional Support. REB: 08-0121-C. PI: Jaffray, D. [Clinical Trials]


2007 Jul - 2012 Jun **Principal Investigator.** Individualized therapy for patients with prostate cancer by integrating interventional MRI in the radiotherapy planning process. Canadian Institutes of Health Research (CIHR). New Investigator Award. # 200609CNI-170195. $300,000$. [Grants]

2007 Jul - 2012 Feb **Principal Investigator.** Hippocampal Radiation Exposure and Memory: A Pilot Study. Brain Tumor Foundation of Canada. REB#: 07-0023-CE. [Clinical Trials]

2007 Jul - 2009 Jun **Principal Investigator.** Hippocampal Radiosurgery Exposure and Memory. Brain Tumor Foundation of Canada. $22,950$. [Grants]


2007 Jul - 2009 Jun **Principal Investigator.** IG-IMRT after Radical Prostatectomy. Royal Victoria Hospital Foundation. Motorcycle Ride for Dad Grant Competition. $40,000$. [Grants]


2006 Jul - 2012 Feb **Principal Investigator.** Low-Intermediate Risk Prostate Cancer: Improving Acute Toxicity Outcomes of Radiotherapy with the Integration of Advanced Imaging for Treatment Planning and Guidance. Abbott Laboratories / Canadian Association of Radiation Oncologists (CARO). Uro-Oncologic Radiation Award (ACURA). REB#: 06-0520-C. Collaborators: Co-

2006 Jul - 2012 Feb  Principal Investigator. MRI changes with Administered Oxygen and Carbon Dioxide in Patients with Brain Tumors Receiving Radiotherapy: A Pilot Study. University of Toronto. Dean’s Fund New Staff Grant Competition. REB#: 04-0750-C. [Clinical Trials]


2005 Jul - 2011 Apr  Principal Investigator. A Pilot Study to Develop a Technique for External Beam Radiotherapy after Radical Prostatectomy Based on MRI-Delineation of the Clinical Target Volume. Abbott Laboratories / Canadian Association of Radiation Oncologists (CARO). Uro-Oncologic Radiation Award (ACURA). REB#: 04-0759-CE. [Clinical Trials]


2005 Jul - 2006 Jun  Principal Investigator. BOLD-MRI Changes with Administered O2 and CO2 in Patients with Brain Tumors Receiving Radiotherapy: A Pilot Study. University of Toronto. Dean’s Fund New Staff Grant Competition. 9,250. [Grants]


2005 Jul - 2006 Jun  Principal Investigator. A single cohort study to develop a technique for external beam

NON-PEER-REVIEWED GRANTS

FUNDED

2011 Jan - 2014 Dec  

This trial will utilize novel imaging and guidance techniques along with our experience in prostate hypofractionation to investigate hypofractionated dose escalation to the dominant prostate nodule only. It includes imaging correlative studies to investigate tumor hypoxia.

2009 Oct  
**Co-Investigator.** BiBW 2992 with or without daily temozolomide in the treatment of patients with recurrent malignant Glioma. BI 1200.36. Collaborators: Mason W, Laperriere N, Menard C, Sahgal A, Millar BA. [Grants]

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles

1. Bauman G, Haider M, Van der Heide U, **Ménard C.** Boosting of Dominant Prostate Tumors: A Systematic Review. Radiotherapy and Oncology. In Press. **Senior Responsible Author.**


59. Atalar E, Ménard C. MRI-Guided Interventions for Prostate Cancer. MRI Clin NA (3); 491-504, 2005. **Co-Principal Author**.


Book Chapters


2. NON-PEER-REVIEWED PUBLICATIONS

**Journal Articles**


**Abstracts**


Book Chapters

Conference Publications

1. **Ménard C.** Multiparametric of Hypofractionated MR-imaging of Tumor Biology to Guide Prostate Cancer Radiotherapy.


3. SUBMITTED PUBLICATIONS

Journal Articles

F. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers


Cynthia MéNARD


2009 Design and Preliminary Clinical Studies of an MRI-Guided Transrectal Prostate Intervention System.

2009

2008

2008
Clinical Validity of 3T MRI in Gamma Knife Radiosurgery. 14th International Meeting of the Leksell Gamma Knife Society. Quebec. Presenter(s): Cho YB, Ménard C, Bernstein M, Hodaie M.

2008

2008

2008

2008

2008

2007

2007

2007

2007


2003 Clinical Trial of Endorectal Amifostine for Radioprotection in Patients with Prostate Cancer: Rationale and Early Results. 3rd International Cytoprotection Investigator’s Congress. Nevis, WestIndies. Presenter(s): Ménard C, Camphausen K, Muanza T, Crouse N, Smith S, Ben-Josef E, Coleman CN.

2003 Radiation Exposure Consistently Alters the Protein Profile of Serum in Cancer Patients Receiving Radiotherapy. ICTR. Lugano, Switzerland. Presenter(s): Ménard C, Tantama S, Scott T, Petricoin E, Sproull M, Liotta L, Coleman NC, Camphausen K.


2002 Jun High Field MR-Guided HDR Brachytherapy for Prostate Cancer at the NCI: Linking Biology, Imaging and Therapy. 11th International Brachytherapy Conference. Santa Fe, New Mexico. Presenter(s): Ménard C, Camphausen K, Ning H, Ullman K, Coleman N.


2002 Cy 5.5 labeled Endostatin for Tumor Imaging. NIH Research Festival. Bethesda, Maryland. Presenter(s): Scott T, Sproull M, Coleman CN, Ménard C, Camphausen K.


2001 Dec Determining imaging targets after radiotherapy using microarrays. Urologic Oncology: Extraordinary Opportunities in Discovery. Presenter(s): Camphausen K, Kaushal A, Ménard C, Beecken WD.

2001 Nov In vivo optical tumor imaging using near infrared labeled compounds. Molecular Targets Program Retreat. Leesburg, Virginia. Presenter(s): Camphausen K, Ménard C, Sproull M, Coleman CN.


Invited Lectures and Presentations


2012 Sep **Invited Speaker.** MRI-Guided Prostate Biopsy Prior to Focal Salvage after Radiotherapy. 9th International Interventional MRI symposium. Boston, Massachusetts, United States.


2011 Apr **Presenter.** Disease Specific Breakout Session-Prostate. Cancer Imaging and Radiation Therapy Symposium. Atlanta, United States. Presenter(s): Menard, Cynthia.


2011 Jan Augmenting radiotherapy with MRI-guided tissue sampling. CERRO Annual Meeting. Les Menuires, France. Presenter(s): Menard, Cynthia.


2009 Aug **Interventional MRI Guided Radiotherapeutics for Prostate Cancer.** Estro Pre-Meeting course. Maastricht, Netherlands. Presenter(s): Menard, Cynthia.


2009 Molecular Imaging in Radiation Therapy Practice-Challenges and Opportunities for Growth. Round Table Discussion, Society of Nuclear Medicine (SNM) Annual Meeting. Toronto. Presenter(s): Menard, Cynthia.

2009  **Visiting Professor.** MRI as a Catalyst for Change in Radiation Oncology. University of Pennsylvania, Department of Medical Imaging. Philadelphia. Presenter(s): Menard, Cynthia.


2004  Interventional MRI for Prostate Cancer. American Association for Cancer Research. Baylor College of Medicine - GU Oncology Section. Orlando, United States. Presenter(s): Menard, Cynthia.


2. NATIONAL

Abstracts and Other Papers


2007 Automatic Prostate Motion Estimation For Cancer Treatment. CMS-MITACS Joint Conference. Winnipeg. Presenter(s): Peshko O, Moseley D, Terlaky T, Ménard C, Craig T, Rocca C.


Invited Lectures and Presentations

2013 Sep 19 Invited Speaker. Innovations in Imaging Theme Symposium. Canadian Association of Radiation Oncology and Canadian Organization of Medical Physics. Montreal, Quebec, Canada.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2011 Feb Prostate IMRT/IGRT. Cancer Centre of Southeastern Ontario at Kingston General Hospital. Kingston. Presenter(s): Menard, Cynthia.


4. LOCAL

Abstracts and Other Papers


Invited Lectures and Presentations

2012 Dec Presenter. Prostate focal therapy and imaging. Princess Margaret Cancer Center GU Site Academic Retreat. Toronto, Ontario, Canada. Presenter(s): Menard, Cynthia.


2011 Jun Tumor-Targeted Salvage HDR Brachytherapy. UT DRO GU Site Research Presentations, Department of Radiation Oncology. Presenter(s): Menard, Cynthia.


2010 Online Guidance of Tumor Targeted Prostate Brachytherapy using Histologically Referenced MRI. Radiation Oncology Research Rounds, Sunnybrook Health Sciences Centre. Toronto. Presenter(s): Menard, Cynthia.


2009 Use of imaging technologies to guide therapies. 10th Annual Interventional Neuroradiobiology Symposium. Toronto. Presenter(s): Menard, Cynthia.

2008 MRI-Guided Biopsy and Brachytherapy of the Prostate. Imaging Network Ontario (INO) 7th Imaging Symposium, University of Toronto. Toronto. Presenter(s): Menard, Cynthia.


G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2007 Sep Chair, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Radiation Oncology Symposium - MRI in Radiotherapy.

H. Research Supervision

1. UNDERGRADUATE EDUCATION


2. GRADUATE EDUCATION


2009 - 2013 Feb Thesis Committee Member, Emma Henderson. MSc, An explicit dosimetry model for interstitial photodynamic therapy.


2007 - 2010 Primary Supervisor, Supriya Chopra. MSc, Molecular MR Imaging for non-invasive characterization of hypoxia in men with primary and recurrent prostate cancer. Awards: EIRR21st CIHR Strategic Training Program in Radiation Medicine, ACURA Award, PMH-UHN Trainee Award In Prostate Cancer Research.

2007 - 2009 Jun  

2006 - 2011  

2006 - 2009  

2006 - 2008  

2005 - 2006  

2004  

### 3. UNDERGRADUATE MD

2010 May - 2010 Aug  

2010 - 2011  

2009 May - 2009 Aug  

2009 May - 2009 Aug  

2008 May - 2008 Aug  

2008 - 2010  

2007 May - 2008 Jun  

2007 - 2009  

2007  

2006 - 2012  

2005 May - 2005 Aug  

2005 - 2006  
**Primary Supervisor**, Jenifer Hensel. Year 2, *Development of a prostate deformation model to enable accurate registration of endorectal coil magnetic resonance images (ERC-MRI) to reference treatment planning CT images*. Awards: U of T, Faculty of Medicine, Summer Research Scholarship and Ivan Smith Studentship 20th Annual Undergraduate Medical Student Research Day “Best overall poster and best clinical science poster awards”. Completed 2006.

2005  
**Primary Supervisor**, Eitan Prisman. Year 2, *MRI Changes with Administered O2 and CO2 in Patient with Brain Tumors Receiving Radiotherapy: A Pilot Study*. Awards: U of T, Faculty of Medicine, Summer Research Scholarship and Ivan Smith Studentship 20th Annual Undergraduate Medical Student Research Day “Best basic science poster award”. Completed 2005.

2003 - 2004  
**Primary Supervisor**, J. Alexander, National Cancer Institute, National Institutes of Health. Year 1, *PSA and DCE-MRI metrics of prostate cancer*.
Cynthia MéNARD

2002 - 2003  **Primary Supervisor**, L. Chan, National Cancer Institute, National Institutes of Health. Year 1, *Urinary VEGF levels in patients.*

4. POSTGRADUATE MD


Curriculum Vitae

Barbara-Ann McLellan Millar

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

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Department of Radiation Oncology
Princess Margaret Cancer Centre
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946-2132
Fax (416) 946-6561
Email barbara-ann.millar@rmp.uhn.on.ca

1. EDUCATION

Degrees
2006 FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons, Ontario, Canada
2000 FRCR, Clinical Oncology, United Kingdom
1995 MRCP, United Kingdom
1986 - 1992 MBChB (Hons), University of Sheffield Medical School, Sheffield, England, United Kingdom

Postgraduate, Research and Specialty Training
2001 - 2004 Clinical Fellow, CNS and Paediatrics, Dept of Radiation Oncology, University of Toronto/Princess Margaret Hospital
1996 - 2001 Specialist Registrar, Clinical Oncology, Weston Park Hospital, University of Sheffield, Sheffield, England, United Kingdom
1995 - 1996 Senior House Officer, Clinical Oncology, Beatson Oncology Centre, Western Infirmary, University of Glasgow, Glasgow, Scotland, United Kingdom
1993 - 1995 Senior House Officer, Medical Rotation, Ninewells Hospital, University of Dundee, Dundee, Scotland, United Kingdom
1992 - 1993 House Officer, Royal Hallamshire Hospital, University of Sheffield, Sheffield, England, United Kingdom

Qualifications, Certifications and Licenses
2011 Jan Postgraduate Course: IGRT PMH Course, Princess Margaret Cancer Centre
2010 May Postgraduate Course: Situation Simulation in the Curriculum
2006 Sep - 2008 Jun Postgraduate Course: Educational Scholar Program Postgraduate Education, University of Toronto
2005 Apr Postgraduate Course: Bayer Clinician-Patient Communication, Toronto General Hospital, Toronto
2003 - 2004  MCCQE Part 1 & 2, Medical Council of Canada, Canada
2003  MCEE, Medical Council of Canada, Canada
2001 Jul  CCST, Certificate of Completion of Specialist Training, General Medical Council, United Kingdom
2000 Jul  Fellowship, Clinical Oncology, Royal College of Radiologists, United Kingdom
1995 Jul  Membership, Royal College of Physicians, United Kingdom.

2. EMPLOYMENT

Current Appointments

2011 Feb 1 - present  Associate Director, Education Scholars Program, Faculty of Medicine, St. Michael’s Hospital, University of Toronto, Toronto, Ontario, Canada
2004 - present  Active Staff-Assistant Professor, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada
2016 Jul  Chair-Elect. Radiation Oncology Specialty Committee Royal College of Physicians and Surgeons. Radiation Oncology, Princess Margaret Cancer Center, Ontario, Canada

Previous Appointments

HOSPITAL

2007 - 2016 Jun  Director, Postgraduate Radiation Oncology Residency Training Program, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada
2004 - 2014  Active Staff, The Hospital for Sick Children, University of Toronto, Toronto, Ontario, Canada
2001 - 2004  Clinical Fellow, CNS and Paediatrics, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada
1996 - 2001  Special Registrar, Clinical Oncology, Weston Park Hospital, University of Sheffield, Sheffield, England, United Kingdom
1995 - 1996  Senior House Officer III, Clinical Oncology, Beatson Oncology Centre, Western Infirmary, University of Glasgow, Glasgow, Scotland, United Kingdom
1993 - 1995  Senior House Officer in Medicine, Medical Rotation, Ninewells Hospital, University of Dundee, Dundee, Scotland, United Kingdom
1992 - 1993  House Officer, General Medicine and Diabetes, Royal Hallamshire Hospital, University of Sheffield, Sheffield, England, United Kingdom
Professor Ward and Professor Wilson
1992 - 1993  House Officer, General Surgery and ENT, Royal Hallamshire Hospital, University of Sheffield, Sheffield, England, United Kingdom
Mr WEG Thomas and Mr. AJ Parker

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2003  R.S. Bush Award for Excellence in Research, Department of Radiation Oncology, University of Toronto. (Research Award)
1992  Distinction in Medicine, Surgery and Psychiatry, University of Sheffield. (Distinction)
1992  Final year Medal for MBChB, University of Sheffield. (Distinction)
1992  Gold Medal for Clinical Medicine and Surgery, University of Sheffield. (Distinction)
1992  Walters S. Kay Gold Medal in Mental Diseases, University of Sheffield. (Distinction)
1992  
**West Riding Panel Practitioners Prize in Clinical Medicine**, University of Sheffield.  
(Distinction)

### Teaching and Education Awards

#### LOCAL

**Received**

2015  
**Best Clinical Teaching in the Undergraduate Medical Education Program**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada.  
(Undergraduate MD)

2013  
**Postgraduate Classroom Teaching Award**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto

### 4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

#### Professional Associations

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 Jul - present</td>
<td><strong>Associate Member</strong>, Medical Education</td>
<td></td>
</tr>
<tr>
<td>2003 - present</td>
<td><strong>Member</strong>, Canadian Association of Radiation Oncologists</td>
<td></td>
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<tr>
<td>2002 - present</td>
<td><strong>Associate Member</strong>, Canadian Brain Tumour Consortium</td>
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<tr>
<td>1996 - present</td>
<td><strong>Member</strong>, Royal College of Radiologists (UK)</td>
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<tr>
<td>2014</td>
<td><strong>Member</strong>, Association of Medical Education</td>
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<tr>
<td>2011 - 2016</td>
<td><strong>Member</strong>, Connective Tissue Oncology Society</td>
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<tr>
<td>2005</td>
<td><strong>Member</strong>, European Association of Neuro-oncology</td>
<td></td>
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<tr>
<td>2005</td>
<td><strong>Member</strong>, Society of Neuro-oncology</td>
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<tr>
<td>2003</td>
<td><strong>Associate Member</strong>, American Association of Cancer Research</td>
<td></td>
</tr>
</tbody>
</table>

#### Administrative Activities

**NATIONAL**

Royal College of Physicians and Surgeons of Canada

2008 - present  
**Member**, National Program Director’s Committee, Specialty Committee

**PROVINCIAL / REGIONAL**

Queen’s University at Kingston

2010 Nov  
**External Reviewer**, Radiation Oncology Residency Training Program

**LOCAL**

Ontario Cancer Institute

2009 - present  
**Member**, Faculty

Princess Margaret Cancer Center

2015  
Patient’s Experience and 4As Implementation Committee

Princess Margaret Cancer Centre
Barbara-Ann McLellan MILLAR

2012 - present  **Member**, MRS Board of Examiners

2006 - present  **Member**, Acute Resuscitation Committee, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Center, Multilevel Education

2004 - present  **Member**, Staff Committee, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Center

2005 - 2013  **Supervisor**, Elective Residents Paediatric Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2003  **Member**, Radiation Medicine Program Task Force on Quality Assurance Error Elimination and Quality Improvement

2003  **Member**, Image Management Committee for Radiation Medicine Program

**Radiation Oncology Department**

2010 - present  **Member**, Residency Program Committee - Evaluation Sub-Committee

2007 - present  **Chair**, Residency Program Committee, Selection Committee, Curriculum Committee, Toronto, Ontario, Canada.

**Royal College of Physicians and Surgeons of Canada**

2016 Jul 1  **Chair-Elect**, Radiation Oncology Specialty Committee

**University of Toronto**

2007 Jul - present  **Member**, Physics Residency Program Committee, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

2015 Sep - present  **Internal Reviewer**, Dermatology Residents Program

2014 Oct 9 - present  **Global Health lead for Radiation Oncology for PGME**, Global Health Education Sub-Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

2010 - present  **Member**, Fellowship Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2010 - present  **Member**, UTDRO AGM Education Award Review Committee

2010 - present  **Member**, Best Practices in Teaching Assessment working group

2008 - present  **Member**, Palliative Medicine Residency Program Committee

2008 - present  **Member**, Fellowship Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2007 - present  **Chair**, Competency to Practice Exam Committee, Radiation Oncology Residency Training Program, Toronto, Ontario, Canada.

2007 - present  **Member**, All Program Directors, Postgraduate Medical Advisors Committee, Faculty of Medicine, PGME U of T, Postgraduate MD

2007 - present  **Member**, Selection Committee, Residency Training Program, Radiation Oncology Physics, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2007 - present  **Member**, Postgraduate Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2007 - present  **Chair**, Residency Program Committee – Radiation (PGMEC), Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2007 - present  **Member**, Dept of Radiation Oncology Executive committee

2006 - present  **Member**, Radiation Medicine Program Education Committee

2016 Jan  **Internal Reviewer (Chair)**, Adult Haem Residency Program

2011 May 12  **Internal Reviewer**, Neurosurgery Residency Training Program, Faculty of Medicine,
Neurosurgery, Department of Surgery, Postgraduate MD, Ontario, Canada.

2011 Feb 15  **Reviewer**, Palliative Care Residency Training Program, Faculty of Medicine, Dept of Medicine, Palliative Care Internal Review, Postgraduate MD, Ontario, Canada.

2008 - 2013 **Member**, Internal Review Committee, Postgraduate Medical Education, University of Toronto

2007 - 2009 **Coordinator**, Annual Research Day, Dept of Radiation Oncology

2006 - 2008 **Member**, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2006 - 2007 **Associate Director**, Residency Training Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

**Member**, DRO Executive Committee

### Other Research and Professional Activities

#### RESEARCH PROJECT

**2012 Feb**

Retrospective analysis of radiosurgery for brainstem metastases.

**2011 Jun**

1200-36 BIBW 2992 with or without daily temozolomide in the treatment of patients with recurrent malignant glioma.

**2011 May**

**Co-Investigator.** A Phase II Study of PX-866 in patients with Glioblastoma Multiforme at time of first relapse or progression. Collaborator(s): PI: Mason W, Laperriere N, Sahgal A, Co-In Millar BA, Williams L.

**2008 Jul**


**2008**

A proposal to investigate the relationship between treatment complications and radiosurgery dose-volume histograms (DVH_s) in patients with brain metastases treated with the Perfexion Radiosurgery System. Collaborator(s): PI: Sahgal A, Millar BA.

**2006 Oct**


*Pilot study with Phase I & II in development.*

**2005 - 2007**


*Sponsor: Canadian Brain Tumour Consortium.*


Neurocognitive late effects in adult survivors of childhood acute lymphoblastic leukaemia (ALL). Collaborator(s): Edelstein K, Hodgson D, Laperriere N, Millar BA, Nathan P, Spiegler B.


---

### STUDIES

**2010 Feb 4**

**Collaborator.** Phase III trial on Concurrent and Adjuvant Temozolomide chemotherapy in non-1p/19q deleted anaplastic glioma. The CANTON Intergroup trial. Collaborator(s): PI: Mason, Col’: Laperriere N, Menard C, Sahgal A, Millar BA.

*Protocol Number: CEC.1.*

**2010 Jan 14**

**Collaborator.** A Phase I study of Mk-0752, a Notch Inhibitor, in Patients with Metastatic or Locally Advanced Breast Cancer and Other Solid Tumors. Collaborator(s): PI: Mason, Col’: Laperriere N, Menard C, Sahgal A, Millar BA.

*Protocol Number: MK-0752-014.*
2009 Dec 18 **Collaborator.** A randomized, double blind, placebo controlled, multicenter Phase III trial of bevacizumab, temozolomide and radiotherapy, followed by bevacizumab and temozolomide versus placebo, temozolomide and radiotherapy followed by placebo and temozolomide in patients with newly diagnosed glioblastoma. Collaborator(s): PI: Mason, Col': Laperriere N, Menard C, Sahgal A, Millar BA.  
*Protocol Number: BO21990.*

2009 Oct 9 **Collaborator.** BIBW 2992 with or without daily temozolomide in the treatment of patients with recurrent malignant glioma. Collaborator(s): PI: Mason, Col': Laperriere N, Menard C, Sahgal A, Millar BA.  
*Protocol Number: BI 1200.36.*

2009 Sep 14 **Collaborator.** A Phase I Study Evaluating the Safety, Tolerability and Pharmacokinetics of ABT-888 in Combination with WBRT in Subjects with Brain Metastases. Collaborator(s): PI: Dr. Brade. Col: Millar BA.  
*ABT-888.*

2008 Aug 30 **Collaborator.** Hypofractionated and Adaptive Stereotactic Radiotherapy (HFA-SRT) for Large-Burden Oligometastases to the Brain. Collaborator(s): PI: Dr. Menard. Col: Millar BA.  
*No protocol #.*

2008 Aug 6 **Collaborator.** Evaluating the feasibility and clinical impact of telemedicine for consultation and follow up in patients referred for palliative radiotherapy. Collaborator(s): PI: Dr. Wong. Col: Millar BA.  
*No protocol #. Protocol submitted to Ethic board for approval.*


2007 Oct 1 **Collaborator.** A Randomized Phase III Study of Temozolomide and Short-Course Radiation Versus Short-Course Radiation Alone in the Treatment of Newly Diagnosed Glioblastoma Multiforme in Elderly Patients. Collaborator(s): PI: Menard C. Col’s: Laperriere N, Mason, Sahgal A, Millar BA.  
*Protocol Number: CE.6.*

2007 Aug 23 **Collaborator.** Phase III Randomized Trial of Whole Brain RT in Addition to Radiosurgery in Patients with 1-3 Cerebral Mets. Collaborator(s): PI: Dr. Menard Col: Millar BA.  
*N0574.*

2007 May 22 **Collaborator.** Treatment of Patients with Newly Diagnosed Medulloblastoma, Supratentorial Primitive Neuroectodermal Tumor, or Atypical Teratoid Rhabdoid Tumor. Collaborator(s): PI: Dr. Laperriere Col: Millar BA.  
*PEDS: (Sick Kids study). protocol #SJMB03.*

*Protocol number: CE.5.*

**Collaborator.** A Phase 2 Non-Comparative Randomized Open-Label Study of Multiple Regimens of Single-Agent XL184 in Subjects with Grade IV Astrocytic Tumors in First or Second Relapse. Collaborator(s): PI: Mason, Col': Laperriere N, Menard C, Sahgal A, Millar BA.  
*Protocol Number: XL184-205. Not Opened.*

**Principal Investigator.** Construction and Testing of A Symptom Checklist for Patients with Brain Metastases. Collaborator(s): PI: Millar BA.  
*Protocol number: 06-0016-CE.*

**Principal Investigator.** Reevaluating the Feasibility and Clinical Impact of Telemedicine for Consultation and Follow Up in Patients Referred for Palliative Radiotherapy. Collaborator(s): PI: Millar BA.  
*Protocol number: 08-0579-BE.*
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2013 Jul - 2014 Jun  

2011 Jul - 2014 Jun  
**Collaborator.** Feasibility of a prospective, randomized trials comparing surgery versus radiosurgery for the treatment of single brain metastases. Department of Neurosurgery, Toronto Western Hospital. REB #: 10-0486-C. PI: Zadeh, G. Collaborator(s): Menard C, Bernstein M, Laperriere N, Millar BA, Chung C. 32,500 CAD. [Clinical Trials]

2007 Jul - 2015 Jun  
**Collaborator.** A randomized phase III study of temozolomide and short-course radiation versus short-course radiation alone in the treatment of newly diagnosed glioblastoma multiforme in elderly patients. National Cancer Institute of Canada (NCIC). PI: Chung, C. Collaborator(s): Mason W, Millar BA, Laperriere N. 203,000 CAD. [Clinical Trials]

Non-Peer-Reviewed Grants

Funded

2010 Jul - present  
**Collaborator.** Discovery of biomarkers to guide individualized therapy in patients with brain metastasis receiving radiotherapy. 10-0743-C. PI: Menard, C. Collaborator(s): Chung C (Co-I), Zadeh G (Co-I), Bernstein M (Coll), Laperriere N (Coll), Millar BA (Coll), Bristow R (Coll), Camphausen K (Coll), Foltz W (Coll), Damyanovich A (Coll), Stanescu T (Coll), Cho Y-B (Coll), Ruschin M (Coll), Kucharzyk W (Coll). [Clinical Trials]

2013 Jul - 2018 Jun  
**Collaborator.** A double-blind, placebo-controlled, randomized, Phase IIIb trial evaluating the efficacy and safety of standard of care (SOC) +/- continuous bevacizumab treatment following progression of disease in patients with glioblastoma after first (1st)-line treatment with radiotherapy, temozolomide and bevacizumab. PI: Mason, W. Collaborator(s): Laperriere N, Millar BA. [Clinical Trials]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

Book Chapters


Letters to Editor

3. SUBMITTED PUBLICATIONS

Journal Articles
E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2012 Oct 16  Invited Speaker. CanMEDS, the canadian model and experience. IAEA. Vienna, Austria. Presenter(s): Dr. Barbara-ann Millar.


Presented Abstracts


Barbara-Ann McLellan MILLAR


2000 May  Management of Thyroid Cancer in North Trent. Millennium Meeting of British, American and Scandinavian Endocrine Surgeons. London. Authors: Millar BA, Harrison B.

Presented and Published Abstracts


Publication Details:


Publication Details:

**Publication Details:**

2006 Oct
Dosimetric Impact of Geometric Uncertainties During Gamma Knife Radiosurgery for Trigeminal Neuralgia. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting.

**Publication Details:**

2001
Investigation of the Use of Intensity Modulated Radiotherapy (IMRT) in Comparison with Conformal Radiotherapy in the Management of Soft tissue Sarcoma.

**Publication Details:**

2. NATIONAL

Presented Abstracts

2011 Sep 14

2011 Sep 14

2011 Mar

2010 Sep 22

2009 Sep 30

2007

2005 Mar

2003 Oct
Association of dynamic perfusion computerized tomography imaging with symptoms during whole brain radiotherapy for cerebral metastases. Canadian Association of Radiation Oncology (CARO) Annual


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2005 Sep  Stereotactic Radiosurgery (SRS) and Radiotherapy (SRT) in Canada: A Survey. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Victoria, British Columbia.

Publication Details:


Publication Details:


Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


4. LOCAL

Invited Lectures and Presentations


2008 Dec 8 University of Toronto Career Night. Podium Presentation. Authors: Millar BA, Giuliani M, Follwell M.


2004 Oct  Introduction to Contouring in Pinnacle. Instructions for Radiation Oncologists. Radiation Medicine Program. Authors: Millar BA and Blanken A.


Presented Abstracts


5. OTHER

Presented and Published Abstracts

2009 Sep  Intensity modulated radiation therapy (IMRT) for skull base chordomas and chondrosarcomas: outcomes in the image guided era.

Publication Details:

2009 Sep  Late endocrine toxicity of radiation therapy in children treated for medulloblastoma or ependymoma.

Publication Details:

2009 May  Endocrine complications in children treated for medulloblastoma or ependymoma using radiation therapy: outcomes in the CT-planning era.

Publication Details:

2009  Assessing Radiation Oncology Residents in the CanMEDS Era: Developing a Multi-Source Feedback Program.

Publication Details:

2008 Sep  Radiation therapy for atypical and malignant meningiomas.

Publication Details:

2008 Sep  Neovascular glaucoma following stereotactic radiotherapy for choroidal melanoma: a dosimetric analysis.

Publication Details:


Publication Details:

2008 Sep  Atypical and malignant meningiomas: Long-term results with radiation therapy.

Publication Details:

2008 Jun
Management of Radiation-Induced Meningiomas in patients who received Radiotherapy in Childhood.

*Publication Details:*

2007 Oct
Salivary gland sparing in pediatric patients receiving radiotherapy for tumours arising within the posterior fossa: optimization of treatment technique to minimize parotid dose.

*Publication Details:*

2007 Oct
MRS/I assessment of metabolic response to chemoradiotherapy in patients with Glioblastoma Multiforme.

*Publication Details:*

2006 Oct
Early MRI Changes for monitoring therapeutic response during Chemotherapy and Radiotherapy for Glioblastoma Multiforme.

*Publication Details:*

2005 Nov 23
Dexamethasone and brain tumours: alterations in cerebral perfusion and blood-tumour barrier kinetics shown by magnetic resonance department of radiology.

*Publication Details:*

2005 Oct
Fractionated stereotactic radiotherapy for vestibular schwannoma: single institutional experience at the Princess Margaret Hospital, Canada.

*Publication Details:*

2005 Oct
Development of fractionated stereotactic radiotherapy for meningioma.

*Publication Details:*

2005 Mar
Perfusion Computerized Tomography of Patients Undergoing Whole Brain Radiotherapy For Cerebral Metastases.
Publication Details:

2002
Fractionated Stereotactic Radiotherapy for the Management of Meningioma.

Publication Details:

2002
Treatment of Pelvic Lymph Nodes in Bladder Cancer using IMRT-A Feasibility Study.

Publication Details:

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Supervisor Type</th>
<th>Supervisor Name</th>
<th>Institution/Position</th>
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<tbody>
<tr>
<td>2013 Apr - 2013 May</td>
<td>Primary Supervisor</td>
<td>Medical student</td>
<td>Alison Yu.</td>
</tr>
<tr>
<td>2013 Mar - 2013 Apr</td>
<td>Primary Supervisor</td>
<td>Medical student</td>
<td>Matthew Nicholson.</td>
</tr>
<tr>
<td>2013 Feb - 2013 Mar</td>
<td>Primary Supervisor</td>
<td>Medical student</td>
<td>Emily Goebel.</td>
</tr>
<tr>
<td>2013 Jan</td>
<td>Primary Supervisor</td>
<td>Medical student</td>
<td>Lukas Jakabowski.</td>
</tr>
<tr>
<td>2013 - 2014</td>
<td>Primary Supervisor</td>
<td>Medical student</td>
<td>Disha Mehta.</td>
</tr>
<tr>
<td>2012 Jul - 2012 Aug</td>
<td>Primary Supervisor</td>
<td>Christine Hawkes</td>
<td>2 weeks.</td>
</tr>
<tr>
<td>2012 Jul</td>
<td>Primary Supervisor</td>
<td>Chiara Saroli Palumbo</td>
<td>2 weeks.</td>
</tr>
<tr>
<td>2012 Jan</td>
<td>Primary Supervisor</td>
<td>Yaser Alayed.</td>
<td></td>
</tr>
<tr>
<td>2012 Jan</td>
<td>Primary Supervisor</td>
<td>Danielle Rodin.</td>
<td></td>
</tr>
<tr>
<td>2011 Nov</td>
<td>Primary Supervisor</td>
<td>Yaser Hasan.</td>
<td></td>
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<tr>
<td>2011 Oct - 2011 Nov</td>
<td>Primary Supervisor</td>
<td>Ahmad Bushehri.</td>
<td></td>
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<tr>
<td>2011 Sep</td>
<td>Primary Supervisor</td>
<td>Danielle Rodin.</td>
<td></td>
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<tr>
<td>2011 Jun - 2011 Jul</td>
<td>Primary Supervisor</td>
<td>Muhammad Faruqi.</td>
<td></td>
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<tr>
<td>2011 Jan</td>
<td>Primary Supervisor</td>
<td>Bill Ayach.</td>
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<tr>
<td>2011 Jan</td>
<td>Primary Supervisor</td>
<td>Oliver Holmes.</td>
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<td>2011 Jan</td>
<td>Primary Supervisor</td>
<td>Lauren O’Malley.</td>
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<tr>
<td>2010 Nov - 2010 Dec</td>
<td>Primary Supervisor</td>
<td>Houda Bahig.</td>
<td></td>
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<tr>
<td>2010 Nov</td>
<td>Primary Supervisor</td>
<td>Heather Osborn.</td>
<td></td>
</tr>
<tr>
<td>2010 Oct - 2010 Nov</td>
<td>Primary Supervisor</td>
<td>Sonia Skamene.</td>
<td></td>
</tr>
</tbody>
</table>

Supervisee Position: Observer from Kuwait.

Supervisee Institution: McGill University.

Supervisee Institution: Dalhousie University.
<table>
<thead>
<tr>
<th>Year</th>
<th>Period</th>
<th>Position</th>
<th>Supervisor Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 Oct</td>
<td></td>
<td>Primary Supervisor</td>
<td>Jeffrey DAI</td>
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<tr>
<td>2010 Sep - 2010 Oct</td>
<td>Primary Supervisor</td>
<td>Stephanie Casey</td>
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<td>2010 Sep - 2010 Oct</td>
<td>Primary Supervisor</td>
<td>Tiffany Czilli</td>
<td>University of Ottawa</td>
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<tr>
<td>2010 Aug - 2010 Sep</td>
<td>Primary Supervisor</td>
<td>Mira Goldberg, USA</td>
<td></td>
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<tr>
<td>2010 Aug - 2010 Sep</td>
<td>Primary Supervisor</td>
<td>Nhu Tram Nguyen</td>
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<tr>
<td>2010 Aug</td>
<td>Primary Supervisor</td>
<td>Ola Wierzbicki</td>
<td>Observer</td>
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<tr>
<td>2010 Aug</td>
<td>Primary Supervisor</td>
<td>Martin Korzeniowski</td>
<td>University of McMaster</td>
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<tr>
<td>2010 Jul</td>
<td>Primary Supervisor</td>
<td>Nafisha Lalani</td>
<td>University of Toronto</td>
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<td>2010</td>
<td>Primary Supervisor</td>
<td>Derek Tsang</td>
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<tr>
<td>2010</td>
<td>Primary Supervisor</td>
<td>Adam Gladwish</td>
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<tr>
<td>2010</td>
<td>Primary Supervisor</td>
<td>Allison Kwan</td>
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**Postgraduate MD**

<table>
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<tr>
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<th>Period</th>
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<th>Supervisor Name</th>
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<tbody>
<tr>
<td>2014 Jun</td>
<td></td>
<td>Primary Supervisor</td>
<td>Daniel Glick</td>
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<td>2014 Jun</td>
<td>Primary Supervisor</td>
<td>Mohammad Hasan</td>
<td>PGY1</td>
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<td>2014 May</td>
<td>Primary Supervisor</td>
<td>Martin Korzeniowski</td>
<td>PGY3</td>
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<tr>
<td>2014 Apr</td>
<td>Primary Supervisor</td>
<td>Negin Shahid</td>
<td>PGY4</td>
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<tr>
<td>2013 Jun</td>
<td>Primary Supervisor</td>
<td>Bumi Ogundimu</td>
<td>KGCC</td>
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<td>2013 May</td>
<td>Primary Supervisor</td>
<td>Kadir Mullings</td>
<td>KGCC</td>
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<td>2013 Apr - 2013 Jun</td>
<td>Primary Supervisor</td>
<td>Derek Tsang</td>
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<td>2013 Jan - 2013 Apr</td>
<td>Primary Supervisor</td>
<td>Adam Gladwish</td>
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<td>2013 Jan - 2013 Mar</td>
<td>Primary Supervisor</td>
<td>Adam Gladwish</td>
<td>University of Toronto</td>
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<td>2013 Jan</td>
<td>Primary Supervisor</td>
<td>Jennifer Crook</td>
<td>University of Ottawa</td>
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<tr>
<td>2012 Oct - 2013 Jan</td>
<td>Primary Supervisor</td>
<td>Nafisha Lalani</td>
<td></td>
<td></td>
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<tr>
<td>2012 Jul - 2012 Sep</td>
<td>Primary Supervisor</td>
<td>Robert Thompson</td>
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<td>2012 Apr - 2012 Jun</td>
<td>Primary Supervisor</td>
<td>Jonathan Livergant</td>
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<td>2012 Apr</td>
<td>Primary Supervisor</td>
<td>Darwin Yip</td>
<td>KGCC</td>
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<td>2012 Mar</td>
<td>Primary Supervisor</td>
<td>Jennifer Croke</td>
<td>KGCC</td>
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<td>2012 Feb</td>
<td>Primary Supervisor</td>
<td>Tatiana Conrad</td>
<td>KGCC</td>
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<td>2012 Jan - 2012 Mar</td>
<td>Primary Supervisor</td>
<td>Alireza Fotouhighiam</td>
<td>KGCC</td>
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<tr>
<td>2012 Jan</td>
<td>Primary Supervisor</td>
<td>Andrew Chiang</td>
<td>KGCC</td>
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<td>2012 Jan</td>
<td>Primary Supervisor</td>
<td>Yaser Hasan, Kuwait</td>
<td>KGCC</td>
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<td>Primary Supervisor</td>
<td>Yaser Alayed, Saudi</td>
<td>KGCC</td>
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<tr>
<td>2012 - 2013</td>
<td>Primary Supervisor</td>
<td>Academic Half Day, 25 residents (1 hour)</td>
<td>KGCC</td>
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<tr>
<td>2012 - 2013</td>
<td>Primary Supervisor</td>
<td>Academic Half Day, 25 residents (2 hours)</td>
<td>KGCC</td>
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<td>2011 Dec</td>
<td>Primary Supervisor</td>
<td>Eugene Hong</td>
<td>KGCC</td>
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<td>2011 Nov - 2011 Dec</td>
<td>Primary Supervisor</td>
<td>Sara Saimiee</td>
<td>KGCC</td>
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<td>2011 Oct - 2012 Jan</td>
<td>Primary Supervisor</td>
<td>Daniel Glick</td>
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<td>2011 Oct - 2012 Jan</td>
<td>Primary Supervisor</td>
<td>Negin Shahid</td>
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<td>2011 Jul - 2011 Oct</td>
<td>Primary Supervisor</td>
<td>Jonathan Klein</td>
<td>KGCC</td>
<td></td>
</tr>
<tr>
<td>2011 Jun</td>
<td>Primary Supervisor</td>
<td>Michele Ferguson</td>
<td>KGCC</td>
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<tr>
<td>2011 May</td>
<td>Primary Supervisor</td>
<td>Sara Samiee</td>
<td>KGCC</td>
<td></td>
</tr>
<tr>
<td>2011 Apr - 2011 Jun</td>
<td>Primary Supervisor</td>
<td>Julia Skilarenko</td>
<td>University of Toronto</td>
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<tr>
<td>2011 Mar</td>
<td>Primary Supervisor</td>
<td>Eric Leung</td>
<td>University of Toronto</td>
<td></td>
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<tr>
<td>Date</td>
<td>Primary Supervisor</td>
<td>PGY</td>
<td>Institution</td>
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<tr>
<td>2011 Feb</td>
<td>Primary Supervisor</td>
<td>PGY4</td>
<td>Eman Aldhuaiyb, Supervisee Institution: University of Toronto.</td>
<td></td>
</tr>
<tr>
<td>2011 Jan</td>
<td>Primary Supervisor</td>
<td>PGY4</td>
<td>Fazilat Mohammad. Supervisee Institution: University of Toronto.</td>
<td></td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>Primary Supervisor</td>
<td>PGY2</td>
<td>Julia Skliarenko. Supervisee Institution: University of Toronto.</td>
<td></td>
</tr>
<tr>
<td>2010 Dec</td>
<td>Primary Supervisor</td>
<td>PGY5</td>
<td>Ahlan Al-Jizani.</td>
<td></td>
</tr>
<tr>
<td>2010 Nov</td>
<td>Primary Supervisor</td>
<td>PGY4</td>
<td>Darwin Yip.</td>
<td></td>
</tr>
<tr>
<td>2010 Oct</td>
<td>Primary Supervisor</td>
<td>PGY4</td>
<td>Amanda Caissie. Supervisee Institution: University of Toronto.</td>
<td></td>
</tr>
<tr>
<td>2010 Aug</td>
<td>Primary Supervisor</td>
<td>PGY4</td>
<td>Allison Ashworth.</td>
<td></td>
</tr>
<tr>
<td>2010 Jul - 2010 Aug</td>
<td>Primary Supervisor</td>
<td>Crystal Hann.</td>
<td></td>
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<tr>
<td>2010 Jul</td>
<td>Primary Supervisor</td>
<td>PGY4</td>
<td>Meredith Giuliani. Supervisee Institution: University of Toronto.</td>
<td></td>
</tr>
<tr>
<td>2010 May - 2010 Jul</td>
<td>Primary Supervisor</td>
<td>PGY4</td>
<td>Elisa Chan, Radiation Oncology. Supervisee Institution: University of Toronto.</td>
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</tr>
<tr>
<td>2010 Apr</td>
<td>Primary Supervisor</td>
<td>Marc-Emile Plourde.</td>
<td></td>
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<tr>
<td>2010 - 2011</td>
<td>Primary Supervisor</td>
<td>PGY2</td>
<td>Erynn Shaw. Supervisee Institution: University of Toronto.</td>
<td></td>
</tr>
<tr>
<td>2009 Jul</td>
<td>Primary Supervisor</td>
<td>PGY3</td>
<td>Junaid Yousef, Radiation Oncology Resident. Supervisee Institution: KRCC.</td>
<td></td>
</tr>
<tr>
<td>2009 Jun</td>
<td>Primary Supervisor</td>
<td>PGY1</td>
<td>William Dubinski, Pathology. Supervisee Institution: University of Toronto.</td>
<td></td>
</tr>
<tr>
<td>2009 - 2010</td>
<td>Primary Supervisor</td>
<td>PGY3</td>
<td>Jaclyn Barron, Radiation Oncology Resident. Supervisee Institution: KRCC.</td>
<td></td>
</tr>
<tr>
<td>2009 - 2010</td>
<td>Primary Supervisor</td>
<td>PGY3</td>
<td>Jim Rose, Radiation Oncology Resident. Supervisee Institution: KRCC.</td>
<td></td>
</tr>
<tr>
<td>2009 - 2010</td>
<td>Primary Supervisor</td>
<td>PGY3</td>
<td>Jonathan Ng, Radiation Oncology Resident. Supervisee Institution: KRCC.</td>
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</tr>
</tbody>
</table>

**Clinical Research Fellow (MD)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Primary Supervisor</th>
<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>2014 - present</td>
<td>Primary Supervisor</td>
<td>Matthew Mason.</td>
</tr>
<tr>
<td>2013 Jul - 2013 Nov</td>
<td>Primary Supervisor</td>
<td>Inge Aivas.</td>
</tr>
<tr>
<td>2013 Jul - 2013 Nov</td>
<td>Primary Supervisor</td>
<td>Sarah Samiee.</td>
</tr>
<tr>
<td>2013 Feb - 2013 Jun</td>
<td>Primary Supervisor</td>
<td>Anne Marie Charpenter, Feb, April &amp; June.</td>
</tr>
<tr>
<td>2013 Jan - 2013 Jun</td>
<td>Primary Supervisor</td>
<td>Minh Thi “Mimi” Thieu.</td>
</tr>
<tr>
<td>2013 Jan - 2013 Jun</td>
<td>Primary Supervisor</td>
<td>Eman Aldhuaiby.</td>
</tr>
<tr>
<td>2012 Jul - 2012 Dec</td>
<td>Primary Supervisor</td>
<td>Eman Aldhuaiby.</td>
</tr>
<tr>
<td>2012 Jul - 2012 Dec</td>
<td>Primary Supervisor</td>
<td>Anne Marie Charpenter.</td>
</tr>
<tr>
<td>2012 Jul - 2012 Dec</td>
<td>Primary Supervisor</td>
<td>Minh Thi “Mimi” Thieu.</td>
</tr>
<tr>
<td>2011 Jul - 2012 Jun</td>
<td>Primary Supervisor</td>
<td>Evelyn Herrmann.</td>
</tr>
<tr>
<td>2010 Jul - 2011 Jun</td>
<td>Primary Supervisor</td>
<td>M Laurence.</td>
</tr>
<tr>
<td>2009 Feb - 2010 Jun</td>
<td>Primary Supervisor</td>
<td>Matt Foote.</td>
</tr>
<tr>
<td>2009 - 2010</td>
<td>Primary Supervisor</td>
<td>Heather McCarty.</td>
</tr>
<tr>
<td>2008 Jul</td>
<td>Primary Supervisor</td>
<td>Mira Van Den Akker.</td>
</tr>
</tbody>
</table>
2. OTHER SUPERVISION

Undergraduate Education

Clinical

2008 May - 2008 Jun MRS students.
2008 - 2009 Seven Student’s attended clinics (Total 63 hours. Overall teaching score 4.4).
2004 - 2006 Ambulatory Care clinical teaching for University of Toronto and elective medical students. Supervisee Institution: University of Toronto.
1999 - 2001 5th year medical students. Clinical Skills and Oncology teaching (1.5-2 hours every 3 months for 6 students). Supervisee Institution: Weston Park Hospital, University of Sheffield.
1993 - 1995 3rd year medical students. Clinical skills teaching (2 hours/week for 8-10 students). Supervisee Institution: Ninewell Hospital, University of Dundee.

Undergraduate MD

Didactic

2011 Jun CNS Lecture to Physics residents, PMH U of T (Invited).
2010 May Women in Medicine Event, Toronto (Invited).
2000 - 2001 Endocrine Tumours and CNS Tumours (2 hours/year to 6 therapy students). Supervisee Institution: Undergraduate Radiographers, School of Radiology (Therapeutic), University of Hallam, Sheffield.

Continuing Education

Clinical

2002 - 2003 Management of CNS and Paediatric Tumours (2 hours/year to 3 University of Toronto Radiation Oncology residents (ad hoc)).

Clinical Research Fellow (MD)

Didactic

2011 Jun CNS Session to Physics Residents (June 20, 2011).
2008 Radiotherapy Student - CNS clinic.
2003 Management of Paediatric Brain Tumours (1.5 hours to 10 University of Toronto radiation oncology residents).
1999 - 2001 Management of Thyroid Malignancies (one hour every six months to 8 Senior House
Barbara-Ann McLellan MILLAR

Officers).
Curriculum Vitae

Michael Frederick Milosevic

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Radiation Medicine Program
Princess Margaret Cancer Centre
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone (416) 946-2932
Fax (416) 946-2227
Email mike.milosevic@rmp.uhn.on.ca

1. EDUCATION

Degrees
1987 MD, Queen’s University at Kingston, Ontario
1983 BASc, Electrical Engineering, University of Waterloo, Waterloo, Ontario

Postgraduate, Research and Specialty Training
2010 Leadership Development for Physicians in Academic Health Centers. Harvard School of
Public Health, Harvard University
2006 UHN-Rotman Leadership Development Program, Joseph L. Rotman School of Management,
University of Toronto
1989 - 1992 Resident, Radiation Oncology, University of Toronto, Toronto, Ontario
1988 - 1989 Resident, Internal Medicine, Western University, London, Ontario
1987 - 1988 Intern, Internal Medicine, Queen’s University at Kingston, Ontario

Qualifications, Certifications and Licenses
1992 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1989 Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2012 - present Full Member, Institute of Medical Science, University of Toronto
2009 - present Professor, Department of Radiation Oncology, University of Toronto
2004 - present Clinician Scientist, Princess Margaret Cancer Centre and University Health Network,
Toronto, Ontario
Previous Appointments

HOSPITAL
1998 - 2004 Staff Physician, Department of Radiation Oncology, Princess Margaret Hospital and University Health Network, Toronto, Ontario
1992 - 1998 Staff Physician, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario

UNIVERSITY
2002 - 2011 Associate Member, Institute of Medical Science, University of Toronto
1991 - 1992 Chief Resident, Radiation Oncology, University of Toronto

UNIVERSITY - RANK
2002 - 2009 Associate Professor, Radiation Oncology, University of Toronto
1995 - 2002 Assistant Professor, Radiation Oncology, University of Toronto
1992 - 1995 Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received
2015 Gordon Richards Lecture, Targeting Cancer at the Biology Technology Interface, Canadian Association of Radiation Oncology (CARO). (Distinction)
Award for outstanding contributions in the field of radiation oncology.

LOCAL

Received
2015 Research Leadership Award, University of Toronto, Department of Radiation Oncology.
(Distinction)
Distinction.
2012 Sustained Excellence in Research Award, University of Toronto, Department of Radiation Oncology. (Distinction)
2011 Postgraduate Advocacy and Mentorship Award, University of Toronto, Department of Radiation Oncology.
(Distinction)
2005 Research Leadership Award, University of Toronto, Department of Radiation Oncology.
(Distinction)
1991 W.J. Simpson Award, University of Toronto, Department of Radiation Oncology.
(Distinction)
For academic excellence in resident research.
1983 Murata Erie Award, University of Waterloo. (Distinction)
For academic excellence in electronics.
1980 - 1981 Research Scholarship for Academic Standing, University of Waterloo. (Distinction)

Teaching and Education Awards

LOCAL

Received
2009  **Postgraduate Medical Education Award**, University of Toronto, Department of Radiation Oncology. (Postgraduate MD, Core Program)  
*For excellence in research supervision.*

2004  **Postgraduate Medical Education Award**, University of Toronto, Department of Radiation Oncology. (Postgraduate MD, Core Program)  
*For excellence in research supervision.*

1996  **Residents’ Award for Excellence in Resident Teaching**, University of Toronto, Department of Radiation Oncology. (Postgraduate MD, Core Program)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

**Professional Associations**

- American Society for Clinical Oncology (ASCO)
- American Society for Radiation Oncology (ASTRO)
- Canadian Association of Radiation Oncology (CARO)
- Canadian Medical Association (CMA)
- European Society of Therapeutic Radiology and Oncology (ESTRO)
- Ontario Medical Association (OMA)
- Radiation Research Society (RRS)
- Royal College of Physicians and Surgeons of Canada (RCPSC)

**Administrative Activities**

**INTERNATIONAL**

12th International Tumor Microenvironment Meeting  
2010  **Member**, Organizing Committee

National Institutes of Health  
2010 - 2014  **Member**, Bladder Cancer Task Force  
2010 - 2014  **Member**, External Advisory Group, Memorial Sloan Kettering Cancer Center, New York.  
*NIH P01 Program Project: “Tumor Hypoxia Imaging: Laboratory and Clinical Studies”.*

Radiation Therapy Oncology Group (RTOG)  
2000 - 2004  **Principal Investigator**  
*Responsible for the co-ordination of RTOG studies activated at Princess Margaret Hospital.*

Union for International Cancer Control (UICC)  
2013 - present  **Member**, Global Task Force for Radiotherapy in Cancer Control (GTFRCC) Secretariat.  
*GTFRCC is an initiative of the Union for International Cancer Control (UICC) with a mandate to develop an investment framework aimed at closing the gap between the availability of radiotherapy in low and middle income countries (LMICs) and developed nations.*

World Congress of Brachytherapy  
2016  **Member**, Gynecology Scientific Committee
Michael Frederick MILOSEVIC

NATIONAL

Accreditation Canada
2014 - 2015 Member, Accreditation Canada Radiotherapy/Cancer Care and Oncology Services Standards Working Group

Canadian Association of Provincial Cancer Agencies (CAPCA) and Canadian Partnership Against Cancer (CPAC)
2016 Member, Scientific Organizing Committee, Canadian Cancer Conference: Innovative Approaches to High Value Cancer Care in Canada
2007 - 2009 Member, Human Resources Joint Committee for the Cancer Workforce
2007 - 2009 Member, Cancer Workforce Scoping Study Steering Committee

Canadian Association of Radiation Oncology (CARO)
2009 - 2010 Past-President, Canadian Association of Radiation Oncology
2007 - 2009 President, Canadian Association of Radiation Oncology
2007 - 2008 Chair, CARO-Elekta Research Fellowship Competition
2005 - 2007 President-Elect, Canadian Association of Radiation Oncology
2003 - 2005 Chair, Manpower Committee
2001 - 2005 Member, Manpower Committee

Canadian Institute for Health Information (CIHI)
2014 - present National System for Incident Reporting Advisory Group

Canadian Medical Association
2008 Aug Delegate to General Council, Annual General Meeting, Montreal.
2006 Aug Delegate to General Council, Annual General Meeting, Charlottetown.

Canadian Partnership for Quality Radiotherapy (CPQR)
2010 - present Chair, CPQR Steering Committee

Canadian Strategy for Cancer Control (CSCC) and Canadian Association of Provincial Cancer Agencies (CAPCA)
2003 - 2005 Member, Human Resources Action Group (HRAG)

Fields Institute for Research in Mathematical Science
2006 - 2014 Member, Scientific Advisory Committee, Centre for Mathematical Medicine

Kidney Cancer Canada
2009 - 2014 Member, Medical Advisory Board

National Cancer Institute of Canada/Clinical Trials Group
2007 - 2008 Co-Chair, Grant Panel E - Biophysics, Imaging and Radiobiology
Michael Frederick MILOSEVIC

Prostate Cancer Alliance of Canada
1997 - 2001  Member

*Canadian Association of Radiation Oncologists representative. The Prostate Cancer Alliance of Cancer is a multidisciplinary organization with the mandate of providing a forum for information sharing and co-operation among organizations working in the prostate cancer field.*

PROVINCIAL / REGIONAL

Cancer Care Ontario (CCO)
2014 - present  Co-Chair, CCO Radiation Treatment Community of Practice - Gynecological Cancers
2014 - 2015  Co-Chair, CCO Cervical Cancer Pathway Working Group
2014  Member, CCO Ontario Cancer Plan IV Safety Working Group
2009 - 2012  Member, CCO Radiation Treatment Quality and Safety Committee
2009 - 2012  Member, CCO Radiation Oncology Program Advisory Committee

Health Quality Ontario (HQO)

Ontario Association of Radiation Oncologists (OARO)
2010 - 2014  Chair, Clinician Scientist Advisory Committee

University of Waterloo
2006 - present  Member, Biomechanical Research Group, Department of Applied Mathematics, Waterloo, Ontario.

LOCAL

Princess Margaret Hospital
2012 - present  Director, Research and Quality Committee, Radiation Medicine Program
2009 - present  Co-Chair, Quality Committee, Radiation Medicine Program
2009 - present  Member, Steering Committee, Radiation Medicine Program
2002 - present  Chair, Research Committee, Radiation Medicine Program
1997 - present  Group Leader, Gynecologic Oncology Site
2013  Co-Chair, 4th Annual Ontario Cancer Institute (OCI) Retreat
2009 - 2012  Associate Director, Radiation Medicine Program
2003 - 2012  Member, Senior Advisory Committee, Department of Radiation Oncology
2003 - 2012  Member, Senior Advisory Committee, Department of Radiation Oncology
2002 - 2012  Director of Research, Radiation Medicine Program
2000  Chair, Radiation Oncology Partners
1999  Treasurer, Radiation Oncology Partners
1998  Member, Inpatient Care Committee, Department of Radiation Oncology
1998  Member, Strategic Planning Committee, Department of Radiation Oncology
1993 - 1995  Member, Executive Committee, Radiation Oncology Partners
1992 - 1995  Member, Anti-Microbial Subcommittee, Pharmacy and Therapeutics Committee

University Health Network
Michael Frederick MILOSEVIC

2009 - present  Co-Chair, Radiation Treatment Radiation Safety Committee
2009 - present  Member, Cancer Program Quality Committee
2005 - present  Member, STTARR Executive Management Committee

The STTARR Research Program and the STTARR Innovation Centre at UHN, integrate molecular, cellular, animal and patient imaging with precision radiation research in a manner conducive to the rapid translation of novel treatment strategies from the laboratory to clinical evaluation.

2005 - present  Director, STTARR Core III
1999 - 2003  Member, Radiation Treatment Radiation Safety Committee
1999 - 2003  Member, Brachytherapy Radiation Safety Group
1999 - 2003  Member, External Beam Radiation Safety Group
1999 - 2003  Member, Oncology Ethics Review Board

University of Toronto
2005 - present  Key Mentor, Excellence in Radiation Research for the 21st Century (EIRR21), CIHR Research Training Program, Faculty of Medicine, Department of Radiation Oncology, Toronto.

2011 May  Co-Chair, Organizing Committee, IMRT Insights: On Target, On Track, Faculty of Medicine, Department of Radiation Oncology, Continuing Education, Toronto, Ontario.
2010 Jun  Co-Chair, Organizing Committee, IMRT Insights: Transforming Practice through Collaboration, Faculty of Medicine, Department of Radiation Oncology, Continuing Education, Toronto, Ontario.
2009 Jun  Member, Organizing Committee, Target Insight III, Faculty of Medicine, Department of Radiation Oncology, Continuing Education, Toronto, Ontario.
2006  Chair, Department of Radiation Oncology Search Committee
2005 - 2012  Member, Post-Graduate Education Committee, Faculty of Medicine, Department of Radiation Oncology, Postgraduate MD
2003 - 2012  Member, Department of Radiation Oncology Fellowship Management Committee
2002 - 2012  Member, Department of Radiation Oncology Research Committee
1999  Chair, Department of Radiation Oncology Search Committee

Peer Review Activities

ASSOCIATE OR SECTION EDITING
Editor
2011 - 2014  International Journal of Radiation Oncology Biology Physics
2010 - 2013  International Journal of Radiation Biology

GRANT REVIEWS
Reviewer
2006  National Cancer Institute of Canada/Clinical Trials Group, Grant Panel E - Biophysics, Imaging and Radiobiology
Cancer Care Manitoba
Cancer Research UK

MANUSCRIPT REVIEWS
Reviewer
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2016


Precis: The objective of this grant is to develop a pre-clinical assay for late intestinal radiation toxicity to facilitate the safe clinical translation of new combined treatment approaches with radiation and new molecular therapeutics.

2015 - 2020

Co-Investigator. Integrative Systems-Level Imaging (ISLI), Canadian Foundation for Innovation (CFI) and Ontario Research Fund (ORF). PI: Jaffray, D. Collaborator(s): Joshua A; Jurisica J; Mikulis D; Milosevic M; Murphy K; Rogalla P; Valliant J; Wilson B; Wouters B. 5,734,904 CAD. [Grants]

Precis: Many of the diseases with the greatest impact on the Canadian health care system are united by basic underlying processes: inflammation is a key component in cancer, cardiovascular disease and arthritis, while microvascular perfusion and tissue oxygenation impact cancer care and neuroscience studies. An image-based understanding and ability to
measure pharmacokinetics and drug delivery will thus impact numerous therapeutic approaches. The aim of this grant is to develop tools and methods to non-invasively image and quantify these important determinants of disease and treatment outcomes. $ CAD over 5 years.

2014 - 2019


Précis: The main objectives are to expedite the evaluation of novel anti-cancer agents in patients and characterize the effects of these new agents on their targets using clinically relevant biochemical, pathological, immunological, molecular, and/or imaging markers of biologic response. $351,397 USD annually for 5 years.

2014 - 2019

**Principal Investigator.** A research pipeline for hypoxia-directed precision cancer medicine. Project 4: Hypoxia-induced activation of bone marrow derived myeloid cells in human cancer. Terry Fox New Frontiers Program Project Grant. 6,688,975 CAD. [Grants]

Précis: The goal of this program is to improve patient outcome by targeting hypoxia in cancer through a translational pipeline spanning the research continuum from basic biology to clinical trials with short, medium and long-term goals for implementing hypoxia-directed personalized medicine strategies. Total: $1,337,795 annually for 5 years. Project 4: $178,291 annually for 5 years.

2014 - 2019

**Collaborator.** Image-based quantitative assessment of tumor hypoxia. Canadian Institute for Health Research (CIHR) and US National Cancer Institute (NCI). PI: D Jaffray. 1,923,621 CAD. [Grants]

Précis: The main objective is to establish standardized methods for quantitating hypoxia in human tumors using DCE CT/MR and PET imaging. $384,724 CAD annually for 5 years.

2014 - 2017

**Co-Investigator and Steering Committee Member.** Radiation oncology peer review: A national quality improvement initiative. Canadian Partnership Against Cancer (CPAC). PI: M Brundage. 746,120 CAD. [Grants]

This grant will accelerate the upstage of radiation treatment peer review across Canada and improve the overall quality and safety of care provide to patients. $308,736 year 1, $241,992 year 2, $195,392 year 3.

2013 - 2018

**Co-Investigator.** PANTHER: Prostate Cancer Canada program project in targeting aggressive and lethal cancers. Project 4: Radioresistance and cell plasticity. Prostate Cancer Canada. Movember Team Grant. PI: R Bristow. 5,000,000 CAD. [Grants]

Précis: A joint grant between the Princess Margaret Cancer Centre and the Vancouver Prostate Centre to develop novel therapeutics targeting treatment resistance in aggressive prostate cancer. Program Lead: R Buttyan.

2013 - 2016

**Co-Applicant.** Improving quality and patient safety in radiation therapy by integrating multi-disciplinary criteria into an artificial intelligence systems. Canadian Institute for Health Research (CIHR) and Natural Sciences and Engineering Research Council of Canada (NSERC) Collaborative Health Research Program (CHRP). PI: T Purdie. Collaborator(s): D Aleman, JP Bissonnette, S Breen, T Craig, D Letournea, C McIntosh, M Sharpe. 651,060 CAD. [Grants]

This objective of this grant is to develop artificial intelligence systems for early detection of anomalies in radiotherapy treatment planning. $217,020 annually for 3 years.

2013 - 2016


This objective of this grant is to explore the heat activated release of cisplatin from liposomes
as a means of improving the effectiveness of radiotherapy to treat cervical cancer. $109,495 annually for 3 years.

**2012 - 2017**

**Principal Investigator.** Canadian Partnership for Quality in Radiotherapy. Canadian Partnership Against Cancer (CPAC). 1,186,110 CAD. [Grants]

This grant will support the universal availability of high quality and safe radiotherapy across Canada through sustainable system performance improvement and the development of consensus-based guidelines and indicators to aid in radiation treatment program development and evaluation. $237,222 annually for 5 years.

**2012 - 2015**

**Principal Investigator.** Clinician Scientist Award. Ontario Association of Radiation Oncologists (OARO). 255,000 CAD. [Grants]

This peer-reviewed award provides personal salary support for research to offset clinical activity. $85,000 annually for 3 years.

**2012 - 2013**

**Principal Investigator.** Targeting the Hedgehog pathway as a strategy to overcoming resistance to chemoradiation in cervical cancer. Astra Zeneca Inc. RAZCER Research Award. Collaborator(s): H MacKay, RP Hill. 22,700 CAD. [Grants]

This project will explore the importance of Hedgehog signaling in cervical cancer, and the potential role of Hedgehog inhibition as a modulator of radiation response.

**2011 - 2015**

**Co-Investigator.** Translational team award for high impact clinical trials. Ontario Institute for Cancer Research (OICR). Translational Team Award. Collaborator(s): A Oza. 1,000,000 CAD. [Grants]

The objective of this award is to build translational research capacity for high impact clinical trials at UHN, including support for the clinical translation of bioluminescence imaging of tumor metabolism. $250,000 annually for 4 years.

**2011 - 2014**

**Co-Investigator.** Tumor targeted radiotherapy for prostate cancer. Canadian Cancer Society. PI: C Menard. Collaborator(s): T Craig, K Brock, T Stanesbcu, W Foltz, T van der Kwast, R Bristow, M Haider, C Catton. 744,000 CAD. [Grants]

The objective of this study is to examine the feasibility of MR-guided tumor targeted radiotherapy for prostate cancer in relation to technical performance, tumor control and toxicity. $248,000 annually for 3 years.

**2011 - 2012**

**Co-Investigator.** Hypoxia imaging in patients with high-risk localized prostate cancer using [18F]FAZA PET and MRI. Canadian Association of Radiation Oncologists (CARO). Abbott-CARO Uro-Oncologic Radiation Award (ACURA). PI: C Menard. 20,000 CAD. [Grants]

This study will determine to what extent [18F]FAZA PET of the prostate gland can resolve inter- and intra-patient variability in uptake consistent with hypoxia related signatures measured on multi-parametric MRI and biopsy.

**2010 - 2014**


The objective of this award is to understanding how exposure to hypoxia affects the ability of tumour cells to resist treatment and to metastasize. $149,828 annually for 4 years.

**2009 - 2014**

**Co-Principal Investigator.** Hypoxia in human tumours: clinical and experimental studies. Canadian Institutes of Health Research (CIHR). Terry Fox New Frontiers Program Project Grant. Collaborator(s): B Wouters, R Bristow, A Fyles, D Jaffray, R Bristow. 4,986,500 CAD. [Grants]

The objective of this award is to investigate the role that hypoxia and the tumor microenvironment play in tumor progression and resistance to treatment. Total $997,300
annually for 5 years, Project 1 $274,000 annually, Project 2 $280,500 annually, Project 4 $197,000 annually.

2009 - 2014  
Co-Applicant. Adapting to hypoxia in cancer through the unfolded protein response.  
The objective of this award is to investigate the role that the unfolded protein response and autophagy play in cellular response to hypoxia. $189,900 annually for 5 years.

2009 - 2014  
The objective of this award is to foster research training of clinicians and scientists in the radiation medicine sciences. $390,000 annually for 5 years.

2009 - 2012  
Co-Investigator. Robotic positioning for image-guided surgery and radiation therapy.  
Canada Foundation for Innovation (CFI). Collaborator(s): D Jaffray. 16,030,169 CAD. [Grants]  
This is an infrastructure award to support the development of a fully integrated MR-guided radiation therapy suite (both external beam and brachytherapy) for precision dose targeting and intervention.

2009 - 2012  
To determine CGH array biomarkers of prostate cancer radiotherapy response. $193,282 annually for 3 years.

2008 - 2013  
The main objectives of this Cooperative Agreement Award are to expedite the evaluation of novel anti-cancer agents in patients and characterize the effects of these new agents on their targets using clinically relevant biochemical, pathological, immunological, molecular, and/or imaging markers of biologic response. $628,383 USD annually for 5 years.

2008  
This project will evaluate multiparametric MRI against established in vivo methods (Pimonidazole/ polarographic electrodes) to obtain spatially correlated measures of hypoxia in prostate cancer.

2007 - 2010  
This award focuses on theoretical mathematical modeling of the dynamics of anti-angiogenic treatment in combination with radiotherapy and/or chemotherapy. Model validation and refinement will incorporate pre-clinical and clinical imaging and histologic analyses. $142,973 annually for 3 years.

2007 - 2009  
This infrastructure award is to build a research environment to explore cancer survivorship, including the long-term consequences of cancer and its treatment.

2006 - 2011
The objective of this collaboration is to investigate combinations of radiotherapy and novel biologically-targeted treatments using both clinical and correlative molecular endpoints. $1,495,000 USD annually for 5 years.

2005 - 2008
The goal of this award is to test the hypothesis that clinical integration of diagnostic and interventional MRI can be optimized with supine positioning, and will enable the spatial delineation and biological characterization of local prostate cancer persistence following radiotherapy. $98,200 USD annually for 3 years.

2005 - 2006

2004 - 2009
The objective of this award is to investigate the role that hypoxia and the tumor microenvironment play in tumor progression and resistance to treatment. $1,187,000 annually for 5 years total, $156,700 annually for Project 1, $277,000 annually for Project 5.

2004 - 2007
Co-Principal Applicant. STTARR - Spatio-Temporal Targeting and Amplification of Radiation Response. Canada Foundation for Innovation (CFI). Collaborator(s): R Bristow, D Jaffray. 9,824,217 CAD. [Grants]
This was an infrastructure award to support the development of a state-of-the-art Canadian facility for investigating the dynamics of tumour biology and precision image-guided radiotherapy at the molecular, animal and human levels, with rapid translation of information among these three domains.

2004 - 2007
An infrastructure award to support enhanced imaging-based approaches to furthering the application of radiation therapy in cancer. The award includes enhanced capacity for imaging isotope production, and other facilities for testing new therapeutic modalities through imaging and intervention in small animals, including a dedicated animal surgical suite.

2004
The objective of this award was to develop detailed knowledge of pelvic lymph node distribution in men with prostate cancer using a novel lymph node imaging agent, as a guide
to targeted lymph node irradiation.

2004


2003 - 2005


$76,300 annually for 3 years.

2002


2001 - 2003


$66,000 USD annually for 3 years.

2001 - 2003


$63,000 USD annually for 3 years.

2001

Principal Investigator. A clinical study of the effect of recombinant human erythropoetin (rHuEPO) on tumor oxygenation in prostate cancer. Anemia Institute for Research Education. Collaborator(s): C Parker, P Warde, A Toi, J Sweet. 39,000 CAD. [Grants]

2000


2000


1999 - 2004


Project 3 (Multi-modality treatment in patients with high risk cervix cancer). $583,600 annually for 5 years total, $181,600 annually for Project 3.

1996 - 1999


$373,600 annually for 3 years total.
1995

Co-Principal Investigator. Predictive assays in cervix cancer: assessment of hypoxia, interstitial fluid pressure and GSH levels. Princess Margaret Hospital Foundation (The). Collaborator(s): A. Fyles (Co-PI), D. Hedley, R. Hill. 45,460 CAD. [Grants]

1993

Principal Investigator. Development of a technique to measure interstitial fluid pressure in human tumours. Princess Margaret Hospital Foundation (The). 18,260 CAD. [Grants]

NON-PEER-REVIEWED GRANTS

FUNDED

2010 - 2012

Principal Investigator. Canadian Partnership for Quality Radiotherapy (CPQR). Canadian Partnership Against Cancer (CPAC). 200,000 CAD. [Grants]

CPQR is an alliance among the national professional associations involved in the delivery of radiation treatment in Canada (Canadian Association of Radiation Oncology - CARO, Canadian Organization of Medical Physicists - COMP, Canadian Association of Medical Radiation Technologists – CAMRT), together with the Canadian Partnership Against Cancer – CPAC, for the purpose of assuring the availability of high-quality radiation treatment across the country. $100,000 annually for 2 years.

2007 - 2011

Principal Investigator. Phase I/II Study of Sorafenib and Palliative Radiotherapy in Patients with Advanced Renal Cell Carcinoma and Symptomatic Bony Metastases. Bayer Canada Inc. 750,000 CAD. [Industrial Grants]

The objective of this award is to evaluate the antiangiogenic drug sorafenib as an adjunct to palliative radiotherapy in patients with bone metastases from renal cell carcinoma. The study incorporates both clinical and biologic endpoints. $114,000 annually for 2 years.

2005 - 2007

Principal Investigator. Biologically-Targeted, Image-Guided Radiotherapy for Cervix Cancer. Princess Margaret Hospital Foundation (The). Giovanni and Concetta Guglietti Family Cancer Fund. 750,000 CAD. [Grants]

The objective of this award is to investigate novel strategies for using high-precision, image-guided radiotherapy to treat women with cervix cancer, through a combination of anatomic and biologic tumor targeting. $250,000 annually for 3 years.

1999 - 2002


$50,000 annually for 3 years.

Principal Investigator. Predictive assays in cervix cancer: Assessment of hypoxia, interstitial fluid pressure and tissue and plasma biomarkers of hypoxia (Accruing). [Clinical Trials]

Principal Investigator. A phase I/II study of cisplatin and radiation in combination with sorafenib in cervical cancer (Analysis). [Clinical Trials]

Principal Investigator. A phase I/II study of sorafenib and palliative radiotherapy in patients with advanced renal cell carcinoma and symptomatic bony metastases (Analysis). [Clinical Trials]

Principal Investigator. Implementation of optimized magnetic resonance image-guided intra-uterine brachytherapy in cervical cancer (Analysis). [Clinical Trials]

Principal Investigator. Hypoxia and clinical outcome after radiotherapy for invasive bladder
cancer (Analysis). [Clinical Trials]

**Principal Investigator.** A feasibility study of hypoxia imaging in patients with cervix cancer using positron emission tomography (PET) with 18F-fluoroazomycin arabinoside (18F-FAZA) (Accruing). [Clinical Trials]

**Principal Investigator.** A feasibility study of hypoxia imaging in patients with prostate cancer using positron emission tomography (PET) with 18F-fluoroazomycin arabinoside (18F-FAZA) (Accruing). [Clinical Trials]

### D. Publications

#### 1. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


Michael Frederick MILOSEVIC


Michael Frederick MILOSEVIC


Michael Frederick MILOSEVIC


Case Reports


Commentaries


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Commentaries


Monographs


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2015 The hypoxia ‘driver phenotype’ in human cancers. Manchester Academic Health Science Centre, Manchester University, and the Christie Hospital NHS Trust. Manchester, United Kingdom.

2015 Image guided biological targeting of human cancers. Taiwan Joint Cancer Conference. Taipei, Taiwan, Province Of China.

2015 MR guided brachytherapy for cervical cancer. Taiwan Joint Cancer Conference. Taipei, Taiwan, Province Of China.

2015 The hypoxia ‘driver phenotype’ in prostate cancer. Coffey-Holden Prostate Cancer Academy Meeting. La Jolla, California.


2014 From opportunity to action: Motivating global radiotherapy investment. UICC Global Task Force on Radiotherapy for Cancer Control (GTFRCC). UICC World Cancer Conference. Melbourne, Australia.


2013 Quality and safety in radiation medicine: European and Canadian Perspectives. CARO ESTRO Symposium. Joint Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO) and Canadian Organization of Medical Physicists (COMP). Montreal, Quebec.

2013 Programmatic requirements for radiotherapy. UICC Global Task Force on Radiotherapy for Cancer
Control (GTFRCC). Amsterdam, Netherlands.


2013  PhD Defense Opponent: Tord Hompland, Functional magnetic resonance imaging of the microenvironment and microenvironment associated metastatic potential of tumors. Radiation Biology and Tumor Physiology Group, Department of Radiation Biology, Institute for Cancer Research, The Norwegian Radium Hospital, Oslo University Hospital. Norway.


2011  Target volume changes during PDR brachytherapy for cervix cancer. 3D GYN GEC ESTRO Meeting, University of Aarhus. Aarhus, Denmark.

2011  Dynamic contrast enhanced CT and MR in cervix cancer. 3D GYN GEC ESTRO Meeting, University of Aarhus. Aarhus, Denmark.


2008 Radiation oncology in Canada: Waiting and workload. Liverpool Hospital Cancer Therapy Centre. Sydney, Australia.


2008 Angiogenesis and hypoxia in prostate cancer: Relevance to radiotherapy and biological treatment targeting. 59th Annual Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Adelaide, Australia.


2008 Contouring for post-prostatectomy radiotherapy. 59th Annual Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Adelaide, Australia.


2007 Clinical trials of angiogenesis inhibitors and radiation. International Advisory Board on Drugs and Radiotherapy - Pfizer. New York, United States.


2007 Adapting to change in cervix cancer. Department of Radiation Oncology, University of California. San Diego, California.


2006 Prostate cancer hypoxia in patients and the impact of androgen withdrawal: Implications for disease progression and radiation response. Department of Defence Innovative Minds in Prostate Cancer Today (IMPaCT) Meeting. Atlanta, Georgia.


2005 Interstitial fluid pressure (IFP) and vascular targeting with ZD6126. The Tumor Microenvironment: Hypoxia, Angiogenesis and Vasculature. 9th International Workshop. Oxford, United Kingdom.
Michael Frederick MILOSEVIC

2004  Prostate cancer hypoxia correlates with poor patient outcome following treatment with radiotherapy. 46th Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Atlanta, Georgia.


2001  Performance of a cervix cancer prognostic index that includes hypoxia. The Tumor Microenvironment and its Impact on Cancer Therapies. 7th International Workshop. Lake Lanier, Georgia, United States.


2001  Prostate cancer is hypoxic. 48th Annual Meeting of the Radiation Research Society. San Juan, Puerto Rico.

2001  Measurement of acute toxicity of combined weekly cisplatin and radiation therapy for cancer of the cervix. 43nd Annual Meeting of the American Society for Therapeutic Radiology and Oncology. San Francisco, California.

2001  A polarographic electrode study of tumor oxygenation in localized prostate cancer. 43nd Annual Meeting of the American Society for Therapeutic Radiology and Oncology. San Francisco, California.


2000  Tumor size and oxygenation are independent predictors of nodal and metastatic disease in patients with newly diagnosed cervix cancer. 42nd Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Boston, Massachusetts.


1999  The relationship between IFP, oxygen tension, and survival following radiation in cervix cancer. 11th International Congress of Radiation Research. Dublin, Ireland.
Michael Frederick MILOSEVIC


1997 Interstitial fluid pressure measurements in lymph node metastases from head and neck cancers. 11th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Vancouver, British Columbia.


1995 The measurement of interstitial fluid pressure in cervix cancer. 43rd Annual Meeting of the Radiation Research Society. San Jose, California.

Presented Abstracts


2014 A national system for incident reporting in radiation therapy: Development of a taxonomy and severity


Near misses reflect different failure modes than actual incidents in the field of radiation therapy. 2nd ESTRO Forum. Geneva, Switzerland. Lam C, Muraj Z, Man K, Milosevic M.


Michael Frederick MILOSEVIC

Cuartero J, Mackay H, Milosevic M, Murphy J, Kamel-Reid S, Pintilie M, Clarke B.


Media Appearances


2. NATIONAL

Invited Lectures and Presentations


2015 The hypoxia 'driver phenotype' in prostate cancer. Annual meeting of the Association des radio-oncologues du Québec (AROQ). Montreal, Quebec.

2015 Radiation Incident Reporting in Canada: Current State and Future Direction. Association quebecoise des physician(ne)s medicaux cliniques. Montreal, Quebec, Canada.
Michael Frederick MILOSEVIC


2011  Canadian Partnership for Quality Radiotherapy. Quality and Safety in Radiation Oncology, COMP Winter School. Mont Tremblant, Quebec.

2011  Canadian Partnership for Quality Radiotherapy, Canadian Association of Provincial Cancer Agencies (CAPCA) Board Meeting.

2011  Bladder cancer, Resident Refresher Course. 25th Annual Scientific Meeting of the Canadian Association of Radiation Oncology. Winnipeg, Manitoba.


2011  A phase I/II study of the angiogenesis inhibitor sorafenib in cervix cancer patients treated with radiotherapy. 25th Annual Scientific Meeting of the Canadian Association of Radiation Oncology. Winnipeg, Manitoba.

2009  Hypoxia and Angiogenesis in Human Tumors: Challenges and Opportunities. McGill University Department of Oncology. Montreal, Quebec.


2009  Radiation oncology in Canada: Savour the present but look to the future. Presidential address, 23rd Annual Scientific Meeting of the Canadian Association of Radiation Oncology. Quebec City, Quebec.

2009  Prostate cancer hypoxia and early biochemical failure after radiotherapy. Presented as one of the top eight peer-reviewed papers at the 23rd Annual Scientific Meeting of the Canadian Association of Radiation Oncology. Quebec City, Quebec.


2008 Imaging tumor vasculature and hypoxia in radiation oncology. 22nd Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO). Montreal, Quebec.


2006 Hypoxia and Angiogenesis in Cervix Cancer: Mature Results of a Prospective Study. Presented as one of the top five peer-reviewed papers at the 20th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Calgary, Alberta.


2004 Prostate cancer hypoxia adversely influences outcome following treatment with radiotherapy. 18th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Halifax, Nova Scotia.


2001 Measurement of acute toxicity of combined weekly cisplatin and radiation therapy for cancer of the cervix. 15th Annual Meeting of the Canadian Association of Radiation Oncologists. Quebec City, Quebec.


1998  Movement of the tumour and uterus with change in the position of patients undergoing radiotherapy for cervix cancer. 12th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Toronto, Ontario.


1995  Carcinoma of the female urethra-results of primary radiotherapy. 9th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Montreal, Quebec.

1991  The significance of malignant peritoneal cytology in stage I endometrial carcinoma: A meta-analysis. 5th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Quebec City, Quebec.

Presented Abstracts


2015  Plerixafor inhibits myeloid cell recruitment and improves the radiocurability of cervical cancer. 29th Annual Meeting of the Canadian Association of Radiation Oncology (CARO). Kelowna, Canada. Presenter(s): Chaudary N, Pintilie M, Hill RP, Milosevic M.

2015  Metformin use is associated with lower cervical cancer-specific mortality. 29th Annual Meeting of the Canadian Association of Radiation Oncology (CARO). Kelowna, Canada. Presenter(s): Han K, Pintilie M, Lipscombe L, Lega I, Milosevic M, Fyles A.


2014 Impact of image registration surrogates on the PTV geometry for bladder radiotherapy. 28th Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO). St. John’s, Newfoundland and Labrador. Kong V, Rosewall T, Craig T, Milosevic M, Bristow R, Chan S, Chung P.


2013 Phase I/II study of palliative radiation and sorafenib for patients with metastatic renal cell carcinoma and painful bone metastases. CARO Annual Scientific Meeting 2013. Montreal, Quebec. Han K, Leung E, Cho


2013 Identifying important radiotherapy error trends through the use of a structured incident taxonomy. CARO Annual Scientific Meeting 2013. Montreal, Quebec. Lam C, Muraj Z, Man K, Milosevic M.


2011 Plan conformity and effective PTV margin in patients receiving whole pelvis IMRT for gynecologic cancer. CARO Annual Scientific Meeting 2011. Winnipeg, Manitoba. Lam TKM, Cho YB, Yan J, Fyles A, Milosevic M.


Media Appearances


2011 Mar 16 Health-related effects of radiation exposure from nuclear power plant damage in Japan. CBC News Network.

2011 Mar 15 Health-related effects of radiation exposure from nuclear power plant damage in Japan. CBC National News.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2015 Interstitial fluid pressure and drug delivery in cancer. Centre for Pharmaceutical Oncology, Leslie Dan Faculty of Pharmacy UofT. Toronto, Ontario, Canada.


2013 Prostate cancer hypoxia to guide personalized medicine. 4th Annual OCI Retreat. Huntsville, Ontario.

2013 Targeting the tumor microenvironment during radiotherapy. 4th Annual OCI Retreat. Huntsville, Ontario.


1992 The role of adjuvant pelvic radiotherapy in stage I and II endometrial cancer. 6th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Ottawa, Ontario.

Media Appearances


4. LOCAL

Invited Lectures and Presentations


2016 Canadian community practice CARO. ESTRO-CARO Teaching Course on Image-Guided cervix radiotherapy – with a special focus on adaptive brachytherapy. Toronto, Ontario, Canada.

2016 Clinical approaches to target hypoxia. Radiobiology Course. Princess Margaret Cancer Center. Ontario, Canada.


2011 Canadian Partnership for Quality Radiotherapy. RTi3. Department of Radiation Oncology Continuing Medical Education, University of Toronto. Toronto, Ontario. (Continuing Education).


Michael Frederick MILOSEVIC


2006  Vascular targeting to improve radiation response: Panacea or peril? Target Insight II: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio, Department of Radiation Oncology Continuing Medical Education, University of Toronto. Toronto, Ontario. (Continuing Education).


2001  Tumor hypoxia: Where do we go from here? Target Insight: Innovative Strategies to Improve Target Definition in Radiation Oncology, Department of Radiation Oncology Continuing Medical Education, University of Toronto. Toronto, Ontario. (Continuing Education).


Media Appearances

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2011  Co-Supervisor. B. Sc. S Mahon. Communicating clinical information in IGRT practice to facilitate an individualized approach to online image matching guidelines in gynecological sites.


Graduate Education


Undergraduate MD


Postdoctoral Research Fellow (PhD)


2. OTHER SUPERVISION

Undergraduate Education

2010 - 2012  R Glicksman, Summer Student. Audit of cervix and prostate cancer hypoxia databases.

2010  J Detsky, Summer Student. FAZA PET imaging of hypoxia in cervix cancer.


2005 - 2006  E Leung, Memorial University. Time response of IFP pressure recording as a predictor of interstitial permeability and elasticity.


Graduate Education

Thesis Committee Member

2014 - present  S Ekdawi. Imaging to track the intratumoral distribution of liposomes for drug delivery.
2010 - present  J Stewart. Spatially modulated dose delivery for small animal radiotherapy.
2010 - 2014  S Stapleton. Predicting the transport of leptomeninges in solid tumors.
2009 - 2014  M Velec. Deformable registration and dose accumulation using 4D CBCT for liver SBRT.

Undergraduate MD

2003  M Joshi. Increasing accrual to clinical trials.

Postgraduate MD


Clinical Research Fellow (MD)

2012  K Han. A prospective pilot study of the utility of dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI), diffusion-weighted MRI (DWI), and fluorodeoxyglucose positron emission tomography (FDG PET) imaging in brachytherapy for cervical cancer. Awards: Recipient of a CIHR-Terry Fox Foundation EIRR21 Research Training Program scholarship ($30,000 CAD), the CARO-Elekta Research Fellowship ($75,000 CAD) and an RSNA Research and Education award ($50,000 USD) for her fellowship project.
2011  P Wong. Treatment outcome of patients with uterine leiomyosarcoma.
2011  M Yap. PET imaging of tumor hypoxia.
2010  L Walsh. Treatment outcome of patients with cervix cancer following radiotherapy.
2009 A Li. MR-guided brachytherapy for cervix cancer.
2009 F Huang. IMRT as an alternative to brachytherapy for cervix cancer.
2001 C Doll. Tumor microenvironment in cervix cancer.
2001 C Parker. Hypoxia in prostate cancer.
Curriculum Vitae

Gerard Christopher Morton
MB,MRCPI,FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

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Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

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Email gerard.morton@sunnybrook.ca

1. EDUCATION

Degrees
1985 MB, BCh, Medicine, National University of Ireland, Dublin, Ireland
1985 BAO, Medicine, National University of Ireland, Dublin, Ireland

Postgraduate, Research and Specialty Training
1993 - 1994 Fellow, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1989 - 1992 Clinical Oncology Training Program, St Luke’s Hospital, Dublin, Ireland
1987 - 1988 Residency, Internal Medicine, University College Galway, Dublin, Ireland
1986 - 1987 Residency, Internal Medicine, University College Cork, Cork, Ireland
1985 - 1986 Internship, Internal Medicine, University College Cork, Cork, Ireland

Qualifications, Certifications and Licenses
1994 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1994 Certification, College of Physicians and Surgeons of Ontario, Ontario, Canada, License / Membership #: 66201
1992 Fellow of the Faculty of Radiologists, Clinical Oncology, Royal College of Surgeons in Ireland, Ireland
1988 Member, Internal Medicine, Royal College of Physicians of Ireland, Ireland

2. EMPLOYMENT

Current Appointments
2015 Feb - present Consultant Oncologist, Oncology, The Scarborough Hospital, Toronto, Ontario, Canada
Gerard Christopher MORTON

2011 - present  Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2007 - present  Staff, Dept of Surgery, North York General Hospital, Toronto, Ontario, Canada
1995 - present  Radiation Oncologist, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2013 Feb - 2015  Head - Radiation Oncology, Radiation Oncology, Simcoe Muskoka Regional Cancer Program (SMRCP), Barrie, Ontario, Canada

UNIVERSITY - RANK
1996 - 2011  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
1995 - 1996  Lecturer, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Teaching and Education Awards

LOCAL
Received
2010 - 2011  Best Academic Half-Day, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2010  Best Guest Lecture, Dept of Radiation Oncology, Faculty of Medicine, Medical Radiation Sciences Program, University of Toronto, Toronto, Ontario, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1997 - present  American Brachytherapy Society
1997 - present  Canadian Brachytherapy Group
1994 - present  American Society for Therapeutic Radiology and Oncology
1993 - present  Canadian Association of Radiation Oncology
1993 - present  Canadian Medical Association
1993 - present  European Society of Therapeutic Radiation Oncology
1993 - present  Ontario Medical Association
2014  Member, American Brachytherapy Society Education Task Force
2014  Associate Editor, Brachytherapy
2014  Chair, Royal College of Physicians & Surgeons of Canada - AFC Brachytherapy Working Group
Gerard Christopher MORTON

Administrative Activities

INTERNATIONAL

American Brachytherapy Society
2011 - 2013  **Member**, Board of Directors

American Society of Clinical Oncology
2012 - present  **Member**, Hormone therapy for prostate cancer consensus panel

Radiation Therapy Oncology Group
2004 - present  **Principal Investigator**, Centre Principal Investigator
(Ontario Representative).

NATIONAL

Canadian Association of Radiation Oncologists
2015 - present  **Ontario Director**, Board of Canadian Association of Radiation Oncologists, Ontario, Canada.
2009  **Member**, Annual Scientific Meeting, Organizing Committee, Ontario, Canada.
2005 - 2011  **Chair**, ACURA Advisory Board
2001  **Chair**, RADIANT Program, Canada.

Canadian Brachytherapy Group
2008 - 2010  **President**, Canadian Brachytherapy Group

Genito-Urinary Radiation Oncologists of Canada (GUROC)
2001 - present  **Member**, Steering Committee

Royal College of Physicians and Surgeons of Canada
2014 - present  **Chair**, Brachytherapy AFC Committee, Faculty of Medicine, Dept of Radiation Oncology, Ontario, Canada.
2010 - present  **Member**, Radiation Oncology Specialty Committee, Canada.
(Onatario Representative).
2014  AFC Brachytherapy Working Group, Faculty of Medicine, Dept of Radiation Oncology, Radiation Oncology, Ontario, Canada.
2001 - 2006  **Member**, Examination Board in Radiation Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
2010 - present  **Member**, Prostate Disease Pathway Management Initiative, Ontario, Canada.
2009  **Member**, Models of Care of Steering Committee, Ontario, Canada.
2007 - 2009  **Chair**, Program in Evidence Based Care: Image Guided HDR Brachytherapy for Cervical Cancer, Ontario, Canada.

College of Physicians and Surgeons of Ontario

Ontario Association of Radiation Oncologists
Gerard Christopher MORTON

2008 - 2012  Chair, Ontario Association of Radiation Oncologists

Ontario Medical Association
2009  Chair, Section of Radiation Oncology

Simcoe-Muskoka Regional Cancer Program
2013 - 2014  Regional Lead, Radiation Oncology, Ontario, Canada.

LOCAL

Odette Cancer Centre
2004 - 2010  Co-Chair, Genito-Urinary Site Group, Toronto, Ontario, Canada.
                          Radiation Oncology.
2003 - 2012  Head, Brachytherapy Program, Toronto, Ontario, Canada.
                          Radiation Oncology.

Sunnybrook Health Sciences Centre
2003 - 2009  Member, Research Ethics Board, Toronto, Ontario, Canada.

University of Toronto
1996 - 2000  Member, Oncology II Research Ethics Board, Toronto, Ontario, Canada.

Peer Review Activities

EDITORIAL BOARDS

Associate Editor
2014 - present  Brachytherapy

North American Editor
2015 - present  Clinical Oncology (R Coll Radiol)

GRANT REVIEWS

External Grant Reviewer
2014  Motorcycle Ride for Dad, Motorcycle Ride for Dad
2014  Prostate Cancer Canada Network
2014  Prostate Cancer, UK, Prostate Cancer
Chair
2014  Discovery Grant Panel - Prostate Cancer Canada Network

MANUSCRIPT REVIEWS

Reviewer
2015  Brachytherapy, Number of Reviews: 4
2015  Clinical Oncology, Number of Reviews: 20
2015  International Journal of Radiation Oncology Biology Physics, Number of Reviews: 1
2015  Journal of Urology, Number of Reviews: 3
Gerard Christopher MORTON

2015         PLOS ONE, Number of Reviews: 2
2015         Radiotherapy and Oncology, Number of Reviews: 1
2014         Brachytherapy, Number of Reviews: 4
2014         International Journal of Radiation Oncology Biology Physics, Number of Reviews: 1
2014         International Journal of Urology, Number of Reviews: 1
2014         Journal of Contemporary Brachytherapy, Number of Reviews: 2
2014         Journal of Urology, Number of Reviews: 1
2014         Radiotherapy and Oncology, Number of Reviews: 2
2014         Urologic Oncology, Number of Reviews: 4
2007 - 2014  Canadian Journal of Urology, Number of Reviews: 8
             BMC Urology
             Clinical Oncology
             Journal of the Canadian Urologic Association

ABSTRACT REVIEWER
Reviewer
2014         American Brachytherapy Society, ABS Scientific Meeting
2014         ASTRO  - GU Track Abstract Reviewer, GU Track Abstract Reviewer

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED
2013 Jul - 2013 Dec  Principal Investigator. A Randomized Phase II Trial of High Dose-Rate Brachytherapy as Monotherapy in Low and Intermediate Risk Prostate Cancer. CARO-ACURA award. 30,000 CAD


### NON-PEER-REVIEWED GRANTS

#### FUNDED

**2013**

**Principal Investigator.** RTOG 0815: A Phase III Prospective Randomized Trial of Dose-Escalated Radiotherapy With or Without Short-Term Androgen Deprivation Therapy for Patients With Intermediate-Risk Prostate Cancer RT. [Clinical Trials]

**2013**

**Principal Investigator.** RTOG 0924. Androgen Deprivation Therapy and High Dose Radiotherapy With or Without Whole-Pelvic Radiotherapy in Unfavorable Intermediate or Favorable High Risk Prostate Cancer: A Phase III Randomized Trial. [Clinical Trials]

**2013**

**Principal Investigator.** RTOG 0526. A Prospective Phase II Trial of Transperineal Ultrasound Guided Brachytherapy for Locally Recurrent Prostate Adenocarcinoma Following External Beam Radiotherapy. [Clinical Trials]

**2009**


**2007**

**Principal Investigator.** Single Fraction HDR Brachytherapy with Hypofractionated External Beam Radiotherapy in intermediate Risk Prostate Cancer – late toxicity and efficacy. Motorcycle Ride for Dad. Collaborator(s): Loblaw DA, Sankreacha R, Gardner S. 60,000. [Grants]

**2000 - 2001**

**Principal Investigator.** A Phase 2 Study of High Dose-Rate Brachytherapy combined with external beam radiotherapy and androgen blockade in locally advanced carcinoma of the prostate. Astra-Zeneca. Collaborator(s): Keller B. 60,000. [Grants]

**Principal Investigator.** ASCENDE-RT. A randomized phase III study comparing androgen suppression and pelvic EBRT followed by a high dose 3-d conformal boost versus androgen suppression and pelvic EBRT followed by a 125iodine brachytherapy implant boost for subjects with intermediate and high risk localized prostate cancer. BC Cancer Agency. [Clinical Trials]

**Principal Investigator.** Multi-Institution Phase II study of high dose-rate brachytherapy for intermediate risk prostate cancer. ACURA Award. [Clinical Trials]

**Principal Investigator.** One-arm, multi-center, international prospective study to assess the safety and efficacy of BioProtect biodegradable implantable balloon in prostate cancer subjects undergoing radiotherapy. BioProtect Inc. [Clinical Trials]

**Principal Investigator.** Phase II study: Neoadjuvant docetaxel followed by salvage RT plys 2-year hormone therapy for residual or recurrent prostate adenocarcinoma following radical prostatectomy (Docetaxel Prostate). Sanofi-Aventis Inc. [Clinical Trials]

**Principal Investigator.** A phase I/II study of single fraction high dose-rate (HDR) brachytherapy and hypofractionated external beam radiotherapy in intermediate risk carcinoma of the prostate. ACURA and Motorcycle Ride for Dad Awards. [Clinical Trials]
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


5. **Morton GC**. Prostate high dose-rate brachytherapy: trans-rectal ultrasound based planning, a technical note. Practical Radiation Oncology. 2015;5:238-240. **Principal Author**.


Gerard Christopher MORTON


Gerard Christopher MORTON


Gerard Christopher MORTON


Conference Publications


40. Law N, Loblaw A, **Morton G**. A 3D imaging technique for brachytherapy planning and treatment in a single high dose-rate radiation operating suite. In: Radiother Oncol. 2006. p. 80:s47, 2006. . **Senior Responsible Author**.


Other Publications

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Editorials


Online Resources


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Jun 28 Invited Speaker. World Congress of Brachytherapy. San Francisco, California, United States.


2016 Jan 23 Invited Speaker. NRG Oncology Semi Annual Meeting. Atlanta, Georgia, United States.

2015 Nov 7 Invited Speaker. MRI to improve efficacy and reduce toxicity with Prostate HDR for High Risk Disease/Role of MRI in Prostate Brachytherapy. MD Anderson/ American Brachytherapy Society Conference. Houston, Texas, United States.


2014  **Invited Speaker.** Salvage HDR after previous external beam radiotherapy. American Brachytherapy Society Prostate Brachytherapy School. Chicago, Illinois, United States. Presenter(s): Dr. **Gerard Morton.**

2014  **Invited Speaker.** Prostate HDR Brachytherapy comes of age. University of Rochester. Rochester, New York, United States. Presenter(s): Dr. **Gerard Morton.**

2014  **Visiting Professor.** Department of Radiation Oncology, University of Rochester. Rochester, New York, United States.


2013 Apr  **Invited Speaker.** The latest advancements in prostate HDR brachytherapy. Elekta Web Education Program. United States.

2012  **Invited Lecturer.** How can we best use HDR brachytherapy to treat intermediate and high risk prostate cancer? UK and Ireland Prostate Brachytherapy Group. Leeds, United Kingdom.


2010  Brachytherapy Contouring Workshop. Annual Scientific meeting of the American Brachytherapy Society. Atlanta, Georgia, United States.


2008  Practical Workshop on Prostate High Dose-Rate Brachytherapy. World Congress of Brachytherapy. Boston, Massachusetts, United States.


2008  Salvage Options for Recurrent Prostate Cancer. The Radiotherapy Group of New South Wales Meeting. Sydney, Australia.


2005  HDR Brachytherapy of Prostate Cancer: Technical and Clinical Aspects. Micro-and Mini-Dosimetry and
International Prostate Cancer Treatment Workshops, Centre for Medical Radiation Physics, University of Wollongong. Wollongong, Australia.


2005  **Visiting Professor.** Dept of Radiation Oncology and Urology, St George Hospital. Sidney, Australia.


Presented Abstracts


2013  **Collaborator.** Concomitant Hypofractionated IMRT Boost for High-Risk Prostate Cancer: 5 Year Results. Presenter(s): .

2013  **Senior Responsible Author.** Does Prostate Biopsy after HDR Brachytherapy Have Any Clinical Significance?.


2013  Comparison of Biochemical and Toxicity Outcomes From a Contemporaneous Cohort Study of Low-Risk Prostate Cancer Treated With Different Radiation Techniques.


2011  Quality of life after pelvic radiotherapy with hypofractionated IMRT boost and long-term hormone therapy for locally advanced prostate cancer. American Society of Clinical Oncology 2011 Genito-Urinary Cancer


2010 Long-term results of an RTOG phase II trial (00-19) of external beam radiation therapy combined with permanent source brachytherapy for intermediate risk clinically localized adenocarcinoma of the prostate. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Diego, California, United States.


2008 Acute toxicity of single fraction HDR brachytherapy with hypofractionated external beam radiotherapy in intermediate risk prostate cancer. World Congress of Brachytherapy. Boston, Massachusetts, United States.


2007 A multicentre phase II study of high dose-rate brachytherapy boost in combination with external beam


2003 Impact Of New Software Tool In Treatment Planning For Prostate High-Dose Rate (HDR) Brachyth. 45th American Association of Physicists in Medicine (AAPM) Annual Meeting. San Diego, California, United States.


2003 An investigation of reoxygenation in high risk prostate cancer following high dose-rate (HDR) brachytherapy. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Copenhagen, Denmark.

2001 How does histologic grade change over time on repeat biopsy in untreated, favorable grade localized prostate cancer. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

2001 Salvage radiotherapy for rising PSA or clinically palpable local recurrence following radical prostatectomy. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.


2. NATIONAL

Invited Lectures and Presentations


2013  Invited Speaker. High dose rate brachytherapy to optimize dose delivery for prostate cancer. GU Radiation Oncologists of Canada. Montreal, Quebec, Canada.

2013  Invited Speaker. HDR Brachytherapy Research at Sunnybrook, doing more with less. Best of ACURA, Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Montreal, Quebec, Canada.


2008  High Dose-Rate Brachytherapy for Prostate Cancer. Nucletron Essentials in Brachytherapy Workshop. Quebec City, Quebec, Canada.


2006  Visiting Professor. Dept of Radiation Oncology, Memorial University of Newfoundland. St John’s, Newfoundland and Labrador, Canada.

2005  Prostate Contouring Workshop. Issues and Controversies in Prostate Cancer. Mont Tremblant, Quebec, Canada.
2005  Minimising acute effects of treatment: changing perspectives and challenges. Radiation Medicine Program, University of Toronto. King City, Ontario, Canada.


2001  Canadian Consensus on Prostate Cancer. Congress on Uro-Oncology. Ixtapa, Mexico.


2001  Visiting Professor. Cross Cancer Institute, Dept of Radiation Oncology, University of Edmonton. Edmonton, Alberta, Canada.


Presented Abstracts


2010 Acute and late toxicity of pelvic radiotherapy and concomitant hypofractionated IMRT boost combined with hormonal therapy for high risk prostate cancer. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Vancouver, British Columbia, Canada.

2009 Active surveillance with selected delayed intervention for localized prostate cancer: outcomes after thirteen years of follow-up. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada.

2009 Can high dose-rate brachytherapy be given as a single fraction when used as a boost with external beam radiotherapy (EBRT) to treat prostate cancer? A comparison of two fractionation schedules. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada.

2009 Prospective study evaluating salvage radiotherapy plus 2-year androgen suppression for post-radical prostatectomy patients with PSA relapse. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada.


2007 Comparing Gleason Scores (GS) between initial and follow-up biopsy in untreated low to intermediate grade clinically localised prostate adenocarcinoma. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists (CARO-COMP) Joint Annual Scientific Meeting. Toronto, Ontario, Canada.

2007 How does prostate high dose-rate (HDR) brachytherapy combined with supplemental external beam affect patients’ Quality of Life? Results from a Prospective Canadian Multicentre Study. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists (CARO-COMP) Joint Annual Scientific Meeting. Toronto, Ontario, Canada.

2006 Quality of life after combined postoperative salvage radiotherapy and androgen suppression for recurrent adenocarcinoma of the prostate. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.

2006 Comparative study of dosimetry between high dose-rate and permanent prostate implant brachytherapies in patients with prostate adenocarcinoma. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.

2006 Prospective assessment of genitourinary and gastrointestinal toxicity of post-operative radiotherapy to the prostate bed following radical prostatectomy for pathologic T3 and/or positive surgical margins. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.
2006 Interfraction motion measured using 3D ultrasound and gold seed localization. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.


2006 A 3D imaging technique for brachytherapy planning and treatment in a single high dose-rate radiation operating suite. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.


2004 A dosimetric comparison of high dose-rate (HDR) and low dose-rate (LDR) prostate brachytherapy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Halifax, Nova Scotia, Canada.

2003 Hypofractionated IMRT boost for prostate carcinoma with on-line targeting of the prostate gland: patient specific PTV margins and acute toxicity results. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003 Dosimetric comparison of 125I and 103Pd for breast permanent implant as an adjuvant technique. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003 Inefficacy of salvage radiotherapy for clinically isolated local recurrence of prostate adenocarcinoma at the prostate bed following radical prostatectomy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003 Uterine perforation detection during selectron insertion with routine pelvic CT. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003 High dose-rate (HDR) brachytherapy boost for high risk localized prostate cancer: feasibility and analysis of acute toxicity. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003 Is there a progression of histologic grade from radical prostatectomy to local recurrence in patients with clinically isolated local recurrence following RP? Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003 An investigation of the effects of high dose-rate brachytherapy on prostate cancer oxygenation. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003 PSA doubling time (PSADT) of untreated, clinically localized low to intermediate grade prostate adenocarcinoma. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2002 Role of serial bone scans for the follow-up of low to intermediate grade clinically localized prostate cancer managed with a watchful observation protocol. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.


2002 Change in Gleason Score on repeat biopsy in untreated low to intermediate grade, clinically localised prostate adenocarcinoma. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

2002 Efficacy of post-operative adjuvant radiotherapy (RT) for pathological T3 and/or positive resection margin prostate carcinoma with undetectable post-operative PSA following radical prostatectomy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

2002 Assessment of prostate cancer microvasculature using dynamic magnetic resonance imaging. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.


2000 PSA doubling time of prostate carcinoma managed with watchful observation alone. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Edmonton, Alberta, Canada.

2000 How does histologic grade change over time in untreated localized prostate cancer? Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Edmonton, Alberta, Canada.


1999 Dosimetric effect of post implant prostate swelling. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

1999 Watchful observation of asymptomatic favourable grade prostate carcinoma with selective delayed intervention based on PSA, histologic and/or clinical progression. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

1996 Whole abdominal radiotherapy alone or preceded by 2 cycles of cisplatin in the post-operative management of ovarian cancer, with chemotherapy at time of relapse. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Halifax, Nova Scotia, Canada.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2015 Nov 11 **Distinguished Speaker.** Meeting the Growing Need for Prostate Brachytherapy. Credit Valley Regional Cancer Centre. Toronto, Ontario, Canada.


2014 **Invited Lecturer.** Why Androgen Deprivation and Radiation for Prostate Cancer? Royal Victoria Hospital.
Gerard Christopher MORTON

Barrie, Ontario, Canada. Presented at evening symposium to oncology nurses, , Ontario.


2013 **Invited Lecturer.** Prostate HDR Brachytherapy: what, why and how? Queens University, Kingston. Ontario, Canada.


2011 Prostate HDR Brachytherapy Workshop. GUROC meeting. Toronto, Ontario, Canada.

2010 **Visiting Professor.** Dept of Radiation Oncology, Northern Ontario School of Medicine. Thunder Bay, Ontario, Canada.


2010 High Dose-Rate Brachytherapy for Prostate Cancer. Grand Rounds, Durham Regional Cancer Centre. Oshawa, Ontario, Canada.

2010 Clinical Trials. Canadian Prostate Cancer Network. Toronto, Ontario, Canada.


2009 How we find better treatment through research. Annual Summit, Motorcycle Ride for Dad. Ottawa, Ontario, Canada.


2008 Brachytherapy for Prostate Cancer. Interdisciplinary Uro-Oncology Rounds. Surrey, British Columbia, Canada.


2007 Prostate Brachytherapy: Permanent Seed or HDR Monotherapy? Oncology Grand Rounds, McGill University Health Centre, Montreal General Hospital. Montreal, Quebec, Canada.


2007 All you Need to Know about your Prostate. Kiwanis Club. Toronto, Ontario, Canada.


2006 **Visiting Professor.** North Eastern Ontario Regional Cancer Centre, Dept of Radiation Oncology. St John’s, Ontario, Canada.
2005 Visiting Professor. Hamilton Regional Cancer Centre, Dept of Radiation Oncology, McMaster University. Hamilton, Ontario, Canada.

2002 Prostate Brachytherapy – the ABCs. Medical Grand Rounds, University of Saskatchewan. Saskatoon, Saskatchewan, Canada.

2002 Prostate Brachytherapy – is it worth the trouble? Interdisciplinary Oncology Rounds, University of Saskatchewan. Saskatoon, Saskatchewan, Canada.

2002 Update on Prostate Brachytherapy. Regional Uro-Oncology Meeting. Huntsville, Ontario, Canada.

2001 Prostate Brachytherapy in Early Stage Prostate Cancer. Oncology Grand Rounds, Queens University. Kingston, Ontario, Canada.


Media Appearances

2008 Apr 30 Ride for Dad Funds Important Research. The Ottawa Citizen. Ottawa, Ontario, Canada.

Lay/Public Presentations


Media Presentations


Other Presentations

2013 Visiting Professor. Queen’s University, Kingston. Ontario.

4. LOCAL

Invited Lectures and Presentations

Media Appearances

2004  “Journey to a Cure”. City TV. Toronto, Ontario, Canada.


5. LAY

Invited Lectures and Presentations


6. OTHER

Presented Abstracts

2016 Jan 7  Invited Speaker. Early Toxicity in a randomized trial of high dose rate (HDR) brachytherapy as monotherapy for low and intermediate-risk prostate cancer. ASCO - Genitourinary Cancers Symposium. San Fransisco, California, United States. Available from: J Clin Oncol 34, 2016 (suppl 2S; abstr 44).

2012  Dose volume analysis of grade 2+ late GI toxicity on RTOG 0126 after high-dose 3DCRT or IMRT. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Massachusetts, United States.

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2014 Jul - present  AFC Diploma in Brachytherapy, Faculty Development, Royal College Physicians & Surgeons of Canada, Royal College of Physicians & Surgeons of Canada
Development of National Training course in Brachytherapy with Royal College Diploma Certification.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2016 Mar - 2016 Apr  Primary Supervisor. Medical Student. Robert Murphy, Medical Science. Analysis of Outcome measures after Prostate Cancer Treatment - Chart Review.
Postgraduate MD

2013  

2009  
**Primary Supervisor.** Clinical Fellow. G Tsang. *Prospective study of changes in health-related quality of life following single fraction HDR brachytherapy.*

2008  
**Primary Supervisor.** Clinical Fellow. A Kamran. *Prospective study of acute toxicity of single fraction HDR brachytherapy.*

2007  
**Primary Supervisor.** H Soliman. *Modeling study of tolerance to HDR catheter displacement in HDR prostate brachytherapy.*

2007  
**Primary Supervisor.** R Holly. *Use of in-room cone-beam CT scan to correct for catheter displacement in prostate HDR brachytherapy.*

2007  
**Primary Supervisor.** R Holly. *Use of megavoltage cone-beam planning for patients undergoing HDR prostate brachytherapy and hip prostheses.*

2007  
**Primary Supervisor.** S Myrehaug. *Use of megavoltage cone-beam planning for patients undergoing HDR prostate brachytherapy and hip prostheses.*

2005  
**Primary Supervisor.** Clinical Fellow. T Lim. *Digital tomosynthesis for on-line image guidance of prostate cancer.*

2005  
**Primary Supervisor.** Clinical Fellow. T Lim. *Multicentre phase II clinical trial of prostate HDR brachytherapy in prostate cancer.*

2004  
**Primary Supervisor.** Y Wang. *Comparison of HDR and permanent seed dosimetry.*

2004  
**Primary Supervisor.** Clinical Fellow. M Pearse. *Prospective study of 3D ultrasound for on-line image guidance during prostate radiotherapy.*

2003  
**Primary Supervisor.** A Al Hebshi. *Dosimetric comparison of LDR and HDR prostate brachytherapy.*

2002  
**Primary Supervisor.** Clinical Fellow. B Yap. *A prospective study of changes in prostate hypoxia following high dose-rate brachytherapy.*

1996 - 1997  
**Primary Supervisor.** L Dawson. *Prospective study of target position variability throughout prostate radiotherapy.*

1996  
**Primary Supervisor.** L Dawson. *Fulminant hepatic failure associated with bicalutamide.*

1996  
**Primary Supervisor.** E Chow. *Fulminant hepatic failure associated with bicalutamide.*

Continuing Education

2013  
**Primary Supervisor.** Radiation Therapist. L D’Allimonte. *Significance of biopsy findings following HDR brachytherapy.*

Clinical Research Fellow (MD)

2015 Jul - 2016 Jun  

2014  

2014  
Curriculum Vitae

Sten Myrehaug
B.Sc., MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre, Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone
416.480.4834

Email
sten.myrehaug@sunnybrook.ca

1. EDUCATION

Degrees
2001 - 2005 MD, Special Training in Research, Medicine and Dentistry, University of Alberta
1997 - 2001 BSc with Distinction, Faculty of Science, University of Alberta

Postgraduate, Research and Specialty Training
2010 - 2011 Clinical Research Fellowship, Radiation Oncology Branch, National Cancer Institute, National Institutes of Health

Qualifications, Certifications and Licenses
FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2015 Jul - present Assistant Professor, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2004 Gold Humanism Honor Society Award, Arthur P. Gold Foundation. (Distinction)

NATIONAL
Received
1997 Governor-General’s Academic Medal, Governor General of Canada (Camrose Composite High School). (Distinction)

LOCAL
Received
2005 Dianne Dompe Memorial Scholarship, University of Alberta, Faculty of Medicine and Dentistry. (Distinction)
2004 - 2005 Dean’s Honour Roll, University of Alberta, Faculty of Medicine and Dentistry. (Distinction)
2002 Jason Lang Scholarship, University of Alberta, Faculty of Medicine and Dentistry. (Distinction)
1997 - 2001 Dean’s Honour Roll, University of Alberta, Faculty of Science. (Distinction)
1997 Entrance Scholarship, University of Alberta, Faculty of Science. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Society of Radiation Oncology
Member, AOSpine
Member, Arthur P. Gold Foundation Gold Humanism Honor Society
Member, Canadian Association of Radiation Oncology
Member, Society for Neuro-Oncology

Administrative Activities

NATIONAL
Canadian Cancer Society Research Institute
2015 - present QA Lead - SC-24 Clinical Trials
2011 - 2015 Durham Regional Cancer Centre Representative, NCIC-CTG

LOCAL
Durham Regional Cancer Centre
2011 - 2015 Clinical Trials Lead, Department of Radiation Oncology
2001 - 2015 Member, CNS Program Development

University of Toronto
2009 - 2010 Chief Resident, Department of Radiation Oncology
2007 - 2008 Senior Resident, Odette Cancer Centre, Department of Radiation Oncology
C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


D. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts

Presented and Published Abstracts
2004 Oct Single nucleotide polymorphisms in radiation response genes correlate with clinical late toxicity in patients treated with three-dimensional conformal radiotherapy (3DCRT) for adenocarcinoma of the prostate. European Society for Therapeutic Radiology and Oncology Annual Scientific Meeting. Amsterdam, Netherlands. 


2. NATIONAL

Presented and Published Abstracts


2007 Nov Expert Opinion in Treatment Approaches for Illustrative Cases of Thymoma. Canadian Association of
Sten MYREHAUG


Publication Details:

2004 Sep
Association of radiation and tissue homeostasis response gene polymorphisms with clinical late toxicity in patients treated with three-dimensional conformal radiotherapy (3DCRT) for adenocarcinoma of the prostate. Canadian Association of Radiation Oncologists 2004 Annual Scientific meeting. Halifax, Nova Scotia.

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Part of Teaching course

2015 Oct 29 Lecturer. Presenter(s): Dr. Myrehaug, Dr. Soliman. Cranial SRS Program at Grand River - Education Session.
CURRICULUM VITAE

BRIAN O’SULLIVAN

Co-Chair
Head and Neck Steering Committee
US National Cancer Institute

Bartley-Smith / Wharton Chair in Radiation Oncology
Department of Radiation Oncology,
Princess Margaret Hospital,
University Health Network
University of Toronto

Professor,
Department of Radiation Oncology,
University of Toronto.

Professor,
Department of otolaryngology / Head and Neck Surgery
University of Toronto.

Clinician-Scientist,
Ontario Cancer Institute
University Heath Network

Clinician-Scientist,
Ontario Association of Radiation Oncologist
Ministry of Health

Commissionor
International Commission on Radiation Units & Measurements
A. Date Curriculum Vitae is Prepared: July 1st, 2016

B. Biographical Information

CONTACT INFORMATION

Primary Office
Princess Margaret Hospital
Department of Radiation Oncology
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946-2125
Fax (416) 946-6566
Email brian.osullivan@rmp.uhn.on.ca

EDUCATION

Degrees
1970 - 1976 M.B., B.CH., B.A.O. National University of Ireland at University College, Dublin, Ireland
1964 - 1970 Clongowes Wood Jesuit College, Naas, County Kildare, Ireland
1961 - 1964 Immaculate Heart of Mary School, Scarsdale, New York, United States
1960 - 1961 St. Killian’s German Preparatory School, Dublin, Ireland
1956 - 1960 L’Ecole Francaise de Berne, Switzerland

Postgraduate, Research and Specialty Training

1983 - 1984 Clinical Fellow, Radiation Oncology, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1982 - 1983 Chief Resident, Radiation Oncology, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1980 - 1982 Resident, Radiation Oncology, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1979 - 1980 Clinical Fellow, Medical Oncology, Princess Margaret Hospital, Toronto, Canada
1977 - 1979 Resident, Internal Medicine and Medical Oncology, St. Vincent’s University Hospital, Dublin, Ireland
1977 Jan - 1977 Jun Internship, Surgery, St. Vincent’s University Hospital, Dublin, Ireland
1976 Jul - 1976 Dec Internship, Medicine, St. Vincent’s University Hospital, Dublin, Ireland

Qualifications, Certifications and Licenses

2008 FFRRCSI (Hon) Honorary Fellow, Faculty of Radiologists, Royal College of Surgeons in Ireland, Ireland
1999 F.R.C.P.I, Fellow, Internal Medicine, Royal College of Physicians in Ireland, Ireland
1984 F.R.C.P.C. Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1984 Diploma, American Board of Radiation Oncology, United States
1983 C.S.P.Q., Certified Specialist, Radiation Oncology, Province of Quebec, Canada
1978 M.R.C.P.I., Member, Internal Medicine, Royal College of Physicians in Ireland, Ireland
2. EMPLOYMENT

Current Appointments

2007 – Present  Clinician-Scientist, Ontario Association of Radiation Oncologist, Canada
2008 - Present  Leader, Head and Neck Site Team, Princess Margaret Hospital, University Health Network, Toronto, Canada
2005 - Present  Associate Member, Graduate Faculty, Institute of Medical Science, University of Toronto, Canada
2002 - Present  Professor, Department of Radiation Oncology, University of Toronto, Canada
2001 – Present  Clinician-Scientist, Ontario Cancer Institute, University Health Network, Toronto, Canada
1999 - Present  Bartley-Smith/Wharton Chair, Radiation Oncology, Princess Margaret Hospital, University of Toronto, Canada
1991 Jan - present  Head, Sarcoma Site Group, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1985 - Present  Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada

Previous Appointments

HOSPITAL

2001 - 2012  Associate Director, Strategy and Planning, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Canada
2001 - 2002  Head, IMRT Clinical Implementation, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Canada
1999 - 2008  Head, Sarcoma Site Team, Princess Margaret Hospital, University Health Network, Toronto, Canada
1995 - 2006  Head, Head and Neck Site Group, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1984 - 1985  Active Staff Member, Department of Radiation Oncology, Montreal General Hospital, Montreal, Canada
1984 - 1985  Active Staff Member, Department of Radiation Oncology, Royal Victoria Hospital, Montreal, Canada
1984 - 1985  Active Staff Member, Department of Radiation Oncology, Jewish General Hospital, Montreal, Canada
1984 - 1985  Consultant Member, Radiation Oncology, Queen Elizabeth Hospital, Montreal, Canada
1984 - 1985  Consultant Member, Radiation Oncology, St. Mary’s Hospital, Montreal, Canada
1984 - 1985  Consultant Member, Radiation Oncology, Reddy Memorial Hospital, Montreal, Canada
1984 - 1985  Consultant Member, Radiation Oncology, Montreal Children’s Hospital, Montreal, Canada
1984 - 1985  Active Staff Member, Division of Medical Oncology, Department of Internal Medicine, Montreal General Hospital, Montreal, Canada

UNIVERSITY - CROSS APPOINTMENT

2005 - Present  Professor, Department of Otolaryngology / Head & Neck Surgery, University of Toronto, Canada
1984 - 1985  Assistant Professor, McGill Cancer Centre, McGill University, Montreal, Canada

UNIVERSITY - RANK

1995 - 2002  Associate Professor, Department of Radiation Oncology, University of Toronto, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL


2014  **2014 Best of ASTRO Award** for “Refining UICC TNM Stage and Prognostic Groups for HPV-Related Oropharyngeal Carcinomas” which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, USA. (PI)

2014  **The Roentgen Ray Lecturer**, “Examining our report card: Have we answered all the questions about local management of soft tissue sarcoma?” Fox Chase Cancer Center. Philadelphia, USA, May 1, 2014. (Distinction)

2013  **2013 Best of ASTRO Award** for “The Changing Profile of Outcome in Long Term Follow-Up of a Randomized Trial for Locally Advanced Head and Neck Cancer” which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, USA.

2012  **PA Shah Oration, Foundation for Head and Neck Oncology of India**, India, Invited plenary lecture from an internationally recognized Head and Neck Oncologist at the annual meeting of the Foundation for Head and Neck Oncology, with life-time membership of the Foundation bestowed. October 2012


2010  **ARRO Best of ASTRO award** for “Outcome of radiotherapy alone in HPV associated oropharyngeal cancer”. American Society for Therapeutic Radiology and Oncology (ASTRO) 52nd Annual Meeting, San Diego, California, USA.

2008  **Honorary Fellow of the Faculty of Radiologists**, Royal College of Surgeons in Ireland, Ireland. (Distinction) (FFRRCSt,Hons).

2007  **Ira Spiro Distinguished Memorial Lecturer and Professor**, Harvard Medical School, Department of Radiation Oncology, Massachusetts General Hospital

2007  **Fellow of the American Society of Therapeutic Radiology and Oncology (FASTRO)**, United States. (Distinction)

**FASTRO designation is based upon meritorious service to ASTRO and to the field of radiation oncology including leadership/service, research, patient care and education**

2006  **Gilbert Fletcher Distinguished Professor and Memorial Lecturer**, University of Texas, MD Anderson Cancer Center, United States. (Distinction)

2005  **Juan Del Regato Gold Medal Recipient and Lecturer**, Juan Del Regato Foundation. (Distinction)

*Since 1977 the del Regato Foundation has sponsored annual lectures by distinguished members of the radiation oncology community from throughout the world.*

2005  **Knight Fellowship and Memorial Lecturer**, Queensland Cancer Fund. (Distinction)

“To bring to Queensland, Australia, an internationally known lecturer in the field of Clinical Cancer Management, from overseas (or from interstate if a suitable person is available) every second year”.
2005 Presidential Citation of the American Head and Neck Society, United States. (Distinction)

2004 Annual Oration in Radiation Oncology, Award of Honor, Radiological Society of North America, United States. (Distinction)

Invited plenary lecture from an internationally recognized Radiation Oncologist at the annual meeting of RSNA.

2004 John H. Wineman Visiting Professorship, University of Michigan, United States. (Distinction)

2004 The Outstanding Presentations at ASTRO 2004 award, invited by the Radiological Society of North America (RSNA). Five year results of a randomized Phase III trial (SR-2) of pre-operative vs post-operative radiotherapy in extremity soft tissue sarcoma.

1999 – 2000 President, Connective Tissue Oncology Society. (Distinction)

The only fully multidisciplinary international society in the world devoted to the advancement of knowledge and research in sarcoma. The membership comprises leading sarcoma specialists throughout the world.

NATIONAL

2016 Distinguished Visiting Professorship, Arnie Charbonneau Cancer Institute/Tom Baker Cancer Centre, Calgary, Alberta, Canada. (Distinction)


The plenary speaker of Atlantic Radiotherapy Forum, attended by Radiation oncologists, radiation therapists, and physicists from all 4 Atlantic Provinces. (Distinction)

2004 Best Paper in Clinical and Population-based Oncology, Canadian Association of Radiation Oncologists, Canada. (Distinction)

2002 Gordon Richards Lecturer, Canadian Association of Radiation Oncologists (CARO), Canada. (Distinction)

Annual Plenary (highlight) at CARO: endowed lecture by an internationally recognized Canadian radiation oncologist in memory of Professor Gordon Richards, founder of the Canadian Association of Radiologists.

1998 Order of Merit, National Cancer Institute of Canada, Canada. (Distinction)

For activities as Chair of the Canadian Committee on Cancer staging.

1996 Margaret and Norman Gosse Professorship, Canadian Cancer Society and Faculty of Medicine, Dalhousie University, Halifax, Canada. (Distinction)

LOCAL


2013 Research Leadership Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada.

2007 – present Clinician Scientist, Ontario Association of Radiation Oncologists (OARO)

To promote excellence and build capacity in radiation medicine research in Ontario by providing partial base salary support to highly qualified, academically motivated radiation oncologists with independent research programs supported by external peer-reviewed funding, or the potential to develop independent research programs with peer-reviewed funding.

1999 - present Bartley-Smith/Wharton Chair in Radiation Oncology, University of Toronto, Canada. (Distinction)

Responsibility for Academic Leadership in Head and Neck Oncology in the Department of Radiation
Oncology at the Princess Margaret Hospital, a University of Toronto Teaching Hospital. Award includes use of $2,000,000 endowed fund for Research under the control of the Chair. Total Amount: 2,000,000 CAD

2006
**Award for Sustained Excellence in Research, Department of Radiation Oncology**, University of Toronto, Canada. (Research Award)

2003
**Best Annual Research Performance, Department of Radiation Oncology**, University of Toronto, Canada. (Distinction)

Inaugural award of the University of Toronto.

1973 - 1974
**Honours: Fourth Place in Class**, University College, Ireland. (Research Award)

**Third Year Medical Honours: Awarded University Scholarship Prize**.

1973
**Honours: Awarded University Scholarship Prize**, University College, Ireland

1973
**Recommended for publication**, University College, Ireland. (Research Award)

**Third Year Medical Examination: Paper submitted for examination Recommended for publication by University College Dublin Department of Pathology. Based on observations in Nigeria, West Africa Resulting Publication: O’Sullivan, B and McLaughlin, H.: “Burkitt’s Lymphoma – A Review”, J. Irish Medical Assoc. (1975), 68, 247-254.**

1970 - 1971
**Honours; Third place in class**, University College, Ireland. (Research Award)

**Pre-Medical Year, Awarded University Scholarship Prize**.

**Teaching Awards**

**INTERNATIONAL**

2015
**2015 Best of ASTRO Award** for “Risk Stratification for Relapse in Human Papillomavirus–Unrelated Oropharyngeal Carcinoma Treated With Definitive Radiation Therapy with or without chemotherapy” which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, San Antonio, USA. (as the research supervisor of award recipient Shao Hui Huang)

2015
**2015 ICHNO Press Release** for "'Cure' is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis” was selected for one of the two most relevant and highly influential abstracts from 5th ICHNO (International Conference on Innovative Approaches in Head & Neck Oncology), Nice, France. (as the research supervisor of award recipient Shao Hui Huang)

2014
**2014 Best of ASTRO Award** for “Potential Cure in Oropharyngeal Cancer with Oligo-Metastasis” which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, San Francisco, USA. (as the research supervisor of award recipient Shao Hui Huang)

2011 May
**ESTRO Best Poster Award**, European Society of Therapeutic Oncology (ESTRO) 2011, London, United Kingdom. (as the research supervisor of award recipient Shao Hui Huang)

2010 Feb
**ASTRO/ASCO/AHNS Abstract Award**, 2010 Multidisciplinary Head and Neck Cancer Symposium, Chandler, USA (as the research supervisor of award recipient Shao Hui Huang)

2010
**ARRO Best of ASTRO award** for “Phase II study of intensity modulated radiation therapy for lower limb soft tissue sarcoma”. American Society for Therapeutic Radiology and Oncology, San Diego, USA (as the research supervisor of award recipient Colleen Dickie)

2009
**ARRO Best of ASTRO award** for “The relationship between location recurrence and radiotherapy treatment volume for soft tissue sarcoma treated with external beam radiotherapy and function preservation surgery”. American Society for Therapeutic Radiology and Oncology, San Diego, USA (as the research supervisor of award recipient Colleen Dickie)
### LOCAL

<table>
<thead>
<tr>
<th>Year</th>
<th>Award</th>
<th>Institution</th>
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<tbody>
<tr>
<td>2013</td>
<td>Distinguished Teaching Award, Best Annual Scientific Rounds</td>
<td>Dept of Radiation Oncology, University of Toronto</td>
</tr>
<tr>
<td>2012</td>
<td>The Residents’ Award for Outstanding Teacher of the Year (2012)</td>
<td>Dept of Radiation Oncology, University of Toronto</td>
</tr>
<tr>
<td>2012</td>
<td>The Outstanding Teacher of the Year (2012) - Radiation Medicine Program Education and Research Award</td>
<td>Radiation Medicine Program, Princess Margaret Hospital, Canada</td>
</tr>
<tr>
<td>2009</td>
<td>Distinguished Teaching Award</td>
<td>Dept of Radiation Oncology, University of Toronto</td>
</tr>
<tr>
<td>2007</td>
<td>Distinguished Teaching Award, Based on marks evaluated from the Program at large over the academic year</td>
<td>Dept of Radiation Oncology, University of Toronto</td>
</tr>
</tbody>
</table>

### Visiting Professorships - Invited

<table>
<thead>
<tr>
<th>Year</th>
<th>Institution</th>
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<tbody>
<tr>
<td>2015</td>
<td>Université Catholique de Louvain. St-Luc University Hospital</td>
</tr>
<tr>
<td>2014</td>
<td>University of Hong Kong, Hong Kong, China</td>
</tr>
<tr>
<td>2014</td>
<td>Cleveland Clinic, Department of Radiation Oncology</td>
</tr>
<tr>
<td>2014</td>
<td>Fox Chase Cancer Centre, Department of Radiation Oncology</td>
</tr>
<tr>
<td>2013</td>
<td>Harvard University, Department of Radiation Oncology</td>
</tr>
<tr>
<td>2013</td>
<td>University of Pennsylvania, Department of Radiation Oncology</td>
</tr>
<tr>
<td>2012</td>
<td>Sun Yet-Sen Medical University, Department of Radiation Oncology</td>
</tr>
<tr>
<td>2012</td>
<td>Harvard Medical School, Head &amp; Neck Program, Boston, USA</td>
</tr>
<tr>
<td>2010</td>
<td>University of Hong Kong, Hong Kong, China</td>
</tr>
<tr>
<td>2008</td>
<td>Saint Lukes Cancer Hospital, Dublin, Republic of Ireland</td>
</tr>
<tr>
<td>2008</td>
<td>“The Irish Cancer Society Lecturer” and Visiting Professor</td>
</tr>
<tr>
<td>2008</td>
<td>Spanish Sarcoma Group – Aula Magna de la Casa de Convalescencia del Hospital Santa Creu y San Pau, Barcelona, Spain</td>
</tr>
<tr>
<td>2008</td>
<td>Department of Human Oncology, University of Wisconsin, Madison, USA</td>
</tr>
<tr>
<td>2007</td>
<td>University of Hong Kong, Inaugural Visiting Professor</td>
</tr>
<tr>
<td>2007</td>
<td>University of British Columbia, Department of Radiation Oncology</td>
</tr>
<tr>
<td>2007</td>
<td>University of Brisbane, Princess Alexandra Hospital Cancer Collaborative Group</td>
</tr>
<tr>
<td>2007</td>
<td>Catholic University of Louvain, Head and Neck Oncology Program, St -Luc University Hospital, Brussels, Belgium</td>
</tr>
</tbody>
</table>
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2008 – present  American Society of Clinical Oncology
1995 - present  Founding Member, Connective Tissue Oncology Society
1988 - present  Founding Member, Canadian Association of Radiation Oncologists
1988 - present  European Society for Radiotherapy and Oncology
Administrative Activities

INTERNATIONAL

ICRU

2014 - present  **Member**, International Commission on Radiation Units & Measurements (ICRU)

US National Cancer Institute

2014 – present  **Chair** of Radiation Oncology and **Co-Chair**, Head and Neck Steering Committee

2006 - 2013  **Member**, Head and Neck Steering Committee

Union for International Cancer Control

2014 – present  **Member**, Global Task Force on Radiotherapy for Cancer Control (GTRFC)

2004 - present  **Coordinator**, Prognostic Factor Advisory groups, Prognostic factors Committee, Geneva, Switzerland.


2004 - present  **Coordinator**, Annual Meeting UICC TNM Committee, Prognostic Factor Advisory groups, Geneva, Switzerland.


*Statutory three-year term.*

1995 - 1998  **Member**, Annual Meeting UICC TNM Committee

1993 - 1997  **Member**, American Joint Committee on Cancer Staging, Task Force For Soft Tissue Sarcoma for the Fifth Edition of the TNM Staging System

1993  **International Co-ordinator**, Nasopharyngeal Stage Classification Revision  
*Revision (Appointee by official request of the UICC/TNM Project Committee and the AJCC for the planned Fifth Revision of the TNM Staging System). Task completed with approval of world-wide revision 12 January, 1995 (AJCC) and May 2, 1995 (UICC)*

American Joint Committee on Cancer (AJCC)


1999 - present  **UICC Representative**, Task Force for Bone Tumors for the 6th Edition of TNM


Center for Nasopharyngeal Cancer Research (NPC) Cancer Research (CNPCR)

2009 - present  **Member**, International Advisory Board, Hong Kong, China.  
*Under the aegis of the Area of Excellence (AoE) scheme.*
Advisory Board of Meta-Analysis of Chemotherapy in Nasopharyngeal Cancer
2010 – present Member, Steering Committee, Meta-analysis of Chemotherapy in Nasopharyngeal Cancer, Department of Statistics, Institut Gustave Roussy, Paris, France

Trinity College, Dublin
2010 – Present External Examiner and Curriculum Development, for BSc Discipline of Radiation Therapy. Trinity College, Dublin, Europe’s foremost program initiated by Mary Coffey from ESTRO

American College of Surgeons
2006 - 2009 UICC Representative, Commission on Cancer
2002 – 2006 Member, Sarcoma Committee

Sarcoma Alliance
2002 - present Member, Medical Advisory Board, United States.

Connective Tissue Oncology Society
1996 - present Member, Membership Committee
1996 - present Member, Board of Directors
1996 - present Member, Executive Committee
2000 Judge, Young Investigator Award at Annual Meeting
1999 Oct 24 - 2000 President, Membership Committee
1997 Nov - 1998 Nov Secretary, Executive Committee
By election of the members of the Society. In Milan, Italy (one year appointment).
1996 Oct - 1997 Oct Treasurer, Executive Committee
By election of the members of the Society. In Toronto, Canada (one year appointment).
1996 Oct Local Co-ordinator, Annual Scientific Meeting, Toronto.
1994 Sep Member, Founding Committee, Boston, Massachusetts. (Multidisciplinary society to further communication between clinicians and scientists interested in sarcomas. First President: Dr. Herman Suit, Harvard University)

American Society of Radiation Oncology (ASTRO), the American Society of Clinical Oncology (ASCO), and the American Society of Head and Neck Surgery (AHNS)
2016 Feb Member, Program Committee, Fifth Multidisciplinary Head and Neck Cancer Symposium
2014 Feb Member, Program Committee, Fourth Multidisciplinary Head and Neck Cancer Symposium
2010 Feb Member, Program Committee, Second Multidisciplinary Head and Neck Cancer Symposium
2007 Jan Member, Program Committee, First Multidisciplinary Head and Neck Cancer Symposium
American Society of Therapeutic Radiology and Oncology (ASTRO)

2004 - 2007  Member, Scientific Program Committee, Annual Meeting
2003 - 2004  Member, Scientific Program Committee, Annual Meeting

European Head and Neck Society (EHNS) and European Society of Therapeutic Radiology and Oncology (ESTRO)

2009 Feb  Member, Second Program Committee for the International Meeting on Innovative Approaches in Head and Neck Oncology (ICHNO)
2007 Feb 22 - 2007 Feb 24  Member, Program Committee, First International Meeting on Innovative Approaches in Head and Neck Oncology (ICHNO)
2007 Feb 22 - 2007 Feb 24  Invited Faculty, First International Meeting on Innovative Approaches in Head and Neck Oncology, Barcelona (ICHNO)

American College of Surgery Oncology Group

2004 - 2006  Co-Chair, Sarcoma Site Committee (Co-Chair, with Dr Peter Pisters)

American Society of Clinical Oncology (ASCO)

2003  Chairman, Sarcoma Program Committee for the Annual Scientific Meeting
2001 - 2003  Member, Scientific Program Committee, Sarcoma Committee
Specific Appointment by invitation to the Sarcoma Sub-committee.
Consultant, By invitation to the Scientific Program Sub-Committee for the 2001 ASTRO Annual Meeting

ECCO - ESMO - ESTRO European Cancer Congress (ECCO)

2012-2013  Chair, Sarcoma Program Committee for the Annual Scientific Meeting

TROG/NCIC CTG

2002 - 2006  Chairman, Independent Data Management Committee, Collaborative trial (TROG 03.01 / NCIC CTG ES 2) Trial in esophageal cancer

The Hong Kong Nasopharyngeal Study Group

2006 - 2012  Chairman, Data Safety Monitoring Committee of NPC-0501, Hong Kong
Randomized trial to evaluate the therapeutic gain by changing the chemo-radiotherapy from concurrent-adjuvant to induction-concurrent sequence, and the radiotherapy from conventional to accelerated fractionation for advanced nasopharyngeal carcinoma.

Interim Data Monitoring Committee (IDMC)

2004 May  External Reviewer, EORTC study 62961
National Cancer Centre, Singapore

Participated in Research and Administrative Seminars and Multidisciplinary Tumor Conferences at the National Cancer Centre, Singapore General Hospital, Tam Tock Seng Hospital; KK Hospital, and the National University Hospital.

2006 Feb 2 - 2006 Feb 9  Reviewer, Department of Radiation Oncology, Singapore.  
Participated in Research and Administrative Seminars and Multidisciplinary Tumor Conferences at the National Cancer Centre, Singapore General Hospital, Tam Tock Seng Hospital; KK Hospital, and the National University Hospital.

Lent V Workshop on Late Toxicity Metrics and Working Standards

2004 May 20  Representative of ACOSOG, NCIC CTG, and CARO, Annual Meeting UICC TNM Committee, Prognostic Factor Advisory groups, Rochester, New York.

2004 May 20  Member, Annual Meeting UICC TNM Committee, Prognostic Factor Advisory groups, Rochester, New York. *(Chaired by A Trotti and S Bentzen).*

Medical Research Council

2004 May  External Reviewer, VORTEX: A randomised trial of dose and volume of post-operative radiotherapy given to adult patients with extremity soft tissue sarcoma, United Kingdom.

National Institutes for Health

2003  Sub-Committee Chair, Progress Review Group (PRG), Sarcoma Round Table Discussion, National Cancer Institute

2003  Chair, Sub-Committee, Progress Review Group (PRG), Sarcoma Organ Site, National Cancer Institute

2002 Apr 14 - 2002 Apr 16  Member, Late effects Criteria and applications workshop, St Petersburg, Florida.

1998 Nov  Member, Sarcoma Strategy-Planning Meeting of the Cancer Therapy Evaluation Program, National Cancer Institute, Vancouver, Canada.

1996 Oct  Member, Sarcoma Strategy-Planning Meeting of the Cancer Therapy Evaluation Program, National Cancer Institute, Bethesda, Maryland.

LENT IV: Late effects Criteria and applications workshop

*Co-Chair (Clinical aspects) with A. Davis for Topic Focus Group.*

2002 Apr 14 - 2002 Apr 16  Member, Site Committee: Sarcoma/ Musculoskeletal, St Petersburg, Florida.

Sarcoma Disease Site Group

2002 Apr  Associate Leader, Sarcoma Site, Commission on Cancer  
*Representing American Society of Therapeutic Radiology and Oncology (ASTRO)*

International Society for Radiation Oncology

2001 Feb  Member, International Advisory Committee: For the International Congress of Radiation Oncology,
American Board of Radiology

2000 - 2001  **Guest Examiner**, Head and Neck and Skin Oncology Section (Radiation Oncology)
**By Invitation.**

1996 - 1997  **Guest Examiner**, Head and Neck and Skin Oncology Section (Radiation Oncology)
**By Invitation.**

Multidisciplinary Sarcoma Symposium

1993  **Member**, Boca Raton, Florida.
*Led to the formation of the Connective Tissue Oncology Society.*

University of Bergen, Norway

2009 – 2013  **Thesis Defense Committee Member** for PhD (Nina Louise Jebsen), University of Bergen, Norway

Other Organizations

2011  **Member**, International Advisory Board
*Areas of Excellence Scheme of the Government of China for the University of Hong Kong Program in Nasopharyngeal Cancer Translational Research.*

2005 Dec  **Member**, Trial Management Committee for the TRACE, San Francisco.
*(Tirapazamine, Radiation and Cis-Platin Evaluation) EFC5512 Study, a second industry sponsored FDA registration trial to confirm the anticipated results of “Headstart” (EFC4690).*

2005 May  **Member**, Trial Management Committee for the TRACE, Orlando.
*(Tirapazamine, Radiation and Cis-Platin Evaluation) EFC5512 Study, a second industry sponsored FDA registration trial to confirm the anticipated results of “Headstart” (EFC4690).*

2004 Dec  **Member**, Trial Management Committee for the TRACE, Nice, France.
*(Tirapazamine, Radiation and Cis-Platin Evaluation) EFC5512 Study, a second industry sponsored FDA registration trial to confirm the anticipated results of “Headstart” (EFC4690).*

*(EFC4690 Phase III randomized trial of concomitant radiation, cisplatin, and tirapazamine (SR259075) versus concomitant radiation and cisplatin in patients with advanced head and neck cancer). This is an industry sponsored FDA phase III randomized registration trial that evaluates the role of the hypoxic cell cytotoxin, Tirapazamine in the management of locally advanced head and neck cancer. The trial is open in 88 centres world-wide and on four continents. *(Anticipated accrual complete in April 2005 with target of 850 patients). Numerous Meetings (San Francisco, Vancouver, Copenhagen, New Orleans, Nice).*

2002 - 2004  **Member**, Radiotherapy quality assurance and hands on radiotherapy data evaluation for the HeadStart (EFC4690) Study in collaboration with the Quality Assurance Review Center (QARC), Providence, Rhode Island.
*Required numerous site meetings in Providence.*

1999 Sep  **Member**, Conference on Prognostic Factors and staging in Cancer Management: Contribution of Artificial Neural Networks and Other Statistical Methods, Arlington, Virginia.
NATIONAL

National Cancer Institute of Canada/Clinical Trials Group

2006 - present  Co-Chair, Head and Neck Site Group Working Group
Co-Chair (with Dr R Gilbert).

1987 - present  National Representative, Radiation Oncology, an Executive Committee of the Canadian Sarcoma
Group Reporting

1994 Jul - 1996  Member, Quality Assurance Committee, Kingston.

Canadian Sarcoma Group

1997 - present  Member, Executive Committee and Simultaneous member of the NCIC CTG Executive of the Sarcoma
Disease Site Committee

2000 - present  Co-Chairman, Subcommittee on Local Management the NCIC CTG Executive of the Sarcoma Disease
Site Committee
Co-Chairman (with R. Turcotte, University of Montreal).

2000 Feb 26 - 2000 Feb 27  Member, Organising Committee for the Third National Workshop of the Canadian Sarcoma Group
“Sarcomas: Molecular markers to therapeutics”

Other Organizations

1996 - present  Member, Canadian Soft Tissue Sarcoma Bank Research Committee
(To review scientific applications from investigators for access to tissue for research).

1997 Jun  Member, Workshop Planning Committee for Workshop “National Initiative to Improve Cancer
Survival Information”, Ottawa, Canada.

1997 Apr  Chairman, Organizing Committee for the Workshop “Canadian Leadership Consultation on Cancer
Staging”, National Cancer Institute of Canada (NCIC)
Final report (primary author: O’Sullivan B) of the Leadership Consultation on Cancer Staging in
Canada has been approved by the Advisory Committee on Cancer Staging, the Association of
Provincial Cancer Agencies, and the Canadian Council on Health Services Accreditation and has been
endorsed by the Board of the NCIC. Approved recommendation requires all cancer programs in
Canada to record and centrally report the TNM stage on every cancer patient.

1997 Feb  Representative of the Canadian Association of Radiation Oncologists, Meeting of the Planning
Group for a Coalition for the Framework for Cancer Surveillance in Canada

National Cancer Institute of Canada

1996 Nov  Member, NCIC Workshop on Surveillance Systems for Cancer Control in Canada, Kananaskis, Alberta.

1995 Nov  Member, NCIC Organising Committee, Workshop on the Pathologist’s Role in the Staging of Cancer,
Toronto.
A workshop sponsored by the National Cancer Institute of Canada and the Laboratory Centre for
Disease Control).

1995 - 1998  Chairman, Canadian Committee on Cancer Staging (CCCS), The Subcommittee on Staging of the
Advisory Committee on Cancer Control

1992 - 2001  Chairman, Site Specific Advisory Group for Head and Neck tumors of the Canadian Committee on
Cancer Staging

1992 - 2001  Chairman, Site Specific Advisory Group for Bone and Soft Tissue tumors of the Canadian Committee
Brian O’SULLIVAN: CV (July 1’2016)

on Cancer Staging

1992 - 1998  **Member**, Canadian Committee on Cancer Staging (CCCS), reporting to the Advisory Committee on Cancer Control

1991  **Member**, Canadian ad hoc TNM stage classification Committee

**22nd Annual Meeting of the Eastern Great Lakes Head and Neck Oncology Association**

1998 Nov 7  **Scientific Program Chair**, Toronto, Canada.

1998 Nov 7  **President**, Toronto, Canada.

*Sponsored by the Continuing Education Department, Faculty of Medicine, University of Toronto for AMA Category I credits and MOCOMP credits of the Royal College of Physicians and Surgeons of Canada.*

**Health Canada**

1997 Jun  **Member**, Workshop on “National Initiative to Improve Cancer Survival Information”, Ottawa.

**Royal College of Physicians and Surgeons of Canada**

1992 - 1994  **Member (ex-officio)**, Specialty Committee on Radiation Oncology) as *Chief Examiner for the specialty of Radiation Oncology*.

1992 - 1994  **Chairman**, Conjoint English and French Radiation Oncology Examination Board (*Statutory 3-year term appointment*).

1990 - 1994  **Member**, Board of Examiners in Radiation Oncology

1990 - 1993  **Local Co-ordinator**, Royal College Examination in Radiation Oncology

**PROVINCIAL / REGIONAL**

**Ontario Cancer Institute /Princess Margaret Hospital**

2001 - present  **Member**, Radiation Medicine Steering Committee

1998 - present  **Member**, Radiation Medicine Program Senior Advisory Committee

2004 - 2006  **Chairman**, Super Team I (Head and Neck and Central Nervous System), Radiation Medicine Program (*multidisciplinary team comprising radiation oncology, radiation therapy, and medical physics*).

**Province of Ontario**

2012 - present  **Project Lead**, E-Outcome Head & Neck Project, Cancer Care Ontario

2000 - present  **Representative of the Princess Margaret Hospital**, Radiation Waiting List Working Group, Faculty of Medicine, Department of Radiation Oncology

*A collaborative initiative of the Ontario Ministry of Health, The Institute for Clinical Evaluative Sciences (ICES, Ontario), the Princess Margaret Hospital, Toronto, and Cancer Care Ontario.*

1997 - present  **Member**, Ontario Cancer Treatment Practice Guidelines Initiatives, Sarcoma Disease Site Group, Cancer Care Ontario
LOCAL

Princess Margaret Hospital

2011  Member, Ambulatory Care Redesign Committee, Oncology

2011 - 2012  Chair, Strategic Planning Committee, Radiation Medicine Program, 5-year plan

2007 - 2008  Chair, Strategic Planning Committee, Princess Margaret Hospital Oncology Program, 5-year plan

2007 - 2008  Chair, Strategic Planning Committee

Oncology Program, 5 year plan.

2002 - 2003  Chair, Strategic Planning Committee, Radiation Medicine Program, 5-year plan

2001 - 2006  Chairman, Strategic Planning Working Group, Radiation Medicine Program

1999 - 2003  Member, Cancer Registry Committee

1992 - 1995  Representative Ambulatory Care Committee, Standing Committee of the Medical Advisory Committee

1989 - 1990  Coordinator/Liaison Officer, Radiation Services, Standing Committee of the Medical Advisory Committee

(A position created during the 1989/1990 Ontario provincial RT workload crisis to monitor statistics and to assist the Chief of the Department of Radiation Oncology in the management of radiotherapy workload).

1989 - 1990  Member, Task Force to assess recruitment and retention of Radiation Technologists, Standing Committee of the Medical Advisory Committee

University of Toronto

2002 - 2004  Member, Academic Promotions Committee, Faculty of Medicine, Dept of Radiation Oncology

2001 - 2004  Member, Decanal Promotions Committee, Faculty of Medicine

1996 - 2000  Member, Research Fellowship Selection Committee, Faculty of Medicine, Dept of Radiation Oncology

Peer Review Activities

EDITORIAL BOARDS

Chief Editor

2009 May - present  UICC Manual of Clinical Oncology

Associate Editor


2005  Journal of Clinical Oncology

2003  Radiotherapy & Oncology

2003  Annual of Surgical Oncology

2001  Soft tissue and Bone, Annals of Surgical Oncology


### Guest Editor

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<tr>
<th>Year</th>
<th>Details</th>
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### Member

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<th>Year</th>
<th>Details</th>
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<tbody>
<tr>
<td>1996 - present</td>
<td>Journal Sarcoma, an international multidisciplinary journal for connective tissue oncology</td>
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</table>

### GRANT REVIEWS

#### External Referee

<table>
<thead>
<tr>
<th>Year</th>
<th>Details</th>
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<tr>
<td>2011 – 2012</td>
<td>US NCI (Transoral resection of Pharyngeal Cancer)</td>
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<tr>
<td>2010</td>
<td>Danish Cancer Society, Renewal of the DAHANCA Head and Neck Program Project</td>
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<tr>
<td>2009</td>
<td>UK NCR1 Trial</td>
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<td>2006 – 2012</td>
<td>Hong Kong NPC Study Group</td>
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<td>2005</td>
<td>Australia Queensland Cancer Fund</td>
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<td>2004</td>
<td>EORTC</td>
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<td>2002 – 2006</td>
<td>TROG</td>
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### MANUSCRIPT REVIEWS

#### Associate Editor

- Journal of Clinical Oncology
- Radiotherapy and Oncology
- Annals of Surgical Oncology

#### Reviewer

- Radiotherapy and Oncology
- International Journal of Radiation Oncology, Biology, Phys
- Cancer
- European Journal of Cancer
- Head and Neck
- Sarcoma
- Journal of Clinical Oncology
- Clinical Oncology
- Annals of Oncology
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Annals of Surgical Oncology
New England Journal of Medicine
Lancet
The Lancet Oncology

PRESENTATION REVIEWS

Abstract Reviewer

2014 2014 Multidisciplinary Head and Neck Cancer Symposium (ASTRO Head and Neck Meeting)
2013 Sarcoma, European Cancer Congress
2002 American Society of Therapeutic Radiology and Oncology for Head and Neck, Sarcoma (2002 scientific meeting)
2001 American Society of Therapeutic Radiology and Oncology for Head and Neck, Sarcoma, and Skin cancer (2001 scientific meeting)
2000 American Society of Therapeutic Radiology and Oncology for Head and Neck, Sarcoma and Benign Diseases (2000 scientific meeting)
1998 - 2001 Connective Tissue Oncology Society (Annual Meetings)

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2008 - 2010 Co-Investigator. The Ontario Clinical Practice Guideline #5-6a: the impact on physicians, practice and patients. National Cancer Institute of Canada (NCIC). CCS(Ontario Division). PI: Hall, S. Collaborators: Investigators: Groome P (Queens University, Kingston Ontario), O’Sullivan B (Princess Margaret Hospital, University of Toronto), Irish J (Princess Margaret Hospital, University of Toronto), Gilbert R (Princess Margaret Hospital, University of Toronto), Gregg R (Queens University, Kingston Ontario),
Meyer R (Queens University, Kingston Ontario). 300,000 CAD. [Grants].

2005 - 2008


*Competitive funding for development and testing of promising new cancer therapies from the Government of Ontario.*

2004 - 2007

**Principal Investigator.** Early detection, treatment variations and treatment delay in cancers of the oral cavity. Canadian Institutes of Health Research (CIHR). Collaborators: Principal investigators: Browman George P (McMaster University, Hamilton), Hall Stephen F (Queens’ University, Kingston), Irish Jonathan (University of Toronto), Mackillop William J (Queens’ University, Kingston), **O’Sullivan Brian** (University of Toronto). 520,596 CAD. [Grants].

2003 - 2006

**Co-Investigator.** New Measures for quantifying soft tissue fibrosis. Canadian Institutes of Health Research (CIHR). ITM - 66113. PI: Davis A. Collaborators: **O’Sullivan B** (University of Toronto), Bell RS (University of Toronto), Hill RP (University of Toronto), Lee P (University of Toronto), Levin W (University of Toronto), McCready D (University of Toronto), Wunder J (University of Toronto). 298,263 CAD. [Grants].

2001 Jan - 2006

**Co-Investigator.** Interdisciplinary health research team in musculoskeletal neoplasia. Canadian Institutes of Health Research (CIHR). 84031. PI: Bell RS. Collaborators: Davis AM (University of Toronto), Bramwell V (University of Western Ontario), Hill R (University of Toronto), Malkin D (University of Toronto), Andrulis I (University of Toronto), Wunder JS (University of Toronto), Kandel R (University of Toronto), Alman B (University of Toronto), **O’Sullivan B** (University of Toronto), Greenberg M (University of Toronto), Turcotte R (University of Montreal), Masri B (University of British Columbia). 5,997,985 CAD. [Grants].

2000 Jan


2000 Jan

**Co-Investigator.** The process and outcomes of care for soft tissue sarcoma of the extremities. Canadian Institutes of Health Research (CIHR). MOP - 43912. PI: Paszat L. Collaborators: **O’Sullivan B** (University of Toronto), Bell R (University of Toronto), Groome P (Queens’ University, Kingston), Mackillop W (Queens’ University, Kingston), Bramwell V (University of Western Ontario), Austin P (Institute for Clinical Evaluative Sciences). 216,439 CAD. [Grants].

1999 - 2002


*A collaborative study involving radiation biology (Hill RP), radiation oncology (O’Sullivan B), surgical oncology (Bell R) and cellular transplantation therapy (A. Keating) at the Ontario Cancer Institute / Princess Margaret Hospital, University of Toronto.*

Collaborators include experts in head and neck and limb surgery (Gullane P, Wunder J, Bell R, Neligan P), clinical and experimental radiation oncology (O’Sullivan B and Waldron J) and cellular transplantation techniques developed from bone marrow transplantation adapted to mesenchymal cell therapy (Keating A, medical and hematology oncology). Other collaborators on this Grant include expertise in interpretation of mesenchymal tissue and wound pathology (Kandel R), vascularity of healing tissue (Pang C), the use of viral transfection to provide markers for tracking transplanted cells (Sandhu K) and the development of valid instruments for measuring relevant clinical outcomes following surgery and radiotherapy (Davis A).

1999 - 2001

1996 - 1999

1993 Oct
Principal Investigator. A Phase III study of pre-operative external beam radiotherapy compared to post-operative external beam radiotherapy in the local management of curable extremity soft tissue sarcoma. National Cancer Institute of Canada (NCIC). Clinical Trials Group. SR 2. [Grants]

Trial Committee: Brian O’Sullivan (Chair), Aileen Davis, Robert Bell, Karen Goddard, Robert Turcotte, Pierre Chabot. $300,000 as per case funding.

1992 - 1999
Collaborator. Sarcoma Tumour Bank/Correlative Clinical Database. National Cancer Institute of Canada (NCIC). PI: Andrulis, IL and Bramwell, V. Collaborators: Dr. B. O’Sullivan (Radiation Oncologist), other Surgical Oncologists, and Basic Scientists. 855,000 CAD. [Grants]
Award $120,000 Annual and $15,000 Equipment.

1990 - 1993
Contract Grant to Patterns of Fractionation Study Group, American College of Radiology.

D. Publications
1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Brian O’SULLIVAN: CV (July 1’2016)


Published Abstracts


Brian O'SULLIVAN: CV (July 1’2016)


Brian O’SULLIVAN: CV (July 1’2016)


96. Diaz-Padilla I, Waldron J, Hope A, Chen EX, Chan K, Kim J, O’Sullivan B, Abdul Razak AR, Chin SF, Siu LL. Phase I trial of albumin-bound paclitaxel (A), cisplatin (P) and 5-fluorouracil (F) as induction chemotherapy (IC) followed by concurrent chemotherapy (CRT) with carboplatin (Cb) in patients (pts) with locally advanced squamous cell carcinoma of the head and neck (SCCHN). ECCO Annual Meeting, Stockholm, Sweden, European Journal of Cancer 47 (Suppl 1) S547, A8511, September 2011.


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196. Phimolsarnti RP, Griffin AM, Ferguson PC, Catton CN, Chung PW, Bell RS, Wunder JS, O’Sullivan B. Outcome following limb salvage surgery and external beam radiotherapy for high grade soft tissue sarcomas of then groin and axilla. American Society of Therapeutic Radiology and Oncology, Los Angeles, USA October 2007.

198. Phimolsarnrti RP, Griffin AM, Ferguson PC, Catton CN, Chung PW, Bell RS, Wunder JS, O’Sullivan B. Outcome following limb salvage surgery and external beam radiotherapy for high grade soft tissue sarcomas of then groin and axilla. Connective Tissue Oncology Society, Seattle, USA November 2007.


221. Clarkson PW, Griffin AM, Catton CN, O'Sullivan B, Ferguson PC, Wunder JS, Bell RS. Comparison of outcomes of soft tissue sarcoma arising in the popliteal fossa or posterior thigh. Canadian Orthopaedic Association, Montreal, June 2005.


on individual data of patients with head and neck squamous cell carcinoma (HNSCC. ESTRO 2002, Prague. Radiother Oncol.


2. NON-PEER-REVIEWED PUBLICATIONS

Books Edited

Book Chapters


In Preparation

Invited Manuscripts


E. Invited Presentations and Special Lectures

1. INTERNATIONAL


2016 Feb Invited speaker. Head and Neck Cancer Gone Viral: a quandary demanding response. MD Anderson Cancer Center, Houston, TX, USA.


2015 Nov Panelist. Recurrent and/or metastatic head and neck cancer. In: 5th Trends in Head and Neck Oncology, Lisbon
Portugal, Nov 7, 2015.

2015 Nov
**Invited speaker.** Recurrent and/or metastatic head and neck cancer: when and how to irradiate. In: 5th Trends in Head and Neck Oncology, Lisbon Portugal, Nov 7, 2015.

2015 Nov
**Invited speaker.** Treatment of viral-associated HNC (OPC & NPC). In: 5th Trends in Head and Neck Oncology, Lisbon Portugal, Nov 6, 2015.

2015 Nov

2015 Oct

2015 July
**Invited speaker.** The Prognostic Value of Primary and Lymph Node Volume in Laryngeal Cancer Treated with IMRT. In: World Congress on Larynx Cancer. Cairns, Australia, July 27, 2015

2015 July

2015 July

2015 July

2015 July

2015 June

2015 June

2015 May
**Invited speaker.** "Horses for Courses": Incorporating Non-Anatomic Prognostic Factors into TNM for personalized management of HPV-driven Oropharynx cancer. Scientific seminar of the Radiation Oncology Dept. in collaboration with the Cancer Center. Université Catholique de Louvain. St-Luc University Hospital

2015 Mar
**Invited speaker.** Practical and Methodological Issues to Improve the UICC/AJCC TNM: Example of NPC. The 7th Chinese National Nasopharyngeal Carcinoma Conference. Hangzhou, China. March 27, 2015.

2015 Feb
**Invited speaker.** The ongoing search for optimal multimodality therapy for nasopharyngeal carcinoma. 5th International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO), Nice, France, Feb 12-14, 2015.

2015 Feb

2014 Nov
**Invited speaker.** The established role of IMRT in primary and recurrent NPC. University of Hong Kong. The Croucher Foundation Advanced Study Institute on Advances in Nasopharyngeal Carcinoma Studies. Hong Kong, China. Nov 3, 2014.

2014 Sep

2014 Sep

2014 Sep


2014 May  **Invited Speaker.** Examining our report card: Have we answered all the questions about local management of soft tissue sarcoma? The Roentgen Ray Lecturer. Fox Chase Cancer Center. Philadelphia, USA, May 1, 2014.


2014 Mar  **Invited Speaker.** Perspectives in de-escalating non-surgical management of oropharyngeal cancer: Danish Society for Head and Neck Oncology Annual Scientific Meeting. Copenhagen, Dan mark, March 7, 2014.


2013 Nov  **Invited Speaker.** The challenges in addressing the West’s fastest emerging cancer: HPV-related oropharyngeal carcinoma. 22nd Asia Pacific Cancer Conference, Oct 31-Nov 2, 2013, Tianjin, China.


2013 Oct  **Invited Speaker.** Treatment de-intensification in HPV/P16+ H&N cancer is justified in a subset of patients. Controversies in Head and Neck Oncology Symposium. Oct 19, 2013, Berlin, Germany.

2013 Oct  **Invited Speaker.** The Ongoing Search for Optimal Multimodality Therapy for NPC. Hong Kong Nasopharyngeal Cancer Symposium. Oct 16, 2013 Hong Kong, China.


2013 Jun  **Invited Speaker (Abstract discussant).** HPV/p16 topics in head and neck cancer. ASCO 2013, June 2, 2013, Chicago, USA.
2013 May  

2013 Apr  
**Invited Speaker.** Redefining the role of TNM in the era of HPV, hypoxia markers and other non-anatomic prognostic and predictive factors. 2nd ESTRO Forum, Geneva, April 20, 2013.

2013 Mar  
**Invited Speaker.** The Enigma of Distant Metastases in HPV-driven Oropharyngeal cancer. Cancer Center Grand Round. Department of Radiation Oncology, University of Pennsylvania, USA

2013 Mar  
**Invited Speaker:** Optimizing Multidisciplinary Local Management of Extremity Soft Tissue Sarcoma. Radiation Oncology Conference. Department of Radiation Oncology, University of Pennsylvania, USA

2012 Dec  
**Keynote Speaker:** Meet the professor. 34th AROIICON 2012. Kolkata, India.

2012 Dec  
**Invited Speaker.** Quality Assurance Programme in Head & Neck Cancers. 34th AROIICON 2012. Kolkata, India.

2012 Nov  

2012 Oct  
**Course Director:** Radiotherapy workshop: Adaptive radiotherapy and contouring. Indian Federation of Head & Neck Oncology. Ahmedabad, India

2012 Oct  
**Keynote Speaker.** Dr. P.A. Shah Oration: Challenges in minimizing morbidity after radiotherapy. Indian Federation of Head & Neck Oncology. Ahmedabad, India

2012 Oct  
**Facilitator.** Oral Cancer Panel Discussion. IFHNOS 2012 World tour 12th National Conference of FHNO October 1-31 Global Continuing Education program.

2012 Oct  
**Facilitator.** Treatment of the Neck Panel Discussion. IFHNOS 2012 World tour 12th National Conference of FHNO October 1-31 Global Continuing Education program.

2012 Oct  
**Lecturer.** Radiation Therapy. IFHNOS 2012 World tour 12th National Conference of FHNO October 1-31 Global Continuing Education program.

2012 Oct  
**Facilitator.** Salivary Tumors- Chair:Regional Expert. IFHNOS 2012 World tour 12th National Conference of FHNO October 1-31 Global Continuing Education program.

2012 Oct  
**Lecturer.** Radiation Therapy for Laryngeal Function Preservation. IFHNOS 2012 World tour 12th National Conference of FHNO October 1-31 Global Continuing Education program.

2012 Oct  
**Facilitator.** Stump the Faculty. IFHNOS 2012 World tour 12th National Conference of FHNO October 1-31 Global Continuing Education program.

2012 Oct  
**Facilitator.** Skull base Surgery. IFHNOS 2012 World tour 12th National Conference of FHNO October 1-31 Global Continuing Education program.

2012 Aug  
**Speaker.** Cancer Stage: A Neglected Cornerstone of Cancer Control. Cancer Staging in 2022. UICC World Cancer Congress. Montreal, Quebec, Canada.

2012 May  
**Invited Speaker.** HPV positive vs HPV negative oropharyngeal carcinoma: deescalating vs intensified treatment. ESTRO Conference. Barcelona, Spain.

2012 Apr  
**Invited Speaker.** Optimizing multidisciplinary Local Management of Extremity Soft Tissue sarcoma. Harvard University. Massachusetts, United States. Massachusetts General Hospital.

2012 Apr  

2012 Mar  
**Invited Speaker.** How Should We Manage Patients With Loco-regionally Advanced Head & Neck Cancer Who Are Not Suitable for Chemo-radiotherapy? AROI-ASTRO Conference, Tata Memorial Centre. Mumbai, India.

2012 Mar  
**Invited Speaker.** Radiological Anatomy & Target Delineation in the Neck. AROI-ASTRO Conference, Tata Memorial Centre. Mumbai, India.

2012 Mar  
**Invited Speaker.** Protocol Compliance and Plan Quality in H&N, Interactive Case Discussion Session. AROI-ASTRO
2012 Mar  
**Invited Speaker.** ICTR-PHE 2012 conference. Geneva. Visiting professor for a meeting to update the guidelines on nodal target volume delineation and to develop new guidelines for OAR delineation in the H&N area.

2012 Jan  

2012 Jan  

2011 Nov 6  
**Invited Speaker.** Management of the neck: With definitive non-operative treatment. NCI Head and Neck Cancer Steering Committee Clinical Trials Planning Meeting on Transoral Resection of Pharynx Cancer. Arlington, Virginia. **O’Sullivan B.**

2011 Nov  
**Invited Speaker.** Options for Improving Outcome in Laryngeal Cancer. Current Concepts in Head and Neck Cancer Combined Meeting of the Head and Neck Cancer Groups. Toronto. **O’Sullivan B.** Current Concepts in Head and Neck Cancer Combined Meeting of the Head and Neck Cancer Groups from Princess Margaret Hospital, Toronto, MD Anderson Cancer Center, Houston, and Memorial Sloan-Kettering Cancer Center, New York, MaRS Discovery District Auditorium.

2011 Sep 10  
**Invited Speaker.** Best quality evidence for improving the UICC TNM: balancing the science with the achievable. The First Symposium on Cancer Staging and Prognostication in China. Hong Kong, China. **O’Sullivan B.**

2011 Sep 9  

2011 Jun 22  
**Invited Speaker.** The current state of physical/spatial and molecular targeting in the treatment of nasopharyngeal carcinoma. 5th International Symposium on Nasopharyngeal Carcinoma. Penang, Malaysia. **O’Sullivan B.**

2011 May 9  
**Invited Speaker.** How should we manage patients with loco-regionally advanced head and neck cancer who are not suitable for chemo-radiotherapy. 2011 Annual Meeting, European Society for Therapeutic Radiology and Oncology (ESTRO). London, United Kingdom. **O’Sullivan B.**

2011 Feb 20  

2011 Feb 19  

2011 Feb  
**Invited Speaker.** Excellent Identical Outcomes for Radiation Alone vs Chemoradiation in Minimal Smoking HPV (+) N0-N2C Oropharynx Cancer Patients. ICHNO Conference. Barcelona. **O’Sullivan B.**

2010 Dec 10  
**Invited Speaker.** The NPC TNM stage classification of the UICC (and AJCC): Historical, Current, and Future Perspectives. 6th Chinese National Conference on Nasopharyngeal Cancer, 2010 Asia-Pacific Nasopharyngeal Cancer Congress. Fuzhou, China. **O’Sullivan B.**

2010 Nov 19  
**Invited Speaker.** An Update on Clinical Treatment of NPC. The Areas of Excellence Scheme Research Symposium, The Center for Nasopharyngeal Carcinoma Research, The University of Hong Kong. Hong Kong, China. **O’Sullivan B.**

2010 Nov 17  
**Invited Speaker.** Quality Control and Audit for Management of Head and Neck Cancers. Hong Kong Nasopharyngeal Cancer Study Group Training Seminar. Hong Kong, China. **O’Sullivan B.**

2010 Nov  
**Keynote Speaker.** Hong Kong Head and Neck Group and “Area of Excellence” Visiting Professor, University of Hong Kong. Hong Kong, China.

2010 Sep 16  
**Invited Speaker.** Enigmas and challenges in the diagnosis and treatment of HPV-related oropharyngeal cancer. 29th Annual Meeting of the European Society of Therapeutic Oncology (ESTRO). Barcelona, Spain. **O’Sullivan B.**

2010 Aug 21  
**Invited Speaker.** Taxonomy and Application of Cancer classifications. Session: Staging and Prognosis in Cancer, UICC World Cancer Congress. Shenzhen, China. **O’Sullivan B.**

2010 Jun 18  
**Invited Speaker.** Radiation Oncology of Head and Neck Cancer: the state, and reality, of the science. 4th World


2008 Dec 4 Invited Speaker. Lessons learnt from experience of conducting clinical trials – how to ensure successful completion and quality control. Scientific Symposium on Clinical Trials for Nasopharyngeal Cancer - The Hong Kong Nasopharyngeal Cancer Study Group and Central Coordination Committee (Clinical Oncology) Hong Kong Hospital Authority. O’Sullivan B.


Colombiano de Cancerología. Cali, Colombia. O’Sullivan B.


2008 Sep 26 Keynote Speaker. An Introduction to IMRT in Head & Neck Cancer. Symposium on New Technology in Radiation Oncology. Annual Scientific Meeting of the Faculty of Radiologists, Royal College of Surgeons in Ireland. Dublin, Ireland. O’Sullivan B.

2008 Sep 26 Plenary Lecturer. Diagnostic & Therapeutic Radiology in the Multidisciplinary Management of Soft Tissue Sarcomas. The Honorary Fellow’s Lecture to the Faculty of Radiologists, Annual Scientific Meeting of the Faculty of Radiologists, Royal College of Surgeons in Ireland. Dublin, Ireland. O’Sullivan B.


2008 Sep 25 Invited Speaker. NPC: Head and Neck’s most unusual mucosal cancer. Saint Lukes Hospital Visiting Professor Lecture. Dublin, Ireland. O’Sullivan B.


2008 Mar 13 Keynote Lecturer: Spanish Sarcoma Group – Aula Magna de la Casa de Convalescencia del Hospital Santa Creu y
2008 Mar 1  **Keynote Speaker.** “The Irish Cancer Society Lecturer” and Visiting Professor, Irish Association for Cancer Research. Newcastle, County Down, Northern Ireland, United Kingdom.

2008 Mar 1  **Invited Speaker.** The management of head and neck cancer in the era of Molecular Oncology. Irish Cancer Society Lecture, Irish Association for Cancer Research. Newcastle, County Down, Northern Ireland. O’Sullivan B.

2008 Feb 15  **Invited Speaker.** Opportunities to optimize the local management of soft tissue sarcoma. Department of Radiation Medicine, University of Wisconsin. Madison. O’Sullivan B.

2008 Feb 15  **Invited Speaker.** NPC: Head and Neck’s most unusual mucosal cancer. Department of Radiation Medicine, University of Wisconsin. Madison. O’Sullivan B.


2007 Dec 14  **Invited Speaker.** The changing management of oropharyngeal cancer. Queen Mary Hospital, University of Hong Kong. O’Sullivan B.

2007 Dec 12  **Invited Speaker.** The local management of soft tissue sarcoma. Queen Mary Hospital, University of Hong Kong. O’Sullivan B.

2007 Dec 12  **Keynote Speaker.** Staging and Prognostic Factors in NPC: from Ho to the UICC and AJCC. Inaugural Visiting Professorship Lecture, Department of Clinical Oncology, University of Hong Kong, Queen Mary Hospital. O’Sullivan B.

2007 Dec 11  **Invited Speaker.** Molecular Targeting in Head and Neck SCC: observations, challenges, and opportunities. Address to the Hong Kong Head and Neck Society, Excelsior Hotel. Hong Kong, China. O’Sullivan B.


2007 Oct  **Invited Speaker.** Multidisciplinary Collaborative Approaches for Planning and Delivery of Radiotherapy for Soft Tissue Sarcoma. 49th Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Los Angeles, California. O’Sullivan B.

2007 Jul 31  **Invited Speaker.** Evolving tools for Guidance in decision making, treatment delivery and post treatment surveillance in the management of NPC. East-West Symposium on Nasopharyngeal Carcinoma, Twin Waters Resort. Sunshine Coast, Queensland, Australia. O’Sullivan B.

2007 Jul 31  **Round Table Discussant.** Intricacies of RT technique and delivery of NPC. East-West Symposium on Nasopharyngeal Carcinoma, Twin Waters Resort. Sunshine Coast, Queensland, Australia. O’Sullivan B. with Drs June Corry, Anne Lee, and Joseph Wee.


2007 Jul 27  **Invited Speaker.** Management Dilemmas of Incurable/Recurrent Head and Neck Cancer. 9th Annual Scientific Meeting of the Australia New Zealand Head and Neck Society. Brisbane, Australia. O’Sullivan B.


2007 Apr 9  **Invited Speaker.** Soft Tissue Sarcoma: no longer one disease scenario. Ira J Spiro Distinguished Memorial Lecturer, Ether Dome, Massachusetts General Hospital, Harvard Medical School. O’Sullivan B.


2006 Jun 5  Visiting Professor. Melbourne University Peter MacCallum Cancer Centre.

2006 May 19  Invited Speaker. Cancer Institute of New South Wales Plenary Lecturer, Trans Tasman Radiation Oncology Group (TROG), 18th Annual Meeting. NCIC current activities; future directions and potential collaborations. Lindeman Island, Queensland, Australia. O’Sullivan B.

2006 Feb 17  Invited Speaker. IMRT approaches in soft tissue sarcoma: opportunities and challenges. University of Texas MD Anderson Cancer Center 4th International Target Delineation Symposium for IMRT/#D CRT Treatment Planning. O’Sullivan B.

2006 Feb 8  

2006 Feb 7  

2006 Feb 7  
**Invited Speaker.** Host, tumor and environmental prognostic factors in cancer. Health Manpower Development Plan Visiting Expert in Radiation Oncology, Ministry of Health, National Cancer Centre. Singapore. O’Sullivan B.

2006 Feb 2  
**Invited Speaker.** Soft tissue sarcoma: no longer one disease, perspectives for radiation oncology”. Varian Lecture, Health Manpower Development Plan Visiting Expert in Radiation Oncology, Ministry of Health, 4 Seasons Hotel. Singapore. O’Sullivan B.

2006 Feb 2  

2006 Feb  
**Invited Speaker.** Audience Interactive ‘ASTRO’ Educational course on soft tissue sarcoma. Elekta lecture, Health Manpower Development Plan Visiting Expert in Radiation Oncology, Ministry of Health, Grant Hyatt Hotel. Singapore. O’Sullivan B.

2006 Jan 11  
**Keynote Speaker.** Refining the local management of soft tissue sarcoma. Department of Radiation Oncology Resident Teaching Rounds, Gilbert Fletcher Distinguished Professor, University of Texas, MD Anderson Cancer Center. Houston, Texas. O’Sullivan B.

2006 Jan 11  
**Keynote Speaker.** Realising the optimum from fractionated radiotherapy in HNSCC: evidence and challenges. Gilbert Fletcher Distinguished Lectureship, Department of Radiation Oncology, University of Texas, MD Anderson Cancer Center. Houston, Texas. O’Sullivan B.

2006 May  
**Invited Speaker.** Cancer Institute of New South Wales, Trans Tasman Radiation Oncology Group (TROG). Queensland, Australia. O’Sullivan B

2005 Dec 14  
**Invited Speaker.** Refining the local management of soft tissue sarcoma. Surgical Oncology Grand Rounds, Department of Surgical Oncology, Roswell Park Cancer Institute. Buffalo, New York. O’Sullivan B.

2005 Dec 12  
**Invited Speaker.** State University of New York, Department of Surgical Oncology and Department of Radiation Oncology, Roswell Park Cancer Institute. December 12-14th 2005.

2005 Dec 12  
**Invited Speaker.** Department of Surgical Oncology and Department of Radiation Oncology, Roswell Park Cancer Institute. Buffalo, New York. December 12-14th 2005.

2005 Nov 18  
**Invited Speaker.** Contemporary radiotherapy approaches in soft tissue sarcoma. Symposium: Multidisciplinary Management of Soft Tissue Tumors, at the 32nd Annual Scientific Meeting of the Clinical Oncological Society of Australia (COSA). Brisbane, Australia. O’Sullivan B.

2005 Nov 17  
**Invited Speaker.** The UICC Approach to Prognostic Factor Classification. Symposium: Staging and Prognosis, at the 32nd Annual Scientific Meeting of the Clinical Oncological Society of Australia (COSA). Brisbane, Australia. O’Sullivan B.

2005 Nov 17  
**Invited Speaker.** Overcoming geographic barriers: the Ontario Experience. Symposium: Overcoming geographic barriers, at the 32nd Annual Scientific Meeting of the Clinical Oncological Society of Australia (COSA). Brisbane, Australia. O’Sullivan B.

2005 Nov 14  
**Invited Speaker.** Sarcomas: inspirational disease and model for cancer care. Charles and Mary Knight Memorial Lecture, Queensland Cancer Fund. Brisbane, Australia. O’Sullivan B.

2005 Nov 11  
**Visiting Professor.** James Cook University School of Medicine, North Queensland Cancer Research Forum. Townsville, Queensland, Australia.
2005 Nov 11  **Invited Speaker.** Clinical research in sarcoma. North Queensland Cancer Research Forum, James Cook University School of Medicine. Townsville, Queensland, Australia. *O'Sullivan B.*


2005 Oct 8  **Invited Speaker.** Interactive “Refresher Course” on soft tissue sarcomas. 56th Annual Scientific Meeting, of the Royal Australian and New Zealand College of Radiologists (RANZCR). Sydney, Australia. *O'Sullivan B.*

2005 Oct 7  **Invited Speaker.** Contouring Workshop for the Quality Assurance Review Center (QARC) IMRT benchmark head and neck case. 56th Annual Scientific Meeting, of the Royal Australian and New Zealand College of Radiologists (RANZCR). Sydney, Australia. *O'Sullivan B.* with Peters L.

2005 Oct 6  **Invited Speaker.** The management of head and neck cancer in the era of image guidance. Keynote address to the Royal Australian and New Zealand College of Radiologists (RANZCR), 56th Annual Scientific Meeting. Sydney, Australia. *O'Sullivan B.*

2005 Jun 17  **Invited Speaker.** Challenges in International Trials in Nasopharyngeal Carcinoma: ways for improving quality assurance. UICC East-West Symposium on Nasopharyngeal Cancer. *O'Sullivan B.*

2005 May 24  **Invited Speaker.** The Management of Sarcoma of the Head and Neck. 43rd Annual Meeting of the American Society of Neuroradiologists. *O'Sullivan B.*


2005 Apr  **Invited Speaker.** Soft tissue sarcoma. American Society for Therapeutic Radiology and Oncology (ASTRO) School of Radiation Oncology 2005 Spring Refresher Course. Chicago, Illinois. *O'Sullivan B.*

2005 Apr  **Invited Speaker.** Radiation oncology controversies and new approaches in the management of skull base tumors. 16th Annual Meeting of the North American Skull Base Society. *O'Sullivan B.*


2005 Feb 26  **Keynote Speaker.** The management of nasopharyngeal carcinoma in the era of image guidance. 35th Annual Radiation Oncology Clinical Research Seminar, University of Florida. *O'Sullivan B.*


2004 Feb 12  **2nd Annual John H. Wineman Visiting Professor and Lecturer.** What is the best method of irradiating soft tissue sarcoma following the Canadian trial? Department of Radiation Oncology, University of Michigan. *O'Sullivan B.*


2004  **Keynote Speaker.** Radiotherapy in the management of soft tissue sarcomas: when and which volume to which dose? Department of Radiation Oncology and the Radiobiology Laboratory, St-Luc University Hospital. Brussels, Belgium. *O’Sullivan B.*
2004  
**Invited Speaker.** “Meet the Professor Luncheon”. Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Invitation from the Radiation Oncology Residents and President of ASTRO.

2003 Oct  
**Invited Speaker.** Soft Tissue Sarcoma Teaching (Refresher) Course. 45th Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Salt Lake City, Utah. **O’Sullivan B.** and Alektiar K.

2003 Jul  
**Invited Speaker.** Soft Tissue Sarcoma. Oncology Rounds, Emory University. Atlanta, Georgia. **O’Sullivan B.**

2003 Jun  

2003 Feb  
**Visiting Professor.** Staging of Nasopharyngeal Carcinoma – North American perspectives. UICC International Congress on Nasopharyngeal Carcinoma. Hong Kong. **O’Sullivan B.**

2003  
**Invited Speaker.** “Meet the Professor Luncheon”. Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Invitation from the Radiation Oncology Residents and President of ASTRO.

2002 Nov  
**Visiting Professor.** Yale University. New Haven, Connecticut.

2002 Nov  
**O’Sullivan B.** Soft Tissue Sarcoma. Oncology Rounds and Visiting Professor, Yale University. New Haven, Connecticut.

2002 Oct  
**Co-moderator and Speaker.** Sarcoma Panel. 44th Annual Meeting of the American Society for Therapeutic Radiology and Oncology. New Orleans, Louisiana. **O’Sullivan B.** and Petersen I.

2002 Sep 17  

2002 Jul 3  

2002 Jul 2  
**Invited Speaker.** External beam radiotherapy in soft tissue sarcoma. Panel “Soft tissue sarcoma” at 18th UICC International Cancer Congress. Oslo, Norway. **O’Sullivan B.**

2002 Jun 17  

2002 Jun 17  

2002 May 10  
**Invited Speaker.** Balancing radiotherapy efficacy and morbidity in soft tissue sarcoma. Harvard University. Boston, United States. **O’Sullivan B.**

2002 May 10  
**Invited Speaker.** Harvard University, Department of Radiation Oncology, Dana Farber Cancer Center. Boston, Massachusetts, United States.

2002 Apr 18  

2001 Nov 9  
**Invited International Faculty and Speaker.** Radiotherapy options in soft tissue sarcomas of the head and neck. 3rd Annual Scientific Meeting of the Australian & New Zealand Head and Neck Society. Melbourne, Australia. **O’Sullivan B.** November 9th-10th, 2001.

2001 Nov 9  
**Invited International Faculty and Speaker.** Anaemia as a prognostic factor in cancer. 3rd Annual Scientific Meeting of the Australian & New Zealand Head and Neck Society. Melbourne, Australia. **O’Sullivan B.** November 9th-10th, 2001.

2001 Nov 9  
**Invited International Faculty and Speaker.** Perspectives on organ preservation in the management of carcinoma of the larynx. 3rd Annual Scientific Meeting of the Australian & New Zealand Head and Neck Society. Melbourne, Australia. **O’Sullivan B.** November 9th-10th, 2001.


2001 Apr  Invited Speaker. What are the new questions in the radiotherapy of soft tissue sarcomas. 25th Anniversary Meeting of the EORTC Soft tissue and Bone Sarcoma Group. Aarhus, Denmark. O’Sullivan B.


2001 Invited Speaker. “Meet the Professor Luncheon”. Annual Meeting of the American Society of therapeutic Radiology and Oncology. Invitation from the Radiation Oncology Residents and President of ASTRO.


2000 Oct  
**Visiting Professor.** Department of Orthopaedics, University of Berne, Switzerland.

2000 Aug  
**Invited Panelist (speaker).** Panel on the Management of Advanced Larynx Cancer. 5th International Conference on Head and Neck Cancer. San Francisco. **O'Sullivan B.**

2000 Feb  
**Visiting Professor and Speaker.** Pre-operative vs Post-operative radiotherapy in Soft tissue Sarcoma — results of the SR2 Trial. Department of Surgery, MD Anderson Cancer Center, University of Texas. **O'Sullivan B.**

2000 Feb  
**Visiting Professor.** University of Texas, Department of Surgery, MD Anderson Cancer Center.

1999 Oct  
**Invited Speaker.** Skin Carcinomas: Radiobiologic Principles, Radiotherapeutic Techniques and Clinical Management. ASTRO Refresher Course. 41st Annual Meeting of the American Society for Therapeutic Radiology and Oncology. San Antonio, Texas. **O'Sullivan B, Tsang R.**

1998 Oct 25  

1998 Oct 25  
**Invited Discussant and Moderator.** Poster Discussion Session – Head and Neck. 40th Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Phoenix, Arizona. **O'Sullivan B, Harrison LB.**

1998 Jun 23  

1998 Feb  
**Invited Speaker.** The UICC Staging Classification of Carcinoma of the Nasopharynx. UICC Workshop on Nasopharyngeal Carcinoma. Singapore. **O'Sullivan B.**

1998 Feb  
**Invited Speaker.** Principles of Altered Fractionation in Head and Neck Cancer. UICC Workshop on Nasopharyngeal Carcinoma. Singapore. **O'Sullivan B.**

1997 Oct  
**Invited Panelist.** The New TNM Staging Classification of Carcinoma of the Nasopharynx in panel “Nasopharyngeal Carcinoma: Recent Advances in Staging and Treatment”. 39th Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Orlando, Florida. **O'Sullivan B.**

1997 Jul  
**Invited Speaker.** Treatment of Laryngeal Cancer: International perspectives, approaches and outcomes. 46th Annual Meeting / 37th Voice Institute of the International Association of Laryngectomees. **O'Sullivan, B.**

1997 May 2  

1997 May 2  
**Keynote Speaker.** University of Berne, Klinik fur Radio-oncologie, UniversitatsSpital. Zurich, Switzerland.

1996 Dec  
**Invited Speaker.** The management and prevention of xerostomia in head and neck radiotherapy. Emory University. Atlanta, Georgia. **O'Sullivan B.**

1995 Sep  
**Invited Speaker.** Discussion of Pre-op vs. Post-op Radiotherapy in Soft Tissue Sarcoma / Update on Canadian Sarcoma Group Activities. First Scientific Meeting of the Connective Tissue Oncology Society. Boston, Massachusetts. **O'Sullivan, B.**

1995 Apr 28  
**Invited Speaker.** Laryngeal Cancer: are experts expert and do they design ethical studies. Meeting in honour of Professor William Duncan on the occasion of his retirement, Edinburgh University. Scotland. **O'Sullivan B.**

1994 Feb  
**Invited Speaker.** What factors affect specialists’ opinions on the management of advanced laryngeal cancer: results of an international survey of patterns of care. Symposium on Advanced Larynx Cancer, Second World Congress on Larynx Cancer. Sydney, Australia. **O'Sullivan, B.**

1994 Feb  
**Invited Speaker.** Outcome following radiotherapy in verrucous carcinoma of the larynx. Symposium on verrucous cancer of the larynx, Second World Congress on Larynx Cancer. Sydney, Australia. **O'Sullivan B.**

1993 Oct  

1990 Sep 13  Invited Speaker. Ethical Dilemmas in handling Patient Backlogs in Radiotherapy Practice. Division of Radiation Oncology, Christchurch Hospital. Christchurch, New Zealand. O’Sullivan, B.


1990 Sep 11  Keynote Speaker. Approach to the management of Head and Neck Cancer. Head and Neck Seminar, Department of Oncology, Faculty of Medicine, University of Otago. Christchurch, New Zealand. O’Sullivan, B.


2. NATIONAL
Invited Lectures and Presentations


2011 Oct 20 Invited Speaker. HPV-Associated Oropharyngeal Carcinoma: How should we address the Westerwer World’s fastest growing cancer? Oncology Grand Rounds, Royal Victoria Hospital (McGill University). Montreal, Quebec.


2007 Dec 6  **Invited Speaker.** Reaffirming the role of Pre-operative Radiotherapy in the management of Soft Tissue Sarcoma. Vancouver Cancer Centre, Radiation Oncology Rounds, University of British Columbia. O’Sullivan B.


2004  **Facilitator.** Contouring head and neck cancer. Workshop on IMRT target definition for head and neck cancer, Canadian Association of Radiation Oncologists (CARO). Halifax. O’Sullivan B. Workshop coordinated and chaired by Dr John Kim, PMH.


2002 Jul 31  **Invited Speaker.** Concurrent Chemotherapy and radiotherapy in the management of head and neck cancer. North and South American Investigators Meeting, Tirapazamine Study (Headstart). Vancouver, Canada. O’Sullivan B.

2002  **Invited Speaker.** IMRT in Head and Neck Cancer. The Royal College of Physicians and Surgeons of Canada Lecturer at the 26th Annual Meeting of the Eastern Great Lakes Head and Neck Oncology Association. O’Sullivan B.


2000 Feb  **Invited Speaker.** Loco-regional Control in soft tissue sarcomas – Canadian (NCIC-CTG SR2) and Toronto Experience. Third National Workshop of the Canadian Sarcoma Group “Sarcomas: Molecular Markers to Therapeutics”. O’Sullivan B.

1999  **Invited Speaker.** Performing at the Specialty Exams: suggestions from a former Chief Examiner. Canadian Association of Radiation Oncology, Residents section. O’Sullivan B.


1996 Nov  **Invited Speaker.** The multidisciplinary controversies in laryngeal carcinoma. Faculty of Medicine, Dalhousie University. Halifax, Nova Scotia, Canada. O’Sullivan B.

1996 Nov  **Invited Speaker.** Unknown Primary in Head and Neck Oncology. Department of Radiation Oncology, Dalhousie University. O’Sullivan B.

1996 Nov  **Invited Speaker.** Treatment of Carcinoma of the Oropharynx. Department of Medicine, Dalhousie University. O’Sullivan B.


1996 | **Invited Speaker.** What factors affect specialists’ recommendations for the treatment of laryngeal cancer? Annual Margaret and Norman Gosse Lecturer in Cancer, Canadian Cancer Society, and Faculty of Medicine, Dalhousie University. Halifax, Nova Scotia. O’Sullivan B. Public Lecture to the Canadian Cancer Society.


1993 Sep 12 | **Chairman and Speaker.** Symposium: Advances in Diagnosis and Treatment of Soft Tissue Sarcoma. Canadian Association of Radiation Oncologists, Royal College of Physicians and Surgeons of Canada. Vancouver. O’Sullivan, B.


### 3. PROVINCIAL / REGIONAL

2014 Jan 23 | **Invited Speaker.** Clinical Trial in Head and Neck Cancer. Cancer Care Ontario Head and Neck Community of Practice, CCO Offices, Toronto. O’Sullivan B.


2010 Dec 16 | **Invited Speaker.** A model for a Provincial Prospective Outcomes Database. Cancer Care Ontario Head and Neck Community of Practice, CCO Offices. Toronto. O’Sullivan B.


2004 Apr 21 | **Speaker and Co-Chair.** Local Management of soft tissue sarcoma: what approach following SR2? Oncology Rounds, Queens University. Kingston. O’Sullivan B.


1995 Feb 16 | **Invited Speaker.** The management of laryngeal cancer. Oncology Grand Rounds, Queen’s University. Kingston, Ontario, Canada. O’Sullivan B.


1994 Jan | **Invited Speaker.** Topic: Standards of treatment “Factors influencing the choice of treatment, and the outcome of treatment in Larynx Cancer in Ontario during the past decade”. Ontario Cancer Treatment and Research
4. LOCAL
Invited Lectures and Presentations


2013 Apr  Invited Speaker. Assembling the Jigsaw Puzzle: Understanding the Behavior of HPV-positive Oropharyngeal Cancer. HN Translational Research Meeting, April 30, 2013


2003 Sep  Course subcommittee Chair. The role of radiotherapy in soft tissue sarcoma. 3rd Princess Margaret Hospital Oncology Course, University of Toronto. O’Sullivan B.

1999 Jun  Invited Speaker. Conformal therapy. Keynote Address, Future Directions in Radiation Oncology University of Toronto, Faculty of Medicine Continuing Education Course. O’Sullivan B. (Continuing Education).
F. Research Supervision

GRADUATE STUDENT

Stephanie Shaw, PhD (2011-2014)
Department of Speech Language Pathology, Faculty of Medicine, University of Toronto, PhD Thesis Co-supervision

Nina Louise Jebsen, PhD (2008-2013)
University of Bergen, Bergen, Norway, 1st opponent of PhD Thesis Defense Committee

Colleen Dickie, MSc (2007-2010)
Department of Radiation Therapy, Faculty of Health, Social Care & Education, Anglia Ruskin University, Cambridge, United Kingdom

Anthony Griffin, MSc (2003-2006)
Institute of Medical Science, Faculty of Medicine, University of Toronto, MSc Thesis Co-supervision, 2006

Jolie Ringash, MSc (1996-1999)
Master’s of Science (Clinical Epidemiology), University of Toronto, Toronto, Ontario, MSc Thesis Co-supervision

POSTGRADUATE MD

2016 Apr-June Primary Supervisor, Dr. Francesca Caparrottie, Clinical Fellow
2016 Jan – Mar Primary Supervisor, Dr. Salam Billan
2015 Oct – Dec Primary Supervisor, Dr. Anupam Rishi
2015 July – Sept Primary Supervisor, Dr. Francesca Caparrottie, Clinical Fellow
2015 May – June Primary Supervisor, Dr. Shrinivas Rathod, Clinical Fellow
2015 Jan – April Primary Supervisor, Dr. Satiavani Ramasamy, Clinical Fellow
2014 Oct – Dec Primary Supervisor, Dr. Iibrihim Atean, Clinical Fellow
2014 July – Sept Primary Supervisor, Dr. Shrinivas Rathod, Clinical Fellow
2014 May – June Primary Supervisor, Dr. Issa Mohamad, Clinical Fellow
2013 – 2014 Nov – Apr Primary Supervisor, Dr. Irene Karam, Clinical Fellow
2013 July – Oct Primary Supervisor, Dr. Eric Tran, Clinical Fellow
2013 June Primary Supervisor, Dr. Felipe Rey, Clinical Fellow
2013 Mar - May Primary Supervisor, Dr. Matthew Mason, Clinical Fellow
2012 Oct - 2013 Feb Primary Supervisor, Dr. Felipe Rey, Clinical Fellow
2012 Jul - 2012 Oct Primary Supervisor, Dr. Salil Vengalil, Clinical Fellow
2012 Mar - 2012 Apr Primary Supervisor, Dr. Ameen Al-Omair, Clinical Fellow
2011 Dec - 2012 Mar Primary Supervisor, Dr. Isabelle Gauthier, Clinical Fellow
2011 Sep - 2011 Dec  Primary Supervisor, Dr. Gary Mok. Clinical Fellow
2011 Aug - 2011 Sep  Primary Supervisor, Dr. Jeppe Friborg. Clinical Fellow
2011 Jan - 2011 Jul  Primary Supervisor, Dr. Albert Tiong. Clinical Fellow
2010 Dec            Primary Supervisor, Dr. Karen Chu. Clinical Fellow
2010 Jul - 2010 Nov Primary Supervisor, Dr. Meredith Johnston. Clinical Fellow
2010 May - 2010 Oct Primary Supervisor, Dr. Fionnuala Houghton. Clinical Fellow
2010 Jan - 2010 Apr Primary Supervisor, Dr. Pranshu Mohindra. Clinical Fellow
2009 Jul - 2009 Sep  Primary Supervisor, Dr. Ashok Nikapota. Clinical Fellow
2009 Jan - 2009 Jun Primary Supervisor, Dr. Indranil Mallick. Clinical Fellow
2008 Nov - 2008 Dec Primary Supervisor, Dr. Christian Stevens. Clinical Fellow
2008 Jul - 2008 Oct Primary Supervisor, Dr. Yongjin Wang. Clinical Fellow
2006 Jul - 2007 Jun Primary Supervisor, Dr. David Hwang. Clinical Fellow
2004 Jul – 2005 Jun Primary Supervisor, Dr. Shiroma Disilva. Clinical Fellow
2003 Jul – 2004 Jun Primary Supervisor, Dr. Gabrielle Studer. Clinical Fellow
2002 Jul – 2003 Jun Primary Supervisor, Dr. Ian Ward. Clinical Fellow
2001 Jul – 2002 Jun Primary Supervisor, Dr. Jerome Coffey. Clinical Fellow
2000 Jul – 2001 Jun Primary Supervisor, Dr. Pippa Riddle. Clinical Fellow
1999 Jul – 2000 Jun Primary Supervisor, Dr. Momo Tin. Clinical Fellow
Curriculum Vitae

Lawrence Frank Paszat

A. Date Curriculum Vitae is Prepared: 2016 APRIL 20

B. Biographical Information

Primary Office Institute for Clinical Evaluative Sciences
2075 Bayview Avenue, Room G1-06
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480 4055, extension 1+ 3884
Fax 416-480-6048
Email lawrence.paszat@ices.on.ca

1. EDUCATION

Degrees
1997 MSc, Public Health School, University of Michigan
1980 MD, McMaster University
1977 BA, University of Toronto

Postgraduate, Research and Specialty Training
1982 - 1985 Radiation Oncology, McMaster University
1980 - 1982 Internal Medicine, McMaster University

Qualifications, Certifications and Licenses
1988 General License, The College of Physicians and Surgeons of Ontario
1986 Fellow, Royal College of Physicians and Surgeons of Canada
1985 Therapeutic Radiology, American Board of Radiology
1985 Radiation Oncology, College of Physicians of Quebec
1985 Radiation Oncology, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2009 Jan 1 - present Associate Professor, Department of Epidemiology, Dalla Lana School of Public Health, University of Toronto
2006 Sep 1 - present Senior Scientist, Institute for Clinical Evaluative Sciences
2003 Apr 1 - present Associate Professor, Radiation Oncology, University of Toronto
2003 Apr 1 - present  Associate Professor, Health Policy, Management and Evaluation, University of Toronto
2000 - present  Radiation Oncologist, Sunnybrook Health Sciences Centre, Toronto

Previous Appointments

HOSPITAL
1995 - 2000  Radiation Oncologist, Kingston General Hospital
1988 - 1995  Oncologist, Metropolitan General Hospital, Windsor
1985 - 1988  Radiation Oncologist, Montreal General Hospital & Montreal Children’s Hospital

RESEARCH
2000 - 2006  Scientist, Institute for Clinical Evaluative Sciences

UNIVERSITY
1995 Sep 1 - 2000 Jan 31  Assistant Professor, Radiation Oncology, Faculty of Medicine, Queen’s University at Kingston
1995 Sep 1 - 2000 Jan 31  Assistant Professor, Community Health and Epidemiology, Queen’s University at Kingston

UNIVERSITY - CROSS APPOINTMENT
2000 Feb 1 - 2003 Mar 31  Assistant Professor, Health Policy, Management and Evaluation, University of Toronto

UNIVERSITY - RANK
2000 Feb 1 - 2003 Mar 31  Assistant Professor, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

PROVINCIAL / REGIONAL
Received

2005 Jan - 2010  Clinician Scientist Salary Award, Ontario Ministry of Health and Long Term Care, Ontario, Canada. (Research Award)
Amount of $201,000.00 awarded annually. Total Amount: 1,809,000 CAD

1999 Jul - 2004 Jun  Career Scientist - 5 Year Salary support, Renewable, Ontario Ministry of Health and Long Term Care, Ontario, Canada. (Research Award)
Amount awarded over five (5) years. Total Amount: 300,000 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

INTERNATIONAL
National Cancer Institute
2000 - 2004  Member, Prospective Data Collection and Research Review Panel, United States.
NATIONAL

National Cancer Institute of Canada
2000 - 2004  **Member**, Research Proposal Review Panel L (Health Promotion and Health Services Research)

Royal College of Physicians and Surgeons of Canada
1992 - 1995  **Member**, Examining Board in Radiation Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
2008 - 2013  **Member**, Clinical Advisory Committee, Ontario Cervix Cancer Screening Program
2007 - 2009  **Member**, Clinical Advisory Committee, Ontario Colon Screening Program
2007 - 2008  **Member**, Technical Working Group for Colorectal Cancer Screening
2004 - 2009  **Member**, Ontario Task Force on Large Bowel Endoscopic Services
2002 - 2004  **Member**, Screening Research Committee
2002 - 2003  **Member**, Surgical Oncology Outcomes Task Force
2002 - 2003  **Member**, Breast Cancer Surgery Quality Indicators Panel
2001 - 2003  **Member**, Division of Preventive Oncology Management Committee
1991 - 1995  **Chair**, Radiation Treatment Program Committee

LOCAL

Institute for Clinical Evaluative Sciences
2000 - present  **Member**, Cancer Program
2003 - 2004  **Chair**, Cancer Theme Group
2002 - 2004  **Member**, Diagnostic Testing Committee
2002 - 2003  **Chair**, Education Committee, Faculty of Medicine, Dept of Radiation Oncology
2000 - 2004  **Member**, Positron Emission Tomography (PET) Committee

Odette Cancer Centre
2014 - present  **Member**, Haematology Site Group
2000 - 2013  **Member**, Breast Cancer Site group, Toronto, Ontario.

Sunnybrook Health Sciences Centre
2011 - 2013  **Member**, Research Ethics Board
2000 - 2003  **Member**, Health Information Committee

University of Toronto
2007 - present  **Member**, Health Sciences Research Ethics Board

Peer Review Activities

GRANT REVIEWS

Reviewer
2008 - 2016  Canadian Institutes of Health Research
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


In high density First Nations (FN) or Metis communities, to understand health policy factors that impact cancer screening; to assess community readiness and the health system’s capacity for the delivery of cancer screening; to work with regional partners and FN and Metis communities to learn from and compare locally administered tailored cancer screening interventions and then develop a comprehensive action plan to improve cancer screening for FN and Metis communities.

The main goal is to examine the modeled outcomes and cost effectiveness in Ontario of a high risk lung cancer screening program, to assess the reactions and perceptions of many stakeholder groups, map screening processes in focus groups, develop a pilot plan and produce a business case to support funding of a single site pilot.


J, Keller B, Rakovitch E. 448,340 CAD. [Grants]


Collaborator(s): Co-Investigators: Barkun A, Rabeneck L, Paszat L, Hilsden R, Joseph L.


2004 Jul - 2005 Jun  **Co-Investigator.** Quality indicators for end-of-life breast cancer care: testing the use of


**Role:** This grant proposal was written and submitted during Dr. Hodgson’s two-year Linton Fellowship under mentorship of Dr. Paszat.

**Role:** Co-investigator and Instigator of study concept and design originally as part of a group grant proposal led by Dr. Paszat.

**Role:** Health Services Research Co-Investigator, and Acting Principal Investigator during absence of Dr. Benk throughout 2002-2004.

**Role:** Health Services Research Co-Investigator, and Member of Thesis Committee for Dr. E. Rakovitch.


2. SALARY SUPPORT AND OTHER FUNDING

Personal Salary Support

2005 - 2010 Clinician Scientist Salary Award. Ontario Ministry of Health and Long Term Care. 1,005,000 CAD. Ontario, Canada.

1999 - 2004 Career Scientist Award (salary support). Ontario Ministry of Health and Long Term Care. 300,000 CAD. Ontario, Canada.

D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

**Journal Articles**

**Breast Cancer Patients’ Preferences for Adjuvant Radiotherapy Post Lumpectomy: Whole Breast Irradiation vs. Partial Breast Irradiation-Single Institutional Study.**

**Identification of a Latin American-specific BabA adhesin variant through whole genome sequencing of Helicobacter pylori patient isolates from Nicaragua.**
Thorell K, Hosseini S, Palacios Gonzáles RV, Chaotham C, Graham DY, **Paszat L**, Rabeneck L, Lundin SB, Nookaew I, Sjöling Å.
BMC Evol Biol. 2016 Feb 29;16(1):53

Colorectal cancer mortality reduction is associated with having at least 1 colonoscopy within the previous 10 years among a population-wide cohort of screening age.
Stock D, Paszat LF, Rabeneck L.


Lawrence Frank PASZAT


Lawrence Frank PASZAT


78. Hong NJ, Wright FC, Gagliardi AR, **Paszat LF**. Examining the potential relationship between multidisciplinary cancer care and patient survival: an international literature review. J Surg Oncol. 2010 Aug;102(2):125-34. Impact Factor 2.428. **Senior Responsible Author.**


Lawrence Frank PASZAT


Lawrence Frank PASZAT


Case Reports

3. NON-PEER-REVIEWED PUBLICATIONS

Health Technology Assessments


Research Reports


E. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

- **2012 Jul - present** Primary Supervisor. MSc. Dr. Danielle Vicus. Supervisee Institution: University of Toronto. 1) Risk of subsequent high risk Human Papilloma Virus related health events in a cohort treated by cervical excisional procedures and 2) Is cervical cancer screening effective in preventing mortality from cervical cancer in all age groups?.


- **2009 Jul - 2011 Jun** Primary Supervisor. MSc. Dr. Iwa Kong. Outcomes of young women with DCIS. Completed 2011.


- **2005 Jan - 2005 Dec** Primary Supervisor. PhD. Dr. Muriel Brackstone, PhD Candidate, University of Western Ontario. Epidemiology core biopsy prior to open breast surgery. Completed 2005.


- **2001 - 2003** Primary Supervisor. MSc. Ms Ruby Tatla, MSc Research Fellow, Cancer Care Ontario,
Lawrence Frank PASZAT

Toronto Sunnybrook Regional Cancer Centre.

2000 Jul - 2006 Jun


**Undergraduate MD**

2001 - 2002


**Postgraduate MD**

2006 - 2008

**Primary Supervisor.** Dr. Jacqueline Spayne, Resident in Radiation Oncology, residency research project. *Predictors of invasive recurrence following breast-conserving surgery for ductal carcinoma in situ.* Completed 2008.

2006 - 2008

**Primary Supervisor.** Dr. Janice Kwon, Asst Prof. Gynaecology/Oncology, University of Western Ontario. *Endometrial cancer outcomes.*

2001 - 2002

**Primary Supervisor.** Dr. Hannah Carolan, Resident in Radiation Oncology, Residency research project. *Hormones may break their bones: Is there an increased risk of hip fracture in men with prostate cancer treated with androgen ablation?* Completed 2002.

2001 - 2002

**Primary Supervisor.** Dr.Yvonne Gray, Research Fellow of Cancer Care Ontario, Toronto Sunnybrook Regional Cancer Centre. *Population-based study of the outcomes of endoscopic colorectal screening among men and women in Ontario, 50-59 years of age. [CIHR/NCIC].*

2000 - 2001


2000 - 2001

**Primary Supervisor.** Clinical Fellow. Dr. Christopher Vinden, Research Fellow, Institute for Clinical Evaluative Sciences. *Population-based study of the outcomes of endoscopic colorectal screening among men and women in Ontario, 50-59 years of age. Awards: Preliminary data for research grant proposal - Rabeneck L, Paszat L, Berta W, Vinden C, Klar N [CIHR/NCIC].*

1996 - 1998

**Primary Supervisor.** Dr. Patrick Cheung, Resident in Radiation Oncology, Queen’s University.

**Postdoctoral Research Fellow (PhD)**

2007 Sep - 2008 Dec **Primary Supervisor.** Dr Helen Mathers, Surgical Fellow. Completed 2008.

**2. OTHER SUPERVISION**

**Graduate Education**

**Thesis Committee Member**

2003 - 2004

**MSc.** Dr. Phil Barnsley, Graduate Student, University of Ottawa. *Breast reconstruction and surveillance mammography.*

2001 - 2002

**MSc.** Dr. Philip Haigh. *Treatment of differentiated thyroid cancer.*

2000 - 2002

**MSc.** Dr. Eileen Rakovitch. *A population-based analysis of treatment and accuracy of pathologic reporting of ductal carcinoma in situ.*

2000 - 2001

Curriculum vitae

Dr David Payne

A. Date: 2016 December 31

B. Biographical Information

Address: Department of Radiation Oncology
Princess Margaret Hospital
610 University Ave
Toronto, Ontario M5G 2M9
Telephone: (416) 946-2129
Fax: (416) 946-6561
Email: david.payne@rmp.uhn.on.ca
Date Last Updated: December 2015

1. EDUCATION

Degrees

1962-66 BSc Mathematics and Physics (Honours) University of Toronto, Ontario, Toronto Canada
1966-67 MSc Mathematics and Computer Science, University of Toronto, Ontario, Canada
Supervisors A Newman, CC Gotlieb
1971-74 MD McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training

1975-77 Resident, Department of Medicine McMaster University, Hamilton, Ontario, Canada
1977-78 Resident, Department of Medicine Toronto Western Hospital, Toronto, Ontario, Canada
1977-78 Resident, Department of Medicine Princess Margaret Hospital, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

1978-2016 Fellow, Royal College of Physicians Canada - Internal Medicine
Membership #195007
1979-2016 Fellow, Royal College of Physicians Canada - Radiation Oncology
Membership #195007
1986-2016 Diplomate, American Board of Radiology, Radiation Oncology
1974-2016 Member, College of Physicians and Surgeons of Ontario
    Membership #28048

1. EDUCATION

Current Appointments
2011-2016 Consultant Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
1979-2011 Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada

CONSULTING
2011-2016 Consultant Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada

UNIVERSITY
1979-87 Lecturer, Department of Radiology, University of Toronto
1987-95 Assistant Professor, Department of Radiation Oncology, University of Toronto
1995-2011 Associate Professor, Department of Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

None

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
1978-2016 Fellow, Royal College of Physicians Canada - Internal Medicine
    Membership #195007
1979-2016 Fellow, Royal College of Physicians Canada - Radiation Oncology
    Membership #195007
1974-2016 Member, College of Physicians and Surgeons of Ontario
    Membership #28048
1979-2011 Member, Canadian Association for Radiation Oncology
1985-95 Member, European Society for Therapeutic Radiology and Oncology
1985-2001 Member, International Association for the Study of Lung Cancer
1986-2016 Diplomate, American Board of Radiology, Radiation Oncology
Administrative Activities

INTERNATIONAL

1980-85 Radiation oncologist, Lung Cancer Study Group
National Institutes of Health, USA
1985-90 Chairman, Radiation Oncology Committee
Lung Cancer Study Group
National Institutes of Health, USA
1989-91 International Scientific Program Committee
1991-93 International Scientific Program Committee
7th World Conference on Lung Cancer. Colorado Springs, 1994
1991-02 NIH (US) Intergroup Working Cadre on Lung Cancer
Treatment Strategy
1994-03 Executive Committee, Collaborative Ocular Melanoma Study
National Institutes of Health, Washington DC USA
Association for the Study of Lung Cancer. Copenhagen
1996-97 International Scientific Program Committee
8th World Conference on Lung Cancer. Dublin, July 1997

NATIONAL

1987-89 Director, Canadian Association of Radiation Oncologists
1990 Scientific Program Director, Annual Meeting of Canadian
Association of Radiation Oncologists, Toronto
1993-2001 Chairman, Site Specific Advisory Group for Lung Tumours
Canadian Committee on Cancer Staging
National Cancer Institute of Canada
1993-2001 Site Specific Advisory Group for Ophthalmic Tumours
Canadian Committee on Cancer Staging, National Cancer Institute of Canada
1993-95 President, Canadian Association of Radiation Oncologists

PROVINCIAL / REGIONAL

1993-2001 Radiation Therapy Advisory Committee, Healing Arts and Radiation Protection
Committee, Ministry of Health, Ontario, Canada

LOCAL

Peer Review Activities

ASSOCIATE OR SECTION EDITING

EDITORIAL BOARDS

Association for the Study of Lung Cancer. Copenhagen
GRANT REVIEWS
MANUSCRIPT REVIEWS
PRESENTATION REVIEWS

Other Research and Professional Activities

C. Academic Profile

1. RESEARCH STATEMENTS

2. TEACHING PHILOSOPHY

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

   none current

D. Research Funding

   none current

NON-PEER-REVIEWED GRANTS

   none current

2. SALARY SUPPORT AND OTHER FUNDING

   none current

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS

   [Presented in reverse chronological order]
   1. [Author(s) – CV holder’s name bolded]. [Title of article]. [Journal name]. [Rest of citation].
      [Status – only if in press]. Impact Factor [Impact Factor], (Trainee Publication, [Trainee
      Details] – only if it is a trainee publication). [Role].

      Most significant publication details.
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


36 Payne DG. Is there a role for induction radiotherapy for stage IIIA NSCLC? Lung Cancer 18(S2): 52-54, 1997


43 Tsang RW, Liu F-F, Wells W, Payne DG. Results of treatment by radiotherapy in lentigo maligna of the head and neck. Arch Derm 130: 1008-1012, 1994


51 Payne DG. Le rôle de la radiothérapie dans le cancer bronchopulmonaire. Rev Mal Réspir 10: 401-422, 1993


54 Warde P, Payne DG Does thoracic irradiation improve survival and local control in limited stage small cell carcinoma of the lung - a meta-analysis J Clin Oncol 10: 890-895, 1992


60 Payne DG, Feld R Concurrent radiotherapy and chemotherapy in lung cancer at the Princess Margaret Hospital Antibiot Chemother Basel 41: 96-101, 1988


78 **Payne DG** Carcinoma of the nasopharynx J Otolaryngol 12(3): 197-202, 1983


80 **Payne D**, Simpson WJ, Keen CW, Platts ME Malignant astrocytoma: hyperfractionation and standard radiotherapy with chemotherapy in a randomized prospective clinical trial Cancer 50: 2301-2306, 1982


Case Reports

Abstracts


Books

Books Edited

Book Chapters


Manuals
Editorials
Commentaries
Letters to Editor


Monographs
Multimedia
Other Publications

3. NON-PEER-REVIEWED PUBLICATIONS


Case Reports

Abstracts

Books

Books Edited

Book Chapters

Manuals
Editorials

Commentaries

Letters to Editor

Monographs

Multimedia

Other Publications

4. SUBMITTED PUBLICATIONS

None current

G. Presentations and Special Lectures

None current

H. Teaching and Design

None current

J. Creative Professional Activities

None current
Curriculum Vitae

Ian Poon
Radiation Oncologist

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-4951
Fax 416-480-6002
Email ian.poon@sunnybrook.ca

1. EDUCATION

Degrees
1991 - 1995 MD, Dept of Medicine, University of Ottawa, Ottawa, Ontario, Canada
1989 - 1991 BSc, with Distinction, Life Sciences, Queen’s University at Kingston, Kingston, Canada

Postgraduate, Research and Specialty Training
2000 - 2001 Clinical Fellowship, Radiation Oncology, Intensity Modulated Radiation Therapy (IMRT) and 3D Conformal, Radiation Oncology, University of California, San Francisco, San Francisco, California, United States
1996 - 2000 Residency, Radiation Oncology Program, Princess Margaret Hospital, Toronto, Ontario, Canada
1995 - 1996 Internship, Kingston General Hospital, Kingston, Ontario, Canada

Qualifications, Certifications and Licenses
2001 Fellow, Royal College of Physicians, Ontario, Canada, License / Membership #: 561639
2000 Certification, American Board of Radiology (ABR), License / Membership #: 47970

2. EMPLOYMENT

Current Appointments
2006 - present Consultant, Oncology, Toronto East General Hospital, Toronto, Ontario, Canada
2003 - present Active Staff Radiation Oncologist, Radiation Oncology, Faculty of Medicine, Odette Cancer Centre, Toronto, Ontario, Canada
2003 - present  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2001 - 2003  Active Staff Radiation Oncologist, Hamilton Regional Cancer Centre, Hamilton, Ontario

UNIVERSITY
2001 - 2003  Assistant Professor, Medicine, McMaster University, Hamilton, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2002 - 2003  RTOG Young Investigators Award, The Radiation Oncology Group, United States. (Research Award)
Total Amount: 1,500 USD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2001 - present  Royal College of Physicians and Surgeons of Canada, 561639
2000 - present  Canadian Association of Radiation Oncology (CARO), 407
1995 - present  Ontario Medical Association (OMA), 0568469
2001  American College of Radiology, 47970

Administrative Activities

PROVINCIAL / REGIONAL
Cancer Care Ontario
2005 - present  Member, Head and Neck Committee

LOCAL
Toronto-Sunnybrook Regional Cancer Centre
2007 - 2008  Chair, Radiation Oncology Associates Group, Ontario, Canada.
2006 - 2011  Leader, Head & Neck Site Group, Ontario, Canada.
2006 - 2007  Vice Chair, Radiation Oncology Associates Group, Ontario, Canada.

University of Toronto
Ian POON

2015 Dec 4 Examiner, CPEE Planning Exam, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer
2016 Radiotherapy and Oncology
2014 Radiotherapy & Oncology
2012 - 2013 Radiotherapy & Oncology
2012 Clinical Oncology
2012 Head and Neck
2012 Journal of Skin Cancer
2008 - 2010 Clinical Oncology
2008 - 2010 Radiotherapy & Oncology

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2014 Jun - 2014 Aug Principal Applicant. Is there an abscopal effect in early stage lung cancer treated with stereotactic body radiotherapy? Comprehensive Research Experience for Medical Students (CREMS). PI: Poon, Ian. Collaborator(s): Tjong, M. 2,500 CAD. [Grants] The therapeutic benefit of stereotactic body radiotherapy (SBRT) in early stage lung cancer has been largely based on its’ cytocidal effect combined with the recent ability to selectively target the primary tumour.


2001  **Principal Investigator.** A study evaluating mucosal toxicity in head and neck cancer patients undergoing radical radiation with or without concurrent chemotherapy. Hamilton Regional Cancer Centre Foundation. Research Grant. Collaborator(s): Wright J, Hodson I, Sathya J, Sagar S, Browman G. 12,000 CAD. [Grants]

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2014 - present  **Co-Principal Investigator.** Consortium for Oligometastases Research (CORE). Elekta AB. PI: Sahgal, Arjun. 157,700 CAD. [Industrial Grants]

*Developing oligometastases international database and research consortium.*
D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   This study describes the patient perspective on their potential difficulties enrolling patients into de-escalation studies in HPV positive head and neck cancer because their primary concern is surviving their cancer first over reducing toxicities.


   This interesting pilot work showed that microscopic tumour extension in oral tongue cancer may be less common that previously thought using a pathological whole specimen methodology that will also serve as the gold standard (through a three-dimensional tumour reconstruction) to compare the accuracy of imaging modalities. This work was partly supported by the Ontario Institute of Cancer Research (OICR).


   This work demonstrates that novel features, such as PET and CT texture, are able to distinguish between cancerous and normal tissue with high accuracy. Not only does the use of these features improve segmentation, outperforming standard thresholding methods, but their success suggests that there is more information present in PET-CT than is available through SUV and CT density. These results motivate our current work to investigate a) how to further standardize and improve PET-CT segmentation, and b) To further investigate novel PET-CT features for treatment response and quantification of cancer.


   This paper is a retrospective comparison of the dosimetric improvements seen with inverse planned intensity modulated therapy over a simple forward planned intensity modulated treatment in NPC. Unlike other dosimetric studies that compare different planning methods, this study uniquely reviewed the dosimetric data of patients treated with the two different planning methods. The results (published in an internationally read journal) show that although there are dosimetric advantages to inverse planning in locally advanced NPC forward planned IMRT is a very reasonable and effective method of planning and treatment in countries with limited resources.

This work represents the only lymph node atlas that incorporates the anatomic variation of head and neck cancer patients to create a lymph node clinical target volume. Unlike the consensus documents from co-operative groups, the research methodology is performed in a way that meets the specific needs of the radiation oncologist. Over 500 T2 weighted MR images were fused using easily recognizable axial imaging landmarks.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


32. Winquist E, Oliver T, Gilbert R, Head and Neck Cancer Disease Site Group of Cancer Care Ontario’s Program in Evidence-Based Care. Postoperative chemoradiotherapy for advanced squamous cell carcinoma of the head and neck: A systematic review with meta-analysis. Head Neck. 2007;29:38-46. **Coauthor or Collaborator.**


**Book Chapters**

Cited


Scientific Letter


3. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Review Article


4. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented and Published Abstracts


2014 Sep  Inherent margin due to tumor shrinkage can decrease target delineation margin protocols in IMRT treatment for head and neck carcinomas. American Society for Radiation Oncology (ASTRO). San Francisco, California, United States.


2014 Sep  Presenter. A multinational report on image-guided stereotactic body radiation therapy for

Publication Details:

2011

Publication Details:

2011

Publication Details:

2010
Intra-treatment FDG positron emission tomography responses assessment of advanced head and neck cancer treated with radiation +/- chemotherapy. Molecular Imaging in Radiation Oncology (MIRO). Brussels, Belgium.

Publication Details:

2010

Publication Details:

2010

Publication Details:

2009
Publication Details:

2009

Publication Details:

2009

Publication Details:

2009

Publication Details:

2008

Publication Details:

2006

Publication Details:

2002
A population-based three dimensional atlas of the head and neck lymph nodes for conformal (IMRT) radiotherapy. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. New Orleans, Louisiana.

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2008 Pilot study to assess intra-treatment FDG-PET parameters that predict for loco regional control in advanced head and neck cancer treated with chemoradiation. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

2003 Use of inflammatory serum markers as an objective measure of acute and sub-acute mucositis receiving radiation ± chemotherapy for head and neck cancer. Canadian Association of Radiation Oncology(CARO) Annual Scientific Meeting. Montreal, Quebec.

2000 Dose volume histogram comparison of inverse planned and forward planned IMRT in nasopharyngeal
Carcinoma. Canadian Association of Radiation Oncology (CARO). Edmonton, Alberta.

1999  
A direct cost comparison between conventional four field external beam radiotherapy versus conformal radiotherapy in prostate cancer. Royal College of Physicians and Surgeons of Canada Meetings. Toronto, Ontario.

Presented and Published Abstracts

2016 Sep  

Publication Details:  

2016 Sep  

Publication Details:  

2015  
Stereotactic ablative radiotherapy (SABR) for pulmonary oligometastases and oligoprogression. Canadian Association of Radiation Oncology (CARO). Kelowna, British Columbia, Canada.

Publication Details:  

2014 Aug  
Single institution experience of outcomes of head and neck tumours treated with stereotactic body radiotherapy (SBRT). Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:  

2014 Aug  
Accelerated hypofractionation versus stereotactic ablative radiotherapy (SABR) for early-stage non-small cell lung cancer: Results of a propensity score-matched analysis. Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:  

2014 Aug  
Can dose-volume constraints predict for rib fracture after lung stereotactic ablative body radiotherapy (SABR)? Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:  

Ian POON


2012

A randomized comparison of lung stereotactic body radiation therapy (SBRT) delivered over 4 or 11 days - acute toxicity and quality of life. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:

2012


Publication Details:

2012


Publication Details:

2011


Publication Details:

2010


Publication Details:

2009

A comparison of two immobilization systems for stereotactic body radiation therapy (SBRT) of lung tumours. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009

The use of an automated segmentation algorithm as a method for whole tumour ROI definition to improve the accuracy and stability of intra-treatment FDG assessment in head and neck cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.
Publication Details:

2009
Radiation treatment planning for positron emission tomography (PET) coregistered with CT may alter recurrence patterns as compared with CT planning alone for patients with Stage III non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009
Co-registered multi-modality pattern analysis segmentation system (COMPASS) for radiation targeting of Head and Neck cancer using FDG PET/CT. Canadian Organization of Medical Physicists (COMP) Annual Meeting. Vancouver, British Columbia.

Publication Details:

2008
A pilot study to assess intra-treatment PDG-PET parameters that predict for locoregional control in advanced head and neck cancer treated with chemoradiation. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2008

Publication Details:

2007
Variability in identification of positive nodes for head and neck cancers: Comparison of CT alone with PET/CT. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

Publication Details:

2007

Publication Details:

2006
Acute phase response reactants as an objective measure of mucosal toxicity in head and neck cancer
patients undergoing radical radiation therapy with or without concurrent chemotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta.

Publication Details:

2004

Publication Details:

2004
Evaluation of inflammatory serum proteins as an objective measure of radiation induced mucositis in patient receiving radical radiation with or without concurrent chemotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Halifax, Nova Scotia.

Publication Details:

2003
The use of inflammatory serum markers as an objective measure of acute and sub-acute mucositis receiving radiation ± chemotherapy for head and neck cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2002

Publication Details:

2002
A population-based three dimensional atlas of the head and neck lymph nodes for conformal (IMRT) radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

Publication Details:
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts


4. LOCAL

Invited Lectures and Presentations


2002  A population-based three dimensional atlas of the head and neck lymph nodes for conformal (IMRT) radiotherapy. TSRCC Grand Rounds, Toronto-Sunnybrook Regional Cancer Center. Toronto, Ontario. (Continuing Education).

2000  A comparison between inverse planned and forward planned intensity modulated radiation therapy in nasopharyngeal carcinoma. TSRCC Grand Rounds, Toronto-Sunnybrook Regional Cancer Center. Toronto, Ontario. (Continuing Education).

Presented Abstracts


5. OTHER

Presented Abstracts

1999  A direct cost comparison between conventional four field external beam radiotherapy versus conformal radiotherapy in prostate cancer. Royal College of Physicians and Surgeons of Canada. Canada.

Presented and Published Abstracts

1999  A direct cost comparison between conventional four field external beam radiotherapy versus conformal radiotherapy in prostate cancer. Royal College of Physicians and Surgeons. Canada.

Publication Details:

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


2010 Sep - 2010 Dec  Primary Supervisor. BA. Tuyen Le, University of Waterloo. Patient preference for oropharyngeal cancer treatment de-escalation.

Undergraduate MD


Postdoctoral Research Fellow (PhD)


Clinical Research Fellow (MD)


Other


2. OTHER SUPERVISION

Undergraduate Education

2008 - 2009  B. Sc. Candi Flynn, University of Waterloo. Supervisee Position: Medical Student, Supervisee Institution: U of T. The value of periodic follow-up in the detection of recurrences following radical treatment in locally advanced head and neck cancer. Awards: Heart & Stroke Foundation of Ontario Master's Studentship Award ($18,500 for 1 year); Schulich Graduate Scholarship, U of Western Ontario ($6,600).

Graduate Education

Thesis Committee Member


Postdoctoral Research Fellow (PhD)


Clinical Research Fellow (MD)

Secondary Supervisor
2015 Jun - 2016 Jun Farha, George. Supervisor(s): Lee, Justin; Poon Ian.
**Business Address:** Peel Regional Cancer Centre
Credit Valley Hospital
2200 Eglinton Avenue West
Mississauga, ON  L5M 2N1

**Email Address:** jradwan@cvh.on.ca

**Nationality:** Canadian

**Languages Spoken:** English, Polish, French
EDUCATION

University Degrees

1972 – 1973  Sir George Williams University  
Montreal, Quebec

1973 – 1979  Medical Academy of Warsaw  
Warsaw, Poland

June 1979  Graduated MD

Internship

Memorial University, St. John’s, Newfoundland

Postgraduate Training

July 1982 – June 1985  Resident in Internal Medicine  
University of Calgary  
Calgary, Alberta

July 1985 – June 1987  Resident in Radiation Oncology  
University of Toronto  
Toronto, Ontario

July 1987 – June 1988  Resident in Radiation Oncology  
University of Western Ontario  
London, Ontario

July 1988 – June 1989  Chief Resident, Radiation Oncology  
University of Ottawa  
Ottawa, Ontario

July 1989 – December 1989  Clinical Fellow, Radiation Oncology  
University of Ottawa  
Ottawa, Ontario
January 1990 – December 1990  Clinical Fellow, Radiation Oncology  
University of Toronto  
Toronto, Ontario

January 1991 – June 1991  Clinical Assistant, Radiation Oncology  
Toronto, Ontario

Specialty Qualifications/Licenses Held

1979  ECFMG  
No. 304-065-6

1980  MCCEE

1983  LMCC  
No. 56342

1984  American Board of Internal Medicine  
Certification Examination  
No. 099153

1984  General License  
Province of Ontario  
No. 327369

1991  FRCPC  
Radiation Oncology  
No. 327369

1991  American Board of Radiology  
Certification in Radiation Oncology  
No. 31522

ACADEMIC/EMPLOYMENT HISTORY

Academic Appointments  
(dates, rank & position, department & institution)

March 2007 – Present  Active Staff  
Peel Regional Cancer Centre  
Credit Valley Hospital  
Mississauga, Ontario
Member, Department of Radiation Oncology  
Consultant, Radiation Oncology  
London Regional Cancer Centre  
Cancer Care Ontario

Active Staff  
London Health Sciences Centre  
London, Ontario

1992 – Present  
Assistant Professor  
Department of Oncology  
University of Western Ontario  
London, Ontario

1998 – 2000  
Chairman, Genitourinary Multidisciplinary Team

1998 – 2000  
NCIC Genitourinary Group  
Representative for London Regional Cancer Centre  
London, Ontario

1996  
Visiting Lecturer and Hospital Privileges  
University of Toronto  
Toronto, Ontario

1992 – 1996  
Courtesy Staff  
Stratford Hospital  
Stratford, Ontario

1997 – 2001  
Courtesy Staff  
Sarnia General Hospital  
220 North Mitton Street  
Sarnia, Ontario

AWARDS, HONOURS & FELLOWSHIPS

November 1998  
Chair, GU Multidisciplinary Team Accreditation Standards

2002  
Department of Radiation Oncology, Certificate of Merit for Outstanding participation in clinical trials
CONTINUING EDUCATION

Conference Attendance & Professional Development


2011 Image Guided Liver Radiotherapy, PMH, October 27-28 2011, Toronto, ON.

2009 Genitourinary Cancers Symposium, American Society of Clinical Oncology, (ASCO), Feb 26-28, 2009, Orlando FL.

2009 New Insights 2009, The Royal College of Physicians and Surgeons of Canada (CPSO), Certification Program, October 6, 2009, Toronto, ON.


2004, 2008 HDR and LDR Brachytherapy Techniques for Oncologists Fall Uro-oncology Retreat, UWO, 1997

1997 American Society for Therapeutic Radiation Oncology (ASTRO)

1998 European Society for Therapeutic Radiation Oncology (ESTRO)

1999 National Cancer Institute of Canada (NCIC) Issues and Controversies in Prostate Cancer

1999 National Cancer Institute of Canada (NCIC) European Society for Therapeutic Radiation Oncology (ESTRO) Issues and Controversies in Prostate Cancer Communication Workshop (Breast Cancer Patients), UWO

1999, 2003 American Society for Therapeutic Radiation Oncology (ASTRO)
2000
Issues and Controversies in Prostate Cancer, Radiation Therapy Oncology Group (RTOG), Montreal, March 15-19
Canadian Urological Association, Kelowna, June
ESTRO Conference, Istanbul, September 19-23

2001
Radiation Therapy Oncology Group (RTOG)
Tampa, Florida, February 8-11
National Cancer Institute of Canada, April
Biostatistics Workshop, London Regional Cancer Centre
London, Ontario July 17
Evolving Issues in Oncology
Ontario GU Radiation Oncology Retreat, October 12-14
Uro-Oncology Fall Retreat, UWO
ESTRO Conference, Lisbon, October 21-25
American Society for Therapeutic Radiation Oncology (ASTRO), November 4-8

2002
National Cancer Institute of Canada (NCIC), April
ESTRO Conference, Prague, September 17-21
Prostate Cancer Radiotherapy 2002, Montreal, QC, December 5-7

2003
Radiation Therapy Oncology Group (RTOG), Montreal, PQ, June
1st Annual Conference on Current Problems in Urology, Banff, Alberta, April 10-13
3rd International Prostate Cancer Congress
Bermuda, July 17-20

Multi Disciplinary Tumour Boards, Mississauga, ON, Credit Valley Hospital.

Oncology Grand Rounds, Mississauga, ON, Credit Valley Hospital.

2007

February 14-16, 2008
May 1, 2008

ASCO+ASTRO 2008 Genitourinary Cancers Symposium, “Role of Hormonal Therapy in Prostate Cancer”.

June 12, 2008

Toronto Breast Cancer Symposium, Metro Toronto Convention Centre, Toronto, ON.

September 22-25, 2008

ASTRO-Boston Convention and Exhibition Centre, Boston, MA, “50 Years of Learning, Caring and Collaboration in the Treatment of Cancer Patients.”

October 1, 2008

Princess Margaret Hospital 50th Anniversary Gynae Day, University of Toronto, Toronto, ON.

Continuing Education attended

June 10-11, 2004

Faculty of Medicine, University of Toronto Continuing Education, Toronto, Ontario “Controversies in the etiology, detection and treatment of breast Cancer: 2004”

October 26, 2007

Regional Oncology Educational Day: Novotel Hotel, Mississauga, ON

2007

The 2nd Ontario Thoracic Cancer conference 2007, Niagara-on-the-Lake, ON.

SCHOLARLY AND PROFESSIONAL ACTIVITIES

Professional Society Memberships/Offices held

Member College Physicians and Surgeons of Ontario
Member Canadian Medical Protective Association
Member Ontario Medical Association
Member American Society of Therapeutic Radiation Oncology (ASTRO)
Member Canadian Association of Radiation Oncologists (CARO)

Visiting Professorships

1998 Guest Lecturer, University of Toronto
Cross appointment with the University of Toronto

Roles in Conferences

1993 – 1995 Continuing Medical Education (Oncology)
Organizer/Presenter of “Annual Cancer Symposium”  
Faculty of Medicine, University of Western Ontario, London

October 26, 2007  
Regional Oncology Educational Day: Novotel Hotel, Mississauga, ON, “Long Term Follow-up of the Cancer Patient”, Presented to nurses, pharmacists, primary care, palliative care and specialty physicians, and the public.

Service to Community

See list of invited presentations

COMMITTEE MEMBERSHIPS

University

1993 – 1995  
Organizer/Presenter  
Continuing Medical Education Oncology Symposium, University of Western Ontario

Department of Oncology Medical Staff Committee

Departmental (Internal)

June 2004 – February 2007  
RO Associate Group – Ad Hoc Billing Review Committee

2002  
60th Anniversary of Cobalt at London Regional Cancer Centre, French Language Video

2001 – February 2007  
Member, Radiation Oncology Associate Group, London Regional Cancer Centre

1992  
Member, HDR Brachytherapy Subcommittee

1993 – 1994  
Member, Simulator Selection Committee

1994 – 1995  
Equipment (LINAC) Selection Committee and Users Group Representative

1994  
Quality Assurance for Radiotherapy (LRCC)

1998  
Member, Environmental Committee (LRCC)
1998

GU Representative for London Regional Cancer Centre

Hospital, Research, Community (External)

2002

Medical Associates Provincial Representative

1999 – 2002

NCIC – Genitourinary Committee

1994 – 1995

Ontario Cancer Treatment & Research Foundation Planning
User Group for Community Cancer Centres Accreditation Process

TRAINEE SUPERVISION

The following is a sampling of the numbers of students taught each year. Details are not available to me prior to 2001.

Dec 3, 2001 to March 3, 2002
Sujana Movva
Joan Dafoe
Jaime Blackwood
Fawaz Siddigi
Chen Lin Yung
Wendy Lai
Raffeala Profiti
Marijana Drandic
Chee Yeow Tan
Ajana Macbride
Jeff Tanguay
Karmdeep Guram
Shoba Sujana Kumar
Abeer Syal
Haren Treasurer
Batya Grundland
Chris McLean

March 3, 2002 – June 2, 2002
Guido Hockman
Darren Cargill
Charles Cho
Charles Scott
Loredana DiSanto
Anna Mayer
Laura Snell
Nirit Bernhard
Heather Cox
Erin Norriw  
Namita Gill  
Jason Ashley  
Paul Engels  
Allison Suk  
Kim Gilmour  
George Kim  
Laurie Dusseault  
Phebe Gray  
Kavi Chatoorgoon  

June 3, 2002 to Sept. 2002  
Hashmat Khan  
Omer Chaudhary  
Mark Baumgartner  
Eric Davenport  
Radu Butan  
Mae Chiang  
Zishan Allibhai  
Jordan Cuthbert  
Darrin Payne  
Haley Bos  
Anita Mody  
Geoff Bellingham  
Jessica Wylie  
Lisa Biersack  
Farrah Kassam  
Erin Lovett  
Abdel Lawendy  
Jasper Yuen  
Tuhina Biswas  
Tiffany Wells  
Cyrus Hsia  
Arthur Cheung  
Matei Andreoiu  
Ben Shore  
Sameen Uddin  
Varsha Thakur  
Kirsten Grabowska
    Sebastian Rodrigues-Elizalde
    Justin Jagger
    Peter Mack
    Arthur Cheung
    Karmdeep Guram
    Leslie Morvay
    Scott Hamilton
    Chinedu Onochie
    Gary Peysar
    Mike Roman
    Edward Wong
    Patrick Sullivan
    Blayne Welk
    David McAlduff
    Cyrus Hsia
    Jasper Yuen
    Scott Millington
    Robert Arntfield
    Chris Chu
    Susan Scarrow
    Chris Ryerson
    Kristen Jones
    Mark Mastsos
    Anne Martin
    Julie Hogan
    Maryanne Rockx
    Shachar Sade
    Monka Winnicki
    Rahim Ladak
    Andrew Touw

December 2002 – March 2003  Yaniv Berliner
    Alison MacLeod
    Nowell Fine
    George Condrut
    Jeffrey Goldstein
    Kalesha Hack
    Ann Tan
    Mae Chiang
    Peter Chang
    Megan Milliken
    Rishi Narine
    Vikas Agarwal
    David Mula
Gabriel Chan
Rebecca Herman
Eva Kogan
Neely Bakshi
Tania Principi
Shannon Dunlop
Noor Ladhani
Katherine Enright
Amanda Selk
Winnie Wee

Birinder Singh
Charlotte Ng
Sarah Graydon
Melanie Hnatiuk
Rebecca Cash

March 2003 – June 2003

David Palma
Jenny Boismer
Elizabeth Au-Yeung
John Sostaric
Elizabeth Mahon
Naomi Nohara
Jackson Poon
Sonja Payne
Eric Bruder
Donna Kim
Tomas Jimenez
Maithili Shetty
Ziv Harel
Hari Vasan
George Chami
Seng Thipphavong
Jonathan Ting
Karen Papay
Doug Mack
Karen Visser
Victoria Lee
Dave Ouellette
James Andrews
Frank Min
Philip Joseph
Jackie Bellaire
Boris So
Darren Kagal
June 2003 – August 2003
Savtaj Brara
Ying Zhang
Bill Tong
Illiana Lega
Andrea Lo
Maria Luisa Hincapie
Gerard March
Aaron Tan
Alan Kahn
Kris Rainkie
Andrew Pearce
Shauna Duigenan
Sarah Bacopulos
Monica Bhayana
Dave Nagal
Samantha Yeap
Chetna Tailor
Matt Snider
Gladys Chan
Gita Wahi
Joel Price
Nabil Sultan
Farhan Siddiqui
Youssef Aimalki
Khurram Khan
Adrian Gooi
Eman Loubani
Meivys Garcia
Aaron Jackson

Sept. 2003 – Nov. 2003
Lillian Barra
Robert Laberge
Ian Weinroth
Chen Tong Yung
David Patrick
Chun Khai Chong
Simon Shanfield
Luc Dubois
Tim Heerema
Anna Labuda
David Bottoni
Aariel Shafro
Daniel Grushka
Mariam Ghali
Clare Bastedo
Raymond Lim
CONTRIBUTIONS TO TEACHING AND EDUCATION

Teaching Portfolio

2000 – 2001

S.C.O.P.E. Supportive Care in Oncology Partnership and Education
An Adult Based Learning Model with Realistic Learning Goals and Objectives, Identifying Meaningful Outcomes Involving Community Nurses and Pharmacists
This included evaluation of learning

1992 – 2003

Clinical Instruction
Ongoing Clinical Instruction Lectures, Case Evaluation for Radiation Oncology Residents, Urology Residents, Gynecology Residents
2000 – Present

4th Year Clinical Elective Students and Clinical Clerks and Supervisor for Clinical Clerks, Radiation Oncology and Urology Residents. Annual Core Oncology Lectures in Gynecology and Urology. Lectures in Gynecological Malignancy for Gyn-Oncology Residents

Overall Educational Responsibilities

1. Supervision and teaching of residents rotating on service (breast, gynecological and urological)
2. Participation in resident rounds/quality assurance/Grand Rounds
3. Participation in mock orals and written Board Examination preparation
4. Individual teaching sessions at a resident’s request
5. Teaching of off-service residents rotating through Radiation Oncology
6. Teaching of affiliated staff (i.e. in-service for radiation therapy technicians)
7. Participation in Medical School Oncology Lecture Series
8. Teaching CORE Oncology Lectures (Gynecological Cancer)

Instruction Objectives

For the Instructor:

1. Offers process of clearly conceptualizing content, teaching methodology and evolution with focus on expected outcome
2. Provides methods of communicating ideas and expectations to students and other instructors
3. Offers a process for planning sequential knowledge, skills and attitude

For the Student:

1. Logical frame of reference indicating what will be done and what will be tested
2. Afford a clear understanding of what the instructor expects of them
3. Allows an opportunity for self-evaluation

Radiation Oncology Residents Completing Clinical Rotations (2-3 months duration)

Post-graduate teaching – Radiation Oncology

July 2000 – June 2001  P. Leco
July 2001 – June 2002  P. Leco, A. Chan, E. Brecevic

Post-graduate teaching – Urology

1997  G. Peers
1998  P. Luke
1999  J. Riddell, J. Izawa
2000  S. Pualter
2001  M. al-Omar
2002  B. Vukula

PUBLICATIONS

JOURNAL ARTICLES

Peer Reviewed


**ABSTRACTS**

**Peer-reviewed**


**INVITED PRESENTATIONS**

September 1997  Prostate Cancer Information and Support Group  Early Detection and Treatment  London Health Sciences Centre  London, Ontario

April 1998  The Role of Hormone Therapy in Treating Prostate Cancer  London Regional Cancer Centre
London, Ontario

September 1988  Prostate Cancer Information Series  
Prostate Cancer: What it is and how it is treated  
London Health Sciences Centre, University Campus  
London, Ontario

January 2000  Gynecology Session  
Canadian Radiation Oncology Preparation Course  
Four Points Sheraton  
London, Ontario

June 2000  Canadian Urological Association Annual Meeting  
Treatment of Impotence Post Radiation Therapy  
Kelowna, British Columbia

July 24, 2000  Published Interview for the London Free Press. “Study to Target Prostate Cancer”.

October 2001  University of Western Ontario Uro-Oncology Fall Retreat  
Update – Radiation Therapy in Bladder Cancer  
Muskoka, Ontario

October 2001  Issues and Controversies in Prostate Cancer  
Moderator on Hormonal Therapy  
Huntsville, Ontario

2001 – 2002  Guest Host – Fred Sexton Health Radio Show, CJBK  
Issues in Prostate Cancer, Bladder Cancer and Fertility  
London, Ontario

August 2002  Recent Advances in the Management of Prostate Cancer  
The Post Prostatectomy PSA – What to Do?  
Muskoka, Ontario

September 2002  Ontario GU Radiation Oncology Retreat  
Debate: “This house believes that neoadjuvant hormones are not indicated prior to radiotherapy for men with intermediate risk prostate cancer”.  
Huntsville, Ontario

December 2002  Grand River Regional Cancer Centre  
“Appreciation of IMRT in Radiation Oncology”  
Kitchener, Ontario

April 2003  1st Annual Conference on Current Problems in Urology
May 2003
The Fairmont Banff Springs Hotel
Banff, Alberta

May 2003
Side Effects of Hormonal Therapy in Prostate Cancer
Department of Nursing, LRCC

May 2003
What Men Need to Know About Prostate Cancer – Spouses.
Early Detection Network of Waterloo Regional and Waterloo Region Public Health

April 2007
Lecture Adjuvant Treatment for Prostate CA, Oncology Rounds, Credit Valley Hospital, Mississauga, ON.

CURRENT STUDIES

Oct 26/09 to present
A Randomized Trial of a Shorter Radiation Fractionation Schedule for the Treatment of Localized Prostate Cancer, Principle Investigator, (PROFIT), (Prostate Fractionated Irradiation Trial)

Updated: January 31, 2012
Curriculum Vitae

Eileen Rakovitch

A. Date Curriculum Vitae is Prepared: 2016 August 23

B. Biographical Information

Primary Office Sunnybrook Health Sciences Centre
Odette Cancer Centre
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada

Telephone 416-480-4974
Fax 416-480-6002
Email eileen.rakovitch@sunnybrook.ca

1. EDUCATION

Degrees
1998 - 2004 MSc, Clinical Epidemiology, Health Policy, Management and Evaluation, University of Toronto
1985 - 1989 MD, Dept of Medicine, University of Toronto
1982 - 1984 BSc, Mathematics, Arts and Science, University of Toronto

Postgraduate, Research and Specialty Training
1995 - 1997 Research Fellow, Center for Radiological Research, Columbia University, NY, New York, Supervisor(s): Dr. Eric Hall
1992 - 1995 Residency, Radiation Oncology, Department of Radiation Oncology, University of Toronto
1989 - 1990 Residency, Internal Medicine, Department of Medicine, University of Toronto

Qualifications, Certifications and Licenses
1997 License, New York
1996 Certification, Radiation Oncology, American Board of Radiology
1995 Fellow, Royal College of Physicians and Surgeons of Canada
1990 License, College of Physicians and Surgeons of Ontario
1989 Licentiate, Medical Council of Canada
2. EMPLOYMENT

Current Appointments

2013 Apr - present Consultant, Surgery, North York General Hospital, Toronto, Ontario, Canada
2013 - present Senior Scientist, Sunnybrook Research Institute (SRI), Toronto, Ontario
Evaluative Clinical Sciences
2008 - present Adjunct Scientist, Institute for Clinical Evaluative Sciences, Toronto, Ontario
2007 - present Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario
2007 - present Associate Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario
1997 - present Active Staff, Odette Cancer Centre, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario

Previous Appointments

CONSULTING
2011 - 2012 Consultant, General Division, Department of Medicine, The Scarborough Hospital, Scarborough, Ontario

RESEARCH
2004 - 2012 Clinician Scientist, Sunnybrook Research Institute (SRI), Toronto, Ontario
Evaluative Clinical Sciences

UNIVERSITY - CROSS APPOINTMENT
2006 - 2007 Assistant Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario

UNIVERSITY - RANK
1999 - 2007 Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario
1997 - 1999 Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

1995 RSNA/Siemens Medical System Research Fellow Scholarship, Columbia University. (Research Award) Center for Radiological Research.

1995 Young Oncologist Travel Award, American Radium Society. (Distinction) “The Effect of Mitomycin C on the Development of Late Bowel Toxicity Following Chemoradiation for Locally Advanced Carcinoma of the Cervix”. Supervisor: Dr. A. Fyles.

LOCAL

Received

2011 Feb - present LC Campbell Chair in Breast Cancer Research, Sunnybrook Research Institute, Toronto,
Ontario. (Peer Reviewed Research Award)

2014 Sep - 2015 Sep **Sunnybrook Team Awards**, Sunnybrook Health Sciences Centre. (Sunnybrook Team Awards; Louise Temerty Breast Cancer Centre team)

*Demonstrating exceptional teamwork and collaboration that has resulted in excellence in our work with valuable contributions to the mission and vision of Sunnybrook.*

2012 **Rose Award**, Sunnybrook Foundation, Ontario, Canada. (Distinction)

2007 **Research Leadership Award**, University of Toronto. (Distinction)

*Department of Radiation Oncology.*

1986 **Medical Research Council Summer Scholarship**, University of Toronto. (Distinction)

*Supervisor: Dr. K.I. Pritchard.*

1985 **Honours List**, University of Toronto. (Distinction)

1985 **Scarborough College General In-Course Scholarship**, University of Toronto. (Distinction)

*Faculty of Arts and Sciences.*

**Teaching and Education Awards**

**LOCAL**

Received

2015 **Residents Award for Excellence in Clinical Teaching**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD, Core Program)

2009 **Postgraduate Advocacy and Mentorship Award**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

2004 **Postgraduate Classroom Teaching Award**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

**Student/Trainee Awards**

**INTERNATIONAL**

Received

2010 **Fellowship Award**, Awardee Name: Iwa Kong. Australia and Asia Pacific Clinical Oncology Research Development (ACORD) Workshop

**NATIONAL**

Received

2009 **Scholarship**, Awardee Name: Iwa Kong. Canadian Institutes of Health Research

*The Terry Fox Foundation Strategic Training Initiative for Excellence in Radiation Research for the 21st Century (EIRR21).*

**4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

**Professional Associations**

2001 - present American Society of Clinical Oncology (ASCO)

1997 - present American College of Radiology
1997 - present  American Society of Therapeutic Radiology and Oncology
1997 - present  Canadian Association of Radiation Oncologists (CARO)
1990 - present  Medical Council of Canada
1989 - present  Ontario Medical Association

Administrative Activities

INTERNATIONAL

National Cancer Institute
2007  **Member**, DCIS: Strategies to Integrate Tumor Biology and Population Science (Working Group)

NATIONAL

Canadian Breast Cancer Research Alliance
2004 - 2006  **Member**, DEX Grants Review Panel

National Cancer Institute of Canada/Clinical Trials Group
2015 - present  **Member**, Breast Disease Site Executive Committee
2004  **Member**, Health Promotion and Health Services Grant Panel
2004  **Member**, Grants Panel
2001 - 2006  **Member**, Breast Site Group Executive Committee

LOCAL

Odette Cancer Centre
2013 Apr - present  **Medical Director**, Louise Temerty Breast Cancer Centre
2013 - present  **Chair**, Breast Site Group

Sunnybrook Health Sciences Centre
2012 - 2013  Search Committee, Head of Radiation Oncology

Toronto-Sunnybrook Regional Cancer Centre
2011 - present  **Member**, Rapid Diagnostic Unit Steering Committee
2011 - present  **Member**, Plastic Surgeon Search Committee
2002 - present  **Member**, Radiation Oncology Associates
2004 - 2006  **Secretary**, Radiation Oncology Associates
2002 - 2003  **Member**, Strategic Planning Committee
2001  **Member**, Search Committee, Head of Radiation Oncology
1999 - 2002  **Member**, Clinical Trials Committee

University of Toronto
Eileen RAKOVITCH

2009 - present
Excellence in Radiation Research for the 21st Century Mentor (CIRR), CIHR Training Program in Radiation Medicine, Ontario, Canada.

2009
Resident Selection Committee

2009
**Member**, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2003 - 2006
**Member**, Breast Symposium Organizing Committee, Faculty of Medicine, Dept of Medicine, Continuing Education

2001 - 2004
**Member**, Executive Committee, Faculty of Medicine, Dept of Radiation Oncology

2000 - 2004
**Member**, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1999 - 2004
**Member**, Research Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology

1998 - 2004
**Member**, Postgraduate Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

**Peer Review Activities**

**GRANT REVIEWS**

**External Grant Reviewer**

2015 Nov
KWF Kankerbestrijding, Dutch Cancer Society, Preventing over treatment of low grade Ductal Carcinoma In Situ of the breast by replacing intensive treatment for active surveillance

**MANUSCRIPT REVIEWS**

**Reviewer**

Clinical Oncology
European Journal of Cancer
International Journal of Radiation, Biology and Physics
Journal of Clinical Oncology
Journal of the National Cancer Institute
The Oncologist

**C. Research Funding**

**1. GRANTS, CONTRACTS AND CLINICAL TRIALS**

**PEER-REVIEWED GRANTS**

**FUNDED**

2016 Apr - 2019 Mar

2014 Jul - 2019 Jul
**Co-Investigator.** The Prostate Cancer Program Project in Rapid Development of Novel Diagnostic Markers for Early Prostate Cancer (PRONTO). Prostate Cancer Canada. Movember Team Grant. PI: Bartlett J. Collaborator(s): Berman D (Co-PI), Buttyan R (Co-PI), Earle C (Co-PI), Loblaw A (Co-PI), Bauman G, Boutros P, Finelli A, Lapointe J, Park P,

2013 Jul - 2015 Jun
1) Molecular Progression of DCIS to Invasive/Recurrent Disease
2) Predictive Biomarkers of Invasion in DCIS
3) Imaging of Ductal Carcinoma in Situ.

2012 - 2015

2011 - 2016

2011 - 2016

2011 - 2014
Strategic Plan Initiative, Ductal Carcinoma In Situ Project, Sunnybrook Research Institute (SPI-DCIS-SRI).

2010 - 2014

2010 - 2013

2010 - 2013

2010 - 2011

2009 - 2011
Co-Investigator. A survivorship question: Does surveillance mammography after the treatment of unilateral primary breast cancer reduce the odds of dying from breast cancer?

2007 - 2013

2007 - 2011

2006 - 2010

2005 - 2008

2005 - 2007

2004 - 2007

2004 - 2007

2003 - 2006

2002 - 2005

2002 - 2004


NON-PEER-REVIEWED GRANTS

FUNDED


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Eileen RAKOVITCH

Book Chapters


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


3. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2006 Experimental Validation of the Inner Shell Ionisation Model to Predict the Radiosensitisation Induced by the IDU and BrDU Halogenated Pyrimidine. 48th American Association of Physics in Medicine (AAPM) Annual Meeting. Orlando, Florida.


2003 Comparison of 103Pd and 125I Seeds Permanent Implant for Adjuvant Breast Brachytherapy. World Congress on Medical Physics and Biomedical Engineering. Sydney, Australia.

2003 Photoelectric and Electron Knock-On Auger Cascades might be the Primary Cause of Halogenated Pyrimidines Radiosensitisation. World Congress on Medical Physics and Biomedical Engineering.
Sydney, Australia.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2015 Validation of the long-term quality of life breast cancer scale (LTQOL-BC) by health care professionals. MASCC / ISOO International Symposium on Supportive Care in Cancer. Copenhagen, Capital, Denmark.

**Publication Details:**

2014


**Publication Details:**

2013


**Publication Details:**

2012 Jun


**Publication Details:**

2012 Jan


**Publication Details:**

2012

A Novel Tool for Constructing Virtual Tissue Microarrays (TMSs), An Evaluation of its Use in Optimizing TMA Construction for Ductal Carcinoma In Situ (DCIS).

**Publication Details:**

2011 Jun

Risk of Diabetes with Tamoxifen Treatment in Older Breast Cancer Survivors. American Diabetes Association Annual Meeting. Lipscombe L, Austin PC, Kalkar SR, Fischer HD, Paszat L, Rakovitch E,
Anderson G, Rochon PA.

Publication Details:

2010 Supervisor. Outcomes of Young Women with Ductal Carcinoma In Situ Treated with Breast-Conserving Surgery and Radiotherapy: A Population-Based Analysis.

Publication Details:

2009 Dosimetric comparision of boost techniques for adjuvant breast radiotherapy.

Publication Details:

2009 Outcomes of young women with dcis treated with breast-conserving surgery and radiotherapy: A population-based analysis.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2007 The impact of acute skin toxicity and breast radiation technique on quality of life: results of a phase III trial.

Publication Details:

2007 Acute tolerance, feasibility and quality assurance results of a phase i/ii clinical trial of permanent breast 103PD seed implant (PBSI) as accelerated partial breast irradiation.

**Publication Details:**

2007 HER 2 neu over-expression predicts invasive recurrence following breast-conserving surgery for ductal carcinoma in situ of the breast (DCIS).

**Publication Details:**

2007 Clinical and treatment-related factors associated with acute toxicity in post-mastectomy radiation.

**Publication Details:**

2006 Interim report of a permanent breast 103PD seed implant (PBSI) phase I/II trial for accelerated partial breast irradiation.

**Publication Details:**

2006 Experimental validation of the inner shell ionisation model to predict the radiosensitisation induced by the IDU and BRDU halogenated pyrimidine.

**Publication Details:**

2006 Reduction of total body exposure in breast radiotherapy using breast imrt or virtual wedge - importance in the prevention of the leukemia in combined chemo-radiation regimens for breast cancer.

**Publication Details:**

2006 Quality assurance of partial breast irradiation using permanent breast 103PD seed implant (PBSI).

**Publication Details:**

2006 Reduction of moist desquamation in the infra-mammary fold using breast intensity modulated radiation therapy – result of a phase III multicentre trial.
Publication Details:

2006
The measurement of acute radiation dermatitis in patients undergoing radiotherapy for breast cancer.

Publication Details:

2006
Microinvasion is not associated with an increased risk of local recurrence in patients with ductal carcinoma in situ treated with breast conserving therapy.

Publication Details:

2006
Plenary 1: phase iii randomized study of intensity modulated radiation therapy versus standard wedging technique for adjuvant breast radiotherapy.

Publication Details:

2005
Immediate tolerance of permanent breast 103PD seed implant (PBSI) as the sole adjuvant treatment of early stage breast cancer.

Publication Details:

2005
Permanent breast 103PD seed implant (BPSI) as adjuvant partial breast irradiation.

Publication Details:

2005
The significance of multifocality in ductal carcinoma in situ (DCIS).

Publication Details:

2005
The significance of multifocality in ductal carcinoma in situ (DCIS).

Publication Details:

2005
The use of radiation in the treatment of DCIS is not influenced by the type of health care system.

Publication Details:
2005 Prospective evaluation of pulmonary toxicity using CT density pulmonary function and symptom assessment.


2005 Permanent breast seed implant using 103Pd as the sole adjuvant radiation treatment for early stage breast cancer: Interim analysis of an ongoing Phase I/II clinical trial.


2004 A breast permanent implant (BPI) for partial breast irradiation using 103Pd stranded seeds: A comparison of a 'free hand' versus a 'fiducial needle' technique.


2004 Virtual wedge and intensity modulated radiotherapy reduce the magnitude of scattered radiation during adjuvant breast radiation.


2004 Pilot studies of partial breast irradiation using a breast permanent implant (BPI) of 103-Palladium stranded seeds.


2004 Virtual wedge and intensity modulated radiotherapy reduce the magnitude of scattered radiation during adjuvant breast radiation.


2003 A permanent breast seed implant as adjuvant radiation therapy: A dosimetric comparison between 103Pd and 125I emitters.

Publication Details:


Publication Details:

2003 Inverse planning improves the 3D dose distribution homogeneity more compared to forward planning for Breast IMRT.

Publication Details:

2003 Dosimetric comparison of 125I and 103PD for breast permanent implant as an adjuvant technique.

Publication Details:

2003 Axillary node dissection in the management of ductal carcinoma in situ.

Publication Details:

2003 Comparison between forward and inverse planning for breast IMRT.

Publication Details:

2003 Are routine secondary pathology reviews still necessary in the management of ductal carcinoma in situ?

Publication Details:

2003 Predictors of axillary node dissection in ductal carcinoma in situ: A population-based analysis.

Publication Details:

2002 IMRT Removes the dose hot spots induced by conventional wedged irradiation technique for adjuvant breast irradiation: Potential impact on acute skin toxicity.

Publication Details:
Pignol JP, Aznar M, Sixel K, Rakovitch E, Benk V. IMRT Removes the dose hot spots induced by conventional wedged irradiation technique for adjuvant breast irradiation: Potential impact on acute skin toxicity.

2001 Improving dose homogeneity in breast irradiation: A dose volume histogram analysis.

**Publication Details:**

2000 Individualized management approach using the biological behavior of cancer.

**Publication Details:**

2000 PSA doubling time of prostate carcinoma managed with watchful observation alone.

**Publication Details:**


**Publication Details:**

1998 Enhanced taxol sensitivity and DNA fragmentation with p53 abrogation in colorectal carcinoma cells.

**Publication Details:**

1996 Effect of p53 abrogation on taxol induced cell kill and taxol radiosensitization.

**Publication Details:**

1996 Mitomycin C increases the development of late bowel toxicity following chemoradiation for locally advanced carcinoma of the cervix.

**Publication Details:**

1996 Should we fractionate radiotherapy for benign disease? Worked examples for the eye and brain.

**Publication Details:**

1996 Mitomycin C increases the incidence of serious late bowel complications in patients with locally advanced carcinoma of the cervix.

**Publication Details:**
Rakovitch E, Fyles A, Pintilie M, Leung P. Mitomycin C increases the incidence of serious late bowel complications in patients with locally advanced carcinoma of the cervix.

Media Appearances

2. NATIONAL

Invited Lectures and Presentations
2010 Apr A population-based outcomes analysis of young women treated with breast-conserving surgery and radiation for DCIS: Is there a difference in outcomes among commonly used fractionation schemes? Canadian Association of Radiation Oncologists (CARO). Presenter(s): Iwa Kong. (Trainee Presentation).


1999 Defining the Role of Tamoxifen in DCIS: A Decision Analytic Model. Canadian Association of Medical Oncologists (CAMO).

1999 A Comparison of Three Breast-Conserving Treatments With Mastectomy As Initial Treatment for Ductal Carcinoma In Situ. Canadian Association of Radiation Oncologists Annual Meeting (CARO). Montreal, Quebec.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

1998 Watchful observation of asymptomatic, favorable grade, prostate carcinoma with selective delayed intervention based on the rate of PSA increased and/or clinical progression.

Publication Details:
Media Appearances


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2016 Apr 19 **Invited Speaker.** Improving Recurrence Risk Prediction in Ductal Carcinoma in Situ. Radiation Oncology Grand Rounds, Schulich School of Medicine & Dentistry. London, Ontario, Canada.

2016 Apr 8 **Invited Speaker.** Update in the management of DCIS. 56th Annual Course for Practicing Surgeons, Update in General Surgery, University of Toronto. Toronto, Ontario, Canada.

2 Day Workshop


4. LOCAL

Invited Lectures and Presentations

2016 May 27  Radiotherapy for Breast Cancer. AHD Medical Oncology Training Program, University of Toronto.


2007 Ductal Carcinoma In Situ. Oncology Grand Rounds, Carlo Fidani Regional Cancer Centre, Credit Valley Hospital. Mississauga, Ontario.
2007 Epidemiology of DCIS. Progress in Pathology Rounds, Sunnybrook Health Sciences Centre. Toronto, Ontario.
2004 Ductal Carcinoma in Situ: To Treat or Not To Treat? Department of Radiation Oncology Rounds, University of Toronto. Toronto, Ontario.
2001 Ductal Carcinoma In Situ: A Population-Based Study. Preventive Oncology Rounds, University Health Network, Princess Margaret Hospital. Toronto, Ontario.

F. Research Supervision

1. OTHER SUPERVISION

Graduate Education

Thesis Committee Member
2012 - present MSc. Sonal Gandhi.
2016 Apr PhD. Simmyung Yook, Pharmaceutical Sciences. Lu-labeled Gold Nanoparticles for
Radiation Therapy of Locally Advanced Breast Cancer.


Curriculum Vitae

Andrew Michael Rauth

A. Date Curriculum Vitae is Prepared: 2016 August 17

Only includes Activities from August 1958 to August 2016

B. Biographical Information

Mailing
Department of Medical Biophysics
Room 418 9th floor, Research
Ontario Cancer Institute
610 University Ave
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-9462977
Fax 416-9462984
Email rauth@uhnres.utoronto.ca

1. EDUCATION

Degrees
1958 Sep - 1962 Jun PhD, Biophysics, Yale University, Connecticut, United States, Supervisor: Prof. Franklin Hutchinson
1954 Sep - 1958 Jun BSc, Bachelor of Science (Honors), Physics, Brown University, Rhode Island, United States, Supervisor: Prof. Phillip J. Bray

Postgraduate, Research and Specialty Training
1962 Jun - 1965 Jun Postdoctoral Fellow, Physics, Ontario Cancer Institute, Ontario, Canada, Supervisor: Prof. H.E. Johns

2. EMPLOYMENT

Current Appointments
2000 Nov - present Professor Emeritus, Medical Biophysics and Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2000 Nov - present Research Scientist Retired, Research and Teaching, Princess Margaret Cancer Center, Toronto, Ontario, Canada
Previous Appointments

RESEARCH
1996 Jul - 1997 Apr  Acting Division Head, Ontario Cancer Institute, Ontario, Canada
1992 Jun - 1995 Jun  Co-Chair/Research, OCI/PMH Capital Campaign (Part-time), Ontario Cancer Institute, Ontario, Canada
1989 Jan - 2000 Oct  Research Scientist, Ontario Cancer Institute, Ontario, Canada
1965 Jun - 1989 Jan  Physicist, Physics, Ontario Cancer Institute, Toronto, Ontario, Canada
1962 Jun - 1965 Jun  Postdoctoral student, Ontario Cancer Institute, Ontario, Canada

Helped build, test and use a large grating type ultraviolet light monochromator for biological studies.

UNIVERSITY
1998 Jun - 2000 Jun  Chair, Faculty Full-time Committee, University of Toronto, Toronto, Ontario, Canada
1992 Jun - 1994 Jun  Chair, Dean’s Fund Committee, University of Toronto, Toronto, Ontario, Canada
1986 Jun - 1987 Jan  Acting Chair, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1981 Jun - 1986 Jun  Graduate Coordinator, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1975 Jun - 1978 Jun  Graduate Secretary, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK
1979 Jan - 2000 Oct  Full Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1974 Jan - 1979 Jan  Associate Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1965 Jun - 1974 Jan  Assistant Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Teaching and Education Awards

LOCAL
Received
2012 Sep - 2012 Dec  Classroom Teaching Award 2012, Dept of Radiation Oncology, Faculty of Medicine. (Undergraduate Education)
2010 Sep - 2010 Dec  Classroom Teaching Award 2010, Dept of Radiation Oncology, Faculty of Medicine. (Undergraduate Education)
2007 Sep - 2007 Dec  Classroom Teaching Award 2007, Dept of Radiation Oncology, Faculty of Medicine, Department of Radiation Oncology/Michener Institute. (Undergraduate Education)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
1995 Apr - present  Member (currently Emeritus), American Association for Cancer Research
1969 Apr - present  Member (currently Emeritus), Radiation Research Society
1962 Apr - present  Member, Sigma Xi
Administrative Activities

INTERNATIONAL
United States Department of Defense – Breast Cancer Grant Review Panel
2010 Sept – 2012 Aug  Member, panel

International Congress of Radiation Research
1986 Apr - 1991 Sep  Chair, Local Arrangements Committee

International Journal of Radiation Oncology- Biology-Physics
1990 Apr - 2003 Mar  Member Editorial Board

NCI
1987 Apr - 1988 Mar  Member, Ad Hoc Reviewer Committee, United States.

NATIONAL
Cancer Research Society
1996 Apr - 1998 Mar  Member, Grants Panel Committee

National Cancer Institute of Canada
1982 Apr - 1983 Mar  Member, Grant Panel D, Canada.
1976 Apr - 1980 Apr  Member, Grant Panel D, Canada.

Radiation Research Society
1980 Apr - 1983 Mar  Member, Council
1980 Apr - 1981 Mar  Member, Membership Committee
1978 Apr - 1981 Apr  Member, Editorial Committee

Medical Research Council
1999 Apr - 2002 Mar  Member, Cancer B Committee
Ad Hoc Reviewer.

Medical Research Council
1989 Apr - 1993 Mar  Member, Grants Panel, Cancer

Radiation Research
1991 Apr - 1992 Mar  Member, Editorial Committee
Associate Editor (Acting).

Radiation Research Society
1992 Apr - 1993 Mar  Member, Program Committee
1987 Apr - 1993 Mar  Member, Finance Committee
1979 Apr – 1981 Mar  Member, Education and Training Committee
Andrew Michael RAUTH

University of Toronto
1992 Apr - 1993 Mar  Member, Basic Sciences Review Committee, Toronto, Ontario, Canada.
1991 Apr - 1994 Mar  Member, Faculty Research Grants Committee, Toronto, Ontario, Canada.
1990 Apr - 1991 Mar  Member, Degree Committee, Division IV, Graduate School, Toronto, Ontario, Canada.
1968 Jan - 2016 Jun  Chair, Graduate Examination Activities, Toronto, Ontario, Canada.

Peer Review Activities

ASSOCIATE OR SECTION EDITING

Associate Editor

Assistant Editor

EDITORIAL BOARDS

Co-Editor

MANUSCRIPT REVIEWS

Reviewer
1965 Jun - 2016 Jun  Radiation Journals, Nanoparticle Journals, Number of Reviews: ~600 papers

Other Research and Professional Activities

THESIS PROJECT


C. Academic Profile

1. RESEARCH STATEMENTS

1957 Sept. - present  Key Theory / Methodology: Applying the quantitation and experimental testing of theory of the physical sciences to problems in the biological sciences.

Research Interests: My current research interests have been in the areas of hypoxic cell radiosensitizers, bioreductively activated drugs, hypoxic cell toxins, mechanisms of drug action, micro-particle and nano-particle drug delivery systems, oxygen measurements and in vitro and in vivo drug testing and radiation biology. I have been involved for the last fourteen years in developing and teaching the Radiation Biology and Radioprotection Course for Radiation Therapists in the Joint Program for Radiation Therapist Training of the Michener Institute and the University of Toronto.
Research Experience Summary: 1. The determination of the average energy loss per inelastic event (60 +/- 10 ev) for 20 kev electrons passing through thin films of materials of low atomic number. 2. Early evidence for DNA repair systems for UV damage in mammalian cells using caffeine. 3. Demonstration of hypoxic cell-specific radio-sensitization of KHT solid mouse tumors in vivo using metronidazole. 4. Demonstration of the toxicity of a pure nitrosoimidazole (1-CH3–2-nitrosoimidazole) towards mammalian cells in vitro. 5. Demonstration that cells with low DT-diaphorase activity are mitomycin C-resistant and that this loss of activity is due to a specific point mutation (bp609 C/T). 6. Present research interests focus on nanoparticle carriers for the delivery and release of cancer chemotherapeutic agents, e.g. doxorubicin and mitomycin C, to primary and metastatic tumors e.g. breast tumors, brain tumors and prostate tumors. Recently interest has focused on the ability of MnO2 particles to modify the tumor microenvironment.

Fields of Application: Biomedical Aspects of Human Health

Disciplines Trained In: Physics

Areas of Research: Breast Cancer

Research Specialization Keywords: bio-reductive drugs, carcinogenesis, hypoxic cell toxins, in vitro cell culture, in vivo studies, mechanism of drug action, oxygen measurements, radiation sensitizers, radiobiology, tumor biology, nanoparticles

Research Disciplines: Biology and Related Sciences.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


Operating Grant. Funding Competitive?: Yes.


Operating Grant. Funding Competitive?: Yes.


Funding Competitive?: Yes.


Innovation Grant. Funding Competitive?: Yes.
2009 Jun - 2013 Jun  **Co-Investigator.** Targeted nanoparticle carriers for drug combination therapy of breast cancer. Canadian Institutes of Health Research (CIHR). Collaborator(s): Da Costa R; Wu XY; Rauth, AM. 356,770 CAD. [Grants]
*CIHR/CBCRA, Operating. Grant. Funding Competitive?: Yes.*

*Operating Grant. Funding Competitive?: Yes.*

2006 Jun – 2008 Jun  **Co-Investigator** Biodegradable nanoparticles for targeted drug delivery to lymphatic metastatic cancer cells. CIHR (High Risk Seed Grant) 150,00 CAD Operating Grant

2002 Jun - 2005 Jun  **Co-Investigator.** Regional delivery of antineoplastic and chemosensitizing agents by polymeric microspheres (CIHR) 293,824 CAD [Grants] Operating Grant.

*Operating Grant.*

*MRC MA-14354 3 year grant extended to complete. Operating Grant.*

*Terry Fox Program Operating Grant one year extension.*

1997 Apr - 1997 Dec  **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234 Terminal award. [Grants]
*Operating Grant (in vitro studies).*

*Terry Fox Program Operating Grant.*

*Operating Grant.*

1995 Apr - 1998 Mar  **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234 Terminal award. [Grants]
*Operating Grant (in vitro studies).*

1994 Apr - 1997 Mar  **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants]
*Operating Grant (in vitro studies).*

1994 Apr - 1997 Mar  **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. National Cancer Institute. [Grants]
*Operating Grant (in vitro studies).*

*Operating Grant.*


1977 Apr - 1978 Mar  Principal Applicant. Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants]
Operating Grant (in vitro studies).


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Andrew Michael RAUTH


91. Marshall RS, Paterson MC, **Rauth AM**. Deficient activation by a human cell strain leads to mitomycin resistance under aerobic but not hypoxic conditions. British journal of cancer. 1989;59(3):341-346. **Coauthor or Collaborator.**

92. Laderoute K, Wardman P, **Rauth AM**. Molecular mechanisms for the hypoxia-dependent activation of 3-amino-1, 2, 4-benzotriazine-1, 4-dioxide (SR 4233). Biochemical pharmacology. 1988;37(8):2585-2593. **Coauthor or Collaborator.**


94. Marshall RS, **Rauth AM**. Oxygen and exposure kinetics as factors influencing the cytotoxicity of porfiromycin, a mitomycin C analogue, in Chinese hamster ovary cells. Cancer research. 1988;48(20):5655-5659. **Co-Principal Author.**


111. Taylor YC, Rauth AM. Oxygen tension, cellular respiration, and redox state as variables influencing the cytotoxicity of the radiosensitizer misonidazole. Radiation research. 1982;91(1):104-123. Co-Principal Author.


Andrew Michael RAUTH


131. Rauth AM. Some biological applications of an electric heating tape. Laboratory practice. 1974;23(2):64-65. Principal Author.


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


## F. Research Supervision

### 1. PRIMARY OR CO-SUPERVISION

#### Graduate Education

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Role</th>
<th>Supervisor's Degree</th>
<th>Supervisor's Name</th>
<th>Co-supervisee Position</th>
<th>Co-supervisee Institution</th>
<th>Title of Dissertation/Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 Jun - 2014 Jun</td>
<td>Co-Supervisor</td>
<td>PhD. Preethy Prasad</td>
<td>Co-supervisee</td>
<td>Pharmaceutical chemistry</td>
<td>University of Toronto</td>
<td>Nanoparticle directed cancer chemotherapy.</td>
</tr>
<tr>
<td>2004 Sep - 2010 Jun</td>
<td>Co-Supervisor</td>
<td>PhD. Shuhendler Adam</td>
<td>Co-supervisee</td>
<td>Graduate student</td>
<td>University of Toronto</td>
<td>Studies of drug interactions in the treatment of cancer.</td>
</tr>
<tr>
<td>2004 Sep - 2008 Jun</td>
<td>Co-Supervisor</td>
<td>PhD. Q. Liu Tony</td>
<td>Co-supervisee</td>
<td>Pharmaceutical chemistry</td>
<td>University of Toronto</td>
<td>Nanoparticle directed cancer chemotherapy.</td>
</tr>
<tr>
<td>2002 Aug - 2006 Sep</td>
<td>Co-Supervisor</td>
<td>PhD. Wong Ho-Lun</td>
<td>Co-supervisee</td>
<td>Postdoctoral student</td>
<td>Ohio State University</td>
<td>Drug delivery by nanoparticles.</td>
</tr>
<tr>
<td>1987 Jun - 1990 Jun</td>
<td>Primary Supervisor</td>
<td>MSc. David Cowan</td>
<td>Co-supervisee</td>
<td>Studies of a DNA intercalating 2-nitroimidazole as a hypoxic cell radiosensitizer and cytotoxin.</td>
<td>University of Toronto</td>
<td>Studies of a DNA intercalating 2-nitroimidazole as a hypoxic cell radiosensitizer and cytotoxin.</td>
</tr>
</tbody>
</table>
*Factors controlling the in vitro toxicity of misonidazole.*

*Studies of the metabolism of misonidazole in vivo.*

*In vitro cellular studies with misonidazole - A hypoxic cell radiosensitizer and cytotoxic agent.*

*Studies of a leucyl-tRNA synthetase mutant of Chinese hamster ovary cells.*

*The differential toxicity of hypoxic cell radiosensitizers.*

*The development of an in vitro cell viability assay and its use in testing potential radiosensitizers.*

*Mutation Studies in Mammalian Cells.*

*Repair of Ultraviolet Light Damage in Mammalian Cells.*

*Effects of Pheleomycin on Mouse L Cells Project.*

*Effects of UV Light on Mouse L cells Project.*
Curriculum Vitae

Dr. Sarah Jane Rauth

BSc(Hons), MSc, MD.
BIOGRAPHICAL INFORMATION:

Name: Sarah Jane Rauth

Birth Date: July 15, 1969

Birth Place: Toronto, Ontario, Canada

Citizenship: Canadian/American

Business Address: Department of Radiation Oncology, Princess Margaret Hospital, 610 University Avenue, Toronto, Ontario. M5G 2M9

Business Phone: (416) 946-2131

Home Address: 21 Dale Ave. #819
Toronto, Ontario
M4W 1K3

Home Phone: (647) 343-7479

E-Mail: sarah.rauth@rmp.uhn.on.ca

EDUCATION:

2000-2004 Medical Doctor
Queen’s University
Kingston, Ontario
Awarded May 2004

1997-2000 Diploma in Pre-Medical Sciences
Post-Baccalaureate Pre-Medical Program
School of General Studies
Columbia University in the City of New York
New York, New York
Awarded May 2000.
1993-1996 Master of Science
Anatomy and Neurobiology/Neuroscience
Dalhousie University
Halifax, Nova Scotia
Awarded October 1996.

1988-1992 Bachelor of Science (Honours in Biology)
Acadia University
Wolfville, Nova Scotia

Licensure:

2004 MCCQE Part 1
2005 MCCQE Part 2

APPOINTMENTS:

Hospital Appointments:

2008 Chief Resident
Department of Radiation Oncology
University of Toronto
Toronto, Ontario

2004-2009 Resident
Department of Radiation Oncology
University of Toronto
Toronto, Ontario

Research Appointments:

2002 Summer Student,
Radiation Oncology Research Unit,
Kingston Regional Cancer Centre, Kingston Ontario.
Independent research on clinical evaluation of prognostic factors in oncology.
2001           Summer Student,  
               Radiation Oncology Research Unit,  
               Kingston Regional Cancer Centre, Kingston Ontario.  
               Independent research on clinical evaluation of prognostic  
               factors in oncology.  

1996-2000*     Staff Research Associate,  
               Center for Radiological Research, Department of Radiation  
               Oncology, Columbia Presbyterian Hospital, New York, New  
               York.  

1996-1998      Manager of H.C. Irving Radiation Facility, Center for  
               Radiological Research, Department of Radiation Oncology  
               Columbia Presbyterian Hospital, New York, New York.  

* September 1998-August 1999 one year academic leave of absence to  
   complete pre-medical requirements at Columbia University, School of  
   General Studies and prepare for the Medical College Admissions Test.  

**Honours and Awards Received:**  

2002           Ivan Smith Student Fellowship  
               Kingston Regional Cancer Centre  
               Kingston, Ontario  

1994           Phyllis Horton Student Bursary  
               Alzheimer’s Society of Nova Scotia  
               Halifax, Nova Scotia.  

1993           Sister Christine Gaudet Student Bursary  
               St. Michael’s Hospital  
               Toronto, Ontario.  

1993-1996      Dalhousie Graduate Scholarship  
               Dalhousie University  
               Halifax, Nova Scotia.
ADMINISTRATION AND COMMITTEES:

Residency Committees:

- **2008**
  - Radiation Medicine Awards Committee,
  - Radiation Medicine Program, University of Toronto, Toronto, Ontario

- **2008-present**
  - External Relations Committee,
  - Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

- **2008**
  - Resident Selection Committee,
  - Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

- **2008-2009**
  - Postgraduate Medical Education Committee,
  - Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

- **2007–present**
  - Resident Member at Large,
  - Canadian Association of Radiation Oncology, Education Committee.

- **2006**
  - Radiation Medicine Awards Committee,
  - Radiation Medicine Program, University of Toronto, Toronto, Ontario

- **2006**
  - Resident Selection Committee,
  - Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

- **2005-2006**
  - Postgraduate Medical Education Committee,
  - Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

Medical School Committees:

- **2002-2003**
  - President,
  - Internal Executive Committee, Student’s Medical House Incorporated, Queen’s University, Kingston Ontario.
Curriculum Vitae - Sarah Jane Rauth

2001-2002
Secretary,
Internal Executive Committee, Student’s Medical House Incorporated, Queen’s University, Kingston Ontario.

Graduate School Committees:

1995-1996
Anatomy Department Representative,
Dalhousie Association of Graduate Students. Dalhousie University, Halifax, Nova Scotia.

1993-1995
Student Representative,
Department of Anatomy and Neurobiology. Dalhousie University, Halifax, Nova Scotia.

Undergraduate Committees:

1992
Student Member, Election Review Committee.
Acadia University Wolfville, Nova Scotia.

1991-1992
Student Member, Judicial Board.
Acadia University Wolfville, Nova Scotia.

SOCIETY MEMBERSHIPS:

2007-present
Member in Training
American Society of Therapeutic Radiology and Oncology

2005-present
Resident Member,
Canadian Association of Radiation Oncology

2002-2003
Student Member,
Radiation Research Society

1997-2002
Associate Member,
Radiation Research Society

1994-1997
Student Member,
Society for Neuroscience

1994-1997
Student Member,
Canadian Association of Anatomists,
Student Member
Canadian Society for Neuroscience

1994-1997

Student Member,
Canadian Federation of Biological Sciences.

PRESENTATIONS AND PUBLICATION:

PEER-REVIEWED PUBLICATIONS:

Manuscripts:

Peer Reviewed Publications:


Submitted Publications:


Publications In-Preparation:

1. Rauth, S.J., D. Wiljer, C. Palmer and G. Kane. The Role of the Virtual Coach in Learning Radiation Treatment Planning. (Medical Education)

2. Rauth, S.J., C. Bell, M. Doherty. Regional Breast Radiotherapy: Are We Covering All Nodes At Risk?


Abstracts:


**PRESENTATIONS** (Peer reviewed selected by competition):


**RESEARCH PROJECTS**: (Ongoing)

1. A Pilot and Feasibility Study to Investigate the Use of an Intravaginal Stent to Prevent Vaginal Stenosis Following Gynecological Radiation Therapy. Supervisor: Dr. Wilfred Levin (Accruing patients, PMH)

2. Extending our Educational Reach: A feasibility study investigating the integration of on-line educational resources and face-to-face teaching at the national meeting of the Canadian Association of Radiation Oncology (CARO). Principle Investigator: Joyce Nyhof-Young (Grant submitted to Pfizer, June 2008)

9
   Supervisor: Dr. Mary Doherty (Poster Presentation, CARO 2007)

4. Predictive Power of Cervix Volume for Loco-Regional Control in Squamous Cell Carcinoma of the Uterine Cervix Treated with Definitive Radiotherapy: A Systematic Review of the Literature
   Supervisor: Dr. William Mackillop (Abstract accepted ESTRO 2008).

**TEACHING:**

**Didactic:**

2008  
Introduction to Clinical Oncology, Staging and Diagnostics for Radiotherapy Students, Radiation Medicine Program, University of Toronto. (2 hours)

2008  
Academic Half-Day, Department of Radiation Oncology, University of Toronto, Introduction to Academic Half-Day and Drill (1 hour)

2008  
Academic Block, Department of Radiation Oncology, University of Toronto, Stress Management and Introduction to Call at Princess Margaret Hospital (1 hour).

2008  
Academic Block, Department of Radiation Oncology, University of Toronto, Interprofessional Practice and Radiotherapy, with Kate Palmer (1 hour).

2007  
Second Year Medical Students, University of Toronto, Cancer Staging and Introduction to Radiation Oncology (1 hour).

1995  
Tutorial Leader, Embryology for Medical Students, Department of Anatomy and Neurobiology, Dalhousie University, Halifax, Nova Scotia.
**Laboratory Instructor:**

1995-1996  
Laboratory Assistant,  
General Histology and Oral Histology for Dental Students, Department of Anatomy and Neurobiology,  
Dalhousie University, Halifax, Nova Scotia.

1994  
Laboratory Assistant,  
Histology for Medical Students  
Department of Anatomy and Neurobiology,  
Dalhousie University, Halifax, Nova Scotia.

1994  
Laboratory Assistant,  
Neuroanatomy for Occupational and Physical Therapy Students, Undergraduate and Graduate Students, Department of Anatomy and Neurobiology,  
Dalhousie University Halifax, Nova Scotia.

1992  
Laboratory Assistant,  
Embryology II, Department of Biology,  
Acadia University, Wolfville, Nova Scotia.

1991-1992  
Laboratory Assistant,  
Histology I and II, Department of Biology,  
Acadia University, Wolfville, Nova Scotia.

1991  
Laboratory Assistant,  
Histochemistry, Department of Biology,  
Acadia University, Wolfville, Nova Scotia.

February 2009
Curriculum Vitae

Jolie Ringash
BSc, MD, MSc, FRCP(C)

A. Date Curriculum Vitae is Prepared: 2016 July 29

B. Biographical Information

Primary Office
Radiation Medicine Program, Department of Radiation Oncology
Princess Margaret Hospital, University Health Network
610 University Ave., Rm 5-917
Toronto, Ontario, Canada
MSG 2M9

Telephone (416) 946-2919
Fax (416) 946-6561
Email jolie.ringash@rmp.uhn.on.ca

1. EDUCATION

Degrees
1999 MSc, Clinical Epidemiology, University of Toronto, Canada
1993 MD, McMaster University, Canada
1990 BSc, Chemistry, McMaster University, Canada

Postgraduate, Research and Specialty Training
1997 - 1999 Fellowship, Head and Neck Cancer, University of Toronto, Toronto, Ontario, Canada
1996 - 1997 Chief Resident, Radiation Oncology, McMaster University, Hamilton, Ontario, Canada
1994 - 1996 Resident, Radiation Oncology, Hamilton Regional Cancer Centre, Hamilton, Ontario, Canada
1993 - 1994 Postgraduate Year 1, Internal Medicine, McMaster University, Hamilton, Ontario, Canada

Qualifications, Certifications and Licenses
1997 - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1997 - present Medical License, College of Physicians and Surgeons of Ontario, Canada
2010 Privacy for Physicians - Passed, University Health Network, Canada
2009 Certificate for “Qualitative Research: An Introduction”, Wilson Centre Atelier, Canada
2009 Certificate of Training: UHN Principles of Clinical Research Practice, University Health Network, Canada
2007 Certificates: Introduction to GCP, Investigator Responsibilities, Safety Reporting, Ethics and
2. EMPLOYMENT

Current Appointments

2014 Jul 1 - present  Professor, Surgery, Otolaryngology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2013 Jul - present  Professor, Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada
2013 Jul - present  Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1999 - present Staff Radiation Oncologist, Radiation Medicine Program, Princess Margaret Hospital/Cancer Centre, University Health Network, Toronto, Ontario, Canada

Previous Appointments

UNIVERSITY - CROSS APPOINTMENT

2011 Nov - 2013 Jun  Associate Professor, Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada
2007 Jul - 2011 Oct  Associate Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada
1999 - 2007  Assistant Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK

2007 Jul - 2013 Jun  Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
1999 Jul - 2007 Jun  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2014 2014 Best of ASTRO Award, American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. (Distinction)
Refining UICC TNM Stage and Prognostic Groups for HPV-Related Oropharyngeal Carcinomas which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, USA.

2012 Sep  ISOQOL Outstanding Article of the Year Award, Collaborator, International Society for Quality of Life Research (ISOQOL). (Research Award)
honours the single best article dedicated to health-related quality of life research that was published in a peer-reviewed journal during the previous year; awarded for “Patterns of reporting health-related quality of life outcomes in randomized clinical trials: Implications for
Jolie RINGASH

*clinicians and quality of life researchers*, published in *Quality of Life Research* 2011.

**NATIONAL**

**Received**

2015 Mar

**Leading Practice**, Co-Lead and Medical Director of the Program, Accreditation Canada, Canada. (Distinction)

*Awarded to "The Head and Neck Cancer Survivorship Program". This award recognizes practices that are: 1. Innovative and creative; 2. Client- or family-centred; 3. Evaluated; 4. Able to demonstrate intended results; 5. Sustainable; 6. Adaptable by other organizations.*

2014 Aug

**2014 Survivorship Award**, Radiation Oncologist, Canadian Association of Radiation Oncology (CARO). (Research Award)

*"The Prevalence and Nature of Survivorship Needs in Head and Neck Cancer Patients." for abstract with the highest score in the Survivorship domain.*

1997

**Award, Resident Research Poster**, Canadian Association of Radiation Oncologists, Canada. (Research Award)

1990

**Prize**, Chemical Institute of Canada, Canada. (Distinction)

1990

**Prize**, Canadian Society of Chemistry, Canada. (Distinction)

1989

**Research Award**, Natural Sciences and Engineering Research Council of Canada (NSERC), Canada. (Research Award)

1987

**Scholarship**, Canadian Chartered Accountants’, Canada. (Distinction)

1987

**Shad Valley**, Canada. (Distinction)

*(National programme for young scientists and entrepreneurs).*

1987

**University Entrance Award**, Jack Stupp/ Consumers Distributing, Canada. (Distinction)

1986

**Interchange on Canadian Studies**, McMaster University, Canada. (Distinction)

1985 - 1987

**Governor General’s Award**, Canada. (Distinction)

1985

**Forum for Young Canadians**, Ottawa, Canada. (Distinction)

**PROVINCIAL / REGIONAL**

**Received**

1991

**Ivan H. Smith Memorial Studentship**, Cancer Care Ontario, Canada. (Distinction)

*(Oncology).*

**LOCAL**

**Received**

2000

**Augusta Stowe-Gullen Postgraduate Award**, University of Toronto, Canada. (Research Award)

1996

**Elected Chief Resident by staff and peers**, McMaster University, Canada. (Distinction)

1992

**Vandenberg Travel Award, Faculty of Health Sciences**, McMaster University, Canada. (Distinction)

*(Infectious Disease).*

1990

**Crispin Calvo Prize**, Canada. (Distinction)

*(thermodynamics).*

1990

**J.L.W. Gill Prize**, Canada. (Distinction)

*(area average).*

1990

**Michael J. Morton Prize**, Canada. (Distinction)
Jolie RINGASH

(inorganic chemistry).

1987 - 1990 George and Nora Elwin McMaster Scholar, McMaster University, Canada. (Distinction) (held for 3 years).

1987 Honour Crest, Neelin High School, Canada. (Distinction)

1986 General Proficiency Award, Canada. (Distinction)

1985 - 1987 Certificate of Highest Standing, Canada. (Distinction) (held for 3 years).

Nominated

2015 Jun Local Impact Award 2014/15, Team member, University Health Network. (Distinction)
Awarded to an individual, initiative or team that has transformed practice at UHN.

LOCAL

Received

2015 Oct Sustained Excellence in Research, University of Toronto Department of Radiation Oncology, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)
Awarded annually to the department member felt to have made the greatest and most consistent impact on the research environment over his or her career.

2015 Jul - 2016 Jun Research Productivity - Radiation Oncology, Princess Margaret Cancer Centre Radiation Medicine Programme, Toronto, Ontario, Canada. (Research Award)
Awarded to the radiation oncologist with the best research productivity (grants, clinical trials, number and impact of publications) during the academic year.

Teaching and Education Awards

LOCAL

Received

2008 Jun Research Project Supervisor Award Recipient, Radiation Medicine Programme Annual Education Awards, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada. (Postgraduate MD, Clinical Fellow)
For best supervision of resident/fellow research project.

2006 Jul Postgraduate Medical Education Research Supervision Award, Research Supervisor, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto Department of Radiation Oncology, Toronto, Canada. (Postgraduate MD, Specialty: Radiation Oncology)
Awarded to research supervisor for a medical student, resident or fellowship research project on the basis of student nomination and judgement of the value of the research.

2005 Research Project Supervisor Award Recipient, Radiation Medicine Programme Annual Education Awards, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada 2005, 2006.

Nominated

2012 Jun Professional Mentor Award, Dept of Radiation Oncology, Faculty of Medicine, The Princess Margaret Hospital, Radiation Medicine Programme, Toronto, Ontario, Canada. (Faculty Development)
Awarded for mentorship of a colleague.
2005

**Mentorship Award, Radiation Medicine Programme Annual Education Awards**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada

### Student/Trainee Awards

#### NATIONAL

**Received**


2008 Jan **AstraZeneca Exhibit Prize**, Awardee Name: Karen Wong. RANZCR annual scientific meeting, Australia awarded to the exhibit by a Radiation Oncologist which is judged to have made the most significant contribution to the scientific program.

#### LOCAL

**Received**

2008 Apr **Resident Research Day – Best Poster Award**, Awardee Name: Zahra Kassam. University of Toronto, Canada

### 4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

#### Professional Associations

<table>
<thead>
<tr>
<th>Year</th>
<th>Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-p</td>
<td>International Society of Quality of Life</td>
</tr>
<tr>
<td>1999-p</td>
<td>Canadian Medical Association</td>
</tr>
<tr>
<td>1998-p</td>
<td>Society for Medical Decision Making</td>
</tr>
<tr>
<td>1997 Jul-</td>
<td><strong>Fellow</strong>, Royal College of Physicians and Surgeons of Canada, 505213</td>
</tr>
<tr>
<td>1997</td>
<td>American Society of Clinical Oncology</td>
</tr>
<tr>
<td>1995</td>
<td>American Society for Therapeutic Radiology and Oncology</td>
</tr>
<tr>
<td>1994</td>
<td>Canadian Association of Radiation Oncologists</td>
</tr>
<tr>
<td>1993</td>
<td>Ontario Medical Association</td>
</tr>
</tbody>
</table>

#### Administrative Activities

**INTERNATIONAL**

6th International Workshop on the Biology, Prevention and Treatment of Head and Neck Cancer

2002 **Member**, Organizing Committee, Measuring and Reporting Quality of Life in Head & Neck Cancer Workshop, McLean, United States.
Jolie RINGASH

**American Head and Neck Society**
2015 Sep 1 - 2016 Jul 20 Program Committee for the 9th International Conference on Head & Neck Cancer, Seattle, Washington, United States.

**European Organization for Research and Treatment of Cancer (EORTC)**
2008 - present **Member**, PROBE: Patient-reported Outcomes and Behavioural Evidence, International Advisory Board, Belgium.

**International Society for Quality of Life Research (ISOQOL)**

**National Cancer Institute (USA)**
2009 - present **Member**, Head and Neck Cancer Previously Untreated, Locally Advanced (PULA) Task Force, United States.
2009 - present **Chair**, Head and Neck PULA Sub-committee on QOL/Outcomes, United States.

**Trans-Tasman Radiation Oncology Group**
2002 - 2007 **Member**, Trial Management Committee, Phase III Randomized Trial of Concomitant Radiation, Cisplatin and Tirapazamine (SR 259075) versus Concomitant Radiation and Cisplatin in Patients with Advanced Head and Neck, Australia. *(International trial run jointly by the Trans-Tasman Radiation Oncology Group and Sanofi-Synthelabo/Sanofi-Aventis, France).*

**Trans-Tasman Radiation Oncology Group (TROG)**
2002 - 2007 **Quality of Life Coordinator**, Phase III Randomized Trial of Concomitant Radiation, Cisplatin and Tirapazamine (SR 259075) versus Concomitant Radiation and Cisplatin in Patients with Advanced Head and Neck Cancer: “HEADSTART”, Australia. *(International trial run jointly by the Trans-Tasman Radiation Oncology Group and Sanofi-Synthelabo/Sanofi-Aventis, France).*

**NATIONAL**

**Canadian Association of Radiation Oncologists**
2004 - 2005 **Member**, Outcomes Working Group

**Canadian Cancer Society Research Institute (CCSRI)**
2013 Sep - 2016 Sep End 3 Development Committee - Quality of Life, Canada.
2013 Jul 1 - 2016 Jul 1 Advisory Council on Research (ACOR), Canada.

**Canadian Centre for Applied Research in Cancer Control (ARCC)**
2009 - present **Member**, Centre for Applied Research in Cancer Care (Health Economics, Services, Policy and Ethics), Canada.
2009 - 2010 Jun **Co-Lead**, Patient and Families Programme *(with Dr. Richard Doll, UBC).*

**National Cancer Institute of Canada/Clinical Trials Group**
2006 - present **Co-Chair**, QOL Committee, Canada.
2005 - present **Member**, Quality of Life Committee, Canada.
Jolie RINGASH

2005 - present **Member**, Gastrointestinal Site Group Executive Committee, Canada.
2005 - 2006 **Chair**, QOL Committee Workshop Organizing Committee, Toronto, Ontario, Canada.

NCIC Clinical Trials Group
2015 Sep 1 - 2018 Aug 31 Strategic Executive Advisory Council (SEAC), Canada.

PROVINCIAL / REGIONAL
Cancer Care Ontario
2014 Dec 10 - 2016 Jul Gastrointestinal Disease Site Group (Co-Chair, Radiation Oncology), Ontario, Canada.
2014 Sep 9 - 2016 Sep 30 Survivorship Advisory Committee, Canada.
2013 Mar 15 - 2016 Jul Gastrointestinal Disease Site Group, Ontario, Canada.

Cancer Care Ontario (CCO)
2011 Sep - present **Co-Investigator**, ON-PROS: Provincial Initiative to Incorporate Patient Reported Outcomes in Routine Clinical Care, Toronto, Ontario, Canada.

Ontario Institute for Clinical Evaluative Sciences (ICES)
2001 - 2002 **Member**, PET Advisory Committee, Ontario, Canada.

LOCAL
Hamilton Regional Cancer Centre
1995 - 1996 **Member**, Quality Assurance Committee

McMaster University
1996 - 1997 **Member**, Radiation Oncology Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Hamilton, Ontario, Canada.

Princess Margaret Cancer Centre
**Director**, Site Group Leader, Palliative Radiation Oncology Programme

Princess Margaret Hospital
2012 May - present Head and Neck Cancer Translational Research Executive Committee, Toronto, Ontario, Canada.
2011 Sep - present **Medical Lead**, Head and Neck Cancer Survivorship Programme, Toronto, Ontario, Canada.
2006 - 2007 **Member**, Radiation Oncology Partners’ Executive Committee
2005 - 2008 **Manager**, Department of Radiation Oncology Partners Social Fund
2003 - 2007 **Chair**, Data Safety Monitoring Board

Residency Programme
2007 Apr 16 Royal College programme review, Faculty of Medicine, Dept of Medicine, Oncology (Medical), Postgraduate MD, Canada.

The Princess Margaret Cancer Centre
2014 Jul 1 - 2015 Feb 1 Site Lead, Palliative Radiation Oncology Programme
University Health Network

2011 Sep - present  **Member**, Biobank Disease Management Committee, Gastroesophageal Cancer
2006 Jul - 2010 Jun  **Coordinator**, Medical Oncology Resident Radiation Oncology Rotation, Faculty of Medicine, Dept of Medicine, Oncology (Medical), Postgraduate MD
2002 - 2003  **Chair**, Radiation Medicine Programme Data Safety Monitoring/Serious Adverse Events Committee
2001 - 2006  **Member**, Department of Radiation Oncology Clinical Trials Committee
2001 - 2003  **Member**, Research Ethics Board (Oncology)
1999 - 2001  **Member**, Oncology Pharmacy Subcommittee
1999 - 2000  **Member**, Lung/Thoracic Oncology Site Group Quality Team

University of Toronto

2006 - present  **Member**, Clinical Epidemiology Institute (CME event) Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Continuing Education
2003 - present  **Member**, Clinical Epidemiology Program Executive Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2002 - present  **Member**, Clinical Epidemiology Graduate Programme Admissions Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2013 Jul - 2016 Jun 30  Appeals Committee, Faculty of Medicine, Multilevel Education, Toronto, Ontario, Canada.
2009 - 2010 Jun  **Dept. of HPME representative**, Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2008  **Member**, Medical Radiation Sciences MHSc Admissions Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education
2007  **Member**, Search Committee for Chair, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Multilevel Education
2006 Jul - 2010 Jun  **Associate Programme Director**, Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2006 Jul - 2010 Jun  **Member**, Curriculum Committee, Clinical Epidemiology Programme, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2006 Jul - 2010 Jun  **Member**, Faculty Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2006 - 2010 Jun  **Chair**, Clinical Epidemiology Graduate Programme Admissions Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2006 - 2007  **Member**, Medical Oncology Residency Education Committee, Faculty of Medicine, Dept of Medicine, Oncology (Medical), Postgraduate MD
2005 Jul - 2010 Jun  **Member**, Academic Board of the Governing Council
2005 Jul - 2010 Jun  **Member**, Faculty Council, Faculty of Medicine, Multilevel Education
2005 - 2007  **Member**, Division of Medical Oncology Fellowship Programme Committee, Faculty of Medicine, Dept of Medicine, Oncology (Medical), Postgraduate MD
2005 - 2006  **Member**, Department of Radiation Oncology Graduate Executive Committee, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education
2005 - 2006  **Member**, Department of Radiation Oncology Full Time Clinical Appointment Committee
2003 Jul - 2006 Dec  Co-Course Supervisor, HAD 5301 Introduction to Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology, Graduate Education, Toronto, Ontario, Canada.
2003 - 2006  **Member**, Department of Radiation Oncology Executive Committee
2001  **Member**, Radiation Oncology Clinical Epidemiology Working Group
2000 - 2001  **Member**, Oncology II Ethics Committee
Peer Review Activities

ASSOCIATE OR SECTION EDITING

Editor
2015 Jan - present  International Journal of Radiation Oncology, Biology and Physics, Head and Neck Section

EDITORIAL BOARDS

Member
2013 Jan 1 - 2015 Dec 31  Journal of Clinical Oncology

Member
2007 - 2010  Medical Decision Making
2003 - 2011  European Journal of Cancer

GRANT REVIEWS

External Grant Reviewer
2013 Nov 4  US NCI Head and Neck Cancer Site Steering Committee, External expert requested for QOL review of major multi-centre clinical trial: RTOG 1333: A Randomized Phase II Trial for Patients with p16 Positive, Non-Smoking Associated, Locoregionally Advanced Oropharyngeal Cancer, Number of Reviews: 1

2012 Jun 13 - 2013 Jun 14  P01 Special Emphasis Panel Review Meeting, National Institute of Health (USA) National Cancer Institute, Number of Reviews: 10

2004  Canadian Institutes of Health Research, Randomized Controlled Trials Grant Reviewer
2015 Apr 1 - 2015 May 8  European Organization for Research and Treatment of Cancer (EORTC), EORTC Protocol Review Committee - special invited reviewer (Quality of Life), Number of Reviews: 1

2013 Jun 4  Canadian Cancer Society - Research Institute Innovations Grant Competition, Number of Reviews: 11

2011 - 2012  Canadian Cancer Society Research Institute, Innovation grant competition
2006 - 2010  University of Toronto, Faculty of Medicine Research Grants Committee
2005 - 2006  Canadian Breast Cancer Research Initiative, Development & Exploratory Grant Review Board
2001 - 2003  National Cancer Institute of Canada, Annual Grant Competition

Associate Chair
2008  University of Toronto, Faculty of Medicine Research Grants Committee

Chair
2009 - 2010  University of Toronto, Faculty of Medicine Research Grants Committee

MANUSCRIPT REVIEWS

Reviewer
2011 - present  British Medical Journal
1999 - present  American Journal of Cancer
1999 - present  Cancer
1999 - present  Clinical Oncology
1999 - present  European Journal of Cancer
PRESENTATION REVIEWS
poster & oral presentation judge
2012 Oct 17 - 2012 Oct 19 EORTC 3rd annual conference on Quality of Life and Symptoms in Clinical Trials, Number of Reviews: 16

ABSTRACT REVIEWER
Reviewer
2013 Mar - 2014 Aug Canadian Association for Radiation Oncology (CARO), Number of Reviews: 80
2012 Sep - 2012 Sep 30 European Organization for Research and Treatment of Cancer, EORTC QOL in Clinical Trials Conference, Number of Reviews: 20

Other Research and Professional Activities

RESEARCH, TEACHING, INTERNATIONAL COLLABORATION
Travel & academic visits in Africa, Australia and Bhutan.

TRACK CO-CHAIR FOR FUNCTIONAL AND QUALITY OF LIFE RESEARCH
2015 Apr 1 - 2016 Jul 21 Track Co-Chair. Track Co-Chair. American Head and Neck Society 9th International Meeting, Seattle, Washington, United States. Collaborator(s): Kate Hutcheson (Co-Chair); Drs. Robert Ferris and Jonathan Irish, meeting co-Chairs. Responsible with co-Chair Kate Hutcheson of developing a plenary symposium of international invited (funded) speakers; integrating speakers knowledgeable in this area into main sessions (panels, educational sessions, research presentations, etc) to provide the functional/QOL perspective; and developing 5 educational courses related to functional/QOL issues; attended the meeting as track co-chair to insure smooth functioning of the planned events; spoke/chaired at several of the sessions, including co-Chairing the track Plenary.

C. Academic Profile

1. RESEARCH STATEMENTS
My primary research goal is to define, measure and improve the quality of life and health utility of patients with neoplasms of the head and neck. Advances in radiotherapy techniques and the advent of combined modality treatment have led to significant improvements in survival and local control of head and neck tumours over the past eight years. However, more intense treatment leads to a worsening of acute and late toxicities. Recent recognition of the excellent prognosis of human papillomavirus (HPV)-associated cancers has led to interest in de-intensification. Quality of life (QOL) questionnaires and utility measures can be used to determine the patients’ perspectives on the value of their treatment and well-being. Measurement of QOL along with local control and survival outcomes can lead to a better understanding, and hopefully improvement, of the therapeutic ratio of treatment strategies for head and neck neoplasms.

My QOL research has focused on the development, validation and evaluation of instruments suitable for measuring QOL and utilities in this specialized population, including a novel instrument designed to measure the QOL impact of enteral feeding during head and neck cancer therapy. I have measured the information needs of patients, the attitudes of nasopharyngeal cancer specialists toward QOL, and the clinical significance of changes in QOL and utility scores. I have also written a systematic review of all QOL instruments available for head and neck cancer patients, and am currently involved in systematic review of the QOL results according to treatment strategy.

As a result of my programme of research, I have been invited to be a methodology consultant and have been influential as a proponent of QOL research for head and neck cancer. I was appointed as inaugural Chair of the Outcomes subcommittee of the Previously Untreated, Locally Advanced (PULA) focus group within the U.S. NCI Head and Neck Cancer Group in 2009, and additionally serve as a member of PULA. This Outcomes committee consists of recognized experts and has recently drafted a manuscript outlining the recommended patient- and clinician- reported instruments for outcome assessment in head and neck cancer.

I have served as QOL coordinator and a member of the Trial Management Committee on a major international head and neck cancer clinical trial, the “HEADSTART” trial, conducted jointly by the Trans-Tasman Radiation Oncology Group (TROG) and Sanofi-Aventis [Phase III randomized trial of concomitant radiation, cisplatin and tirapazamine (SR259075) versus concomitant radiation and cisplatin in patients with advanced head and neck cancer]. We are currently in the process of publishing this data. It will be the first large randomized head and neck cancer trial (850 patients) to report QOL for patients treated with concurrent chemoradiotherapy. I am also currently the QOL coordinator for randomized trials in Canada (the recently closed HD.6) and in the USA (RTOG 1016, ECOG 3311), looking at the role of EGFR inhibitors in the treatment of head and neck cancer, particularly HPV-related oropharynx cancer.

As a practicing head and neck radiation oncologist, I combine an understanding of the highly technical aspects of modern therapy with methodologic expertise in outcomes measurement. This has helped me to introduce QOL methodology into the clinical and research setting locally and internationally. I have taught extensively in this area and have mentored trainees and peers.

My secondary research goal is to improve the frequency and methodology of health outcome measurement for patients with cancer. In recent years, the health care professions, governmental agencies and patient advocacy groups have realized the value of assessing additional outcomes besides survival. Access to and quality of care, the efficacy of new technology, continuous quality enhancement, acute and late toxicity, cost-utility assessments and patient reported outcomes are all examples of outcomes of interest. Creative sources of data, such as the use of administrative databases, may be required to answer outcomes-oriented research questions. Structured reviews and evidence-based guidelines are tools for dissemination of research results to hopefully close the loop and bring change to clinical...
practice. I am currently a co-applicant of the CCS-RI grant supporting a centre for Applied Research in Cancer Control (ARCC), a national collaboration emphasizing the interplay of economics, ethics, and policy in cancer care.

I have a broad understanding of outcomes assessment and have taught frequently on this topic. My research has focused primarily on patient reported outcomes, toxicity and medical decision-making. I have participated in population-based research on the outcomes of screening mammography and was the principal author of a national practice guideline on the same topic. I have also studied technology assessment for diagnosis, treatment and target definition (ultrasound and PET), and the value of new technology in radiotherapy delivery (conformal radiotherapy and IMRT). I have successfully attracted a number of international fellows and graduate students who have presented and published work completed under my supervision, and who will disseminate their expertise throughout the world.

My tertiary research goal is to improve the therapeutic ratio for patients requiring upper abdominal radiotherapy for stomach cancer; I have developed and published novel treatment techniques designed to reduce acute toxicity, including conformal and IMRT techniques, and am currently completing the phase II portion of a phase I/II study of novel chemoradiotherapy with IMRT in this disease. I was also among the first to demonstrate the effectiveness of adjuvant radiotherapy outside of a clinical trial. This research programme has led to a major ongoing project investigating the link between radiotherapy technique, late toxicity, and QOL in cancer survivors, and to a leadership position in a planned phase III international randomized trial of adjuvant therapy in gastric cancer (TROG-AGITG “TOPGEAR”/NCIC-CTG GA.1).

Beyond my primary clinical areas of focus, head and neck and gastrointestinal malignancy, I have served as a consultant and collaborator with colleagues interested in outcomes within other areas of oncology and within health care generally. I am regularly contacted by physicians elsewhere in North America and the world for advice regarding the measurement of treatment outcomes in clinical research. I am currently QOL coordinator for 4 internal, 1 national and 3 international trials. I have been a member of the NCIC-CTG QOL committee since 2005, and was named co-Chair of this committee in August 2006. In June of 2006, I participated as a representative of the NCIC-CTG QOL committee in a special meeting with members of the U.S. Food and Drug Administration on regulatory guidance for the use of patient reported outcomes (such as QOL) in research. Since 2008, I have been an international advisor and collaborator on an international initiative by the EORTC to retrospectively analyze pooled QOL data from EORTC and NCIC-CTG trials.

2. TEACHING PHILOSOPHY

Educational Endeavors

1. To provide international and national leadership in the assessment of quality of life for patients with head and neck neoplasms
   i. To educate regarding the importance of QOL and to promote inclusion in clinical trials
   ii. To improve and develop the methodology of QOL and utility research at levels appropriate to training by working with a broad spectrum of students from the undergraduate, graduate, post-graduate and clinician levels
   iii. To improve the quality of assessment and reporting of patient-related outcomes in head and neck cancer through research presentations and continuing medical education

2. To provide international and national leadership in outcome assessment, both in oncology and, through the clinical epidemiology programme, within related health fields and professions
   i. To promote the assessment of health outcomes and advance the profile of health outcomes research within oncology
   ii. To provide mentorship and collaborative opportunities to trainees and practicing oncologists interested in
developing skills in health outcome assessment

iii. To educate the community and government stakeholders regarding the value of population-based interventions and new medical technologies

3. To promote an interest and understanding of radiotherapy at the undergraduate level by providing undergraduate electives in radiation oncology

4. To provide mentorship and research experience to junior radiation oncologists by supervising radiation oncology residents and fellows

5. To encourage participation in research by allied health professionals by providing opportunities for research mentorship and collaboration.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2014 Apr - present **Co-Principal Investigator.** Development and pilot evaluation of a rehabilitation consult for survivors of head and neck cancer. CCS-RI Innovation Grants. PI: McEwen, Sara and Ringash, Jolie. Collaborator(s): Davis, Aileen; Jones, Jennifer; Martino, Rosemary; Poon, Ian; Rodriguez Ana Maria. 199,930 CAD. [Grants] Survivors of head and neck cancer (HNC) can have rehabilitation needs different from those of other cancer survivors, such as problems with swallowing, speech, sensation and cognitive function. Dr. McEwen proposes a pilot study of an intervention that incorporates a rehabilitation consultant into aftercare for HNC patients, to better identify the patients' special needs and assign a customized personalized rehabilitation plan to aid their recovery and improve their quality of life. She will design this intervention after consultation with patients and their doctors and others involved in their care. The intervention has the potential to be used more broadly with different cancers.


2011 Jun - present **Co-Chair QOL.** RTOG 1016: Phase III trial of radiotherapy plus cetuximab versus chemoradiotherapy in HPV-associated oropharynx cancer. Radiotherapy Oncology Group. PI: Trotti A, Gillison M. Collaborator(s): Co-Chair, Quality of Life: Ringash J. [Clinical Trials] Per case funding.

QOL Coordinator. NCIC HN.6: A phase III study of standard fractionation radiotherapy with concurrent high-dose cisplatin versus altered fractionation concomitant boost radiotherapy with panitumumab in patients with locally advanced stage III and IV squamous cell carcinoma of the head and neck. National Cancer Institute of Canada (NCIC). CTG Trial. PI: Siu L, Waldron J. Collaborator(s): Quality of Life Coordinator: Ringash J. [Clinical Trials]
Per-case funding.

$185,000 over 3 years.

Randomized trial of best supportive care with or without single fraction radiotherapy for palliation of pain or discomfort due to liver cancer.

Co-Investigator. Sense of self: A new facet of quality of life in cancer. Princess Margaret cancer foundation. PI: Devins, Gerald. Collaborator(s): Irish, John; Ringash, Jolie; Lipton, Geoff; Easson, Alexandra. [Clinical Trials]

NCIC-CTG grant application; Mar 1, 2014 to Feb 28, 2019.

Development of a novel role, rehabilitation navigator, for survivors of head and neck cancer after completion of treatment.

Pilot study of intensified assessment and treatment by a speech language pathologist before, during and after concurrent curative chemoradiotherapy for head and neck cancer, to assess potential impact on duration of enteral feeding and associated costs.

Principal Investigator. Exploring the Unmet Survivorship Needs in Patients with Head and Neck Cancer. Princess Margaret Hospital Foundation (The). Collaborator(s): Catton, Pamela;
Cheng, Terry; Giuliani, Meredith; Jones, Jennifer; McQuestion, Maurene; Waldron, John. 175,866 CAD. [Donations]

Cross-sectional mixed-methods assessment of comprehensive survivorship needs in head and neck cancer survivors and their caregivers (survey and qualitative interviews).

2013 Jan - 2017 Dec  


The goal of this project is to evaluate the effectiveness of preoperative chemoradiotherapy versus preoperative chemotherapy for the management of resectable gastric cancer. This randomized trial is conducted in collaboration between NCIC-CTG, TROG and AGITG.

2012 Oct - 2015 Mar  

Co-Principal Investigator. Measures of Work Productivity for Cancer Survivors who Return to Work. Canadian Centre for Applied Research in Cancer Control (ARCC) Centre (funded by CCSRI). ARCC Funding Competition 2012. PI: Dewa, Carolyn; Jones, Jennifer; Ringash, Jolie. Collaborator(s): Hoch, Jeffrey; McQuestion, Maurene. 46,648 CAD. [Grants]

Cross-sectional pilot mixed-methods study comparing 4 instruments for assessment of work productivity to determine which is most acceptable and valid in head and neck cancer survivors.

2012 - 2019  

Co-Investigator. NCIC-CTG GA.1/TROG-AGITG “TOPGEAR”: Phase III trial of neoadjuvant chemoradiotherapy vs chemotherapy alone, followed by surgery and adjuvant chemotherapy, in potentially resectable gastric cancer. Canadian Institutes of Health Research (CIHR), NCIC-Clinical Trials Group (Canada), Trans-Tasman Radiation Oncology Group (Australia/NZ). CIHR operating grants. PI: Leung T (Australia), Wong R (Canada). Collaborator(s): Quality of Life Coordinator (Canada): Ringash J. 2,664,529 CAD. [Clinical Trials]

Phase III international clinical trial in collaboration between Australia/New Zealand, Europe and Canada.

2011 Sep - 2018 Sep  


Canadian component of phase III international clinical trial in collaboration between Australia/New Zealand, Europe and Canada.

2011 - 2015  


2010 Aug - 2015 Feb  


$6,445,910 (in 1st year).

2010 - 2011  

Co-Investigator. A Phase I/II study of high dose rate brachytherapy for the palliation of rectal cancer. Canadian Radiation Oncology Foundation. PI: Wong KSR. Collaborator(s): Bayley A,
*Sanofi – Aventis Research Innovation Award CASARIA 2010 – 2011.*

**2009 - 2014**


**2009 - 2012**

**Co-Investigator.** Psychometric testing of a new scale measuring medical outcomes of dysphagia (MOD) in adult patients with swallowing disorders secondary to stroke, spinal injury and head and neck cancer. Canadian Institutes of Health Research (CIHR). PI: Martino R. Collaborator(s): Davis A, Fehlings M, Ringash J, Streiner D. 396,289 CAD. [Grants]

**2009 - 2012**

**Co-Investigator.** Psychometric testing of a new scale measuring medical outcomes of dysphagia (MOD) in adult patients with swallowing disorders secondary to head and neck cancer. Canadian Cancer Society Research Institute. PI: Martino R. Collaborator(s): Davis A, Fehlings M, Ringash J, Streiner D. 424,592 CAD. [Grants]

**2009 - 2012**


*(CIHR $357,495, partner Bayer HealthCare Pharmaceuticals $572,000).*

**2009 - 2011**


**2008 - 2012**

**QOL Coordinator.** Phase I/II Trial of Radiation Therapy and Sorafenib for Treatment of Unresectable Liver Metastases. University of Toronto. PI: Dawson LA. Collaborator(s): Quality of Life Coordinator: Ringash, J. [Clinical Trials]

**2007 - 2010**

**QOL Co-Coordinator.** A Multi-Institutional Phase II Study of Neoadjuvant Gemcitabine and Oxaliplatin with Radiation Therapy in Patients with Pancreatic Cancer. PI: Zalupski M. Collaborator(s): Co-Quality of Life Co-Coordinators: Ringash J, Wei A. [Clinical Trials]

**2007 - 2010**


**2003 - 2006**


**2003 - 2004**

2002 - 2007  
**QOL Coordinator.** HEADSTART: Phase III randomized trial of concomitant radiation, cisplatin and tirapazamine (SR259075) versus concomitant radiation and cisplatin in patients with advanced head and neck cancer (closed May 2005, analysis pending). Trans-Tasman Radiation Oncology Group. PI: Jaskolka J. Collaborator(s): Member, Trial management committee: Ringash, J. Principal Investigator, Quality of Life: Ringash, J. [Clinical Trials] Collaborative trial of the Trans-Tasman Radiation Oncology Group (TROG) and Sanofi-Aventis. Per-case funding.

2001 - 2005  

2000 - 2002  
**Site Investigator.** NCIC SC.18: Phase III double-blind, placebo-controlled randomized comparison of megestrol acetate (Megace) versus an N-3 fatty acid (EPA) enriched nutritional supplement versus both for the treatment of cancer cachexia and anorexia (closed). National Cancer Institute of Canada (NCIC). PI: MacDonald J. Collaborator(s): Institutional Principal Investigator (Princess Margaret Hospital): Ringash, J. [Clinical Trials] Clinical Trials Group (NCIC-CTG) Trial. Per-case funding.

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2012 - present  
**Co-Investigator.** Risk factors associated with distant metastatic disease in patients with head and neck squamous cell carcinoma. University of Toronto. PI: Jaskolka J. Collaborator(s): Ringash J, Kotecha S. [Clinical Trials]

2005 - present  
**Principal Investigator.** Conformal abdominal radiotherapy: long-term renal and hepatic toxicity and quality of life. University of Toronto. Department Radiation Oncology. [Clinical Trials]

2005 - present  
**Co-Investigator.** Analysis of Single Nucleotide Polymorphisms in Patients with and without Swallowing Dysfunction, following Radical Radiotherapy for Head and Neck Cancer: A Pilot Study. University of Toronto. PI: Kim J, Liu F-F. Collaborator(s): Quality of Life Coordinator: Ringash, J. [Clinical Trials]

2003 - present  
**Co-Investigator.** Cognitive function & fatigue in cancer patients after chemotherapy: a longitudinal controlled study in patients with colorectal cancer. University of Toronto. PI: Vardy J, Tannock I. Collaborator(s): Ringash, J. [Clinical Trials]

2002 - present  
**Principal Investigator.** Prospective phase I/II study of adjuvant radiochemotherapy for gastric cancer. University of Toronto. Department Radiation Oncology. [Clinical Trials]

2009 - 2011  
**Co-Investigator.** Psychosocial Distress Screening among H&N Cancer Patients: a Pilot Study. University of Toronto. PI: de Ruiter J, Li M. Collaborator(s): Ringash, J. [Clinical Trials]

2009 - 2010  
**Co-Investigator.** Functional and quality of life outcomes after mandibular reconstruction for osteoradionecrosis with osseocutaneous free flaps. University of Toronto. PI: Hofer S, Payne C. Collaborator(s): Ringash, J. [Clinical Trials]

2008 - 2010  
**Principal Investigator.** Management and Outcome in Elderly Head and Neck Cancer Patients: A Single Institution Cohort Study. University of Toronto. [Clinical Trials]
2008 - 2010 **Co-Investigator.** Cognitive Function after Radiotherapy or Chemoradiotherapy for H&N Cancer. University of Toronto. PI: Gan H, Siu L. Collaborator(s): Ringash, J. [Clinical Trials]

2007 - 2011 **Co-Investigator.** Translating Quality of Life (QOL) Data from Randomized Clinical Trials into Improved Patient Care: Oncologists’ Attitudes and Educational Needs around the Value, Interpretation and Application of QOL Data. PI: Brundage, Michael. Collaborator(s): Ringash, Jolie. [Clinical Trials]

2007 - 2010 **Principal Investigator.** Randomized Pilot Study of J- vs. G-tubes for Enteral Feeding in Head and Neck Cancer Patients. University of Toronto. [Clinical Trials]

2006 - 2010 **Co-Principal Investigator.** Auditing the Clinical Outcome Data for Head and Neck Radiotherapy Treatment. University of Toronto. Collaborator(s): Co-Principal Investigators: Ringash J, O’Sullivan B. [Clinical Trials]

2006 - 2008 **Principal Investigator.** IMRT for Cervical Esophageal Cancer. University of Toronto. [Clinical Trials]

2005 - 2011 **Co-Investigator.** Impact of CN11 reconstruction on shoulder dysfunction and QOL of H&N cancer patients. University of Toronto. PI: Goldstein D, Davis A. [Clinical Trials]

2005 - 2011 **Principal Investigator.** Non-respiratory Organ Motion Assessment by Cine MRI in Upper Abdomen in Normal Conditions and After Pharmacological Gastric Peristalsis Inhibition in Healthy Volunteers. University of Toronto. [Clinical Trials]

2005 - 2007 **Principal Investigator.** Development of a Quality of Life (QOL) Module for Nasopharyngeal Cancer (NPC). Collaborator(s): Principal Investigators: Zee BCY, Tung SY, Ringash J. [Clinical Trials]

Joint initiative of Hong Kong and Toronto investigators.


2004 - 2008 **Principal Investigator.** Quantification of organ motion and set-up error during conformal radiotherapy of gastric carcinoma. University of Toronto. [Clinical Trials]

2003 - 2010 **QOL Coordinator.** Phase I/II trial of Stereotactic Radiotherapy for Unresectable Colorectal Cancer Liver Metastases and Hepatobiliary Carcinoma. University of Toronto. PI: Dawson LA. Collaborator(s): Quality of Life Coordinator: Ringash, J. [Clinical Trials]

2003 - 2005 **Co-Investigator.** Phase I/II Study of Trimodality Therapy for Esophageal Cancer. University of Toronto. PI: Knox JJ, Wong R. Collaborator(s): Ringash, J. [Clinical Trials]

2003 - 2005 **Co-Investigator.** Prognosis of endometrial cancer in HNPCC vs. sporadic patients. University of Toronto. PI: Kieser K, Gallinger S. Collaborator(s): Ringash, J. [Clinical Trials]

2002 - 2011 **QOL Coordinator.** Intensity Modulated Radiotherapy (IMRT) for Nasopharyngeal Cancer. University of Toronto. PI: Bayley A. Collaborator(s): QOL coordinator: Ringash, J. [Clinical Trials]
2. SALARY SUPPORT AND OTHER FUNDING

Philanthropic Program Support

2012 Jul - 2017 Jul  
Head and Neck Cancer Survivorship Initiative. Discovery Fund. 1,425,000 CAD. Toronto, Ontario, Canada.

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   This phase III randomized controlled trial was among the first trials in head and neck cancer to adopt a strategy of toxicity reduction, attempting to identify treatment strategies associated with lower survivorship burden. The combination of the EGFR-inhibitor panitumumab with altered-fractionation radiotherapy was hypothesized to improve progression-free survival over the current standard, high dose cisplatin with concurrent standard fractionation radiotherapy. Quality of life, swallowing experience and observer-rated swallowing function were important secondary trial endpoints. While this study failed to show a significant benefit for the primary PFS endpoint, perhaps more importantly it also failed to demonstrate any functional or QOL benefit to the novel and expensive agent, leading to a recommendation that treatment should not change until a more effective and/or lower toxicity drug is available.


   This manuscript presents a subgroup analysis of the international phase III randomized trial lead by the Trans-Tasman Radiation Oncology Group. As both treatment arms of the trial produced equivalent survival and quality of life results, a subgroup of patients with known p16/HPV status were pooled across arms, and quality of life was examined according to p16/HPV status. This paper is the first clinical trial report of a dramatically differing quality of life experience among patients with HPV-associated squamous cell carcinomas, relative to their peers with smoking and alcohol-associated cancers. Patients with HPV-associated cancer had better baseline quality of life but had a more severe and abrupt drop on treatment, with subsequent recovery. This paper suggests the need to develop better supportive care strategies and reduce the toxicity of treatment for this good-prognosis subgroup of head and neck cancer patients.


   This paper reviewed the current state of late toxicities, survivorship and non-cancer related death issues for head and neck cancer patients, and outlined areas of current need for research and programme development.

*This paper was written under the auspices of the Head and Neck Cancer Steering Committee of the US NCI, and presents guidelines for validated and accepted tools for measuring functional and quality of life outcomes in patients with head and neck cancer.*


*This paper presents the quality of life results from a major phase III randomized trial led by the NCIC-CTG, and demonstrated unequivocably that the addition of a new agent to cetuximab in patients undergoing palliative chemotherapy for K-RAS wild-type, heavily-pretreated colorectal cancer worsened quality of life.*


*This paper reported the pain relief and quality of life results for patients with symptomatic liver tumours treated with a single fraction of palliative radiotherapy in a single institution, single-arm phase II trial. The favourable results of this study led directly to the current CCTG phase III randomized trial He.1, comparing single fraction radiation to best supportive care for such patients.*


*This paper represents the culmination of a 7 year process in which we developed a new QOL instrument suitable for measuring the effects of enteral feeding. This instrument has now been accepted as a member of the FACIT/FACT (Functional Assessment of Chronic Illness Therapy/Functional Assessment of Cancer Therapy) suite of instruments, and has been requested for use by several investigators nationally and internationally.*


*This report was one of the first to provide prospective QOL data acquired in a head and neck cancer clinical trial. We were able to show that intensified radiotherapy could be given with excellent clinical outcomes, and despite some degree of increased acute toxicity, with good overall QOL results.*


*This paper incorporated both original data and literature review to propose a “rule of thumb” for the interpretation of the significance of QOL data. It led to several similar suggested “rules” and recognition by the QOL community that improving the understandability of our data is critical to the future use of QOL for decision-making at all levels.*
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


13. McEwen S, Rodriguez AM, Martino R, Poon I, Dunphy C, Rios JN, Ringash J. “I didn’t actually know there was such a thing as rehab”: Survivor, family, and clinician perceptions of rehabilitation following treatment for head and neck cancer. Supportive Care in Cancer. 2015 Nov 18. Co-Principal Author.


30. Vardy J, Dhillon HM, Pond GR, Rourke SB, Xu W, Dodd A, Renton C, Park A, Bekele T, Ringash J, Zhang H, Burkes R, Clarke SJ, Tannock IF. Cognitive function and fatigue after diagnosis of colorectal cancer. Ann Oncol. 2014 Dec 1;25(12):2404-12 (Trainee publication, Janette Vardy, PhD student (committee member)). **Coauthor or Collaborator.**


96. Taremi M, Ringash J, Dawson LA. Upper Abdominal Malignancies: Intensity-Modulated Radiation Therapy, in IMRT, IGRT, SBRT – Advances in the Treatment Planning and Delivery of Radiotherapy. Front Radiat Ther Oncol. 2007;40:272-288 (Trainee publication, Dr. Moji Taremi, Radiation Oncology resident (co-supervised with Dr. Laura Dawson)). Coauthor or Collaborator.


Book Chapters


Editorials


Commentaries

Letters to Editor


5. Ringash J, Smalley S, Gunderson LL. “Locoregional control remains a critical issue in gastric cancer: In regard to Dr. Hundahl et al.”. Gastric Cancer. 2008;11(1):64-5. **Principal Author.**


**In Preparation**


**Theses**


**3. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**

1. Stomach Cancer. In: Oncology Course Notes for the Radiation Sciences Students (Radiation Therapy) of the Medical Radiation Sciences Program at the University of Toronto. 2002. **Principal Author.**

**In Preparation**

1. Ringash J. Time trade-off per day or per lifetime? a comparison of two utility assessment methods. **Principal Author.**


4. SUBMITTED PUBLICATIONS

Journal Articles


11. Dewa C, .... McQuestion M, Ringash J.... Work productivity among cancer survivors: A qualitative study. Acta Oncologica. 2015 Sep 1. **Coauthor or Collaborator.**


**Manuscript**

1. **Ringash J**. Development and Pretesting of a Rehabilitation Active Planning Consult for Survivors of Head and Neck Cancer. Disabil Rehabil. 2016 May 27. **Principal Author.**

**F. Presentations and Special Lectures**

**1. INTERNATIONAL**

**Invited Lectures and Presentations**

2016 Jul 20 **Chair.** Optimizing Survivorship: Prevention thru Late Effects. American Head and Neck Society. seattle, Washington, United States. Presenter(s): Jolie Ringash/Kate Hutcheson (Chairs), Sylvie Delanian, Barbara Murphy, Giselle Carnaby, Karen Pitman, Joseph Califano. 9th International Conference on Head and Neck Cancer; Milton J. Dance Plenary Symposium. (Continuing Education).

2016 Jul 18 **Visiting Professor.** Management of Combined Modality Toxicities. American Head and Neck Society. seattle, Washington, United States. Presenter(s): Bevan Yueh, Kevin Higgins, **Jolie Ringash**. 9th International Conference on Head and Neck Cancer; Lunch with the Professors. (Continuing Education).

2016 Jul 16 **Presenter.** How to Establish a Survivorship Program. American Head and Neck Society. seattle, Washington, United States. Presenter(s): Matthew Miller, Kelly Molloy, **Jolie Ringash**. 9th International Conference on Head and Neck Cancer; Educational Course. (Continuing Education).


2013 Nov 7  **Invited Lecturer.** Impact of Therapy on Patients and Quality of Life. Liver Image Guided Radiotherapy Course, The Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Jolie Ringash. Lecture on impact of image guided liver radiotherapy on QOL. (Continuing Education).

2013 Oct 19  **Invited Speaker.** Influencing Policy and Practice: Case Studies Across the Cancer Care Continuum. Society for Medical Decision Making, Baltimore, Maryland, United States. Presenter(s): Claire Snyder (Chair), Deborah Kamin, Electra Paskett, Jolie Ringash, Robert Smith. Dinner symposium with presentations and panel discussion.

2013 Apr 7  **Invited Speaker.** Head and Neck Cancer and Quality of Life: A New Paradigm. Kuwait Cancer Control Centre. Kuwait City, Kuwait. Presenter(s): Jolie Ringash. Grand Rounds for hospital staff.

2013 Apr  **Invited Speaker.** Adjuvant Radiation Therapy in Advanced Parotid Cancer. Kuwait City, Kuwait. 2nd Kuwait International Conference on Head and Neck Cancer.

2013 Apr  **Invited Speaker.** Adjuvant Radiation Therapy in Oral Cancer Treatment. Kuwait City, Kuwait. 2nd Kuwait International Conference on Head and Neck Cancer.

2013 Apr  **Invited Speaker.** Role of Radiation Therapy in Head and Neck Cancer Management. Kuwait City, Kuwait. 2nd Kuwait International Conference on Head and Neck Cancer.

2012 Oct 18  **Invited Speaker.** Impact of Health-related Quality of Life on Decision Makers. European organization for research and treatment of cancer. Brussels, Belgium. Presenter(s): Jolie Ringash. Invited lecture to 300 participants interested in Quality of Life Research in Clinical Trials (conference title: 3rd Quality of Life, Symptom Research and Patient Reported Outcomes in Cancer Clinical Trials Conference).

2012 Jul 24  **Chair.** Special Topics in Radiation Therapy (Panel). American Head & Neck Society. Toronto, Ontario, Canada. Presenter(s): Jolie Ringash, Quynh-Thu Le, David Raben, Allen Chen, Sandro Porceddu. 8th International Conference on Head and Neck Cancer, workshop, 30 oncologists. (Continuing Education).


2012 Jun  **Visiting Professor.** Gastric Cancer in 2012:Adjuvant Approaches. National Taiwan University Hospital. Taipei, Taiwan, Province Of China. Presenter(s): Jolie Ringash. Radiation Oncology Grand Rounds.

2011 Oct 28  **Invited Lecturer.** Impact of Therapy on Patients and Quality of Life. Liver Image Guided Radiotherapy Course, The Princess Margaret Hospital. Toronto, Canada. Lecture on impact of image guided liver radiotherapy on QOL. (Continuing Education).

2011 Sep  **Speaker.** NCIC-CTG QOL Committee: Update and Results. EORTC PROBE QOL Committee. Brussels, Belgium. Presentation to international QOL experts of advisory committee (15) and graduate students (4). (Continuing Education).

2011 Apr  **Invited Speaker.** QOL and Clinical Trials in 2001. The Trans-Tasman Radiation Oncology Group, Annual Scientific Meeting. Adelaide, Unknown, Australia. guest speaker for meeting, lecture to about 200 radiation oncologists from Australia and New Zealand. (Continuing Education).

2011 Mar  **Invited Speaker.** NCIC-CTG QOL Experience. Psycho-oncology Co-operative Research Group, University of Sydney. Sydney, Australia. Seminar presentation to 20 researchers in cancer QOL. (Continuing Education).

2011 Mar  **Visiting Professor.** Head and Neck Cancer 2011: QOL for a New Paradigm. Grand Rounds, Peter MacCallum Cancer Centre. Melbourne, Australia. presentation to about 80 oncology professionals. (Continuing Education).

2011 Mar  **Visiting Professor.** Liverpool Cancer Centre. Gastric Cancer in 2011: MAGIC or the Magic Ray? Sydney, Australia. 30 oncologists. (Continuing Education).


2010 Jan  **Invited Speaker.** Gastric Cancer. Curso de Estrategias Actuales en Radioterapia, Clinica Medica Sur. Mexico City, Mexico. 45 oncologists. (Continuing Education).


2009 Nov  **Invited Speaker.** NCIC experience and success in cancer clinical trials. EORTC PROBE Symposium: Quality of Life and patient reported outcomes in cancer clinical trials. Brussels, Belgium. Lecture to international advisory board (15 oncologists & cancer researchers; 8 graduate students). (Continuing Education).

2009 Mar  **Speaker.** NCIC-CTG QOL Committee: Update and Results. PROBE meeting, EORTC QOL Group. Brussels, Belgium. (Continuing Education).

2009  **Invited Speaker.** Oral Cavity Cancer: Long-term Toxicity and Quality of Life. The International Academy of Oral Oncology, 2nd World Congress. Toronto, Canada. Lecture for 300 oral cancer specialists. (Continuing Education).

2009  **Panelist.** Treatment Morbidities and Survivorship. The International Academy of Oral Oncology, 2nd World Congress. Toronto, Canada. (Continuing Education).

2008 Mar  **Visiting Professor.** Interpreting the Magnitude of QOL Changes. National Cancer Centre Singapore. Singapore, Singapore. lecture to 50 oncologists. (Continuing Education).

2008 Feb  **Visiting Professor.** Meet the Professor: Adjuvant Radiotherapy for Gastric Cancer: Is it Necessary? Gastrointestinal Cancers Symposium (ASCO/ASTRO/SSO/AGA). Orlando, Florida, United States. seminar with about 50 young oncologists & trainees. (Continuing Education).

2008  **Invited Speaker.** Minimal Important Difference: Can we Generalize? PROBE Kick-off Meeting, EORTC
QOL Group. Brussels, Belgium. Lecture to international advisory board of oncologists and cancer researchers. (Continuing Education).

2008 **Invited Speaker.** The NCIC-CTG QOL Committee. PROBE meeting, EORTC QOL Group. Brussels, Belgium. Lecture to international advisory board of oncologists and cancer researchers. (Continuing Education).


2005 **Co-chair.** Therapeutic Challenges in Nasopharyngeal Carcinoma. East-West Symposium on Nasopharyngeal Carcinoma. Toronto, Canada.

2004 **Visiting Professor.** Putting the Quality in Quality of Life. Pamela Youde Nethersole Eastern Hospital Cancer Centre. Hong Kong, China.


2003 **Quality of Life Measurement for Radiation Patients.** Radiation Oncology Update for Therapists. Houston, United States.

2002 **Tirapazamine in Head and Neck Cancer: Quality of Life Assessment in the EFC4690 Trial.** International protocol development meeting. Paris, France.

2002 **Tirapazamine in Head and Neck Cancer: Quality of Life Assessment in the EFC4690 Trial.** European investigators’ meeting. Budapest, Hungary.

2002 **Tirapazamine in Head and Neck Cancer: Quality of Life Assessment in the EFC4690 Trial.** Americas’ investigators’ Meeting. Vancouver, British Columbia.

2002 **Tirapazamine in Head and Neck Cancer: Quality of Life Assessment in the EFC4690 Trial.** TROG investigators’ meeting. Sydney, Australia.


2002 **Co-Chair. Workshop #2: Standards for Reporting QOL.** 6th International Conference on Head and Neck Cancer. McLean, United States.

**Presented Abstracts**


2014 Oct 17 **Presenter.** Routine Clinical Quality of Life Measurement for Head and Neck Cancer Patients: Example from a Province-wide Oncology Initiative. International Society for Quality of Life Research. Berlin,

2005  

2004  
Twice-daily radiation for head and neck cancer: Impact of enteral feeding. ISOQOL. Hong Kong, China.

2003  
**Presenter.** Small Cell Carcinoma of the head and neck: experience of a single comprehensive cancer centre. European Conference on Clinical Oncology (ECCO). Copenhagen, Denmark.

2003  
**IMRT for adjuvant radiation in gastric cancer: a preferred plan?** American Society for Therapeutic Radiology and Oncology (ASTRO). Salt Lake City, United States.

2003  

2002  
Minimal Important Difference: Can We Predict its magnitude? Mayo Clinic Meeting on Minimal Clinically Important Difference in Quality of Life Measures. Rochester, Minnesota.

2002  
The McMaster HNRQ demonstrates clinically important change in patients with head and neck cancer and xerostomia. International Society of Quality of Life (ISOQOL). Orlando, United States.

2000  

1999  
Assymetry of good and bad minimal important differences in quality of life for laryngeal cancer patients. International Society for Quality of Life (ISOQOL). Barcelona, Spain.

1999  
Utility assessment for laryngeal cancer patients: time trade-off per day or per lifetime? Society for Medical Decision Making (SMDM). Reno, United States.

**Presented and Published Abstracts**

2016 Jul 15  

*Publication Details:*

2016 Apr 29  
**not a presenter.** The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. European Society for Therapeutic Radiology and Oncology (ESTRO). Milan, Italy.

*Publication Details:*

2016 Apr 29  
**not a presenter.** Impact of Comorbidity, Polypharmacy and HPV status in Elderly Patient with Oropharyngeal Cancer. European Society for Therapeutic Radiology and Oncology (ESTRO). Milan, Italy.
Jolie RINGASH

Presenter(s): Caparrotti F.

Publication Details:


Publication Details:


Publication Details:


Publication Details:
Fu T, ..., Ringash J.... Witterick I. Neoadjuvant radiation improves margin status compared to adjuvant radiation among patients with non-squamous cell carcinoma sinonasal malignancies. Coauthor or Collaborator.

2016 Jan 21 supervisor, not a presenter. Prospective evaluation of quality of life (QOL) during a phase I/II study of adjuvant chemotherapy with image-guided high-precision radiotherapy for completely resected gastric cancer. ASCO 2016 Gastrointestinal Cancers Symposium. San Francisco, California, United States. Presenter(s): Rebecca Goody. poster presentation. (Trainee Presentation)

Publication Details:
Goody R, ..., Ringash J. Prospective evaluation of quality of life (QOL) during a phase I/II study of adjuvant chemotherapy with image-guided high-precision radiotherapy for completely resected gastric cancer. Senior Responsible Author.

2015 Dec 16 not a presenter. Impact of Comorbidity, Polypharmacy and HPV status in Elderly Patient with Oropharyngeal Cancer. ESTRO. Turin, Italy. Presenter(s): Francesca Caparrotti. ESTRO annual meeting.

Publication Details:

2015 Oct 18 not a presenter. Impact of Comorbidity, Polypharmacy and HPV status in Elderly Patient with Oropharyngeal Cancer. ESTRO.
Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Oct 18 Cervical lymph node calcification on its own following radiation therapy is not predictive for neck recurrence in oropharyngeal carcinoma. Poster Presentation. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Rathod S.

Publication Details:


Publication Details:
2015 Oct 18  
Natural course following failure after definitive chemo-radiation therapy in HPV-related and HPV-unrelated oropharyngeal cancer. Poster Presentation. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Rathod S.

Publication Details:  

2015 Oct 18  
Reaffirming Metastatic Risk Profiles in Human Papillomavirus-related Oropharyngeal Cancer Following Definitive Radiation Therapy with or without Chemotherapy. Poster Discussion. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): O’Sullivan B.

Publication Details:  

2015 Oct 18  
Risk stratification for relapse in human papillomavirus-unrelated oropharyngeal carcinoma treated with definitive radiation therapy with or without chemotherapy. Poster Presentation. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Huang SH.

Publication Details:  

2015 Oct 1  
Co-author, not a presenter. Health benefits and incurred costs from early dysphagia intervention for patients receiving chemoradiotherapy for head and neck cancer: Preliminary findings. Dysphagia Society. Presenter(s): Rosemary Martino.

Publication Details:  

2015 Sep 8  

Publication Details:  

2015 Jun 2  
Presenter. Quality of life (QOL) in a phase III randomized trial of standard fractionation radiotherapy (SFX) with concurrent cisplatin (CIS) versus accelerated fractionation radiotherapy (AFX) with panitumumab (PMab) in patients (pts) with locoregionally advanced squamous cell carcinoma of the head and neck (LA-SCCHN); NCIC Clinical Trials Group HN.6 (NCT00820248). ASCO 2015. Chicago, Illinois, United States. Presenter(s): Ringash J. Poster presentation.
Publication Details:

2015 Jun 1
Social media as a key tool to recruit rare disease patients for clinical researchers. SMDM meeting 2015.

Publication Details:

2015 Jun 1

Publication Details:

2015 Jun 1
Email communication practices and preferences among patients and providers in a large comprehensive cancer center. ASCO 2015. Chicago, Illinois, United States. Presenter(s): Cook N. Poster discussion presentation.

Publication Details:
Cook N, Ringash J, Kryzanowska M. Email communication practices and preferences among patients and providers in a large comprehensive cancer center. J Clin Oncol. 2015 May 20;33(15). suppl; abstr 6519. Coauthor or Collaborator.

2015 May 30

Publication Details:

2015 May 26

Publication Details:
Knox J, Brade A, Dawson L, Pintilie M, Mackay H. Concurrent Cisplatin/5FU/IGRT: High Survival, Low Late Toxicity for Post-operative Gastric Cancer Patients (Phase I/II Clinical Trial). 2015 Mar 6. **Principal Author.**

2015 Mar 1 Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. ASTRO 2015.


2015 Mar 1 Postradiotherapy cervical lymph node calcification alone is not an adverse feature for neck recurrence in oropharyngeal carcinoma. ASTRO 2015.


2015 Feb 15 Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status. ICHNO. Feb 12-14, 2015 podium presentation.


*Publication Details:*

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2014 Sep 9  Potential Cure in HPV-related Oropharyngeal Cancer with Oligometastases. ASTRO 2014. abstract #1055, poster discussion.

Publication Details:


**Publication Details:**

**2014 Sep 9** Patient-reported outcomes: Correlation of MDASI-HN and clinical support required for patients receiving curative head and neck chemoradiation therapy. ASTRO 2014.

**Publication Details:**

**2014 Sep 9** Prospective Longitudinal Assessment of Quality of Life for Liver Cancer Patients Treated with Stereotactic Body Radiation Therapy. ASTRO 2014. abstract #2392.

**Publication Details:**

**2014 Sep 9** Treatment Dilemmas for Synchronous and Metachronous Prostate and Rectal Cancers. ASTRO 2014. abstract #2430, poster.

**Publication Details:**

**2014 Sep 9** IMRT with selective target volume approach in head and neck squamous cell carcinoma of unknown primary site. ASTRO 2014.

**Publication Details:**

**2014 Sep 9** Role of radiation therapy in management of nasal and sinonasal squamous cell carcinomas. ASTRO 2014. abstract #2841.

**Publication Details:**

Publication Details:


Publication Details:

2014 Apr 4 Definitive radiation therapy for advanced stage oral cavity squamous cell carcinoma. 2014 European Society for Therapeutic Radiology and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria. April 4-8, 2014 (poster).

Publication Details:

2014 Apr 2 Effect of completion-time windows in the analysis of health-related quality of life (HRQOL) outcomes in radiotherapy clinical trial. ASCO 2014.

Publication Details:

2014 Feb 4 Understanding the age-dependent cancer burden on pre-treated health-related quality of life of cancer patients using the EORTC QLQ-C30: A pooled analysis of randomized controlled trials. ASCO 2014.

Publication Details:


Publication Details:

2014 A Mapping Algorithm of Health Preferences from EORTC QLQ C30 to Health Utility Index Mark 3 (HUI3) in Advanced Colorectal Cancer. GI ASCO meeting. San Francisco. poster.

Publication Details:
Chan K, Tu D, O’Callaghan C, Au, H-J, Leighl N, Brundage M, Jonker D, Karapetis C, Ringash J,

2014 Hypoxemia in Adult Patients with Dysphagia: Can it be reliably measured? Dysphagia Research Society.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2013 Oct A Randomized Controlled Trial of Lorazepam to Reduce Organ Motion in Patients Receiving Upper Abdominal Radiotherapy. ASTRO 2013. Atlanta.

Publication Details:

2013 Jun 17 Significance of baseline Quality of Life scores in predicting clinical outcomes in an international phase III trial of advanced pancreatic cancer: NCIC CTG PA.3.

Publication Details:


Publication Details:

2013 Jan 30  Outcomes following stereotactic body radiotherapy for patients with child-pugh b/c hepatocellular carcinoma. ASCO GI meeting. San Francisco.

Publication Details:

2013  Health-related quality of life in head-and-neck cancer treated with radiation therapy with or without chemotherapy: A systematic review. ASTRO annual meeting 2013. Atlanta. abst 3053.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:

2012 Jun  Impact of p16 status on the QOL effects of chemoradiation for locally advanced oropharynx cancer: Results of TROG 02.02. ASCO 2012. Chicago, United States.

Publication Details:


Publication Details:

2012 Jan  P16 status does not influence the QOL effects of chemoradiation for locally advanced oropharynx cancer: Results of TROG 02.02. American Society for Radiation Oncology (ASTRO) Head & Neck Meeting. Phoenix, United States.

Publication Details:
**Principal Author.**

2012 Jan  
Quality of life (QoL) assessment in patients (pts) with k-RAS wild-type (WT) chemotherapy refractory metastatic colorectal cancer (mCRC) treated with cetuximab (CET) + brivanib alaninate (BRIV) or placebo: Results of the NCIC clinical trials group and AGITG CO.20 trial. American Society of Clinical Oncology (ASCO) GI Meeting. San Francisco, United States.

*Publication Details:*

2012 Jan  
Correlates Of Depression And Anxiety In Patients With Head And Neck Cancer Undergoing Radiation Therapy. American Society for Radiation Oncology (ASTRO) Head & Neck Meeting. Phoenix, United States.

*Publication Details:*

2012  
Phase II trial of palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases. ASTRO 2012 meeting. Boston.

*Publication Details:*

2012  
Joint modeling of longitudinal health-related quality of life data and overall survival. ISOQOL 2012.

*Publication Details:*

2012  
The Added Clinical Value of Health-Related Quality of Life Research: Major Outcomes of the Pooled Analysis of Phase III Randomised Clinical Trials. ISOQOL 2012 meeting.

*Publication Details:*

2011 Oct  

*Publication Details:*
Coauthor or Collaborator.

2011 Oct

Publication Details:

2011 Sep
Is There Any Added Value in the Pooled Analysis of over 120 Large Scale Phase III Randomized Clinical Trials in Health Related Quality of Life? ECCO16-ESMO36-ESTRO30 European Multidisciplinary Cancer Congress. Stockholm, Sweden.

Publication Details:

2011 Jun
RTOG 1016 Dental Effects Health Scale and Dental Count Tools for Clinical Trials: Development and Opportunities for Validation and Utilization. MASSC.

Publication Details:

2011 May

Publication Details:

2011
Sites of gastric cancer recurrence after adjuvant chemoradiotherapy. American Society of Clinical Oncology (ASCO) Annual Meeting. Chicago. (Trainee Presentation)

Publication Details:

2011
A phase III study of cetuximab (CET) plus either brivanib alaninate (BRIV) versus placebo in patients with chemotherapy-refractory KRAS wild-type (WT) advanced colorectal cancer (aCRC): The NCIC CTG/AGITG CO.20 trial. American Society of Clinical Oncology (ASCO) Annual Meeting.

Publication Details:
2011 Outcomes following sequential trials of stereotactic body radiotherapy (SBRT) for hepatocellular carcinoma (HCC). American Society of Clinical Oncology (ASCO) Annual Meeting.

Publication Details:


Publication Details:


Publication Details:

2010 Oct Clustering of Health-related Quality of Life (HRQOL) items in Metastatic Prostate Cancer Patients. 17th Annual Conference of the International Society for Quality of Life Research. London, United Kingdom.

Publication Details:

2010 May 25 Neuropsychological assessment in patients with head and neck cancer after radiotherapy or chemoradiotherapy. IPOS 12th World Congress of Psycho-Oncology. Quebec City, Quebec, Canada.

Publication Details:


Publication Details:
Vercauteren J, Maringwa J, Coens C, Quinten C, Gotay C, Ringash J, King M, Osoba D, Flechtner H,

2010
Cognitive functioning pre and post radiotherapy (RT), chemoradiotherapy (CRT) or bioradiotherapy (BRT) in patients with locally advanced squamous cell cancer of the head and neck (LA-SCCHN). American Society of Clinical Oncology (ASCO) Annual Meeting. Chicago, United States.

Publication Details:

2010

Publication Details:

2010

Publication Details:

2010
Making best use of existing clinical trials data- a global project on QOL: PROBE on behalf of the EORTC, the NCIC-CTG, MRC, the AGO. UICC. Shehnzen.

Publication Details:
Bottomley A, Gotay C, Osoba D, Ringash J, Schmucker-Von Koch J. Making best use of existing clinical trials data- a global project on QOL: PROBE on behalf of the EORTC, the NCIC-CTG, MRC, the AGO. 2010. UICC, Shehnzen 2010. Coauthor or Collaborator.

2010

Publication Details:

2010

Publication Details:

Distress screening and psychosocial referral in patients with head and neck cancer. IPOS 12th World Congress of Psycho-Oncology. Quebec City, Quebec, Canada.

Publication Details:


Publication Details:

The Association between Age and Gender with Health Related Quality of Life for Cancer Patients Stratified by Disease Severity: A Meta-analysis of Randomized Controlled Trials. Multinational Association of Supportive Care in Cancer (MASCC). Rome.

Publication Details:

QOL for advanced squamous cell carcinoma of the head and neck: Final results of a phase III randomized trial of tirapazamine, cisplatin and radiation versus cisplatin and radiation (TROG 02.02). American Society for Radiation Oncology (ASTRO) Annual Meeting, , USA. Chicago, United States.

Publication Details:

Respiratory Correlated Cone Beam CT (CBCT) Analysis of Liver and Kidney Breathing Motion Shifts in Adjuvant Gastric Cancer Radiotherapy. American Society for Radiation Oncology (ASTRO) Annual Meeting. Chicago, United States.

Publication Details:


Publication Details:

2009


**Publication Details:**

2009

A methodological investigation to define a clinically relevant cut-off point in the ordinal scale of the EORTC QLQ-C30 questionnaire. 14th ISPOR Annual International Meeting. Orlando, Florida.

**Publication Details:**

2009


**Publication Details:**

2009


**Publication Details:**

2009


**Publication Details:**

2009

Final results of an expanded cohort phase I study of individualized stereotactic body radiotherapy of liver metastases. ASCO/ASTRO Gastrointestinal Cancers Symposium.

**Publication Details:**

2009

Publication Details:

2009


Publication Details:

2009


Publication Details:

2009


Publication Details:

2009

Health-Related Quality of Life indicators and overall Quality of Life: results from a cluster analysis on baseline EORTC QLQ-C30 data from 6739 cancer patients. American Society of Clinical Oncology (ASCO) Annual Meeting. Orlando, Florida, United States.

Publication Details:

2008

Late Adverse Events after Abdominal Radiotherapy. Oak Brook, Ill: Radiological Society of North America: Radiology. (Trainee Presentation)

Publication Details:

2008

Final results of a phase I study of adjuvant chemoradiation for gastric adenocarcinoma with infusional 5-fluorouracil and bi-weekly cisplatin. American Society of Clinical Oncology (ASCO) Annual Meeting. Chicago, United States.

Publication Details:

2008

Adjuvant chemoradiation for gastric adenocarcinoma with infusional 5-fluorouracil and cisplatin: Update of a phase I study. American Society of Clinical Oncology (ASCO) Annual Meeting. (Trainee Presentation)

**Publication Details:**

2008

Quality Of Life during Adjuvant Chemoradiation For Gastric Adenocarcinoma. American Society for Radiation Oncology (ASTRO) Annual Meeting. Boston, United States.

**Publication Details:**

2008


**Publication Details:**

2008

Feasibility of reducing radiation dose to the brachial plexus (BP) for nasopharyngeal cancer (NPC) patients treated with IMRT. American Society for Radiation Oncology (ASTRO) Annual Meeting. Boston, United States.

**Publication Details:**

2008

Intensity-modulated Radiation Therapy for Nasopharyngeal Carcinoma: Analysis of Quality of Life in a Prospective Phase II Study. American Society for Radiation Oncology (ASTRO) Annual Meeting. Boston, United States. (Trainee Presentation)

**Publication Details:**

2008

Do dose and experience of toxicity affect quality of life (QOL) during adjuvant chemoradiation for gastric adenocarcinoma? International Society for Quality of Life Research Meeting. Montevideo, Uruguay. (Trainee Presentation)

**Publication Details:**


2008 Differences in Feeding Tube Requirements for Patients Treated with IMRT Versus Two Dimensional Radiation Techniques for Advanced Head and Neck Cancer. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Goteborg, Sweden.


2008 Intensity-modulated Radiation Therapy for Nasopharyngeal Carcinoma: Analysis of Quality of Life in a Prospective Phase II Study. RANZCR Annual Meeting. (Trainee Presentation)


2008 A Randomized Comparison of Enteral Feeding for Head and Neck Cancer Patients: a Pilot Study. RANZCR Annual Meeting.


2007;25(18S):644S. **Senior Responsible Author.**

2007

The truths and myths of radiotherapy for verrucous carcinoma of larynx. American Society for Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States.

**Publication Details:**

2007


**Publication Details:**

2007


**Publication Details:**

2007

Temporo-spatial changes of enlarged cervical lymph nodes during head and neck cancer IMRT imaged with daily on-line cone-beam CT. American Society for Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States.

**Publication Details:**

2007

Randomized trial of cone beam CT evaluating inter- and intra-fraction setup error of head and neck cancer patients treated with a skin-sparing mask compared to a standard S-frme mask. American Society for Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States.

**Publication Details:**

2007

Changes in position and size of parotid glands assessed with daily cone-beam CT during image-guided IMRT for head and neck cancer: Implications of rdose received. American Society for Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States.

**Publication Details:**

2007

Frequency and predictors of parotid sparing in a cohort of patients managed with bilateral neck IMRT for...

Publication Details:

2007
A standardized nomenclature system for head and neck IMRT contouring, planning and quality assurance. American Society for Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States.

Publication Details:

2007

Publication Details:

2007

Publication Details:

2007
NCIC CTG experience in collecting quality of life data in non-randomized phase I and phase II clinical trials. International Society for Quality of Life Research Meeting.

Publication Details:

2007
Added value of health-related quality of life (QOL) outcomes in NCIC CTG clinical trials: Results from QOL committee workshop. International Society for Quality of Life Research Meeting.

Publication Details:

2007

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

**Publication Details:**

2006 Correlation between liver and kidney dose volume histograms (DVH) and late toxicity after adjuvant radiochemotherapy for gastric adenocarcinoma. American Society for Radiation Oncology (ASTRO) Annual Meeting. Philadelphia. (Trainee Presentation)

**Publication Details:**

2006 Audit of TNM staging data in a prospective point-of-care database for head and neck cancer. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting, Germany. Leipzig, Germany. (Trainee Presentation)

**Publication Details:**

2006 The development of an interprofessional mentorship program for faculty at the Department of Radiation Oncology, University of Toronto - a new beginning. Association for Medical Education in Europe (AMEE).

**Publication Details:**
Szumacher E, Manchul L, Barker R, Kane G, Palmer C, **Ringash J**. The development of an interprofessional mentorship program for faculty at the Department of Radiation Oncology, University of Toronto - a new beginning. Proceedings of the Association for Medical Education in Europe (AMEE). 2006;42(3N7). Senior Responsible Author.


**Publication Details:**

2006 Late toxicity after adjuvant radiochemotherapy for gastric adenocarcinoma. American Society of Clinical Oncology (ASCO) Annual Meeting. Atlanta, United States. (Trainee Presentation)

**Publication Details:**

2006 Phase II trial of preoperative (POP) irinotecan (I) + cisplatin (C) and radiotherapy for esophageal cancer. American Society of Clinical Oncology (ASCO) Annual Meeting. Atlanta, United States.
Publication Details:

2006
Tu-be or not tu-be? The QOL-EF tool for measuring the impact of enteral feeding on QOL. International Society for Quality of Life Research Meeting (ISQOLS) Annual Meeting. Lisbon, Portugal.

Publication Details:

2006

Publication Details:

2006

Publication Details:

2006

Publication Details:

2005

Publication Details:

2005

Publication Details:

Publication Details:


Publication Details:

2005 Organ motion study in patients receiving radiotherapy for carcinoma of the esophagus. ASCO/ASTRO Gastrointestinal Cancers Symposium. (Trainee Presentation)

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2005 Abdominal Organ Motion during Conformal Radiation. American Society for Radiation Oncology (ASTRO) Annual Meeting. Denver, United States. (Trainee Presentation)

Publication Details:

**Publication Details:**

2005 Toxicity, Survival and Predictors of Outcome In Patients Receiving Adjuvant Chemoradiotherapy For Gastric Adenocarcinoma. American Society for Radiation Oncology (ASTRO) Annual Meeting. Denver, United States. (Trainee Presentation)

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2004
Preoperative radiation with concurrent chemotherapy for resectable rectal cancer: Effect of dose escalation on pathological complete response, local recurrence free survival and disease free survival. American Society for Radiation Oncology (ASTRO) Annual Meeting. Atlanta, United States.

Publication Details:

2004

Publication Details:

2004
Tolerability of the Intergroup 0099 regimen in locally advanced nasopharyngeal cancer with a focus on patients’ nutritional status. American Society of Clinical Oncology (ASCO) Annual Meeting. Atlanta, United States.

Publication Details:

2004
Prospective phase I study of post-operative adjuvant radiochemotherapy for gastric cancer with infusional 5-fluorouracil and cisplatin. ASCO/ASTRO Gastrointestinal Cancers Symposium.

Publication Details:

2003
Small Cell Carcinoma of the head and neck: experience of a single comprehensive cancer centre. European Cancer Conference (ECCO) meeting. Copenhagen, Denmark. (Trainee Presentation)

Publication Details:

2003
Accelerated fractionation radiotherapy for the palliation of dysphagia in esophageal cancer - A University of Toronto Study. American Society for Radiation Oncology (ASTRO) Annual Meeting. Salt Lake City.

Publication Details:

2002

Publication Details:

2002


Publication Details:

2002

Quality assurance rounds for head and neck cancer patients managed with radiation therapy. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Praha, Czech Republic.

Publication Details:

2000

Minimal important difference for quality of life measures is about five to ten percent of the instrument range. American Society for Clinical Oncology (ASCO) Annual Meeting. New Orleans, United States.

Publication Details:

1999


Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2011 Nov 28 Invited Lecturer. How Does Quality of Life Measurement Add Value to What is Learned from Cancer Clinical Trials? Symposium: Patient-reported Outcomes and Cancer Care, Examples from Across the Cancer Continuum; The Canadian Cancer Research Conference. Toronto, Canada. (Continuing Education).

2009  **Invited Lecturer.** Quality of Life Measurement in NCIC-CTG Clinical Trials. Clinical Research Associate Lecture, NCIC-CTG annual spring meeting. Toronto, Ontario, Canada. Educational session for 100 clinical research associates (mainly nurses). (Continuing Education).

2008 Apr  **Invited Speaker.** Added Value of QOL - Case Study #2: SR.2. NCIC Clinical Trials Group, Quality of Life Committee Educational Workshop. Toronto, Canada. Educational 3 hour session for about 150 oncologists. (Continuing Education).

2008  **Invited Speaker.** Quality of Life in the Era of Chemoradiation. The 8th Princess Margaret Hospital Conference: Developments in Cancer Management: Conquering Cancer in our Lifetime. Toronto, Canada. CME event for about 500 oncologists. (Continuing Education).


2006 May  **Chair.** A Celebration of 20 Years of Quality of Life Research. NCIC Clinical Trials Group Symposium. Montreal, Canada. 3 hour session for about 200 oncologists. (Continuing Education).


2001  **Minimal Important Difference in QOL for Patients with Laryngeal Cancer.** National Cancer Institute of Canada Clinical Trials Group (NCIC-CTG) Quality of Life Committee. Montreal, Quebec.

2001  **Quality of Life and Radiation Oncology: Does the Hat Fit?** Symposium. Canadian Association of Radiation Oncologists. Quebec City, Quebec.

**Presented Abstracts**

2014 Aug 27  **Presenter.** Implementing a survivorship programme for head and neck cancer patients. Canadian Association for Radiation Oncology. St. John’s, Canada.


2007  **Assessment of non-respiratory stomach motion in fasting and postprandial states.** Canadian Association of Radiation Oncologists (CARO). Toronto.

2001  **Accuracy of ultrasound in localization of lumpectomy site.** Canadian Association of Radiation Oncologists (CARO). Quebec City.

2001  **Should 40-year-old women take tamoxifen to prevent breast cancer?** A quality adjusted decision analysis. Canadian Association of Radiation Oncologists (CARO). Quebec City.

2001  **Post-operative radiochemotherapy for gastric cancer: adoption and adaptation.** Canadian Association of Radiation Oncologists (CARO). Quebec City.

1999  **Quality of life and utility assessment for laryngeal cancer patients.** Canadian Association of Radiation Oncologists (CARO). Montreal.

**Presented and Published Abstracts**

2016 Sep  **not a presenter.** Prognostic Value of Pretreatment Serum Lactate Dehydrogenase in HPV-related and HPV-unrelated Oropharyngeal Cancer. CARO. Banff, Alberta, Canada. Presenter(s): Huang, SH.

*Publication Details:*
Huang SH, Bratman SV, Su J, Tong L, Kim J, Waldron J, Hansen A, Goldstein D, Bayley A, Cho J,

2016 Sep **not a presenter.** Long-term quality of life of retroperitoneal sarcoma patients treated with pre-operative radiotherapy and surgery. CARO. Banff, Alberta, Canada. Presenter(s): Wong P.

Publication Details:

2016 Sep **not a presenter.** Impact of Lymph node density on distant metastasis in oral cavity cancer. CARO. Banff, Alberta, Canada. Presenter(s): Hosni A.

Publication Details:

2016 Sep **not a presenter.** Impact of Tumor Volume and the Surrogate Effect of Lymph Node Location on the Risk of Distant Metastasis in Nasopharyngeal Cancer. CARO. Banff, Alberta, Canada. Presenter(s): Rathod S.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Sep 9 Concurrent chemoradiotherapy for locally advanced head and neck cancer: impact of radiation technique,

Publication Details:

2015 Sep 9
Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. CARO 2015. Kelowna, British Columbia, Canada. abst 155, Poster Discussion.

Publication Details:

2015 Sep 9

Publication Details:

2015 Sep 9

Publication Details:

2015 Sep 9

Publication Details:

2015 Sep 9

Publication Details:

**Publication Details:**


**Publication Details:**


**Publication Details:**

2014 Aug 1 Patient Reported Outcomes: Correlation of MDASI-HN and clinical support required for patients receiving curative head and neck chemoradiotherapy. CARO 2014. abstract# 151, poster.

**Publication Details:**

2014 Aug 1 Effect of Stereotactic Body Radiotherapy for Liver Cancer on Quality of Life. CARO 2014. abstract# 131, poster.

**Publication Details:**

2014 Aug 1 Outcomes Following Re-irradiation for Recurrent Nasopharyngeal Carcinoma at a Canadian Cancer Centre. CARO 2014. abstract# 155, poster.

**Publication Details:**

**Publication Details:**

2014 Aug 1 Health-Related Quality of Life Outcomes from Cancer Clinical Trials: What are the Factors Influencing Their Use in Oncology Practice? CARO 2014. abstract# 69, oral presentation.

**Publication Details:**

2014 Aug 1 Survival Predictor in Oropharyngeal Cancer Patients with Distant Metastasis. CARO 2014. abstract#150, poster.

**Publication Details:**

2014 Aug 1 Role of Radiotherapy in Management of Nasal and Sinonasal Squamous Cell Carcinoma. CARO 2014. abstract#156, poster.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2014 Aug 1 Implementing a Survivorship Programme for Head and Neck Cancer Patients. CARO 2014. abstract# 64, oral presentation.

**Publication Details:**

2013 Aug 1 Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy Compared to Primary Laryngectomy. CARO-COMP 2013 Joint Scientific Meeting. Montreal, Quebec. abst 218.
Publication Details:

2013 Aug 1
Health Related Quality of Life in Head and Neck Cancer Treated with Radiation Therapy with or without Chemotherapy: A Systematic Review. CARO-COMP 2013 Joint Scientific Meeting. Montreal, Quebec. abst 222.

Publication Details:

2013 Aug 1
Does Lorazepam Reduce Organ Motion in Patients Receiving Upper Abdominal Radiotherapy? Results From a Randomized Trial. CARO-COMP 2013 Joint Scientific Meeting. Montreal, Quebec. abst 328.

Publication Details:

2013 Feb 7
CLINICAL USE OF HEALTH-RELATED QUALITY OF LIFE OUTCOMES FROM CANCER CLINICAL TRIALS: PRELIMINARY RESULTS FROM A SURVEY OF ONCOLOGISTS. Canadian Society for Epidemiology and Biostatistics conference 2013.

Publication Details:

2012 Sep
The characteristics of cervical lymph node resolution following primary radiotherapy +/- chemotherapy for N2-N3 head and neck cancer. Pattern of Neck Response. CARO 2012.

Publication Details:

2012
Health Related Quality of Life in Head and Neck Cancer Treated with Radiation Therapy With or Without Chemotherapy. CARO 2012.

Publication Details:

2012
Health Related Quality of Life in Head and Neck Cancer Treated with Surgery With or Without Radiotherapy or Chemoradiotherapy. CARO 2012.

Publication Details:
Livergant J, Klein J, Ringash J. Health Related Quality of Life in Head and Neck Cancer Treated with Surgery With or Without Radiotherapy or Chemoradiotherapy. Radiotherapy & Oncology. 2012;104(Suppl
2012 Outcome of IMRT for Hypopharyngeal Cancer Compared to Conventional Radiotherapy. CARO 2012.

Publication Details:

Senior Responsible Author.


Publication Details:


Publication Details:


Publication Details:

2010 Intensity-Modulated Radiotherapy (IMRT) and Concurrent Chemotherapy for Anal and Perianal Cancer: the Princess Margaret Hospital Experience. Canadian Association for Radiation Oncology (CARO) Annual Meeting.

Publication Details:

2009 Evaluation of infra-hyoid midline normal structure avoidance in locally advanced oropharynx squamous cell cancer treated with 70Gy/35F IMRT. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Development of the University of Toronto Skull Base Inventory (UT-SBI) Quality of Life Questionnaire. National Association of Skull Base Surgery.
Publication Details:

2009
Tolerability of Intensity-Modulated Radiotherapy (IMRT) and Concurrent chemotherapy (CT) for Anal and Perianal Cancer: Preliminary report of acute toxicity. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009
Patterns of care in elderly head and neck cancer patients: A recent single institution experience. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009
Palliative Radiotherapy for Head and Neck Cancer: A Retrospective, single-institutional review. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec. (Trainee Presentation)

Publication Details:

2008
Prospective QOL for patients receiving stereotactic liver radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2008

Publication Details:

2008
Quality of Life in Patients with Nasopharyngeal Carcinoma after Intensity-modulated Radiation Therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec. (Trainee Presentation)

Publication Details:

2008
Feasibility of reducing radiation dose to the brachial plexus (BP) for nasopharyngeal cancer (NPC)
patients treated with IMRT. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

**Publication Details:**

2008 Delivery of less than intended cisplatin (CDDP) dose intensity in patients with locally advanced head and neck squamous cell carcinoma (LA-HNSCC) receiving concurrent chemoradiation (CRT) correlates with poorer outcome. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

**Publication Details:**

2008 Feeding tube requirements for advanced head and neck cancer (HNC) patients treated with IMRT versus two dimensional radiation techniques (2DRT). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

**Publication Details:**

2008 Preliminary results of a phase II study of single fraction palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

**Publication Details:**

2007 Determination of PTV margins for enlarged cervical lymph nodes based on changes observed in volume and location with daily on-line cone beam CT during a course of radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

**Publication Details:**


**Publication Details:**
Jolie RINGASH

2007;84(Suppl 2):S64. **Coauthor or Collaborator.**

**2007**
Randomized trial evaluating setup error and skin toxicity of two thermoplastic masks for head and neck image-guided IMRT. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

**Publication Details:**

**2007**
Late Adverse Events Following Abdominal Radiation. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

**Publication Details:**
Kassam Z, Wysocka B, Brierley J, Gospodarowicz M, Catton C, Lockwood G, **RINGASH J**. Late Adverse Events Following Abdominal Radiation. Radiother Oncol. 2007;84(Suppl 2):S37. **Coauthor or Collaborator.**

**2007**

**Publication Details:**

**2007**

**Publication Details:**

**2007**

**Publication Details:**

**2007**

**Publication Details:**

**2007**

**Publication Details:**
Huang SH, Lockwood G, Irish J, **RINGASH J**, Kim J, Waldron J, Dawson LA, Bayley A, Cummings B,
O’Sullivan B. Management of verrucous carcinoma of larynx: a reappraisal of the role of primary radiation. Radiother Oncol. 2007;84(Suppl 2):S64. **Coauthor or Collaborator.**

2007


**Publication Details:**

2006


**Publication Details:**

2006

Segment Weight Optimization Treatment Planning for Adjuvant Radiochemotherapy of Gastric Carcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)

**Publication Details:**

2006

Assessment of IMRT for Cervical Esophageal Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)

**Publication Details:**

2006


**Publication Details:**

2006

Predictors of Outcome in Cervical Esophageal Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)

**Publication Details:**

2006

Upper abdominal organ motion during conformal radiotherapy for gastric cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)
**Publication Details:**

2006
Late toxicity after adjuvant radiochemotherapy for gastric adenocarcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)

**Publication Details:**

2006

**Publication Details:**

2006

**Publication Details:**

2006
What is the impact of 4D-CT on the planning of esophageal cancer (EC)? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta.

**Publication Details:**

2006
The development of an interprofessional mentorship program for faculty at the Department of Radiation Oncology, University of Toronto - a new beginning. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta.

**Publication Details:**

2006
Does contrast aid delineation of targets for radiotherapy in head and neck cancer (HNC)? Canadian Association of Radiation Oncology (CARO) Annual Meeting.

**Publication Details:**

2005
Survival Analysis for Cervical Esophageal Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Victoria, British Columbia. (Trainee Presentation)

**Publication Details:**
Responsible Author.


Publication Details:


Publication Details:


Publication Details:


Publication Details:


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2005

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2004

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2004

Publication Details:

2003
Publication Details:

2003

The McMaster HNRQ Demonstrates Clinically Important Change in Patients with Head and Neck Cancer and Xerostomia. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003


Publication Details:

2003

QOL for patients with feeding tubes: item reduction of a novel questionnaire. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003

Small Cell Carcinoma of the head and neck: experience of a single comprehensive cancer centre. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec. (Trainee Presentation)

Publication Details:

2003

Patterns of failure for squamous cell carcinoma of the soft palate managed with primary radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003

Examination of the effect of abutting MLC leaves in cord shielding for treatment of the upper third of the esophagus using an aperture based technique. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:
**van Prooijen M., Japp B., Ringash J., Alasti H.** Examination of the effect of abutting MLC leaves in cord shielding for treatment of the upper third of the esophagus using an aperture based technique. Radiother Oncol. 2003;69(Suppl 1):S27. **Senior Responsible Author.**

2003

Fractionated stereotactic radiation therapy integrated into the management of nasopharyngeal cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

**2003**


*Publication Details:*


**2003**

Outcome and toxicity of postoperative short course adjuvant radiation (SCART) and chemotherapy following resection of adenocarcinoma of the rectum. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

*Publication Details:*


**2003**

Recurrent nasopharyngeal cancer treated with fractionated stereotactic radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

*Publication Details:*


**2003**

Squamous Cell Carcinoma of the Soft Palate Managed with Primary Radiation Therapy: Patterns of Nodal Failure. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

*Publication Details:*


**2003**

Patterns of failure for squamous cell carcinoma of the soft palate managed with primary radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

*Publication Details:*


**2002**


*Publication Details:*


**2002**

Regional lymph node failure patterns in N0 tonsillar cancer treated with primary external beam radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.
Publication Details:


Publication Details:

Chair
2014 Aug 26 Chair. CARO Theme Symposium. Canadian Association for Radiation Oncology. St. John’s, Canada. Presenter(s): Dr. Manuel Borod, Dr. Derek Puddester.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


2016 Apr 8 Presenter. Rationale for IGRT for Liver RT. Impact of Liver RT on Quality of Life. Liver RT Education Course. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Jolie Ringash, J.


2013 Nov 7 Invited Speaker. Facing Cancer Head On: A Disease Site Specific Survivorship Programme. Princess Margaret Cancer Centre Combined DMOH/RMP Rounds. Toronto, Ontario, Canada. Presenter(s): Jolie Ringash. Monthly rounds shared between Department of Medical Oncology and Radiation Medicine Programme.


2011 Sep 29 Speaker. Living Well is the Best Revenge: QOL and HPV-Associated Oropharyngeal Cancer. RMP Rounds. Toronto, Ontario, Canada. Weekly academic rounds for about 100 health professionals & students. (Continuing Education).


2006 Nov Speaker. Tu-be or not Tu-be? Developing a therapy specific QOL instrument for enteral feeding. University Health Network Clinical Epidemiology Rounds. Toronto, Canada. Weekly academic research rounds for about 20 health professionals & students. (Continuing Education).


2006 Mar 30 Speaker. To Tube or not to Tube? RMP Rounds. Canada. Weekly academic departmental rounds for about 100 health professionals & students. (Continuing Education).
Presented Abstracts


1998 Jun  Principal Author. Protocol for a Randomized, Controlled Trial of Therapy for Adults with TNM Category T3/4 Laryngeal Carcinoma: Is Quality of Life in the First Two Years Post-treatment, as Measured by FACT, Better with Radiotherapy or Total Laryngectomy? A Canadian multi-centre trial. Fellows’ Research Day, University of Toronto Department of Radiation Oncology. Toronto. Ringash J.


Presented and Published Abstracts

2015 Aug 1  coauthor of work; not a presenter. Virtual Longitudinal Mentorship – a feasibility clinical research capacity building project for radiation oncology trainees in Ghana. Sunnybrook Education Meeting. Toronto, Ontario, Canada. Presenter(s): Horia Vulpe. (Trainee Presentation)

Publication Details:

5. OTHER

Presented and Published Abstracts

2015 May 25  coauthor of presenter, not a presenter. Predicting utility scores for myelofibrosis patients: Mapping the myelofibrosis symptom assessment form and myeloproliferative symptom assessment form to the EUROQOL-5D. Society for Medical Decision Making. United States. Presenter(s): Chang Ho Lee. (Trainee Presentation)

Publication Details:

G. Teaching and Design

Teaching and Education Report: Highlights and Summary
1) Nominee and recipient of multiple awards for mentorship and research supervision; supervisor of award recipients
- Postgraduate Medical Education Research Supervision Award, The University of Toronto Department of Radiation Oncology, 2006
- Research Project Supervisor Award Recipient, Princess Margaret Hospital Radiation Medicine Programme Annual Education Awards, 2008
- Awarded to students under my direct research supervision: Best Poster Award, University of Toronto Resident Research Day (Zahra Kassam, 2008); Most significant contribution by a Radiation Oncologist to the scientific program of the RANZCR annual scientific meeting (AstraZeneca Exhibit Prize; Karen Wong, 2008); PSI Resident Research Award
2) Committed to curriculum development and course leadership:
- Co-course director, HAD 5301 Introduction to Clinical Epidemiology (University of Toronto Graduate Programme in Clinical Epidemiology, Department of Health Policy, Management & Evaluation [HPME]), 2003 to 2006; continuous curriculum revision
- Co-course director, HAD 5302 Measurement (University of Toronto Graduate Programme in Clinical Epidemiology, Department of Health Policy, Management & Evaluation [HPME]), 2012

3) International lecturer on quality of life research and research methodology

4) Leadership roles in graduate, post-graduate, and continuing education:
- Clinical Epidemiology MSc/PhD programme in the department of Health Policy, Management & Evaluation: Associate programme director, 2006-2010; Chair, admissions committee, 2007-2010; Member of programme executive committee since 2003; Member of admissions committee since 2002
- Member of Medical Oncology residency and fellowship programme committees, 2006; Site coordinator, 2006-2010
- Chair, “A Celebration of 20 Years of Quality of Life Research”, NCIC Clinical Trials Group Symposium, 2006

5) Author of chapters in two student textbooks of Head and Neck Cancer Management (Outcome Assessment in Head and Neck Cancer; Quality of Life in Head and Neck Cancer Patients)

6) Consistently ranked highly by graduate students as an effective and enthusiastic lecturer/tutor in HAD 5301, HAD 5303, 5302 and Research Methods II

7) Ranked highly by medical residents and undergraduate students as a clinical teacher and role model

8) Supervisor of successful clinical and research trainees, including undergraduate (medical and pre-medical), graduate and post-graduate students (residents and fellows), in medicine and allied health professions

9) Leader and mentor of practicing quality of life researchers through my role as co-Chair of the Quality of Life Committee at the NCIC-Clinical Trials Group.

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2012 Jan - 2012 Apr HAD 5302 Measurement, Graduate Education, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology, The University of Toronto
I was co-course director with Dr. Ahmed Bayoumi for the 2012 (winter) session. Due to an unexpected absence of the previous instructors, it was required to revise the course format significantly into a “seminar” structure with small-group, self-directed principles. A small number (12) of graduate students requiring this course to proceed in a timely fashion through their MSc or PhD requirements were accepted. Dr. Bayoumi and myself worked from the notes and advice of prior instructors to revise the course format, using existing materials. I directly taught 3 sessions and was responsible for grading the final assignments. The course was successfully delivered with all students completing the course passing the required standard. Feedback from the course was positive.

2003 Jul - 2006 Jun HAD 5301 Introduction to Clinical Epidemiology, Graduate Education, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology, The University of Toronto
I was co-course director of this course (with Dr. David Urbach) from 2003-2006. The following description is copied from the website of the Department of Health Policy, Management & Evaluation (HPME), Faculty of Medicine, University of Toronto (http://www.hpme.utoronto.ca/English/page-1-793-1.html#5301)
HAD 5301H
Course Number HAD 5301H
Course Name: Introduction to Clinical Epidemiology and Health Care Research
Prerequisite: None
Delivery Format: Summer - twice a week, 3 hour sessions, one half lecture/one half tutorial (offered to Clin Epi students only)
Winter - once a week, 3 hour sessions - one half lecture, one half tutorial. Non Clin Epi students have to submit a letter of intent and a letter from the supervisor by November 15.
Semester Offered: Summer and Winter
Instructors: Jolie Ringash, David Urbach

Description:
To introduce principles of epidemiology as applied to clinical research, emphasizing diagnosis, prognosis, treatment, the measurement of signs and symptoms of health and disease, and the evaluation of diagnostic, treatment and compliance-improving maneuvers.

Objectives:
1. To introduce the clinical epidemiology program and the courses offered
2. To develop an approach for addressing health research questions using appropriate research methods
3. To introduce the types of research designs used in clinical and epidemiologic research, including those using primary and secondary sources of data
4. To understand the threats to the validity of different study designs, and to become familiar with the methods used to enhance the validity of clinical research
5. To be able to critically appraise a biomedical research article
6. To be able to write a clinical research protocol

Evaluation:
Class participation: 10%
Interim assignment: 30%
Final assignment: 60%

The interim assignment is a short (1000 word maximum) paper describing a clinical research question and a discussion of how analytic bias might affect the validity of a study designed to answer the research question. The topic for the interim assignment may be the same as the topic for the final assignment (see below).

The final assignment is to develop a research protocol around an area of clinical interest, including the following components/sections:
1. title page;
2. abstract;
3. background;
4. research question;
5. population of interest and sampling methods;
6. maneuver;
7. outcomes;
8. analysis;
9. limitations;
10. feasibility; and
11. significance.
The written assignment is limited to a maximum of 2500 words.

The course is taught in two sessions annually. The summer session serves the incoming class of MSc and PhD candidates in the Clinical Epidemiology programme (20-30 students annually). The winter session is available on a priority basis to Clinical Epidemiology students unable to attend the summer session (eg. due to leaves), to students in other programmes of HPME, or (space permitting) to others who apply as Special Students or Auditors. Typically, the winter session includes 10-20 students, including graduate students.
in the Departments of Public Health or the Institute of Medical Sciences (IMS), and clinical practitioners such as medical residents and fellows. This is an extremely popular course which maintains a waiting list and unfortunately, has to turn down students every year. The course has been so successful and well-known that in early 2006, we received an unsolicited invitation from Cambridge University Press to develop our curriculum into a textbook. During our course co-directorship, Dr. Urbach and I gradually revised or replaced the previous units of the course. In past years, the course was structured to teach critical appraisal. However, evidence-based medicine and critical appraisal have since become more accepted and are included in the curricula of most undergraduate health care programmes. Dr. Urbach and I concentrated on revising the course so that it now provides a series of introductory seminars on topics in clinical epidemiology. Most topics are covered in more detail in graduate courses within the programme. Thus, students in the Clinical Epidemiology graduate streams can better determine the more advanced courses that will suit their interests and the needs of their theses after experiencing the “Intro” course. As much as possible, each seminar was taught by a methodologic expert, usually one of the teachers of the advanced course in that seminar topic.

Twice annually, Dr. Urbach and I met specifically for the purpose of curriculum revision. After reviewing all evaluations from the most recent course, we identified 2-3 units as priorities for updating and revision. Revisions could be minor, such as changing an assignment to update the clinical scenarios, or major, such as developing a new unit, or substantially changing the focus of a seminar. All revisions were made according to our advice and vision, however we often benefitted from the involvement of the appropriate methodologic experts.

During my tenure as co-course director, we revised or newly wrote the following units:

Session 1 – History of Clinical Epidemiology and Study Design; Session 3 – Bias in Medical Research; Session 4 – Evidence Based Medicine and Critical Appraisal; Session 5 – Causation; Session 6 – Disease Frequency; Session 8 – Diagnostic Tests; Session 11 – Decision Analysis; Session 12 – Health Services Research; Session 13 – Guidelines and Overviews.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

2011 Sep - present  

2013 Jul - 2018 Jun  
**Co-Supervisor.** Arlene Nugent. Supervisee Position: flex time student, Supervisee Institution: University of Toronto. *How is patient perspective and quality of life data incorporated into health technology assessment?*. Collaborator(s): Murray Krahn (co-supervisor).

2006 Jun - 2008 Jul  

2004 Jul - 2005 Jun  
Postgraduate MD

2011 Sep - present
Primary Supervisor. Core Program. Dr. Jonathan Klein. A systematic review of QOL outcomes for head and neck cancer patients receiving primary radiotherapy with or without chemotherapy.

2011 Sep - present
Primary Supervisor. Core Program. Dr. Jonathan Livergant. A systematic review of QOL outcomes for head and neck cancer patients receiving post-operative radiotherapy with or without chemotherapy.

2010 - present
Primary Supervisor. Core Program. Dr. Tatiana Conrad. Mapping recurrences following post-operative chemoradiation for localized gastric cancer.

2013 Sep - 2014 Dec

2011 Jul - 2012 Jun

2011 Jul - 2012 Jun

2008 - 2009

2007 - 2008
Primary Supervisor. Clinical Fellow. Dr. Karen Wong. Supervisee Position: Radiation Oncologist, Australia, Supervisee Institution: Liverpool Cancer Centre, Sydney, Australia. IMRT for Nasopharyngeal Cancer: Analysis of Quality of Life in a Prospective, Phase II Trial. Awards: AstraZeneca Exhibit Prize, RANZCR annual scientific meeting (Australia): awarded to exhibit by a radiation oncologist judged to have made the most significant contribution to the scientific program. Completed 2008.

2006 Jul - 2008 Jun

2005 Jul - 2008 Jun

2005 Jun - 2006 Jul
Primary Supervisor. Clinical Fellow. Dr. Barbara Wysocka. Supervisee Position: Clinical
Oncologist, Supervisee Institution: Arhus Universitethospital, Denmark. *Interfracton and Respiratory Organ Motion During Conformal Radiotherapy in Gastric Cancer.* Completed 2006.


**Faculty Development**


**2. OTHER SUPERVISION**

**Graduate Education**

**Thesis Committee Member**


2012 Jul - 2015 Jun PhD. Julie Rouette. Supervisee Institution: Queen’s University. *Use of Patient Reported Outcome Data from Clinical Trials to Inform Cancer Care: An International Perspective.*
I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2006 Jul - present
Goal: To improve the outcomes of head and neck (H&N) cancer through improved measurement of, and interventions focused on, quality of life (QOL).
My goal is to define, measure and improve the quality of life and health utility of patients with neoplasms of the head and neck. Advances in radiotherapy techniques and the advent of combined modality treatment have led to significant improvements in survival and local control of head and neck tumours over the past eight years. However, more intense treatment leads to a worsening of acute and late toxicities. Recent recognition of the excellent prognosis of human papillomavirus (HPV)-associated cancers has led to interest in de-intensification. Quality of life (QOL) questionnaires and utility measures can be used to determine the patients’ perspectives on the value of their treatment and well-being. Measurement of QOL along with local control and survival outcomes can lead to a better understanding, and hopefully improvement, of the therapeutic ratio of treatment strategies for head and neck neoplasms.

My creative professional activity in this area has included QOL research focused on the development, validation and evaluation of instruments suitable for measuring QOL and utilities in this specialized population, including a novel instrument designed to measure the QOL impact of enteral feeding during head and neck cancer therapy. I have measured the information needs of patients, the attitudes of nasopharyngeal cancer specialists toward QOL, and the clinical significance of changes in QOL and utility scores. I have also written a systematic review of all QOL instruments available for head and neck cancer patients, and am currently involved in systematic review of the QOL results according to treatment strategy.

As a result of these creative professional activities, I have been invited to be a methodology consultant and have been influential as a proponent of QOL measurement in head and neck cancer. I was appointed as inaugural Chair of the Outcomes subcommittee of the Previously Untreated, Locally Advanced (PULA) focus group within the U.S. NCI Head and Neck Cancer Group in 2009, and additionally serve as a member of PULA. This Outcomes committee consists of recognized experts and has recently drafted a manuscript outlining the recommended patient- and clinician-reported instruments for outcome assessment in head and neck cancer.

I have served as QOL coordinator and a member of the Trial Management Committee on a major international head and neck cancer clinical trial, the “HEADSTART” trial, conducted
jointly by the Trans-Tasman Radiation Oncology Group (TROG) and Sanofi-Aventis [Phase III randomized trial of concomitant radiation, cisplatin and tirapazamine (SR259075) versus concomitant radiation and cisplatin in patients with advanced head and neck cancer]. We are currently in the process of publishing this data. It will be the first large randomized head and neck cancer trial (850 patients) to report QOL for patients treated with concurrent chemoradiotherapy. I am also currently the QOL coordinator for randomized trials in Canada (the recently closed HD.6) and in the USA (RTOG 1016, ECOG 3311), looking at de-escalation using either EGFR inhibitors or trans-oral surgery in the treatment of head and neck cancer, particularly HPV-related oropharynx cancer.

As a practicing head and neck radiation oncologist, I combine an understanding of the highly technical aspects of modern therapy with methodologic expertise in outcomes measurement. This has helped me to introduce QOL methodology into the clinical and research setting locally and internationally. I have taught extensively in this area and have mentored trainees and peers.

I have developed a novel QOL instrument for the measurement of issues related to enteral feeding in H&N cancer patients. This is timely and important, since more aggressive therapy has necessitated feeding support, but the patient well-being trade-offs between better maintenance of weight, vs. side effects of enteral feeding, are not well known. The questionnaire, initially known as “QOL-EF” has been accepted for inclusion into the popular Functional Assessment of Cancer Therapy (FACT) instrument suite administered by the FACIT group (http://www.facit.org/), and its use has been requested by several international investigators (Appendix 1).

I was an initiator, with site group leader Dr. Brian O’Sullivan, of a novel method of determining outcomes at point of care for patients with H&N cancer. The H&N “anthology”, established in 2003, created an inception cohort of new patients for whom outcomes data is collected prospectively at each visit, utilizing billing data (Appendix 1). I led the evaluation of the success of the system and of data quality. The data from the system’s first 3 years was audited, with results presented internationally, and published. On the basis of its excellent success and good data quality, the PMH has expanded the “anthology” system to other cancer diagnoses. Cancer Care Ontario (CCO) has adopted this system as its model for the design of a similar registry system planned for all cancer patients in Ontario. There has been preliminary interest from other oncologists in Canada in using our methods elsewhere.

I was chosen as the QOL coordinator for 4 major international head and neck cancer clinical trials, all being administered by different cooperative groups. One has been completed (Trans-Tasman Radiation Oncology Group – TROG - HEADStart), one recently completed accrual (NCIC-Clinical Trials Group - NCIC-CTG - HN.6), one is ongoing (Radiotherapy Oncology Group –RTOG- 1016) and one is upcoming (Eastern Cooperative Oncology Group – ECOG – 3311) (Appendix 1). The opportunity to apply expertise across different groups of investigators in Australia, New Zealand, Europe, Asia and the Americas has provided many opportunities to educate the international research community and standardize QOL measurement across jurisdictions. Most recently, I was recognized for my work in this area by being named Chair of a NCI-US Head and Neck Cancer subcommittee on Quality of Life, Toxicity and Patient Reported Outcomes (Appendix 1). Working with this committee, I have led the development of a manuscript recommending specific measurement tools for assessment of head and neck cancer outcomes in clinical trials, which is currently being prepared for publication.

I have authored two textbook chapter related to head and neck cancer. The chapter, "Outcomes Assessment in Head and Neck Cancer" was provided for a textbook that is being disseminated at low cost to physicians and trainees in less developed nations. I agreed to participate in this effort because of the extraordinary impact expected of providing up to date research and clinical care advice to physicians who may not have access to the standard journals and electronic resources.
Goal: To improve cancer care through quality research training, methodology, and application.

My secondary goal is to improve the frequency and methodology of health outcome measurement for patients with cancer. In recent years, the health care professions, governmental agencies and patient advocacy groups have realized the value of assessing additional outcomes besides survival. Access to and quality of care, the efficacy of new technology, continuous quality enhancement, acute and late toxicity, cost-utility assessments and patient reported outcomes are all examples of outcomes of interest. Creative sources of data, such as the use of administrative databases, may be required to answer outcomes-oriented research questions. Structured reviews and evidence-based guidelines are tools for dissemination of research results to hopefully close the loop and bring change to clinical practice.

I have a broad understanding of outcomes assessment and have taught frequently on this topic. My creative professional activity in this area has focused primarily on patient reported outcomes, toxicity and medical decision-making. I have participated in population-based research on the outcomes of screening mammography and was the principal author of a national practice guideline on the same topic. I have also studied technology assessment for diagnosis, treatment and target definition (ultrasound and PET), and the value of new technology in radiotherapy delivery (conformal radiotherapy and IMRT). I have successfully attracted a number of international fellows and graduate students who have presented and published work completed under my supervision, and who will disseminate their expertise throughout the world.

Beyond my primary clinical areas of focus, head and neck and gastrointestinal malignancy, I have served as a consultant and collaborator with colleagues interested in outcomes within other areas of oncology and within health care generally. I am regularly contacted by physicians elsewhere in North America and the world for advice regarding the measurement of treatment outcomes in clinical research. I am currently QOL coordinator for 4 internal, 1 national and 3 international trials. I have been a member of the NCIC-CTG QOL committee since 2005, and was named co-Chair of this committee in August 2006. In June of 2006, I participated as a representative of the NCIC-CTG QOL committee in a special meeting with members of the U.S. Food and Drug Administration on regulatory guidance for the use of patient reported outcomes (such as QOL) to support drug labeling claims. Since 2008, I have been an international advisor and collaborator on an international initiative by the EORTC to retrospectively analyze pooled QOL data from EORTC and NCIC-CTG trials. In addition to my own programme of creative professional activity, reflected in my publications list, I have been active as a methodology consultant and proponent of QOL measurement, utilization and reporting. I am currently QOL coordinator for 3 internal, 1 national and 1 international trial. I have made presentations at the national and international level on QOL.

In 2006, I was appointed as co-Chair of the NCIC-CTG QOL committee. This position has provided several opportunities to educate fellow investigators, research nurses and new investigators on QOL methodology (Appendix 2).

Since 2006, I have been a member of the international advisory board to the EORTC Quality of Life Group’s PROBE initiative. This involves pooled analysis of QOL data from many trials conducted in Europe and Canada. In addition to several publications, this collaboration has provided opportunities to educate researchers and graduate students internationally (Appendix 2).

I am currently a co-applicant of the Canadian Cancer Society Research Institute (CCS-RI) grant supporting a centre for Applied Research in Cancer Control (ARCC), a national collaboration emphasizing the interplay of economics, ethics, and policy in cancer care. I co-led the “Patients and Families” theme during the inauguration of this centre (Appendix 2).
I am also frequently contacted for comments and advice about general measurement, questionnaire and QOL issues (Appendix 2). As a graduate of the University of Toronto Clinical Epidemiology graduate programme, I have been cross-appointed to its home department, the Department of Health Policy, Management and Evaluation (HPME), since 2000 (recently renamed the Institute of Health Policy, Management and Evaluation). I have also been a member of the Programme Executive and was the co-course director for the required Introduction to Clinical Epidemiology (HAD 5301H) course from 2003 through 2006. I have been a member of the Clinical Epidemiology Executive Committee since 2003, a member of the Admissions Committee since 2004, and a member of both the Curriculum and Faculty committees since 2006. From 2006 until 2010, I served as Associate Programme Director for Clinical Epidemiology. I also Chaired the Admissions Committee in 2007, 2008, 2009 and 2010. I was co-course director for the Measurement (HAD 5302) course in 2012.

I have been the primary supervisor for two MSc students who have completed their programmes. I have sat on the thesis committees of a PhD student and several MSc students who has completed their programmes. I have also frequently served as an internal reviewer or chair in thesis defense proceedings.

2. EXEMPLARY PROFESSIONAL PRACTICE

2006 Jul - present Goal: To improve the care of gastric and upper abdominal cancer through technical radiotherapy advancement, clinical and research strategies. My tertiary goal is to improve the therapeutic ratio for patients requiring upper abdominal radiotherapy, particularly for stomach cancer. The presentation at ASCO 1999 of the results of the Intergroup 0116 randomized trial of adjuvant chemoradiation vs. observation post-surgery for gastric cancer, and its subsequent publication in the New England Journal, revolutionized the role of radiotherapy in upper abdominal malignancies. Recognition of the potential for very severe acute and late toxicities to abdominal organs including liver, kidney and small bowel had previously limited the role of radiotherapy in such malignancies. I have developed and published novel treatment techniques designed to reduce acute toxicity, including conformal and IMRT techniques, and am currently completing the phase II portion of a phase I/II study of novel chemoradiotherapy with IMRT in this disease. I was also among the first to demonstrate the effectiveness of adjuvant radiotherapy outside of a clinical trial. This creative professional activity has led to a major ongoing project investigating the link between radiotherapy technique, late toxicity, and QOL in cancer survivors, and to a leadership position in a planned phase III international randomized trial of adjuvant therapy in gastric cancer (TROG-AGITG "TOPGEAR"/NCIC-CTG GA.1) (Appendix 3).

I have lead a team of physicists, radiation therapists and radiation oncology colleagues in the development of conformal and intensity modulated RT for gastric cancer. Documents produced have included an institutional radiotherapy planning protocol and diet instructions for patients (Appendix 3). Together, we have published a novel radiotherapy technique, published data on the effects of respiratory movement on radiotherapy, conducted a quality assurance audit in the first cohort of 20 patients treated at PMH, published an study of the potential role of Intensity Modulated Radiotherapy (IMRT) for gastric cancer, and published the treatment outcomes of our completed cases, including late recurrence data. We have also initiated and are currently conducting a phase I/II trial of a novel approach to adjuvant therapy. Separately, we continue to monitor late effects and QOL in a prospective cohort study. I also contributed to a review of the use of IMRT in upper abdominal malignancies generally, and have acted as the QOL coordinator for related projects in liver irradiation. I was recently named as Canadian chair for quality assurance for an upcoming major international trial of gastric adjuvant therapy (NCIC-GA.1/TROG TOPGEAR).

This creative professional activity has attracted international fellows from the UK, Australia,
and Poland. Physicians in other nations (eg. Morocco) have indicated interest in my research and have requested information about our techniques, and have used my materials in teaching residents and fellows (Appendix 3). I have been recognized locally as the leader of our gastric programme and have been asked to present at CME events and site group retreats. I have been invited internationally as a visiting professor to discuss these developments. I was a faculty member for a course teaching Image Guided Radiotherapy (IGRT) for liver malignancies (primary cancers and metastases) provided to international attendees through a collaboration between the Princess Margaret Hospital/University Health Network and Cancer Care Ontario (Appendix 3).

I have won two awards for mentorship of research with my international GI fellows, the Postgraduate Medical Education Research Supervision Award from the University of Toronto Department of Radiation Oncology in 2006, and the Research Project Supervisor Award from the Princess Margaret Hospital Radiation Medicine Programme in 2006.
Curriculum Vitae

John Rowlands
PhD

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees

1967 Jun - 1971 Feb PhD, Solid State Physics, Physics, The University of Leeds, Leeds, United Kingdom, Supervisor(s): Professor Dennis Grieg
1963 - 1966 BSc, First Class Honours, Physics, The University of Leeds, Leeds, United Kingdom

Qualifications, Certifications and Licenses

1987 Member, MCCPM
Recertified 2012 until 2017, Diagnostic Imaging, Canada College of Physicians in Medicine, Canada

2. EMPLOYMENT

Current Appointments

2012 Jul - present Founding Scientist, Lakehead University, Science, Thunder Bay Regional Research Institute, Thunder Bay, Ontario, Canada
2007 - present Adjunct Professor, Physics, Lakehead University, Thunder Bay
2003 - present Adjunct Full Professor, Electrical Computer Engineering, University of Waterloo
1998 Jul - present Full Professor, Radiation Oncology, University of Toronto, Ontario, Canada
1998 Jul - present Full Professor, Medical Imaging, Faculty of Medicine, University of Toronto
1989 Jan - present Senior Scientist, Imaging Research, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
1985 Jul - present  Member, Graduate Studies, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2013 Jul - present  Fellow, Canadian Organisation of Medical Physicists. (Distinction, Specialty: Medical Physics)
1987 Jul - present  Fellow, Canadian College of Physicist in Medicine. (Distinction, Specialty: Diagnostic Radiology)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
2013 - present  Member, Institute of Electrical and Electronic Engineers (IEEE), 92545489
1989 - present  Canadian Organization of Medical Physicists
1980 - present  SPIE the International Society for Optical Engineering
1979 - present  American Association of Physicists in Medicine
1971 - present  Canadian Association of Physicists

Administrative Activities

INTERNATIONAL
SPIE Physics of Medical Imaging Conference
2005 - present  Member, Program Committee, United States.

World Congress on Biomedical Engineering and Medical Physics

PROVINCIAL / REGIONAL
Sunnybrook Health Sciences Centre
2009 Nov - present  Board Member, OPIC Management Board

Thunder Bay Regional Research Institute
2007 - present  Chair, Advanced Detector Devices Theme Committee, Thunder Bay.

Peer Review Activities
### GRANT REVIEWS

**Reviewer**

- **2001 - present** 
  Canadian Institute for Health Research, for Operating Grants
- **1995 - present** 
  Natural Sciences and Engineering Research Council of Canada (NSERC), for Operating Grants

**Chair**

- **2014 Oct - 2015 Sep** 
  CHRP (Collaborative Health Research Projects) grant selection committee
- **2014 Oct - 2015 Sep** 
  CIHR/NSERC, CHRP (Collaborative Health Research Projects) grant selection committee

### MANUSCRIPT REVIEWS

**Reviewer**

- **1995 - present** 
  American Institute of Physics, Journal of Applied Physics
- **1994 - present** 
  Canadian Association of Physicists, Canadian Journal of Physics
- **1992 - present** 
  IEEE, Transactions on Medical Imaging
- **1990 - present** 
  Canadian Association of Radiologists, Journal of the Canadian Association of Radiologists
- **1985 - present** 
  Institute of Physics, Physics in Medicine and Biology
- **1980 - present** 
  AAPM (AIP), Medical Physics

**Associate Editor**

- **2013 - present** 
  American Association of Physicists in Medicine (AAPM), Medical Physics

### STUDY SECTION/GRAINT REVIEW COMMITTEE

**Reviewer**

- **2005 - present** 
  US National Institutes of Health, R01/R21/R33 Study Sections (ad hoc)

### C. Academic Profile

#### 1. RESEARCH STATEMENTS

**2013 Jul - present** 
Detectors for synchrotron imaging detectors for multiple applications. Primary application is for next generation of synchrotron detectors for protein crystallography. Potential for new experiments not currently feasible such as “cine” of protein or dna folding.

**2012 Jul 1 - present** 
X-ray phase contrast imaging. There is worldwide interest in a new x ray contrast mechanism - phase contrast imaging. This requires a new way of thinking and a new kind of detector system, this is the subject of the proposed research. The promise of phase contrast imaging using x rays is to obtain new image information, with potentially much lower x ray dose as the mechanism does not require the deposition of energy to obtain
imaging information.

2009 - present
Lead oxide photoconductor for cardiac and chest x-ray imaging.
Building on the success of a-Se based direct conversion detectors, a
new large area, large bandgap semiconductor PbO is being
developed for higher energy x-ray applications such as chest
imaging and fluoroscopic imaging of the heart during international
procedures to stent the coronary vessels.

2008 Jul - present
Detectors for home lab protein crystallography.
For highest resolution images it is necessary to go to Synchrotron
Light Sources, not because of the higher flux or monochromaticity
but because of the better (and more expensive) detectors only
available there.
Our project is to make large area high sensitivity detectors available
for home labs at reasonable cost.
Making better detectors at lower cost will free the synchrotron
sources from repetitive work and make it available for projects which
depend on high flux (i.e. those where timing resolution is important).

2007 - present
Single photon optical detectors for real time optical microscopy for
establishing surgical margins intra operatively.
Based on joint research with Professor Kenkichi Tanioka over a 20
year period, this technology is being developed for photon counting
applications with Hamamatsu Photonics, based on joint inventions
and patents. This particular project has immense potential clinical
impact, but is competing with other possible approaches.

2005 - present
Brachytherapy imaging.
By use of sensitive integrating detectors it has been shown possible
to obtain Nuclear Medicine images without the need for actual
photon counting systems.

2004 - present
Single photon x-ray detectors for mammographic tomosynthesis.

2001 - present
Hybrid MRI/x-ray systems for cardiac imaging (minimally invasive
aortic valve replacement).

2001 - present
Detectors for positron emission tomography (PET).

2000 - present
Flat panel imagers for cone beam CT and digital tomosynthesis.

2000 - present
High quantum efficiency detectors for radiation therapy.

1997 - present
Avalanche multiplication in amorphous selenium and application to
medical imaging.

1995 - present
Relationship of material and imaging properties of amorphous
selenium.

1992 - present
Fundamental imaging properties of amorphous selenium for x-ray
imaging.
1992 - present  Liquid crystal readout of amorphous selenium for digital radiography.
1985 - present  Real-time digital image processing for GI studies and cardiac angiography.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


E. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Research Associate
2003 - present  **Primary Supervisor.** Norman Robert PhD, Sunnybrook Health Sciences Centre. Cardiac angiography.
Curriculum Vitae

Arjun Sahgal BSc, MD, FRCPC
Associate Professor, Department of Radiation Oncology and Surgery, University of Toronto

A. Date Curriculum Vitae is Prepared: 2016 August 4

B. Biographical Information

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1. EDUCATION

Degrees
1997 - 2001 MD, Dept of Medicine, University of Ottawa, Ottawa, Ontario, Canada
1993 - 1997 BSc, Science, University of Ottawa, Ottawa, Ontario, Canada

Postgraduate, Research and Specialty Training
2007 Principles and Practice of Gamma Knife Radiosurgery, University of Pittsburgh, Pittsburgh, Pennsylvania, United States
2006 - 2007 Clinical Fellow, Department of Radiation Oncology, University of California, San Francisco, San Francisco, California, United States, Supervisor(s): Dr. David Larson and Mack Roach III
2001 - 2006 Resident, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2007 - present Certificate of Registration for Independent Practice, College of Physicians and Surgeons of Ontario, Toronto, Ontario, Canada
2006 - present Specialist Certificate, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2003 - present Licentiate, Medical Council of Canada
2006 - 2007 Licentiate, Medical Board of California
2. EMPLOYMENT

Current Appointments

2015 - present  Associate Scientist of the Toronto Western Research Institute, University of Toronto, Toronto, Ontario, Canada
2013 - present  Associate Member of the Institute of Medical Sciences, University of Toronto, Toronto, Ontario, Canada
2013 - present  Deputy Chief of the Department of Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2013 - present  Site Group Leader for CNS Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2012 - present  Clinician Scientist, University of Toronto, Toronto, Ontario, Canada
2012 - present  Scientist, Odette Cancer Research Program, Physical Sciences, Sunnybrook Research Institute, Toronto, Ontario, Canada
2012 - present  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2010 - present  Cross-Appointed, Surgery, University of Toronto, Toronto, Ontario, Canada
2009 - present  Cross-Appointed, University of Toronto Spine Program, University of Toronto, Toronto, Ontario, Canada
2007 - present  Staff Radiation Oncologist, Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, University of Toronto, Toronto, Ontario, Canada

Previous Appointments

CLINICAL

2008 - 2014  Cross-appointed, Division of Neurosurgery, St. Michael’s Hospital, University of Toronto, Toronto, Ontario, Canada
2008 - 2013  Staff Radiation Oncologist, Radiation Oncology, Princess Margaret Hospital, University Health Network, University of Toronto, Toronto, Ontario, Canada
2007 - 2008  Cross-appointed Staff, Department of Radiation Oncology, Princess Margaret Hospital, University Health Network, University of Toronto, Toronto, Ontario, Canada
2006 - 2007  Clinical Instructor, Department of Radiation Oncology, University of California San Francisco, San Francisco, California, United States

HOSPITAL

2013 - 2014  Interim Chief of Medical Physics, Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

RESEARCH

2008 - 2013  Ontario Cancer Research Institute Researcher, University Health Network, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK

2007 - 2012  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2016
2nd highest downloaded research paper for 2015 in the International Journal of Radiation Oncology Biology Physics. (Distinction)

2016
Top 5 cited research paper for 2014-2015 in Clinical Oncology. (Distinction)

2014
De novo vs. progression of an existing vertebral compression fracture (VCF) following spine stereotactic body radiotherapy (SBRT): Separate risk profiles to consider, Senior responsible author, Best of ASTRO. (Distinction)
Selected to be highlighted at the “Best of ASTRO 2014” symposium held in Miami, USA, trainee Chia-Lin Tseng (primary supervisor).

2014
Excellence in reviewing for the International Journal of Radiation Oncology, Biology, Physics. (Distinction)
Award as outstanding reviewer for the journal.

2014
Factors influencing vertebral compression fracture specific to renal cell carcinoma spinal metastases after stereotactic body radiotherapy: A multi-institutional study, Senior responsible author, Best of ASTRO. (Distinction)
Selected to be highlighted at the “Best of ASTRO 2014” symposium held in Miami, USA, trainee Isabelle Thibault (primary supervisor).

2014
Salvage spine stereotactic body radiotherapy (SBRT) for spinal metastases that failed initial SBRT: A first report, Senior responsible author, Best of ASTRO. (Distinction)
Selected to be highlighted at the “Best of ASTRO 2014” symposium held in Miami, USA, trainee Isabelle Thibault (primary supervisor).

2013
Cochrane review: Radiation dose escalation for high grade glioma. (Distinction)
Fellow award: Luluel Khan (primary supervisor).

2013
Excellence in reviewing for the International Journal of Radiation Oncology, Biology, Physics. (Distinction)
Award as outstanding reviewer for the journal.

2013
Individual patient data (IPD) meta-analysis of randomized controlled trials comparing stereotactic radiosurgery (SRS) alone to SRS plus whole brain radiation therapy in patients with brain metastases, Best of ASTRO. (Distinction)
Selected to be highlighted at the “Best of ASTRO 2013” symposium held in Miami, USA.

2013
Spine stereotactic body radiotherapy for metastatic renal cell cancer: Local control and analysis of predictive and prognostic factors, Senior responsible author, International Stereotactic Radiosurgery Society 11th bi-annual meeting. (Distinction)
Young investigator award, trainee Isabelle Thibault (primary supervisor).

2012
Meta-analysis evaluating stereotactic radiosurgery, whole brain radiotherapy, or both for patients presenting with a limited number of brain metastases, Principal author, European Association of Neuro-Oncology (EANO). (Distinction)
Best article in 2011 sub-section on brain metastases.
NATIONAL

Received

2013 **Volunteer of distinction**, Brain Tumour Foundation of Canada. (Distinction)
*Award for exceptional voluntary work for the Brain Tumour Foundation of Canada.*

2010 **Stereotactic body radiation therapy of the spine using the Elekta synergy, hexapod and bodyFIX systems**, Senior responsible author, Canadian Association of Radiation Oncology (CARO). (Distinction)
*Award for best CARO abstract in radiation/medical physics (shared with Co-PI Derek Hyde PhD).*

PROVINCIAL / REGIONAL

Received

2016 **Leaders Circle Ambassador**, Leaders Circle, Toronto, Ontario, Canada. (Distinction)
*Award for bringing 2013 International Stereotactic Radiosurgery Congress to Toronto.*

2012 **Clinical Scientist**, Ontario Association of Radiation Oncologists (OARO), Toronto, Ontario, Canada. (Distinction)
*Award designation and support as a clinician scientist.*

2008 **Cancer Care Ontario quality award for the Rapid Response Radiotherapy Program**, Collaborator, Cancer Care Ontario, Toronto, Ontario, Canada. (Distinction, Specialty: Quality assurance award, radiation oncology)
*Award for program excellence.*

LOCAL

Received

2016 **Department of Radiation Oncology chair’s award for academic excellence in research**, University of Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)
*Dosimetric feasibility of the hybrid magnetic resonance imaging (MRI)-LINAC system for brain metastases: The impact of the magnetic field. Fellow award: Chia-Lin (Eric) Tseng (primary supervisor).*

2015 **Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award)
*Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.*

2014 **Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award)
*Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.*

2013 **Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award)
*Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.*

2013 **Radiation Medicine Program Princess Margaret Cancer Centre, research productivity award**, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)
*Award for highest research productivity within the department.*

2013 **University of Toronto Spine Program, SpineFEST 2011, 3rd place in clinical oral**
presentation award, primary supervisor, Toronto, Ontario, Canada. (Research Award)
Award for the abstract ‘Surgical resection of epidural disease improves local control following stereotactic body radiotherapy (SBRT)’, trainee Isabelle Thibault (primary supervisor).

2012
Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award)
Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.

2012
Odette Cancer Centre, Sunnybrook Health Sciences Centre Allan E. Tiffin award, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)
Award to perform research in MRI and brain metastases response following radiosurgery. Total Amount: 45,000 CAD

2012
Radiation Medicine Program Princess Margaret Cancer Centre, research productivity award, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)
Award for highest research productivity within the department.

2012
University of Toronto Spine Program, SpineFEST 2011, 1st place in clinical oral presentation award, Toronto, Ontario, Canada. (Research Award)
Award for the abstract ‘Predictors of vertebral compression fracture (VCF) post-spine stereotactic body radiotherapy (SBRT): Analysis of predictive factors’, trainee, Marcello Pecora (primary supervisor).

2011
Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award)
Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.

2011
Radiation Medicine Program, Princess Margaret Hospital, most influential research publication 2011 award, Toronto, Ontario, Canada. (Specialty: Research publication award, Radiation Oncology)
Award for the publication with the greatest potential for influence in the future.

2011
University of Toronto Spine Program, SpineFEST 2011, 2nd place in clinical oral presentation award, Toronto, Ontario, Canada. (Research Award)
Award for the abstract ‘Local control with stereotactic body radiotherapy (SBRT) for spinal metastases: Is it dose or biology that matters’, trainee publication, Laura Masucci (primary supervisor).

2010
Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award)
Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.

2009
Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award)
Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.

2009
Department of Radiation Oncology, University of Toronto best annual research performance award, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)
Award for most peer reviewed papers in one year as selected by the Department of Radiation Oncology.

2009
Department of Radiation Oncology, University of Toronto outstanding research potential award, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)
Award for outstanding research potential as selected by the Department of Radiation Oncology.
2000

**Highest standing pediatrics 3rd year clinical rotation medical school**, Clinical clerk, University of Ottawa, Ottawa, Ontario, Canada. (Distinction, Specialty: Clinical award, Pediatrics)

Recognition for achieving the highest standing in pediatrics 3rd year clinical rotation. Total Amount: 500 CAD

### Teaching and Education Awards

#### LOCAL

**Received**

2013

Department of Radiation Oncology, University of Toronto, professional development and continuing medical education award, Toronto, Ontario, Canada. (Specialty: Teaching award, Radiation Oncology)

Award for leading major educational activities - International Stereotactic radiosurgery Society 11th bi-ennial meeting, June 2013 in Toronto, Canada.

2013

Radiation Medicine Program Princess Margaret Cancer Centre, AEP “Putting Innovation to Work” award, Toronto, Ontario, Canada. (Specialty: Radiation Oncology)

Award for the creation of the paraspinal image guidance course.

2013

Radiation Medicine Program Princess Margaret Cancer Centre, AEP award highest overall average teaching effectiveness score, Toronto, Ontario, Canada. (Specialty: Radiation Oncology)

Teaching award.

2012

Radiation Medicine Program, Princess Margaret Hospital, best rounds for 2012, Toronto, Ontario, Canada. (Specialty: Presentation award, Radiation Oncology)

Award for the best rounds presented based on those evaluations of all weekly rounds given for the radiation medicine program at the Princess Margaret Hospital in 2012.

2011

Radiation Medicine Program, Princess Margaret Hospital, best rounds for 2011, Toronto, Ontario, Canada. (Specialty: Presentation award, Radiation Oncology)

Award for the best rounds presented based on those evaluations of all weekly rounds given for the Radiation Medicine Program at the Princess Margaret Hospital in 2011.

2010

Radiation Medicine Program, Princess Margaret Hospital, post-graduate mentorship award, Mentor, University of Toronto, Toronto, Ontario, Canada. (Specialty: Teaching award, Radiation Oncology)

Award for outstanding mentoring of post-graduate students.

2009

Best research project supervisor award, Supervisor, Department of Radiation Medicine, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada. (Specialty: Teaching award, Radiation Oncology)

Award for best research project supervisor of post-graduate students.

### Student/Trainee Awards

#### LOCAL

**Received**

2014

2014 D+H SRI research summer student award program, primary supervisor. Sunnybrook Research Institute (SRI)

Studentship for Stephanie Zhou to work on MR Linac. Total Amount: 3,200 CAD
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 - present Radiosurgery Society
2014 - present American College of Radiology
2014 - present AOSpine
2013 - present Society of Neuro-Oncology
2010 - present International Stereotactic Radiosurgery Society
2007 - present Acoustic Neuroma Society of Canada
2007 - present American Society for Therapeutic Radiology and Oncology
2007 - present Canadian Association for Radiation Oncology
2007 - present Canadian Brain Tumour Consortium
2010 - 2013 Canadian Spine Society
2007 - 2014 Canadian Association of Brain Tumours

Administrative Activities

INTERNATIONAL

1st Annual conference on innovations in cancer therapy and response monitoring
2015 - 2016 Co-Chair, Toronto, Ontario, Canada.
Co-chairs are Dr. Gregory Czarnota, Dr. Gregory Stanisz, Dr. Michael Kolios.

1st Annual conference on innovations in radiation engineered therapy
2015 - 2016 Co-Chair, Toronto, Ontario, Canada.
Co-chair is Dr. Gregory Czarnota.

American Association of Physics in Medicine
2013 - present Participating Member and Report Co-Author AAPM TG-178
Gamma Knife standards committee.
2011 - present Participating Member
AAPM Biologic Effects Committee - Working group on biologic effects of hypofractionated radiotherapy which includes the SBRT TCP group, SBRT NTCP group, SBRT rationale for Rx group, SBRT TCP cranial group, SBRT NTCP cranial group, SBRT TCP spinal group, and SBRT NTCP spinal group.

American College of Radiology
2014 - present Panel Member
ACR Appropriateness Criteria (AC) expert panel on RO-bone metastases.

American Society of Therapeutic Radiation Oncology (ASTRO)
2014 - present Member
History committee.
2014 - present Member
CNS track committee.
2015 Discussant
CNS IV - Spinal SBRT; Melanoma of Brain and Ocular Structures.
<table>
<thead>
<tr>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member and Report Co-author</td>
<td>Bone metastases committee, ASTRO 3rd international consensus panel.</td>
</tr>
<tr>
<td>Member</td>
<td>Malignant epidural spinal cord compression committee, ASTRO 3rd international consensus panel.</td>
</tr>
</tbody>
</table>

**AOSpine Knowledge Forum Tumor Steering Committee**

<table>
<thead>
<tr>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member</td>
<td>AOSpine research organization spine tumor systematic review/advocacy subcommittee steering committee representative.</td>
</tr>
<tr>
<td>Member</td>
<td>AOSpine tumor knowledge forum steering committee.</td>
</tr>
<tr>
<td>Member</td>
<td>AOSpine spineNET research clinical trials group.</td>
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</tbody>
</table>

**Bologna-Budapest Spine**

<table>
<thead>
<tr>
<th>Role</th>
<th>Organization</th>
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</thead>
<tbody>
<tr>
<td>Session Chair</td>
<td>4th Bologna-Budapest spine meeting on tumors and osteoporosis, session 2 - case discussion 1st part (spine tumors).</td>
</tr>
</tbody>
</table>

**Elekta Consortium for Linac Based Radiosurgery**

<table>
<thead>
<tr>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating Member</td>
<td>Elekta administrative committee led by Massachusetts General Hospital, Boston.</td>
</tr>
</tbody>
</table>

**Elekta Consortium for MR Linac**

<table>
<thead>
<tr>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating Member</td>
<td>Steering committee member.</td>
</tr>
</tbody>
</table>

**Elekta Consortium for Oligometastases Research**

<table>
<thead>
<tr>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Investigator/Project Lead</td>
<td>International research group to report outcomes on oligometastases.</td>
</tr>
</tbody>
</table>

**Elekta Stereotactic Spine Consortium for Radiosurgery**

<table>
<thead>
<tr>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating Member</td>
<td>Elekta stereotactic spine group administrative committee led by Wurzberg, Germany.</td>
</tr>
</tbody>
</table>

**International Brain Tumor Research and Therapy**

<table>
<thead>
<tr>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Organizing Committee Member</td>
<td>ASILOMAR international brain tumor research and therapy meeting.</td>
</tr>
</tbody>
</table>

**International Stereotactic Radiosurgery Society**

<table>
<thead>
<tr>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Committee Member</td>
<td></td>
</tr>
<tr>
<td>Ex-Officio Board Member</td>
<td></td>
</tr>
<tr>
<td>Scientific Session Facilitator</td>
<td>10th bi-annual International Society of Stereotactic Radiosurgery meeting, spine scientific abstract session, Seoul, Korea.</td>
</tr>
<tr>
<td>Board Member</td>
<td></td>
</tr>
<tr>
<td>Meeting Chairman</td>
<td>11th bi-annual International Society of Stereotactic Radiosurgery meeting for 2013, Toronto,</td>
</tr>
</tbody>
</table>
Arjun SAHGAL BSC, MD, FRCPC

Ontario, Canada.

2009

**Scientific Session Facilitator**
9th bi-annual International Society of Stereotactic Radiosurgery meeting, head and neck and prostate scientific abstract session, San Francisco, California, USA.

2007

**Scientific Session Facilitator**
9th bi-annual International Society of Stereotactic Radiosurgery meeting, benign spine radiosurgery tumor scientific abstract session, San Francisco, California, USA.

Memorial Sloan Kettering Cancer Center (MSKCC) Spine SBRT Working Group
2009 - 2012 **Participating Member**, New York, United States.

Neuro-Oncology Journal
2016 - 2017 **Chief Editor**
Supplement on advanced radiation technology.

NRG Oncology Cancer Prevention and Control (CPC) Committee
2015 - present **Member**
Committee on trial application for review on cancer prevention and control.

Radiologic Society of North America
2012 - 2013 **Medical Advisor**
RSNA RadiologyInfo.org public education website - radiosurgery/SBRT information subsection.

Society of Neuro-Oncology
2011 **Co-Chair**, Anaheim, California, United States.
Society of Neuro-Oncology annual meeting education day.

NATIONAL
Acoustic Neuroma Society of Canada
2008 - 2014 **Member, Medical Advisory Board**

Brain Tumour Foundation of Canada
2009 - present **Member, Professional Advisory Group**
Medical expert for patients contacting the organization.
2013 - 2015 **Board Member**

Canadian Association of Radiation Oncology
2010 - 2012 **Committee Chair and Report Author**, Canada.
Stereotactic body radiotherapy working group.
2010 **Scientific Session Facilitator**, Canada.
Central nervous system abstract session, 24th annual meeting, Vancouver, British Columbia, Canada.
2009 - 2010 **Member and Report Co-author**, Canada.
Stereotactic radiosurgery guideline development committee.
2007 - 2014 **Member, Advisory Group**, Canada.
Symptom control in radiation oncology.
Canadian Brain Tumour Consortium
2010 - present  
Member
2010 - 2014  
Board of Directors

Canadian Melanoma Task Force
2013 - 2016  
Member
*Brain metastases sub-section.*

Canadian Neuro-Oncology (CNO)
2015 - 2016  
Scientific Committee Member, Canadian Neuro-Oncology (CNO) scientific program committee, 17th biennial meeting, Toronto, Ontario, Canada.

Clinical Trials
2016 - present  
SBRT QA Chair
*The role of stereotactic body radiotherapy in the management of castration-resistant prostate cancer with oligometastases: An adaptive phase II/III randomized trial.*

National Cancer Institute of Canada - Clinical Trials Group
2016 - present  
Trial Committee & QA chair NCIC CTG BR.35
*A randomized phase II study of precision radiotherapy for oligometastatic non-small cell lung cancer (PROMISE-NSCLC).*

2013 - present  
Study Chair NCIC CTG IND.224
*A phase II study of concurrent dabrafenib and trametinib with stereotactic radiation in the management of patients with BRAF mutation-positive malignant melanoma and brain metastases.*

2013 - present  
Representative
*CNS site group for the National Cancer Institute of Canada.*

2012 - present  
Study Chair NCIC CTG SC24
*A phase II randomized feasibility study comparing stereotactic body radiotherapy (SBRT) versus conventional palliative radiotherapy (CRT) for patients with spinal metastases.*

2007 - present  
Member, Advisory Group
*Symptom control in radiation oncology.*

2016  
Senior Leadership Committee Member
*Participate in new strategic plan for NCIC-CTG.*

2011 - 2014  
Member
*Quality assurance radiation coordinator for the EORTC-led CATNON clinical trial.*

2008 - 2009  
Representative
*Genito-urinary site group for the National Cancer Institute of Canada.*

University of Saskatchewan
2007 - 2008  
Radiosurgery Consultant
*Provincial proposals: “A second plea to establish a stereotactic radiosurgery program in Saskatchewan” by Dr. Daryl Fourney.*

PROVINCIAL / REGIONAL
Cancer Care Ontario
2016 - present  
Member
*Proton Therapy Expert Panel Member.*

2015 - present  
Member
Radiation equipment replacement grant committee.

2014 - present
Member
Integrate regional steering committee.

2010 - 2011
Guideline Reviewer
Cancer Care Ontario program for evidence-based care IMRT guideline project.

2010
Member
Cyberknife working group.

Ontario Ministry of Health
2014 - present
Expert Reviewer
Out-of-country approval program.

2008 - 2009
Expert Reviewer
Ontario Ministry of Health out-of-province unit.

LOCAL
Sunnybrook Health Sciences Centre
2015 - present
Department Representative, Toronto, Ontario, Canada.
Medical Advisory Committee.

2016
Medical Advisory Committee Representative, Toronto, Ontario, Canada.
5 year Family and Community Medicine Department Review.

University of Toronto
2013 - present
Director of the Cancer Ablation Therapy Program, Toronto, Ontario, Canada.
Sunnybrook Odette Cancer Centre.

2013 - present
Deputy Chief of Radiation Oncology, Toronto, Ontario, Canada.
Sunnybrook Odette Cancer Centre, Department of Radiation Oncology.

2009 - present
Research Committee Member, Toronto, Ontario, Canada.
Spine program faculty.

2013 - 2014
Interim Chief of Medical Physics, Toronto, Ontario, Canada.
Sunnybrook Odette Cancer Centre, Department of Radiation Oncology.

2010 - 2012
Member, Toronto, Ontario, Canada.
Strategic plan cross appointment committee, Department of Radiation Oncology.

2009
Member, Toronto, Ontario, Canada.
CARMS selection committee for the 2010 international medical graduate applicants to the University of Toronto Radiation Oncology Residency, Department of Radiation Oncology.

2009
Member, Toronto, Ontario, Canada.
Resident examination committee, Department of Radiation Oncology.

2008 - 2010
Chair, Toronto, Ontario, Canada.
Sunnybrook hospital multidisciplinary spine oncology rounds.

2007 - 2015
Advisor to the Editor for Hot Spot, Toronto, Ontario, Canada.
A non-peer reviewed newsletter of the Rapid Response Radiotherapy Program at Sunnybrook Health Sciences Centre.

2005 - 2006
Member, Toronto, Ontario, Canada.
Radiation oncology post-graduate resident medical education committee, Department of Radiation Oncology.

2004 - 2005
Member, Toronto, Ontario, Canada.
CARMS resident selection committee, Department of Radiation Oncology.

2003 - 2004
Member, Toronto, Ontario, Canada.
Clinical ethics committee, Sunnybrook and Women’s College Health Sciences Centre.
Arjun SAHGAL BSC, MD, FRCPC

2001 - 2005  **Member**, Toronto, Ontario, Canada.  
*Radiation oncology post-graduate resident medical education committee, Department of Radiation Oncology.*

**Peer Review Activities**

**EDITORIAL BOARDS**

**Member**
- 2016 - present  International Journal of Radiosurgery
- 2016 - present  Neurosurgery
- 2013 - present  Technology in Cancer Research and Treatment Express
- 2012 - present  Advancer in Cancer: Research and Treatment
- 2012 - present  CNS Oncology
- 2012 - present  Cureus On-line Medical Journal
- 2012 - present  Journal of Radiation Oncology
- 2012 - present  Journal of Spine
- 2011 - present  Technology in Cancer Research and Treatment
- 2011 - present  World Journal of Oncology
- 2010 - present  Journal of Radiosurgery and Stereotactic Body Radiotherapy
- 2011 - 2012  Peer-E-Med

**GRANT REVIEWS**

**External Grant Reviewer**
- 2015  The Cancer Society of New Zealand
- 2014  The Netherlands Organization for Health Research and Development (ZonMw)
- 2014  The Sylvia Fedoruk Canadian Centre for Nuclear Innovation
- 2013  King Abdullah International Medical Research Center
- 2012  United States Department of Defense PCRP, 12-Clinical and Experimental Therapeutics Panel on Prostate Cancer Research

**MANUSCRIPT REVIEWS**

**Reviewer**
- 2016 - present  European Radiology, Number of Reviews: 2
- 2016 - present  Expert Review of Neurotherapeutics, Number of Reviews: 1
- 2016 - present  Frontiers in Neurology, Number of Reviews: 1
- 2016 - present  Future Oncology, Number of Reviews: 1
- 2016 - present  JAMA Oncology, Number of Reviews: 2
- 2016 - present  Nature, Number of Reviews: 1
- 2016 - present  Neuro-Oncology, Number of Reviews: 1
- 2016 - present  SciTechnol, Number of Reviews: 1
- 2015 - present  Advances in Radiation Oncology, Number of Reviews: 1
- 2015 - present  Cancer Treatment Reviews, Number of Reviews: 1
- 2015 - present  Case Reports in Ophthalmological Medicine, Number of Reviews: 1
<table>
<thead>
<tr>
<th>Year</th>
<th>Journal Title</th>
<th>Number of Reviews</th>
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</thead>
<tbody>
<tr>
<td>2015 - present</td>
<td>Clinical and Experimental Metastasis</td>
<td>2</td>
</tr>
<tr>
<td>2015 - present</td>
<td>Journal of Clinical Imaging Science</td>
<td>2</td>
</tr>
<tr>
<td>2015 - present</td>
<td>Journal of the National Comprehensive Cancer Network</td>
<td>1</td>
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<tr>
<td>2015 - present</td>
<td>World Neurosurgery</td>
<td>1</td>
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<tr>
<td>2014 - present</td>
<td>Canadian Journal of Neurological Sciences</td>
<td>6</td>
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<tr>
<td>2014 - present</td>
<td>Cancer Medicine</td>
<td>1</td>
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<tr>
<td>2014 - present</td>
<td>Cancer Medicine and Biology</td>
<td>1</td>
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<tr>
<td>2014 - present</td>
<td>Cureus</td>
<td>4</td>
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<tr>
<td>2014 - present</td>
<td>Head and Neck</td>
<td>2</td>
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<tr>
<td>2014 - present</td>
<td>Journal of Radiation Research</td>
<td>2</td>
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<tr>
<td>2014 - present</td>
<td>Practical Radiation Oncology</td>
<td>5</td>
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<tr>
<td>2013 - present</td>
<td>American Journal of Clinical Oncology</td>
<td>1</td>
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<td>2013 - present</td>
<td>CNS Oncology</td>
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<td>2013 - present</td>
<td>Cochrane Collaboration</td>
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<td>2013 - present</td>
<td>European Journal of Surgical Oncology</td>
<td>1</td>
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<td>2013 - present</td>
<td>Journal of Clinical Oncology</td>
<td>5</td>
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<tr>
<td>2013 - present</td>
<td>Journal of Neurosurgery</td>
<td>52</td>
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<tr>
<td>2013 - present</td>
<td>Journal of Neurosurgery Spine</td>
<td>10</td>
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<tr>
<td>2012 - present</td>
<td>Asia-Pacific Journal of Clinical Oncology</td>
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<td>Journal of Palliative Medicine</td>
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<td>Journal of Radiosurgery and Sterotactic Body Radiotherapy</td>
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<td>1</td>
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<td>2007 - present</td>
<td>Cancer</td>
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C. Academic Profile

1. RESEARCH STATEMENTS

Research Statement.
My research focus relates to my training and clinical expertise in spinal metastases, brain metastases and primary central nervous system tumours. I have expertise in technical evaluation of radiation apparatus, and in developing and conducting clinical trials specific to brain radiosurgery and stereotactic body radiotherapy. I have a major interest in fundamental technical research and development specific to MR Linac technology, Gamma Knife technology and the general application of MR in radiation planning and delivery. In line with high precision radiotherapy treatments, I participate in the development of focal non-radiotherapeutic modalities for spine and brain tumors using photodynamic therapy, radiofrequency ablation and MRI guided ultrasound technology.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2015 - 2017 Co-Investigator. A mindfulness-based intervention to improve quality of life among brain tumour survivors. Brain Tumour Foundation of Canada. PI: Selchen S, Ellis J. Collaborator(s): Perry J, Sahgal A, Soliman H, Tsao M, Moroney C, Bilodeau D. 25,000 CAD. [Grants] This study will test the hypothesis that an 8 week MBI for brain tumour survivors will be more effective than treatment as usual in reducing depressive symptoms and mental fatigue, as well as improving quality of life.


Examining patterns of relapse in glioblastoma patients treated with chemoradiation.

NON-PEER-REVIEWED GRANTS


**[Grants]**  
*Evaluation of the safety and feasibility of SRT for oligo-progression patients with metastatic RCC.*

2014 - 2019  **Principal Investigator.** Elekta WFM project. Elekta AB. Collaborator(s): Chin, L. 142,500 CAD.  
**[Grants]**  
*Developing Mosaic for MR Linac.*

2014 - 2019  **Co-Investigator.** Investigation of plan quality for spine SBRT and brain SRT using the Monaco treatment planning system. Elekta AB. PI: Rushin, M. Collaborator(s): Sahgal A, Soliman H, Lee Y. 100,000 CAD.  
**[Grants]**  
*Evaluation of Monaco for brain and spine SBRT.*

2014 - 2019  **Principal Investigator.** Randomized study of SRS vs. SRS plus WBRT for 5 to 15 metastases. Elekta AB. 4,500,000 CAD.  
**[Grants]**  
*Evaluation of SRS for multiple brain metastases.*

2014 - 2019  **Principal Investigator.** Monaco dosimetry studies for MR linac. Elekta AB. Collaborator(s): Keller, B. 605,531.25 CAD.  
**[Grants]**  
*Evaluation of treatment planning for the MR linac.*

2014 - 2016  **Co-Principal Investigator.** SRT/SBRT elearning modules. Elekta AB. PI: Di Prospero, L. Collaborator(s): Sahgal, A, Soliman, H. 40,000 CAD.  
**[Grants]**  
*Developing educational modules for SRT and SBRT.*

**[Clinical Trials]**  
*To determine the incidence of late toxicities associated with comprehensive stereotactic radiotherapy of all disease sites in patients with hormone sensitive oligometastatic prostate cancer, and to determine the efficacy of such an approach.*

**[Clinical Trials]**

**[Clinical Trials]**

**[Grants]**  
*Development of a new program for Sunnybrook to reduce burnout with mindfulness techniques.*

2012 - 2016  **Principal Investigator.** Early prediction of response for brain metastases following
stereotactic radiosurgery and hypofractionated stereotactic radiosurgery using perfusion and apoptosis quantification MRI. Odette Cancer Centre. Allan E. Tiffin Trust. Collaborator(s): Aviv R, Stanisz G. 45,000 CAD. [Grants]
Funding to perform novel imaging for response in brain metastases.

2012 - 2013

**Principal Investigator.** A phase II study to determine efficacy of stereotactic body radiotherapy (SBRT) for spinal/para-spinal metastases - sub-section on CT perfusion. Spinal Research Foundation. Collaborator(s): Laperriere JN, Massicotte E, Lewis S, Rampersaud R, Fehlings F, Xu W, Letourneau D, Yu E. 10,000 CAD. [Grants]
Funding to perform sub-study on the use of CT perfusion in patients treated with SBRT.

2011 - 2016

**Co-Principal Investigator.** A study to evaluate the safety and feasibility of transcranial MRI-Guided focused ultrasound surgery in the treatment of brain tumors. MRI Guided Focused Ultrasound Foundation Virginia. REB #: 366-2010. PI: Mainprize, T. Collaborator(s): Hynynen K, Tsao M. 287,717 CAD. [Clinical Trials]

2010 - 2012

**Local Co-Investigator.** Phase III trial on concurrent and adjuvant temozolomide chemotherapy in non-1p/19q deleted anaplastic glioma. The CANTON Intergroup trial. National Cancer Institute of Canada Clinical Trials Group. PI: Mason, W. Collaborator(s): Laperriere JN, Menard CM, Sahgal A, Millar B. [Clinical Trials]
OCREB #: 09-044.

2010 - 2012

**Co-Investigator.** Stereotactic body radiotherapy for oligometastases a phase 1 feasibility study. PI: Cheung P. Collaborator(s): Sahgal A, Chung H, Chu H, Poon I, Chow E. [Clinical Trials]
REB#: 253-2010.

2009 - 2012

**Principal Investigator.** A population-based study on low grade glioma. Institute of Clinical Evaluation Sciences. Collaborator(s): Paszat L, Tsao M, Perry J, Laperriere N, Mainprize T. [Clinical Trials]
REB #: 2010 0872 010 000.

2009 - 2012

**Co-Investigator.** A phase 1 trial on the use of PDT in the treatment of breast cancer vertebral metastases. PI: Yee, A. Collaborator(s): Whyne C, Akens M, Sahgal A, Chow E, Wilson B, Bisland S, Clemons M. [Clinical Trials]
A phase I study examining the use of photodynamic therapy to treat vertebral metastases from breast cancer.

2009 - 2011

**Co-Investigator.** Canadian-led international development of a European Organization for Research and Treatment of Cancer (EORTC) quality of life module for malignant epidural spinal cord compression. Sunnybrook Health Sciences Centre. PI: Mitera, G. Collaborator(s): Sahgal A, Chow E, Loblaw A. [Clinical Trials]
REB#: 321-2009.

2009 - 2011

**Local Principal Investigator.** Childhood cancer survivor study. Childhood cancer survivor study group. PI: Greenberg M. Collaborator(s): Sahgal A. [Clinical Trials]
REB#: 455-2008.

2009 - 2010

**Local Co-Investigator.** A randomized, double blind, placebo controlled multicentre phase III trial of bevacizumab, temozolomide and radiotherapy, followed by bevacizumab and temozolomide versus placebo, temozolomide and radiotherapy followed by placebo and temozolomide in patients with newly diagnosed glioblastoma. F. Hoffmann-La Roche Ltd. PI: Mason, W. Collaborator(s): Laperriere JN, Menard CM, Sahgal A, Millar B. [Clinical Trials]
2009 - 2010
**Local Co-Investigator.** BIBW 2992 with or without daily temozolomide in the treatment of patients with recurrent malignant glioma. Boehringer Ingelheim. PI: Mason, W. Collaborator(s): Laperriere JN, Menard CM, Sahgal A, Millar B. [Clinical Trials] 
*OCREB #: 09-027.*

2008 - 2013
**Local Principal Investigator.** A randomized phase III study of temozolomide alone and short-course radiation versus short-course radiation alone in the treatment of newly diagnosed glioblastoma multiforme in elderly patients. National Cancer Institute of Canada. PI: Sahgal, A. [Clinical Trials] 
*REB #: 212-2007.*

2008 - 2012
**Local Co-Principal Investigator.** Surgical versus nonoperative treatment of metastatic epidural spinal cord compression. Quality of life and cost-effectiveness outcomes. PI: Sahgal, A. [Clinical Trials] 
*REB#: 423-2007.*

2006 - 2013
**Local Co-Investigator.** Primary chemotherapy with temozolomide vs. radiotherapy in patients with low grade gliomas after stratification for genetic 1p-loss: A phase III study. National Cancer Institute of Canada Clinical Trials Group. PI: Mason, W. Collaborator(s): Laperriere JN, Menard CM, Sahgal A, Millar B. [Clinical Trials] 
*UHN REB#: 06-0400-C.*

2004 - 2006
**Principal Investigator.** Rapid reversal of iron deficiency anemia using intravenous iron infusion in locally advanced cervical cancer patients undergoing concurrent curative chemotherapy and radiotherapy: A phase two clinical efficacy trial. Luitpold Pharmaceuticals (United States) and Genpharm Inc. (Canada). Collaborator(s): Ackerman I, Thomas G. 60,000 CAD. [Grants] 
*A phase II trial examining intravenous iron infusion in patients with locally advanced cervical cancer to rapidly reverse iron deficiency anemia.*

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**E. Publications**

1. **MOST SIGNIFICANT PUBLICATIONS**


      As the committee chairperson for the spine section of the Response Assessment in Neuro-Oncology (RANO) group, which is an international group of experts in all aspects of neuro-oncology, I led this international effort to standardize practice and clinical endpoints specific to spine SBRT. This is the first part of the SPINO committee’s scope that details what imaging protocols should be used for planning and follow-up, and response criteria for pain and imaging-based local control. This paper will serve as the benchmark for clinical trial development, and the principles have been adhered to in the SC24 Canadian Phase 2 Spine SBRT trial.

This paper represents Level 1 evidence, as an individual patient data meta-analysis, supporting SRS alone for younger patients with a survival benefit. This research was the result on an international collaboration showing for the first time a survival advantage for SRS alone. This paper has been recognized as practice changing with an accompanying editorial, invited comment in Lancet Oncology, and several media announcements. Ultimately, this analysis is a major contribution to support practice change away from whole brain radiation to stereotactic radiosurgery alone. The International Journal of Radiatiation, Oncology, Biology, Physics reported that this paper was their 2nd most downloaded paper during 2015.


This paper is the first multi-institutional analysis of vertebral compression fracture following SBRT. It confirms my prior work (Cunha et al.), and clearly indicates a dose-complication relationship. This report also confirms three of the six SINS factors as significant and supports its use in determining high risk patients for fracture. Ultimately, this paper has had impact as it detracts from high dose single fraction SBRT due to the high complication rate.


These data represent the most extensive dosimetric data for spinal cord tolerance to be published. We created a first logistic regression model for radiation myelopathy and SBRT to generate safe tolerance doses to the spinal cord in 1 to 5 fractions. This was a multi-institutional and international collaboration, and the recommended threshold doses are being adopted globally in clinical practice including clinical trials. Furthermore, the AAPM spinal cord guidelines for SBRT (HYTEC) have endorsed these data.


This paper is a first report of re-irradiation spinal cord tolerance specific to re-irradiation with spine SBRT. As a result of a multi-institutional collaboration cases of re-treatment myelopathy were collected and compared to control and the data modelled to provide tolerance doses for 1 to 5 fractions given various ranges of prior radiotherapy. Until this paper, there had been no benchmark for cord tolerance with re-irradiation SBRT and this paper is a landmark study. These data have been adopted globally and represent a standard for safe re-irradiation SBRT practice.

2. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


Arjun SAHGAL BSC, MD, FRCPC


127. Tsao M, Xu W, Sahgal A. A meta-analysis evaluating stereotactic radiosurgery, whole-brain radiotherapy, or both for patients presenting with a limited number of brain metastases. Cancer. 2012 May 1;118(9):2486-93. Senior Responsible Author.


Editorials


Letters to Editor


**Interview**


**Journal Issues Edited**


**3. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Books Edited**


**Book Chapters**


**Manuals**

1. Malignant brain tumour handbook. In: Brain Tumour Foundation of Canada., editor(s). (Canada); 2012. **Editor.**

2. Non-malignant brain tumour handbook. In: Brain Tumour Foundation of Canada., editor(s). 1. (Canada); 2011. **Editor.**

Editorials


Magazine Entries


Online Resources


Newsletters


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2016 Visiting Professor. Stereotactic body radiotherapy for spinal metastases: Where we have been and where we need to go. University of Rochester. Rochester, New York, United States.


2016 Invited Speaker. Overcoming the limitations of spine SBRT for spinal metastases. 11th Meeting of Korean Radiosurgery Society. Seoul, Korea, Republic Of.


2016 Invited Speaker. Hypofractionated stereotactic radiosurgery for brain metastases. 18th International Leksell Gamma Knife Society Meeting. Amsterdam, Netherlands.

2016 Invited Speaker. 24 Gy is too much. Memorial Sloan Kettering Cancer Center Multidisciplinary Spine Oncology Symposium. New York, New York, United States.


2016 Invited Speaker. SBRT in the setting of cord compression, SBRT in the post-operative patient. 3rd


2016 **Invited Speaker.** Spine SBRT: What we have learned and what we need to go further. Radiation Oncology Grand Rounds, Roswell Park Cancer Institute. Buffalo, New York, United States.


2015 **Invited Speaker.** Stereotactic body radiotherapy for spinal metastases. Radiosurgery Society Webinar.

2015 **Visiting Professor.** Stereotactic body radiotherapy for spinal metastases: A new paradigm for success and adverse effects. Neurosurgery Grand Rounds at Massachusetts General Hospital. Boston, Massachusetts, United States.

2015 **Invited Speaker.** Stereotactic radiosurgery for brain metastases. The Royal Australian and New Zealand College of Radiologists New South Wales Radiotherapy Club and Faculty Branch Meeting. Sydney, New South Wales, Australia.

2015 **Invited Speaker.** SABR contouring, planning and delivery. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney. Sydney, New South Wales, Australia.

2015 **Invited Speaker.** Spine stereotactic body radiotherapy for metastases: Focus on technical aspects of delivery. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney. Sydney, New South Wales, Australia.

2015 **Invited Speaker.** Spine stereotactic body radiotherapy for metastases: Contouring dosimetry/toxicity avoidance. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney. Sydney, New South Wales, Australia.

2015 **Invited Speaker.** Practical session spine SBRT IGRT. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney. Sydney, New South Wales, Australia.

2015 **Invited Speaker.** Stereotactic radiosurgery and stereotactic body radiotherapy: The future of radiation oncology. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney. Sydney, New South Wales, Australia.


2015 **Invited Speaker.** Photon therapy for chordoma. 4th Bologna-Budapest Spine Meeting on Tumors and Osteoporosis. Bologna, Italy.

2015 **Invited Speaker.** Discussant. CNS IV – Spinal SBRT; Melanoma of brain and ocular structures. American Society for Radiation Oncology. San Antonio, Texas, United States.


2015 **Invited Speaker.** Contouring dosimetry and toxicity avoidance. Memorial Sloan Kettering Cancer Center Multidisciplinary Spine Oncology Symposium. New York, New York, United States.


2015 **Invited Speaker.** Stereotactic radiosurgery & brain metastases - Is the sky the limit. 83rd American Association of Neurological Surgeons Annual Scientific Meeting. Washington D.C. District of Columbia, United States.


2015 **Invited Speaker.** Spine stereotactic radiosurgery/stereotactic body radiotherapy and renal cell metastases. Medtronic Tumour Virtual Grand Rounds.


2014 **Invited Speaker.** Spine stereotactic body radiotherapy: An emerging technique requiring multidisciplinary care. 7th Annual Advances in Neurosciences Symposium. Freemont, California, United States.

2014 **Invited Speaker.** Spine SBRT and strategies to mitigate the risk. 56th Annual American Society for Radiation Oncology Meeting. San Francisco, California, United States.


2014 **Invited Speaker.** Radiotherapy for spinal neoplasms. AOSpine Masters Symposium - Surgical Treatment


2014  Visiting Professor. SBRT for treating spine metastases: Where we are and where we are going. Johns Hopkins University. Baltimore. Maryland, United States.


2013  Invited Speaker. The role of the spinal instability neoplastic score in predicting stereotactic radiosurgery induced vertebral compression fracture. Association for Collaborative Spine Research. San Diego, California, United States.


2012  **Invited Speaker.** Late effects to the spinal cord and bone: A new paradigm in the era of spine SBRT. American Society of Therapeutic Radiation Oncology, Spine Innovative Approaches to the Management of Spinal Metastases Workshop. Boston, Massachusetts, United States.


2011  **Invited Speaker.** Introduction to technology of radiosurgery and stereotactic body radiotherapy: Evolution from brain to spine. Society of Neuro-oncology Education Day. Anaheim, California, United States.

2011  **Invited Speaker.** Introduction to spine stereotactic body radiotherapy: What is it? What are the outcomes? What are the issues, controversies? Society of Neuro-oncology Education Day. Anaheim, California, United States.


2011  **Invited Speaker.** Brain metastases and neurocognition. 2nd International Symposium on Long-Term Control of Secondary Central Nervous System Malignancies. Cleveland, Ohio, United States.

2011  **Invited Speaker.** Limitations to spine SBRT and how we overcome them at the University of Toronto. European Elekta Users’ Conference. Warmunde, Germany.

2011  **Invited Speaker.** Human spinal cord tolerance to radiosurgery. 10th International Stereotactic Radiosurgery Congress. Paris, France.


2010  **Invited Speaker.** Brain metastases and neurocognition. International Symposium on Long-Term Control of Secondary Central Nervous System Malignancies. Cleveland, Ohio, United States.

2010  **Visiting Professor.** Stereotactic body radiotherapy for spine metastases and spinal cord tolerance. Mayo Clinic, University of Rochester. Rochester, Minnesota, United States.

2009  **Visiting Professor.** Stereotactic body radiotherapy for spine metastases and spinal cord tolerance. M.D. Anderson Cancer Center, University of Texas. Austin, Texas, United States.


2009  **Invited Speaker.** Inter and intrafractional motion for spine stereotactic body radiotherapy and the dosimetric impact. 3rd Annual International Symposium on Stereotactic Body Radiation Therapy and
Stereotactic Radiosurgery. Orlando, Florida, United States.


2008  **Visiting Professor.** Overview of spine stereotactic body radiotherapy. Yale Medical School. New Haven, Connecticut, United States.

2008  **Visiting Professor.** Spine radiosurgery. Baylor University, Baylor Medical College. Houston, Texas, United States.

2008  **Invited Speaker.** Spinal cord tolerance following spine radiosurgery. American Society of Therapeutic Radiation Oncology, Spine Radiosurgery Workshop. Boston, Massachusetts, United States.


**Presented Abstracts**


**Presented and Published Abstracts**


2016 A phase III randomized controlled trial of short-course radiotherapy with or without concomitant and adjuvant temozolomide in elderly patients with glioblastoma (CCTG CE.6, EORTC 26062-22061, TROG 08.02, NCT00482677). ASCO Annual Meeting. Chicago, Illinois, United States.


Arjun SAHGAL BSC, MD, FRCPC

Publication Details:

2015
Investigation of differences in dose distributions between two commercial treatment planning systems used for hypofractionated stereotactic volumetric arc radiotherapy (HF-VMAT) of multiple brain metastases. International Stereotactic Radiosurgery Congress. Yokohama, Japan.

Publication Details:

2015
Optimizing orientations of hundreds of beams of intensity-modulated beams to treat multiple brain targets. American Association of Physics in Medicine Annual Meeting. Anaheim, California, United States.

Publication Details:

2015
Optimal volumetric modulated arc radiotherapy treatment planning technique for brain targets. American Association of Physics in Medicine Annual Meeting. Anaheim, California, United States.

Publication Details:

2015

Publication Details:

2015

Publication Details:

2015
Using UTE and T1 weighted spine echo pulse sequences for MR only treatment planning: A phantom study. American Association of Physics in Medicine Annual Meeting. Anaheim, California, United States.
Publication Details:

2015 Creating a large number of focused beams with variable solid angles to improve dose fall-off near a target for intracranial radiosurgery. International Stereotactic Radiosurgery Congress. Yokohama, Japan.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

**2014**


**Publication Details:**

**2014**

An international multi-institutional planning study evaluating treatment planning and plan acceptability metrics for spine stereotactic body radiotherapy (SBRT). American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

**Publication Details:**

**2014**

Cone beam CT (CBCT) - Based evaluation of a noninvasive stereotactic head fraction equipped with a vacuum fixation bite-block for radiosurgery. American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

**Publication Details:**

**2014**


**Publication Details:**

**2014**


**Publication Details:**

**2014**


**Publication Details:**

2014 Consensus guidelines postoperative stereotactic body radiotherapy (SBRT) for malignant spinal tumors: Results on an international survey. American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

Publication Details:

2014 De novo versus progression of an existing vertebral compression following spine stereotactic body radiotherapy (SBRT): Separate risk profiles to consider. American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

Publication Details:

2014 Salvage spine stereotactic body radiation therapy (SBRT) for spinal metastases that failed initial SBRT. American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2013 Post-operative spine stereotactic radiotherapy (SBRT) for patients with spinal metastasis: Predictive and

Publication Details:

2013

Publication Details:

2013
Assessment of spinal cord motion in spine stereotactic body radiotherapy. International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:

2013
Developing the NCIC-CTG SC 24 randomized phase II spine SBRT (stereotactic body radiotherapy) study for complex spinal metastases: What should the control group be? International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:

2013
Incidence of pain flare following stereotactic body radiotherapy for spine metastases. International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:

2013
The impact of treating multiple consecutive vertebrae as a single volume with spine stereotactic body radiotherapy (SBRT) on positional accuracy. International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:

2013

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Publication Details:

2013

Publication Details:

2013
Outcomes for post-surgical hypofractionated stereotactic cavity radiation therapy (HSCRT) as salvage for patients with prior whole brain radiation (WBRT) as compared to upfront adjuvant HSCRT. International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:

2013

Publication Details:

2013
Evaluation of symmetrically loaded COMS I-125 plaques using the plaque simulator software system and specific to juxtapapillary choroidal melanoma. International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:

2013

Publication Details:

2013

Publication Details:

2013
A comparison of intra-fraction motion during stereotactic radiation therapy (SRT) of two non-invasive frameless commercial head immobilization devices (a low temperature thermoplastic mask vs. a dental and occipital molded fixation). International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:

2013

Publication Details:

2013
Re-irradiation with stereotactic radiosurgery treatment for spine metastases: Results from an international multicenter database. American Society for Radiation Oncology Annual Meeting. Atlanta, Georgia, United States.

Publication Details:

2013
Radiosurgery as primary treatment for vertebral metastases: Results from an international multicentre database. American Society for Radiation Oncology Annual Meeting. Atlanta, Georgia, United States.

Publication Details:

2013
Individual patient data (IPD) meta-analysis of randomized controlled trials comparing stereotactic radiosurgery (SRS) alone to SRS plus whole brain radiation therapy in patients with brain metastases. American Society for Radiation Oncology Annual Meeting. Atlanta, Georgia, United States.

Publication Details:
2013 Spinal cord tolerance specific to re-irradiation spine stereotactic body radiotherapy (SBRT) following at least 2 courses of prior radiation. American Society for Radiation Oncology Annual Meeting. Atlanta, Georgia, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2012 Presenter. The risk of vertebral compression fracture (VCF) post-spine stereotactic body radiotherapy (SBRT) and evaluation of the spinal instability neoplastic score (SINS). Congress of Neurologic Surgeons. Chicago, Illinois, United States.

Publication Details:


Publication Details:


Publication Details:

2012


Publication Details:

2012

The incidence of pain flare following stereotactic body radiotherapy for bone metastases. American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

2012

Variability in spine radiosurgery planning - Results on a multi-institutional study. American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

2012

The risk of vertebral compression (VCF) post-spine stereotactic body radiotherapy (SBRT) and evaluation of the spinal instability neoplastic score (SINS). American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

2012


Publication Details:

2012

Outcomes for post-surgical hypofractionated stereotactic cavity radiation therapy (HSCRT) as salvage for patients with prior whole brain radiation (WBRT) as compared to upfront adjuvant HSCRT. American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

2012

Pain flare after stereotactic body radiotherapy for bone metastases. Multinational Association of Supportive Care in Cancer. New York, New York, United States.
Publication Details:

2012
Quality of life of brain metastases patients receiving stereotactic radiosurgery using the EORTC QLQ-C15-PAL and the EORTC QLQ BN20+2. Multinational Association of Supportive Care in Cancer. New York, New York, United States.

Publication Details:

2012
Content validation of the EORTC QLQ-BN20+2 by patients and health care professionals to assess quality of life in brain metastases. Multinational Association of Supportive Care in Cancer. New York, New York, United States.

Publication Details:

2012
Quality of life in patients with brain metastases using the EORTC QLQ-BN20 and QLQ-C30. Multinational Association of Supportive Care in Cancer. New York, New York, United States.

Publication Details:

2012
Content validation of the FACT-Br in patients and healthcare professionals to assess quality of life in brain metastases. Multinational Association of Supportive Care in Cancer. New York, New York, United States.

Publication Details:

2011

Publication Details:

2011

Publication Details:

2011
Local control with stereotactic body radiation therapy (SBRT) for spinal metastases: Is it dose or biology that matters? American Society of Therapeutic Radiation Oncology. Miami, Florida, United States.
**Publication Details:**

2011


**Publication Details:**

2011

**Presenter.** Stereotactic body radiotherapy (SBRT) spinal cord tolerance. American Society of Therapeutic Radiation Oncology. Miami, Florida, United States.

**Publication Details:**

2011


**Publication Details:**

2011


**Publication Details:**

2011


**Publication Details:**

2010


**Publication Details:**

2010

**Presenter.** Human spinal cord re-irradiation guidelines for stereotactic body radiotherapy. American Society of Therapeutic Radiation Oncology. San Diego, California, United States.

**Publication Details:**

2010

Publication Details:

2010

Publication Details:

2010

Publication Details:

2010

Publication Details:

2010
Secondary trigemnial neuralgia and gamma knife: A series and discussion. 15th International Meeting of the Leksell Gamma Knife Society. Athens, Greece.

Publication Details:

2010
Development of GK perfexion fractionated treatment technique for the choroidal melanoma. 15th International Meeting of the Leksell Gamma Knife Society. Athens, Greece.

Publication Details:

2010
Apparatus dependent normal tissue dose for radiosurgery of multiple brain metastases. 15th International Meeting of the Leksell Gamma Knife Society. Athens, Greece.
Publication Details:

2010 Implementation of hypofractionated and adaptive radiotherapy for large brain metastases using a relocatable head frame on gamma knife perfexion. 15th International Meeting of the Leksell Gamma Knife Society. Athens, Greece.

Publication Details:


Publication Details:

2009 Non-random intrafraction target motions and strategy of correction for spine stereotactic body radiotherapy. Seoul, Korea, Republic Of.

Publication Details:

2009 The generalized BED model compared to the BED model considering doses safe versus unsafe to the spinal cord following stereotactic body radiotherapy for spinal tumors. International Stereotactic Radiosurgery Society. Seoul, Korea, Republic Of.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009

An analysis of patients who developed spinal myelopathy as a consequence of radiation and their outcomes after treatment with hyperbaric oxygen. Vancouver, British Columbia, Canada.

Publication Details:

2009


Publication Details:

2009


Publication Details:

2009


Publication Details:

2009

Is there an advantage to IMRT for hard to treat primary brain cancer? American Society of Therapeutic Radiation Oncology. Chicago, Illinois, United States.

Publication Details:

2009


Publication Details:

2009

Publication Details:

2009  

Publication Details:

2009  
Patterns of recurrence of primary glioblastoma multiforme treated with chemoradiation in the temozolomide era. Society for Neuro-Oncology (SNO). New Orleans, Louisiana, United States.

Publication Details:

2009  
Correction strategy to overcome non-random target motions for hypofractionated spine radiotherapy. American Association of Physics in Medicine. Anaheim, California, United States.

Publication Details:

2009  
Effects of peripheral dose fall-off on biologically equivalent dose to normal brain for intracranial stereotactic radiosurgery and radiotherapy. American Association of Physics in Medicine. Anaheim, California, United States.

Publication Details:

2009  
Cone beam CT observations of intrafraction shifts during intracranial treatments for patients held in a mask. American Association of Physics in Medicine. Anaheim, California, United States.

Publication Details:

2008  
Pseudo-progression following concurrent radiation and temozolomide for glioblastoma. American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

2008  
Presenter. Preliminary guidelines for avoidance of radiation induced myelopathy following spine stereotactic body radiosurgery (SBRS). American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.
Publication Details:


Publication Details:


Publication Details:

2007 Presenter. Proximity of spinous/paraspinous radiosurgery target to the spinal cord versus risk of local failure. American Society for Therapeutic Radiology and Oncology Annual Meeting. Los Angeles, California, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2014  **Invited Speaker.** Stereotactic radiosurgery for brain metastases - No more whole brain radiation please. 8th Canadian Melanoma Conference. Banff, Alberta, Canada.

2014  **Visiting Professor.** Stereotactic Radiosurgery for Brain Metastases - No More Whole Brain Radiation Please. Cross Cancer Institute, University of Alberta. Edmonton, Alberta, Canada.

2013  **Invited Speaker.** Stereotactic body radiotherapy (SBRT) for spine metastases and vertebral compression fracture management within an interdisciplinary care team. Foothills Hospital Symposium. Calgary, Alberta, Canada.


2012  **Invited Speaker.** Non-surgical treatment of spinal metastases - When to consider spine radiosurgery. 7th Annual Canadian Contemporary Spinal Techniques Course. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Why spine SBRT? Target Insight VI. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Stereotactic body radiotherapy for high risk spinal metastases: SBRT vs CRT for complex spinal metastases. NCIC CTG SC.24 National Cancer Institute of Canada Clinical Trials Group Symptom Control Committee. Toronto, Ontario, Canada.

2011  **Visiting Professor.** Stereotactic body radiotherapy for spine metastases: Current status and future directions. Centre Hospitalier De L'University De Montreal, University of Montreal. Montreal, Quebec, Canada.


2011  **Invited Speaker.** Spine SBRT, cord tolerance. Canadian Association of Radiosurgery. Winnipeg, Manitoba, Canada.


2010  **Invited Speaker.** Spine metastases. 10th Princess Margaret Hospital Conference. Toronto, Ontario, Canada.


**Presented Abstracts**


**Presenters**


Age as a significant prognostic factor in ovarian cancer. Society of Obstetrics and Gynecology. Ottawa, Ontario, Canada. Presenter(s): Sahgal A, Fung Kee, Fung M.

**Presented and Published Abstracts**

Factors affecting post-operative surgical cavity volume and surface area dynamics specific to brain metastases. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

*Publication Details:*


*Publication Details:*

Outcomes with hypofractionated stereotactic radiation therapy (hFSRT) in patients with intact brain metastases and post-operative surgical cavities. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

*Publication Details:*

Spine stereotactic body radiation therapy (SBRT) for oligometastatic disease. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

*Publication Details:*

Salvage spine stereotactic body radiation therapy (SBRT) for spinal metastases that failed initial SBRT: A
first report. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Ontario, Canada.

Publication Details:

2014 Impact of prophylactic dexamethasone on pain flare following spine stereotactic body radiation therapy (SBRT). Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

2014 Outcomes following resuscitation for cardio-respiratory arrests specific to oncology in-patients. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

2014 Vertebral compression fracture (VCF) after spine stereotactic body radiotherapy (SBRT): Analysis of predictive risk factors for the de novo versus progression of an existing fracture. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

2014 Quality of life module for metastatic spinal cord compression diagnosis: Health care provider and patient reported outcomes. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

2014 Dosimetric impact of combined rotational and translational setup errors on spinal cord dose in patients treated with spine stereotactic body radiotherapy (SBRT) for spinal metastasis. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

2013 Health care professionals evaluation of quality of life issues in patients with brain metastases. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.
Publication Details:

2013

Publication Details:

2013
Re-irradiation spine stereotactic body radiotherapy (SBRT) following multiple courses of prior radiation: Spinal cord tolerance. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

2013
Effectiveness of rescue dexamethasone for pain flare in spine stereotactic body radiotherapy for metastatic renal cell cancer. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

2013
Local control, patterns of failure and vertebral compression fracture after spine stereotactic body radiotherapy for metastatic renal cell cancer. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

2013
Post-operative stereotactic body radiotherapy (SBRT) for patients with spinal metastases: predictive and prognostic factor analysis. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

2013
Presenter. MRI perfusion imaging: A biomarker of early response following radiation to brain metastases. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

Publication Details:
2012 **Presenter.** Probabilities of radiation myelopathy specific to stereotactic body radiotherapy to guide safe practice. Canadian Association of Radiation Oncology Annual Meeting. Ottawa, Ontario, Canada.

**Publication Details:**


**Publication Details:**

2012 Developing the NCIC-CTG SC 24 randomized phase II spine SBRT (stereotactic body radiotherapy) study for complex spinal metastases: What should the control group be? Canadian Association of Radiation Oncology Annual Meeting. Ottawa, Ontario, Canada.

**Publication Details:**


**Publication Details:**

2012 Outcomes for post-surgical hypofractionated stereotactic cavity radiotherapy (HSCRT) as salvage for patients with prior whole brain radiotherapy (WBRT) as compared to upfront adjuvant HSCRT. Canadian Association of Radiation Oncology Annual Meeting. Ottawa, Ontario, Canada.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2011 Volumetric based thresholds to define local control of brain metastases following gamma knife radiosurgery and predictors of local control and overall survival. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:


Publication Details:

2011 Local control with stereotactic body radiation therapy (SBRT) for spinal metastases: Is it dose or biology that matters. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011 Feasability and clinical tolerability of the extend relocatable head frame for perfexion intra-cranial streoactic radiotherapy. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:


Publication Details:


Publication Details:

Publication Details:

2011
A re-analysis of symptom clusters in advanced cancer patients using three statistical methods. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011
Functional interference due to pain following palliative radiotherapy for bone metastases among patients in their last three months of life. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011
Palliative radiotherapy for bone metastases in the last three months of life: Worthwhile or futile? Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2010
Impact of immobilization on intra-fraction motion for spine stereotactic body radiotherapy (SBRT) using cone-beam CT (CBCT). American Society of Therapeutic Radiation Oncology.

Publication Details:

2010

Publication Details:

2010

Publication Details:

2010

Publication Details:
Laperriere N, Menard C, Millar B-A, Sahgal A, Payne D, Mason W. Prognostic factors and outcomes for...
elderly patients with glioblastoma multiforme. Radiother Oncol. 2010;96(2):S34. **Coauthor or Collaborator.**

**2010**


*Publication Details:*

**2010**


*Publication Details:*

**2010**

Neovascular glaucoma following stereotactic radiotherapy for juxtapapillary melanoma: Histopathological-dosimetric findings. Canadian Association of Radiation Oncology Annual Meeting. Vancouver, British Columbia, Canada.

*Publication Details:*

**2010**

Stereotactic body radiation therapy of the spine using the elekt synergy, hexapod and BodyFIX systems. Canadian Association of Radiation Oncology Annual Meeting. Vancouver, British Columbia, Canada.

*Publication Details:*
Hyde D, Lochray F, Sahgal A. Stereotactic body radiation therapy of the spine using the elekt synergy, hexapod and BodyFIX systems. Radiother Oncol. 2010;96(2):S18. **Senior Responsible Author.**

**2010**


*Publication Details:*

**2009**


*Publication Details:*

**2009**

SBRT of spinal lesions utilizing the elekt beam modulator, hexapod couch and bodyfix systems. Canadian Organization of Medical Physics. Vancouver, British Columbia, Canada.

2009 Is there an advantage to IMRT for hard to treat primary brain cancer? Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.


2009 Treatment planning with volumetric modulated arc therapy for stereotactic body radiotherapy (SBRT) of spinal/paraspinal tumors. Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.


2009 Quality of life measures used in radiation therapy trials for metastatic spinal cord compression (MSCC) patients: A literature review. Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.


2009 Presenter. Spinal cord tolerance for stereotactic body radiotherapy. Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.


2009 Presenter. Significant late toxicities associated with stereotactic radiotherapy for juxtapapillary choroidal melanoma. Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.


2008 Neovascular glaucoma following stereotactic radiotherapy for choroidal melanoma: A dosimetric analysis. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.


2008 Early imaging changes mimicking progression for glioblastoma in the combined chemotherapy era. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

Publication Details: Sanghera P, Symons S, Sahgal A, Morrison M, Avir R, Perry J, Tsao M. Early imaging changes

2008

**Presenter.** Preliminary guidelines for avoidance of radiation induced myelopathy following spine stereotactic body radiosurgery (SBRS). Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

*Publication Details:*

2008

**Preliminary guidelines for avoidance of radiation induced myelopathy following spine stereotactic body radiosurgery (SBRS).**

**Canadian Association of Radiation Oncology Annual Meeting.**

Montreal, Quebec, Canada.

*Publication Details:*

2008

**Stereotactic body radiotherapy (SBRT) for benign spinal tumors: Preliminary experience at the University of California, San Francisco.**

**Canadian Neuro-Oncology.**

Banff, Alberta, Canada.

*Publication Details:*

2008

**Fractionated stereotactic treatment of choroidal melanoma.**

**Canadian Neuro-Oncology.**

Banff, Alberta, Canada.

*Publication Details:*

2008

**Presenter.** Stereotactic body radiotherapy (SBRT) for spinous metastases: Preliminary experience at the University of California, San Francisco. Canadian Neuro-Oncology. Banff, Alberta, Canada.

*Publication Details:*

2007


*Publication Details:*

2007

**Presenter.** A comparison of dosimetric and biological effective dose (BED) parameters for the prostate and urethra using Cs-131 and I-125 for prostate brachytherapy. Canadian Association of Radiation Oncology Annual Meeting. Toronto, Ontario, Canada.

*Publication Details:*

2007

**Presenter.** Proximity of spinous/paraspinous radiosurgery target to the spinal cord versus risk of local failure. Canadian Association of Radiation Oncology Annual Meeting. Toronto, Ontario, Canada.

*Publication Details:*
Radiother Oncol. 2007;84(2):S2. **Principal Author.**


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*
Sahgal A, Millar BA, Michaels H, Chan HSL, Heon E, Gallie B, Laperrriere N. Preliminary results of focal vision sparing therapy in pediatric peripapillary and perimacular retinoblastoma. Radiother Oncol. 2004;72:S1. **Principal Author.**

**2003 Presenter.** Preliminary results of patients treated with stereotactic radiotherapy for juxtapapillary choroidal melanoma. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

*Publication Details:*

**Media Appearances**


Lessons from Toronto’s own Jackie Smith as she dies from cancer. Interviewer: Toronto Star.

Commentary on the use of cell phones and risk of glioma. Interviewer: CTV National News with Lloyd Robertson.


Invited Speaker. A revolution in radiation treatment - new techniques and radiosurgery. Webinar Series for Health Care Professionals by the Brain Tumour Foundation of Canada.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Invited Speaker. Stereotactic radiosurgery as definitive therapy for brain metastases. Thunder Bay Regional Cancer Centre. Thunder Bay, Ontario, Canada. Presenter(s): Sahgal A.


Invited Speaker. The application of spine SBRT for spinal metastases: A paradigm shift in management. From Hospital to Home the Continuum of Care After SCI. Toronto, Ontario, Canada.


2014  **Visiting Professor.** Stereotactic radiosurgery as definitive targeted therapy for brain metastases - no more whole brain radiation. Durham Regional Cancer Center. Oshawa, Ontario, Canada.

2013  **Invited Speaker.** Bone Metastases panel discussion. Target Insight VII. Toronto, Ontario, Canada.

2013  **Invited Speaker.** Vertebral compression management in oncology patients - diagnosis and referral; treatment options; patient selection and staging with adjuvant therapies (SBRT); and building an interdisciplinary care team. Joint Department of Orthopedics and Radiation Oncology Rounds, University of Western Ontario. London, Ontario, Canada.

2012  **Invited Speaker.** Advanced technology in the management of brain metastases. Southlake Regional Cancer Centre Oncology Rounds. Newmarket, Ontario, Canada.

2012  **Invited Speaker.** Malignant epidural spinal cord compression (MESCC) and the future of radiation with spine radiosurgery. Community Endocrinology Rounds. Toronto, Ontario, Canada.


2011  **Invited Speaker.** The current dilemma in the management of patients with 1-4 brain metastases. Oncology Ground Rounds, Royal Victoria Hospital. Barrie, Ontario, Canada.

2011  **Invited Speaker.** The role of radiosurgery in brain metastases and an introduction to radiosurgery for spine metastases. Community Oncologists of Metropolitan Toronto. Toronto, Ontario, Canada.

2010  **Invited Speaker.** Requirements for stereotactic body radiotherapy. McMaster University. Hamilton, Ontario, Canada.


2010  **Invited Speaker.** The management of malignant epidural spinal cord compression. Southlake Regional Cancer Centre Oncology Rounds. Newmarket, Ontario, Canada.

2010  **Invited Speaker.** The management of brain metastases. Southlake Regional Cancer Centre Oncology Rounds. Newmarket, Ontario, Canada.

2010  **Visiting Professor.** Stereotactic body radiotherapy for spine metastases and spinal cord tolerance. London Regional Cancer Centre, University of Western Ontario. London, Ontario, Canada.

2009  **Visiting Professor.** Stereotactic body radiotherapy for spine metastases. Durham Regional Cancer Centre. Oshawa, Ontario, Canada.

2009  **Visiting Professor.** Radiosurgery for brain and spine metastases. Credit Valley Hospital. Toronto, Ontario, Canada.


**Lay public presentation**


2010  **Invited Speaker.** Acoustic neuroma and radiation: Technology and options. Acoustic Neuroma Society of
Canada: 26th Annual Meeting. Niagara Falls, Ontario, Canada.

2009


2008


2008


2008


4. LOCAL

Invited Lectures and Presentations

2016


2015


2015


2015

Invited Speaker. SBRT to spine and non-spine bones: Rationale and current status. Faculty of Medicine Oncology Continuing Education Rounds. University of Toronto. Toronto, Ontario, Canada.

2014


2014


2013

Invited Speaker. The management of brain metastases: No more whole brain radiation please. Sunnybrook Odette Cancer Centre Oncology Grand Rounds, Sunnybrook Health Sciences Centre, University of Toronto. Toronto, Ontario, Canada.

2013

Invited Speaker. The management of brain metastases: No more whole brain radiation please. Sunnybrook Physical Sciences Seminar, Sunnybrook Health Sciences Centre, University of Toronto. Toronto, Ontario, Canada.

2013


2013

Invited Speaker. Radiosurgery for spinal metastases. 90th Anniversary of Neurosurgery in Canada, University of Toronto. Toronto, Ontario, Canada.

2012


2012

Invited Speaker. Treatment planning in paraspinal SBRT-From targets to plan optimization. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.
2012 **Invited Speaker.** Developing a paraspinal SBRT program: Prepare to launch. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012 **Invited Speaker.** Multimodality registration for treatment planning exercise. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012 **Invited Speaker.** Late effects of SBRT. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012 **Invited Speaker.** Paraspinal SBRT in action. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012 **Invited Speaker.** Paraspinal disease: Setting the stage. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012 **Invited Speaker.** Stereotactic radiosurgery for spinal tumours. 37th Annual William S. Keith Professorship in Neurosurgery, Division of Neurosurgery, Department of Surgery, University of Toronto. Toronto, Ontario, Canada.

2012 **Invited Speaker.** Advanced radiation technology in the roles of brain tumours and brain metastases. Department of Surgery, Division of Neurosurgery, Resident Academic Teaching Block on Tumours, University of Toronto. Toronto, Ontario, Canada.


2012 **Invited Speaker.** Introduction to CNS tumours and radiosurgery. Odette Cancer Centre, CNS Site Group, Sunnybrook Health Sciences Centre, University of Toronto, Grand Rounds, University of Toronto. Toronto, Ontario, Canada.

2011 **Invited Speaker.** Current management of brain metastases, the neurocognitive effect of WBRT and the future of brain SRS. Odette Cancer Centre, Sunnybrook Health Sciences Centre, University of Toronto, Grand Rounds. Toronto, Ontario, Canada.

2011 **Invited Speaker.** Radiation for brain tumors. Department of Radiology Neuroradiology Program Professor’s Rounds, University of Toronto. Toronto, Ontario, Canada.

2011 **Invited Speaker.** The emerging role of radical palliation. Princess Margaret Hospital Palliative Care Department, Pain and Symptom Management Rounds, University of Toronto. Toronto, Ontario, Canada.

2011 **Invited Speaker.** The management of brain metastases in 2011. Department of Radiation Oncology, Rapid Response Palliative Program Rounds, University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** Spinal cord tolerance for spine stereotactic body radiotherapy. Department of Radiation Medicine Rounds, University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** Radiation for brain tumors. Department of Radiology, Neuroradiology Program Professor’s Rounds, University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** The treatment of paraspinal disease. Image-guided radiotherapy education course, Princess Margaret Hospital, University of Toronto. Toronto, Ontario, Canada.


2010 **Invited Speaker.** The management of brain metastases. Odette Cancer Centre, Sunnybrook Health Sciences Centre, Melanoma Rounds. University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** The management of brain metastases in 2010. Department of Radiation Medicine Oncology Rounds, University of Toronto. Toronto, Ontario, Canada.
2010 **Invited Speaker.** The management of brain metastases in 2010. Sunnybrook Health Sciences Centre, Odette Cancer Centre, Oncology Grand Rounds, University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** Spine SBRT and minimal access spine surgery. PMH Innovation Rounds, University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** Spine stereotactic body radiotherapy: A high dose approach for radioresistant tumors. Odette Cancer Centre, Sunnybrook Health Sciences Centre, Melanoma Rounds, University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** The management of brain metastases in 2010. Sunnybrook Health Sciences Centre, Division of Neurology Grand Rounds, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Stereotactic body radiotherapy for spinal metastases and spinal cord tolerance to SBRT fractionation. Department of Radiation Medicine Grand Rounds, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Implementing a spine stereotactic body radiotherapy program at the University of Toronto. Department of Radiation Medicine Rounds, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Is radiation the best treatment for anaplastic oligodendroglioma or does it just melt brains? Division of Neurology, J.C. Richardson Neurology Subspecialty Day, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Stereotactic radiosurgery for brain metastases. Odette Cancer Centre, Breast Site Group Rounds, Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.


2009 **Invited Speaker.** Overview of what’s new in nonsurgical treatment of metastatic spinal disease - When to consider radiosurgery. 4th Annual Canadian Contemporary Spinal Techniques Course, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Technology and biology - Finally, a merging of the minds. University of Toronto Glioma Day: Advances and Therapeutic Challenges. Toronto, Ontario, Canada.


2008 **Invited Speaker.** Stereotactic body radiotherapy for spinal metastases. Division of Rheumatology and Orthopedics Grand Rounds. Toronto, Ontario, Canada.

2008 **Invited Speaker.** Radiosurgery of the spine and radiation tolerance of the spinal cord. E. Harry Botterell Lectureship in Neurosurgery, The Toronto Western Hospital. Toronto, Ontario, Canada.


**Presented Abstracts**


**Presented and Published Abstracts**

2016  Dosimetric feasibility of the hybrid magnetic resonance imaging (MRI)-LINAC system for brain metastases: The impact of the magnetic field. UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Tseng CL. (Trainee Presentation)

**Publication Details:**

2016  Urinary cytokines/chemokines pattern after magnetic resonance-guided high intensity focused ultrasound...
for palliative treatment of painful bone metastases. UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Bushehri A.

Publication Details:


Publication Details:

Media Appearances

Lay public presentation
2010 Invited Speaker. Brain cancer: Primary gliomas. Princess Margaret Hospital; Patient and Survivorship Education Lunch and Learn Session. Toronto, Ontario, Canada.

G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

Please see the Teaching and Educational Report for details.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


2009 - 2010 Primary Supervisor. B. Sc. Liang Zeng. Supervisee Position: Third year undergraduate co-

2009 - 2010


**Graduate Education**

2014 - present

**Co-Supervisor.** MSc. Anick Nater. Supervisee Position: Neurosurgery resident and graduate student in the Institute of Medical Sciences, Supervisee Institution: University of Toronto, Department of Surgery, Division of Neurosurgery. *Metastatic Epidural Spinal Cord Compression: Comprehensive health-related quality of life and survival based prediction model.*

**Undergraduate MD**

2012 - 2013


2012 - 2013


**Postgraduate MD**

2016 - present

**Primary Supervisor.** Clinical Fellow. Hane Muamenah. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology.

2016 - present

**Primary Supervisor.** Clinical Fellow. Majed Alghamdi. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology.

2016


2015 - 2016


2015


2013 - 2014


2013 - 2014


2012 - 2015

**Primary Supervisor.** Core Program. Eric Tseng. Supervisee Position: Radiation Oncology Resident PGY3, Supervisee Institution: University of Toronto, Department of Radiation

2012 - 2013


2011 - 2014


2011 - 2013


2011 - 2013

**Primary Supervisor.** Core Program. Eric Tseng. Supervisee Position: Radiation Oncology Resident PGY2, Supervisee Institution: University of Toronto, Department of Radiation Oncology. Spinal cord tolerance specific to re-irradiation spine stereotactic body radiotherapy (SBRT) following at least 2 course of prior radiation.

2011 - 2012


2011 - 2012


2011 - 2012


2011 - 2012


2010 - 2012


2010 - 2012

**Primary Supervisor.** Clinical Fellow. Laura Masucci. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology. Is there an advantage as compared to intensity modulated radiotherapy or by adding a partial arc?. Completed 2011.

2010 - 2011


2010 - 2011

**Primary Supervisor.** Clinical Fellow. Hany Soliman. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology. Hypofractionated stereotactic radiotherapy in five daily fractions for post-operative surgical

2010 - 2011  

2010 - 2011  
**Primary Supervisor.** Clinical Fellow. Laura Masucci. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology. *Grade 4 radiation induced colitis secondary to conventional palliative radiation to hip metastases.* Completed 2011.

2009 - 2011  

2009 - 2010  

2009 - 2010  

2009 - 2010  

2009 - 2010  

2008 - 2010  

2008 - 2010  

2008 - 2010  
**Primary Supervisor.** Core Program. Matthew Follwell. Supervisee Position: PGY4 Resident Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology. *Is there an advantage as compared to intensity modulated radiotherapy or by adding a partial arc?* Completed 2010.

2008 - 2010  

2008 - 2010  

2007 - 2008  
2. OTHER SUPERVISION

Graduate Education

Dissertation supervisor


IMS oral examination chair


Program Committee Member


Supervisory committee

2016 - present  MSc. Christopher Huynh, Physics. Supervisee Institution: Ryerson University. Volume of interest cone-beam CT to improve brain tumour contrast. Supervisor(s): Drs. William Song, Mark Ruschin.

2015 - present  MSc. Vladimir Grouza, Physics. Supervisee Institution: Ryerson University. Dual energy CBCT, to improve tumour visibility based on remaining MRI GD contrast. Supervisor(s): Drs. William Song, Mark Ruschin.
MD (Tashkent Medical Institute, Former USSR)
MCCEE-Medical Council of Canada
MCCQE-Part I Medical Council of Canada
MCCQE-Part II Medical Council of Canada

M.H.A. (University of Toronto, ON – 1989)

FRCPC (McMaster University, ON – 1997)

AND

Staff, Radiation Oncology, Peel Regional Cancer Centre, Credit Valley Hospital
Business Address: Peel Regional Cancer Centre  
Credit Valley Hospital  
2200 Eglinton Avenue  
Mississauga, ON L5M 2N1

Email Address: ssenthelal@cvh.on.ca

Citizenship: Canadian

Career Objectives: Radiation Oncology with some involvement in Health Services Research and Administration and teaching.

EDUCATION

October 2003  Medical Council of Canada  
Qualifying Examination, Part II (MCCQE-2)  
The Medical Council of Canada

May 2001  Medical Council of Canada  
Qualifying Examination, Part I (MCCQE-1)  
The Medical Council of Canada

May 1997  F.R.C.P.C. Radiation Oncology  
The Royal College of Physicians and Surgeons of Canada

September 1990  Medical Council of Canada Evaluation Examination (MCCEE)  
The Medical Council of Canada

June 1989  M.H.Sc., Health Administration  
University of Toronto  
Toronto, Ontario CANADA

June 1984  Bachelor of Medicine  
Tashkent Medical Institute  
Uzbekistan, Former USSR
## PROFESSIONAL EXPERIENCE

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Position</th>
<th>Institution</th>
<th>Location</th>
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<tbody>
<tr>
<td>February 2006 to Present</td>
<td>Radiation Oncologist</td>
<td>Peel Regional Cancer Centre</td>
<td>Mississauga, Ontario</td>
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<td>Credit Valley Hospital</td>
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<tr>
<td>May 2001 – January 2006</td>
<td>Radiation Oncologist</td>
<td>Grand River Regional Cancer Centre</td>
<td>Kitchener, Ontario</td>
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<td>Radiation Oncologist</td>
<td>London Regional Cancer Centre</td>
<td>London, Ontario</td>
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<tr>
<td>January 1999 – April 2001</td>
<td>Provincial Radiation Oncologist</td>
<td>PEI Cancer Centre</td>
<td>Charlottetown, Prince Edward Island</td>
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<tr>
<td>July 1998 – December 1998</td>
<td>Clinical Fellow</td>
<td>Hamilton Regional Cancer Centre</td>
<td>Hamilton, Ontario</td>
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<tr>
<td>March 1998 – June 1998</td>
<td>Fellow, Health Services Research</td>
<td>Cancer Care Ontario</td>
<td>Toronto, Ontario</td>
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<td></td>
<td>Clinical Fellow</td>
<td>Hamilton Regional Cancer Centre</td>
<td>Hamilton, Ontario</td>
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<tr>
<td>January 1998 – March 1998</td>
<td>Prepared a proposal on a health services research project in Radiation Oncology</td>
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<tr>
<td>July 1996 – May 1997</td>
<td>Research work in Health Services Research</td>
<td>Unfunded, Nonclinical, Examination preparation at the</td>
<td>Toronto, Ontario</td>
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<td>Toronto-Sunnybrook Regional Cancer Centre</td>
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</table>
Final Year Resident, Radiation Oncology  
Hamilton Regional Cancer Centre  
Hamilton, Ontario  
Radiation Oncology

October 1993 – June 1994  
Third Year Resident, Radiation Oncology  
Hamilton Regional Cancer Centre  
Hamilton, Ontario  
Radiation Oncology

July 1993 – September 1993  
Third Year Resident, Radiation Oncology  
Ontario Cancer Treatment & Research Foundation  
Toronto, Ontario  
Research Project

July 1992 – June 1993  
Second Year Resident, Radiation Oncology  
Hamilton Regional Cancer Centre  
Hamilton, Ontario  
Radiation Oncology

First Year Resident, Radiation Oncology  
University Hospital  
London, Ontario  
Internal Medicine

January 1992 – April 1992  
First Year Resident, Radiation Oncology  
St. Joseph’s Health Centre  
London, Ontario  
Internal Medicine

First Year Resident, Radiation Oncology  
London Regional Cancer Centre  
London, Ontario  
Radiation Oncology

Project Coordinator  
Institutional Branch  
Ontario Ministry of Health  
Ontario, Canada

September 1987 – June 1989  
M.H.Sc. Health Administration  
University of Toronto  
Toronto, Ontario
August 1986 – May 1987  First Year Resident, Radiotherapy & Oncology  
Cancer Institute  
Sir Lanka  
Radiation Oncology

August 1985 – August 1986  Pre-Resident  
Cancer Institute  
Sir Lanka  
Cancer Surgery

Feb. 1985 – Aug. 1985  Intern Medical Officer  
General Hospital  
Negombo, Sir Lanka  
General Surgery

Aug. 1984 – Feb. 1985  Intern Medical Officer  
General Hospital  
Negombo, Sir Lanka  
Internal Medicine and Pediatrics  
(Internal Medicine included Psychiatry)

CLINICAL SERVICE

• New consults in average over 400 per year  
• During last 5 years have treated all sites when there was a need  
• Special interest in Genitourinary System, Gastrointestinal System, Breast, Lung, and in pain and symptom management  
• Experience in establishing two cancer centres.

RESEARCH AND PROJECTS

1989  Developed one of the first “Bed Utilization” projects in Ontario. My recommendations were accepted and implemented.


1990  Developed the “Bed Utilization Model”. This model was the foundation for the tool currently being used by the Ministry of Health to rationalize health services in Ontario. This model is currently known as the “Planning Decision Support Tool (PDST)”.

1993  Project on designing “Costing Models and Costing Cancer Treatments Modalities in Ontario”, Ontario Cancer Treatment and Research Foundation, Ontario, Canada.

1996  My work on “Costing Cancer Treatments in Ontario” was used by Cancer Care Ontario in a proposal to the Ontario Ministry of Health.
1997  The data from my work on “Costing of Cancer Treatments in Ontario” was accepted by the Ontario Ministry of Health.

1998  My work on “Costing Cancer Treatments in Ontario” was used in the Canadian Cervical Cancer Screening Project.

1998  Completed a project on “Evaluating the Current Radiotherapy Workload Measurement System (NHPIP)”.

1998  The effect of extended hours of operation on the lifespan and reliability of linear accelerators – developed a questionnaire and mailed to appropriate institutions and manufacturers throughout the world.

1999  Developed the Radiotherapy Treatment Guidelines for the province of Prince Edward Island.

1999  Submitted a report on Radiotherapy Services in Prince Edward Island.

EXPERIENCE IN ESTABLISHING TWO CANCER CENTRES:

1999  Involved in the development of a new cancer centre in Prince Edward Island which included the planning of the building, purchase of equipment and hiring of staff. It should be noted that I was the only Provincial Radiation Oncologist at that time.

2000  Involved in the development of a new cancer centre in Kitchener, Ontario. The degree of involvement was less than that in P.E.I.

BRIEFINGS:

1989 – 1991  Briefed the following officials on my “Bed Utilization Model”:
Hon. Elinor Caplan, Minister of Health
Dr. Martin Barkin, Deputy Minister of Health

PRESENTATIONS AND PUBLIC SPEECHES

2002  “Management of Prostate Cancer” presented to the urologists in the GRRCC catchment area.

2002  “Prostate Cancer”, Prostate Support Group in Guelph, Ontario

2003  “Role of Radiation Treatment in Pain and Symptom Management”, Palliative Care Conference, Holiday Inn, Guelph, Ontario
2006  “Role of Radiation Treatment in Pain and Symptom Management”, Credit Valley Hospital

2010  Breast Cancer, Oncology Rounds, Credit Valley Hospital

TEACHING

1997  “Human Anatomy”, Radiation Therapy students at Hamilton Regional Cancer Centre.

2001-2006  Adjunct Professor, University of Western Ontario, London, ON

2003  “Overview of Radiotherapy”, Oncology Nurses, Supportive Care Co-ordinators, Dietitians, Social Workers and Pastoral Care staff.

2006-to date  Involved in Teaching Medical Students and Residents whenever needed.

SPECIAL TRAINING

1999  CT-Simulator Training
       Joint Centre, Boston, Massachusetts, U.S.A.

2003  Pinnacle Planning System Training
       San Jose, California, U.S.A.

MEMBERSHIPS

Canadian Association of Radiation Oncologists
Canadian College of Health Services Executives
University of Toronto Health Administrators Alumni Association
American Society of Therapeutic Radiology and Oncology
Administrators Society for Radiation Oncology

REFERENCES

Upon request
Revised: May 2008
Curriculum Vitae

David B. Shultz
MD, PhD

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

1. EDUCATION

Degrees
2000 Aug - 2009 May MD/PhD, Case Western Reserve University, Cleveland, Ohio, United States
1996 Sep - 1997 Dec MSc, Immunology, University of California, Davis, Davis, California, United States
1992 Aug - 1996 May BSc, Biology, Tufts University, Medford, Massachusetts, United States

Postgraduate, Research and Specialty Training
2013 Jul - 2014 Jun Chief Resident, Radiation Oncology, Stanford University Hospitals, Stanford, California, United States
2010 Jul - 2014 Jun Resident, Radiation Oncology, Stanford University Hospitals, Stanford, California, United States
2009 Jul - 2010 Jun Intern, Internal Medicine-Preliminary, MetroHealth Medical Center, Cleveland, Ohio, United States

Qualifications, Certifications and Licenses
2010 - present California Medical License, United States
2010 - present Controlled Substance Certificate, Drug Enforcement Administration, United States
2015 May - 2016 May The College of Physicians and Surgeons of Ontario, License / Membership #: 107841
2015 May Clinical Exam (Oral), American Board of Radiology
2014 Jul Clinical Exam (Written), American Board of Radiology
2013 Jul Physics and Biology Exam, American Board of Radiology
2010 Apr USMLE Step 3, United States Medical Licensing Examination
2009 Feb USMLE Step 2 CK, United States Medical Licensing Examination
2008 Dec USMLE Step 2 CS, United States Medical Licensing Examination
2002 Jul USMLE Step 1, United States Medical Licensing Examination

2. EMPLOYMENT

Current Appointments
2015 Aug - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2015 Aug - present Staff Physician treating CNS malignancies and sarcoma
2015 Aug - present Clinical Investigator and Staff Radiation Oncologist, Radiation Oncology, Princess Margaret Cancer Centre, Toronto, Ontario, Canada
Previous Appointments

HOSPITAL
2014 Aug - 2015 Jul Instructor of Radiation Oncology, Stanford University Hospitals, Stanford, California, United States
Attending physician treating thoracic malignancies

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received
2014 Merit Award, Conquer Cancer Foundation of ASCO. (Distinction)
2007 Graduate Student Award, AAAS/Science Program for Excellence in Science. (Distinction)

NATIONAL

Received
2000 Travel Award, ASH Meeting, San Francisco, California, United States. (Distinction)

LOCAL

Received
2006 1st Prize Poster: Lepow Medical Student Research Day, Case Western Reserve University. (Distinction)
2000 - 2009 Medical Scientist Training Program Fellowship, Case Western Reserve University. (Distinction)
1997 Immunology Graduate Group Fellowship Award, University of California, Davis. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 Sep - present Member, Medical Association
2011 - present Member, American Society for Radiation Oncology
2010 - present Member, Radiological Society of North America
2014 Member, The Radiosurgery Society

Peer Review Activities

MANUSCRIPT REVIEWS

Ad Hoc Reviewer
2014 - present International Journal of Radiation Oncology, Biology, Physics
2014 - present Journal of the National Comprehensive Center Network
2014 - present Journal of Thoracic Oncology
2014 - present Practical Radiation Oncology
Other Research and Professional Activities

THESIS PROJECT
- Described a role for NFkappaB components in the signaling mechanisms of IFN-gamma.
1996 Sep - 1997 Dec Master’s Thesis: “Colocalization of IgA and PBC specific antigen in PBC liver”. University of California, Davis, Davis, California, United States. Supervisor(s): M. Eric Gershwin, MD (Mentor).
- Demonstrated colocalization of a disease-associated antigen and IgA through analyses using light and confocal microscopy.

RESEARCH EXPERIENCE
2010 Jul - present Stanford University, Department of Radiation Oncology, Stanford, California, United States.
- Published as first author five research papers and three review articles
- Completed one laboratory-based research project
- Presented seven abstracts at national meetings.
2008 Jun - 2009 May The Cleveland Clinic Foundation, Department of Radiation Oncology, Cleveland, Ohio, United States.
- Investigated the efficacy of high-dose-rate brachytherapy in patients with soft tissue sarcoma.
- Used mouse models to study acute promyelocytic leukemia.
- Conducted phase III clinical trials on a peptide-based HIV vaccine.

C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Evaluation Studies, Journal Articles**


**Journal Articles, Randomized Controlled Trial**


**Journal Articles, Review**


**News**

1. **Shultz D**. The privacy arms race. Game of drones. Science. 2015 Jan 30;347(6221):497. **Principal Author**.

**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


3. Shultz DB, Diehn M, and Loo BL Jr. Stereotactic ablative radiotherapy for early stage lung cancer and oligometastatic or oligo-progressive NSCLC. Which patients are suitable, and which are not? Seminars in Radiation Oncology. 2015;25:78-86. (Review Articles).


In Preparation

1. Li R, Aguilera T, Shultz DB, Rubin DL, Loo Jr BW, and Diehn M. Predictive modeling of outcomes following SABR for NSCLC based on radiomics of FDG-PET images.

D. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


2. NATIONAL

Presented Abstracts

2014 Repeat stereotactic radiosurgery (SRS) for new brain metastases following initial SRS: accumulated tumor volume and Graded Prognostic Assessment (GPA) score calculated at each course correlate with


Curriculum Vitae

Hany Soliman

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone (416) 480-4951
Cellphone (647) 680-7027
Fax (416) 480-6002
Email hany.soliman@sunnybrook.ca

1. EDUCATION

Degrees
2001 - 2005 MD, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada
1998 - 2001 BSc, Human Biology with High Distinction, Arts and Science, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
2010 - 2011 Fellow in Radiation Oncology, Lung SBRT, SRS and CNS tumours, Odette Cancer Centre, Sunnybrook Hospital, Toronto, Ontario, Canada
2005 - 2010 Resident, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2010 Member, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
2006 LMCC Part 2, Medical Council of Canada, Canada
2006 LMCC Part 1, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2014 Jan Consultant Oncologist, Surgery, North York General Hospital
2012 Aug Staff, Radiation Oncology, Sunnybrook Health Sciences Centre, Ontario, Canada
Previous Appointments

HOSPITAL
2011 Jul - 2012 Jul Staff, Radiation Oncologist, Credit Valley Hospital, Ontario, Canada
Lecturer, Department of Radiation Oncology, University of Toronto
2011 Jul - 2012 Jul Staff, William Osler Health Centre, Ontario, Canada

UNIVERSITY
1999 - 2000 Program Analyst, University Health Network, Shared Information Management Systems, Toronto, Ontario, Canada
Involved in all aspects of the development of an electronic patient record

3. HONOURS AND CAREER AWARDS

Teaching and Education Awards

LOCAL
Received
2015 Post Graduate Advocacy and Mentorship, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
2014 Best Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Undergraduate Education)

OTHER
Received
2016 Feb Sunnybrook Education Advisory Council (SEAC) Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, Sunnybrook Health Sciences Centre. (Multilevel Education)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

NATIONAL
CNO Meeting - 2016
2014 - present Co-Chair, Biannual Canadian Neuro-Oncology Conference, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Canada.

LOCAL
Other Organizations
2013 Nov - present Member, CaRMS Residency Selection Committee, Toronto, Ontario, Canada.
2013 Sep - present Member, Postgraduate Medical Education Committee, Toronto, Ontario, Canada.
Credit Valley Hospital
2011 - 2012 Jul \textbf{Co-lead}, CNS and Palliative disease site group, Mississauga, Ontario, Canada.

Odette Cancer Centre
2013 Sep - present \textbf{Director}, Director of Education, Radiation Oncology, Toronto, Canada.

Odette Cancer Centre, Radiation Oncology
2013 Nov - present \textbf{Member}, Fellowship Selection Committee, Toronto, Ontario, Canada.
2013 Nov - present \textbf{Site Lead}, Fellowship Coordinator, Toronto, Ontario, Canada.

University of Toronto
2015 Dec 4 \textbf{Organizer and Examiner}, CPEE Planning Exam, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

University of Toronto Medical School
2011 - present \textbf{Member}, Medical School Admission Committee, Mississauga, Ontario, Canada.

OTHER
Michener Institute for Applied Health Sciences
2014 Oct 30 \textbf{Examiner}, OSCE, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

Peer Review Activities
MANUSCRIPT REVIEWS
Reviewer
2014 Radiation Oncology
2013 Journal of Palliative Medicine
2012 - 2013 Clinical Oncology
2012 International Journal of Molecular Sciences

Other Research and Professional Activities
RESEARCH PROJECT
2013 - present \textbf{Principal Investigator}. Predicting tumor response in patients with brain metastases treated with whole brain or focal radiotherapy. Sunnybrook Health Sciences Centre. Supervisor(s): \textbf{Soliman H}. Collaborator(s): Sahgal A, Stanisz G, Aviv R.
2015 Sep - 2017 Sep \textbf{Principal Investigator}. Differentiation of radiation necrosis from tumour progression in brain metastases treated with stereotactic radiosurgery. Supervisor(s): Mehrabian H, Desmond KL. Collaborator(s): Stanisz g, Sahgal A, Heyn C, Tsao M, Myehaug S.
2014 Jul 1 - 2015 Jun 30 \textbf{Qualified Investigator}. The feasibility and role of hyperpolarized 13C-pyruvate MR spectroscopy in monitoring patients with intracranial metastasis treated with stereotactic
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDED


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


5. Chow R, Tsao M, Pulenzas N, Zhang L, Sahgal A, Cella D, **Soliman H**, Danjoux C, DeAngelis C, Vuong S, Chow E. Do patients with brain metastases selected for whole brain radiotherapy have worse baseline quality of life as compared to those for radiosurgery or neurosurgery (with or without whole brain radiotherapy)? Ann Palliat Med. 2016;5(1):1-12. **Coauthor or Collaborator**.


Book Chapters


Letters to Editor


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


3. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2013 Jun 19 Chair. SRS Benign 4. 11th International Stereotactic Radiosurgery Society Congress. Toronto, Ontario, Canada.

2013 Jun 17 Presenter. Outcomes for post-surgical hypofractionated stereotactic cavity radiotherapy (HSCRT) as salvage for patients with prior whole brain radiation (WBRT) as compared to upfront adjuvant HSCRT. 11th International Stereotactic Radiosurgery Society Congress. Toronto, Ontario, Canada.

Presented Abstracts


Presented and Published Abstracts


Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2014 Sep Cone Beam CT (CBCT)-based evaluation of a noninvasive stereotactic head frame equipped with a vacuum fixation bite for radiosurgery. American Society for Radiation Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

American Society for Therapeutic Radiology and Biology (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2008

Publication Details:

Other Presentations
2009 May

2. NATIONAL

Invited Lectures and Presentations
2013

2013

Presented Abstracts
2009 Sep

2008 Sep

Presented and Published Abstracts
2016 Sep

Publication Details:
Detsky J, Kapadia A, Conklin J, Stanisz G, Sahgal A, Heyn C, Soliman H. Temporal evolutions of MRI-
based perfusion fraction predicts radionecrosis in patients with brain metastases treated with stereotactic radiosurgery.

2016 Sep  

Publication Details:  

2016 Sep  

Publication Details:  

2016 Sep  

Publication Details:  

2015  

Publication Details:  

2015  

Publication Details:  

2015  
Stereotactic ablative radiotherapy (SABR) for pulmonary oligometastases and oligoprogression. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada.

Publication Details:  

2014  
Accelerated hypofractionation versus stereotactic ablative radiotherapy (SABR) for early-stage non-small cell lung cancer: Results of a propensity score-matched analysis. Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John's, Newfoundland and Labrador, Canada.

Publication Details:  


Publication Details:

2014 Impact of prophylactic dexamethasone on pain flare following spine stereotactic body radiotherapy (SBRT). Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:


Publication Details:


Publication Details:

2012 A randomized comparison of lung stereotactic body radiation therapy (SBRT) delivered over 4 or 11 days - acute toxicity and quality of life. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:

2012 Outcomes for post-surgical hypofractionated stereotactic cavity radiotherapy (HSCRT) as salvage for patients with prior whole brain radiation (WBRT) as compared to upfront adjuvant HSCRT. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:
2008

Preliminary results of a Phase II study of single fraction palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

2008


Publication Details:

2008

Presenter. The dosimetric significance of catheter displacement in prostate high dose-rate (HDR) brachytherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2013 Apr 12


2011

Brain Tumours. Brampton Spring Sprint. Brampton, Ontario, Canada.

Presented Abstracts

2008 Apr

Presented and Published Abstracts


Publication Details:

4. LOCAL

Invited Lectures and Presentations


2012 SBRT Lung Treatment. Credit Valley Hospital, Grand Rounds. Mississauga, Ontario, Canada.


Presented Abstracts


Presented and Published Abstracts

2015 Co-creating beyond the expert: Lessons learned from the development of an e(electronic)-learning series through an intentional partnership of technology and clinical practice. Radiation Oncology Department Patient Education. Canada.

Publication Details:

2014 Nov Radiation Oncology Department Patient Education.

Publication Details:
Osmar K, Soliman H, Verma P. Radiation Oncology Department Patient Education. 2014 Nov. RTi3 Conference. Coauthor or Collaborator.
5. OTHER

Presented Abstracts

Curriculum Vitae

Jacqueline A. Spayne

A. Date Curriculum Vitae is Prepared: 2016 August 9

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario
M4N 3M5

Telephone 416-480-4974
Fax 416-480-6002
Email jacqueline.spayne@sunnybrook.ca

1. EDUCATION

Degrees
1994 - 1999 MD, With Honours, University of Toronto, Canada
1981 - 1984 PhD, Pharmacology, University of Cambridge, United Kingdom
1977 - 1981 BSc, Pharmacology, London University, United Kingdom

Postgraduate, Research and Specialty Training
2004 - 2005 Clinical Fellow, Toronto Sunnybrook Regional Cancer Centre, Department of Radiation Oncology, University of Toronto
1999 - 2005 Resident, Department of Radiation Oncology, University of Toronto

Qualifications, Certifications and Licenses
2004 - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1999 - present Licentiate (LMCC), Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2009 - present Assistant Professor, Radiation Oncology, University of Toronto
2005 - present Radiation Oncologist, Department of Radiation Oncology, Sunnybrook Health Sciences Centre
Odette Cancer Centre
Previous Appointments

HOSPITAL
2007 - 2014 Clinician Administrator, Department of Radiation Oncology, Sunnybrook Health Sciences Centre
   Odette Cancer Centre
2006 - 2013 Radiation Oncologist, Royal Victoria Hospital, Barrie
2006 - 2012 Radiation Oncologist, Toronto East General Hospital

UNIVERSITY - RANK
2005 - 2009 Lecturer, Radiation Oncology, University of Toronto

CORPORATE INVESTMENT
1984 - 1989 Investment Executive, Investors in Industry plc, London, United Kingdom
   Evaluation of investment proposals and liaison with investee companies

CORPORATE MANAGEMENT
1992 - 1994 Corporate Development Director, Allelix Biopharmaceuticals Inc. Mississauga, Canada
   Assessment and management of technology transfer program between academia and industry
1989 - 1992 Director, Communications and Marketing, Shorrock Limited, London, United Kingdom
   Operational management of a team of 40 people, budget 5 million

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL
Received
2003 Chief Resident, Department of Radiation Oncology, University of Toronto. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2004 - present European Society for Therapeutic Radiation and Oncology (ESTRO)
2003 - present Canadian Association of Radiation Oncology (CARO)

Administrative Activities

INTERNATIONAL
University of Cambridge
2010 - present Member, Canadian Undergraduate Academic Selection Committee, United Kingdom.

University of Toronto
2015 - present Medical Advisor, Toronto Addis Ababa Academic Collaboration Oncology Initiative, Ethiopia.
C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly and Professional Activity.
Staff Radiation Oncologist at the Odette Cancer Centre treating patients with Lymphoma and Lung Cancer. Dr. Spayne is the physician leader for a collaborative initiative to develop educational programs in medical radiation sciences at the University of Addis Ababa. This is part of the Toronto Addis Ababa Academic Collaboration which is designed to build sustainable medical education and human resource capacity in a low-income setting. Previously, Dr. Spayne was the lead Radiation Oncologist with the centre's innovative Locally Advanced Breast Cancer (LABC) program. She was the Principal Investigator of a clinical trial exploring concurrent neoadjuvant chemoradiation treatment for high risk patients.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDED

2006 - 2012


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


17. Margolius HS, Halushka PV, Chao J, Miller DH, Cuthbert AW, Spayne JA. Studies of the kallikrein-kinin system and prostaglandins in epithelial ion transport. Soc Gen Physiol Ser. 39:121-33, 1985. **Coauthor or Collaborator.**


20. Cuthbert AW, Spayne JA. Conversion of sodium channels to a form sensitive to cyclic AMP by component(s) from red cells. Br J Pharmacol. 79(3):783-97, 1983. **Co-Principal Author.**


2. NON-PEER-REVIEWED PUBLICATIONS

Commentaries


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented and Published Abstracts

2011 Quantitative ultrasound and diffuse optical spectroscopy evaluations of treatment response in patients
Jacqueline A. SPAYNE


**Publication Details:**

2010


**Publication Details:**

2010


**Publication Details:**

2009


**Publication Details:**

2008

Biological markers predictive of invasive recurrence in DCIS.

**Publication Details:**

2007


**Publication Details:**
Motion in Tomotherapy: Some Dosimetric Observations.

2006

Molecular markers for invasive recurrence in DCIS.

**Publication Details:**

2005


**Publication Details:**

Publication Details: 

1983 Alteration of the properties of sodium channels by components from red cell membranes.

Publication Details: 

1981 The effects of arachidonate lipoxygenase products on leukocyte migration in rabbit skin.

Publication Details: 

1980 The effects of Arachidonate lipoxygenase products on plasma exudation in rabbit skin.

Publication Details: 

Other Presentations


2. NATIONAL

Invited Lectures and Presentations

2015 Sep 9 Secretary Treasurer. Canadian Association of Radiation Oncology (CARO). Kelowna, British Columbia, Canada. Presenter(s): Spayne JA.

2014 Aug 25 Secretary Treasurer. Canadian Association of Radiation Oncology (CARO). Saint John’s, Newfoundland and Labrador, Canada. Presenter(s): Spayne JA.


Presented and Published Abstracts

2005 Skills radiation oncology residents require to assess patients with cancer in intimate body regions: what does the literature say about which skills, and how and when they are acquired? Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Victoria, British Columbia.

Publication Details: 
Voroney JP, Spayne JA, Kane G, Ackerman I. Skills radiation oncology residents require to assess patients with cancer in intimate body regions: what does the literature say about which skills, and how and when they are acquired? Radiother Oncol. 2005. Coauthor or Collaborator.

Publication Details: 

2003  
A screening history of patients with cervix cancer. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec.

Publication Details: 
**Spayne JA**, Ackerman I, Milosevic M, Paszat L. A screening history of patients with cervix cancer. Radiother Oncol. 2003. **Principal Author**.

2001  
Learning from errors: Radiation oncology residents and the quality management process. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Vancouver, British Columbia.

Publication Details: 
**Spayne JA**, Catton PA, Kane G. Learning from errors: Radiation oncology residents and the quality management process. Radiother Oncol. 2001. **Principal Author**.

1999  

Publication Details:  
Carcinoma-in-situ of the lottis larynx: results of treatment with radiation therapy.

### 3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2011 Oct  

Presented and Published Abstracts

2009  

Publication Details:  

Locally Advanced Breast Cancer Workshop

2011 Dec 16  
Royal Victoria Hospital. Barrie, Ontario, Canada. Presenter(s): **Spayne JA**, El-Maraghi R.

Other Lectures and Presentations

2008 Dec  

2007 May  
4. LOCAL

Invited Lectures and Presentations

2015 Nov 10 How to teach to teach how to fish? A collaborative proposal for cancer care capacity building. Interdisciplinary Radiation Oncology Rounds (IROR), Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Spayne JA.

2015 Oct 8 How to teach to teach how to fish? A collaborative proposal for cancer care capacity building. Radiation Medicine Program (RMP) Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Spayne JA.

2011 Apr 13 A Decade of Quality Improvement in Radiation Therapy at the Odette Cancer Centre: What We’ve Learned and Where We’re Going. Odette Cancer Centre, Radiation Oncology Program Quality Assurance Rounds. Presenter(s): Robson S, Spayne JA, D’Souza N.

2010 Sep 13 Clinic ReDesign. Odette Cancer Centre, Thoracic Oncology Rounds. Presenter(s): Spayne JA.


2005 Oct Chemoradiation and Targeted Therapy in Lung Cancer. Odette Cancer Centre, Thoracic Oncology Rounds. Presenter(s): Spayne, JA.
Curriculum Vitae

Christiaan Stevens  
MSc, MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2017/01/03

B. Biographical Information

Primary Office  
Simcoe Muskoka Regional Cancer Program  
Royal Victoria Regional Health Centre  
201 Georgian Drive  
Barrie, ON L4M 6M2

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Cellphone  
705-241-9223

Fax  
705-739-5630

Email  
stevensc@rvh.on.ca

1. EDUCATION

Degrees

08/1999 – 06/2003  
Medical Doctor, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

08/1996 – 06/1999  
Master of Science, Department of Experimental Medicine, Faculty of Medicine, University of British Columbia, Vancouver, British Columbia, Canada. Supervisor: Dr. Vincent Duronio

08/1992 – 06/1995  
Bachelor of Science (Honours), Department of Microbiology and Immunology, Faculty of Science, McGill University, Montreal, Quebec, Canada. Supervisor: Dr. Mark Wainberg

Postgraduate, Research and Specialty Training

[Presented in reverse chronological order]

07/2008 – 12/2009  
Clinical Research Fellow, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. [Supervisor(s): Dr. John Waldron and Dr. Jolie Ringash]

07/2003 – 06/2008  
Resident, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada.

Qualifications, Certifications and Licenses

01/2010 – present  
Physician, College of Physicians and Surgeons of Ontario (CPSO), Toronto, Ontario, Canada. License Number: 79473.

08/2008 – present  
Fellow, Division of Medicine, Royal College of Physicians and Surgeons of Canada (RCPSC), Ottawa, Ontario, Canada. Member Number: 710491

06/2005 – present  
Licentiate, Medical Council of Canada (LMCC), Ottawa, Ontario, Canada. Member Number: 98283
2. EMPLOYMENT

Current Appointments

02/2015 – present  Head, Radiation Treatment Program, Simcoe Muskoka Regional Cancer Program, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada
01/2015 – present  Staff Physician, Orillia Soldier’s Memorial Hospital, Orillia, Ontario, Canada
10/2014 – present  Medical Director, Simcoe Muskoka Regional Cancer Program, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada
01/2011 – present  Adjunct Lecturer, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
06/2010 – present  Adjunct Lecturer, Department of Family and Community Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
01/2010 – present  Staff Physician, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2010 – present  Member, Ontario Association of Radiation Oncologist
2010 – 2016  Executive clinical director and co-founder, Community Radiation Oncologists of Southern Ontario (COMRADS)
2007 – present  Member, American Society of Clinical Oncology; Membership #82501
2005 – present  Member, American Society of Radiation Oncology; Membership #35197765
2003 – present  Member, Canadian Association of Radiation Oncology
1999 – present  Member, Ontario Medical Association; Membership #0813873
1999 – present  Member, Canadian Medical Association; Membership #1222724

Administrative Activities

NATIONAL

2014 – 2016  Member, Organizing Committee for 6th Annual Conference for Quality and Safety in Radiation Medicine

PROVINCIAL / REGIONAL

02/2015 – present  Head, Radiation Treatment Program, Simcoe Muskoka Regional Cancer Program, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada
10/2014 – present  Medical Director, Simcoe Muskoka Regional Cancer Program, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada
2015  Member, CCO Person-Centred Care Working Group, Cancer Care Ontario, Toronto, Ontario, Canada
Peer Review Activities

MANUSCRIPT REVIEWS

Journal of Radiation Oncology, Biology, Physics
Clinical Oncology

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   Developed a feeding tube Quality of Life (QOL) Instrument (FACT-EF) that has been included in the FACIT series of QOL instrument

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Abstracts


4. Stevens CM, Bondy SJ, Loblaw DA. Delays in Prostate Cancer Diagnosis and Radiotherapy. Radiother Oncol 80(1); Abs 119, 2006.


G. Presentations and Special Lectures

1. PROVINCIAL/ REGIONAL/LOCAL

Invited Lectures and Presentations

• High dose brachytherapy + External Beam radiotherapy Case Presentation. Orillia Prostate Cancer Awareness Group. Orillia, ON. 08/2016

• New developments in radiotherapy for Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, ON. 01/2016

• Quality in Radiotherapy. Simcoe Muskoka Regional Cancer Program, Radiation Treatment Program Grand Rounds. 08/2015.

• Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, ON. 01/2015


• Post-operative Radiotherapy for Prostate Cancer: Prostate Cancer Awareness Night, Barrie, ON. 04/2014


• Debunking Myths in Radiation Oncology. Updates in Oncology. Casino Rama, Orillia, ON. 18/06/2013.

• Radiation Therapy. Primary Care Oncology Pearls Conference. Barrie, ON. 10/04/2013.


• Adjuvant and salvage radiotherapy for prostate cancer. Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, ON. 01/2013

• The Ethics of Medical Error. Simcoe Muskoka Regional Cancer Program Lunch and Learn Series, Royal Victoria Health Sciences Centre, 12/2012.

• Acute and Late Effects of Prostate Radiotherapy. Orillia Prostate Cancer Awareness Group. Orillia, ON. 03/2012

• Radiotherapy from A to Z. Gilda’s Club. Barrie, ON. 06/2011

• Prostate Cancer. Harry Rosen Health Awareness Day. Toronto, ON. 04/2011

• Bladder Cancer: The case for Radiotherapy. Georgian Bay Oncology Group Meeting. Barrie, ON. 03/2011

• Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, ON. 01/2011


• To Screen or not to screen: Controversies in Prostate Cancer Screening. Royal Victoria Regional Health Centre Lunch and Learn Series, Barrie, ON. 06/2010.

• The Ethics of Medical Error. Department of Radiation Oncology Quality Assurance Rounds, Odette Cancer Centre, Sunnybrook Health Sciences Centre. Toronto, ON. 03/2010.

• Post Mastectomy Radiotherapy and Breast Reconstruction. Georgian Bay Oncology Group Meeting. Barrie, ON. 03/2010
Curriculum Vitae

Alexander Y. Sun

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology,
Princess Margaret Hospital
Rm. 5-815
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

1. EDUCATION

Degrees
2001 Health Leadership Program, Rotman School of Management, University of Toronto
1985 - 1989 MD, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1994 - 1995 Research Fellow, Radiation Oncology, Department of Radiation Oncology, Division of Experimental Therapeutics, Princess Margaret Hospital, Ontario Cancer Institute, Toronto, Ontario, Canada
1991 - 1994 Resident, Radiation Oncology, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada
1990 - 1991 Resident, General Internal Medicine, University of Toronto, Toronto, Ontario, Canada
1989 - 1990 Intern, Comprehensive Internal Medicine, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
1995 - present Full Registration, Radiation Oncology, Provincial Medical Board of Nova Scotia, License / Membership #: No. F11337
1990 - present Independent Practice License, Radiation Oncology, The College of Physicians and Surgeons of Ontario, License / Membership #: Reg. No. 61025
1995 Certification, Therapeutic Radiology, American Board of Radiology (ABR)
1994 Fellow, Royal College of Physicians of Canada

2. EMPLOYMENT

Current Appointments
2016 - present Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2001 - present Active Staff, Radiation Oncology, Princess Margaret Hospital, University Health Network,
Previous Appointments

HOSPITAL
1995 - 2001 Active Staff, Radiation Oncology, Victoria General Hospital, Queen Elizabeth II Health Sciences Centre, Canada

UNIVERSITY
2001 Assistant Professor, Radiation Oncology, Faculty of Medicine, Dalhousie University, Halifax, Nova Scotia, Canada
1995 - 2001 Lecturer, Radiation Oncology, Faculty of Medicine, Dalhousie University, Halifax, Nova Scotia, Canada
1995 - 2001 Director, Radiation Oncology Research, Radiation Oncology, Dalhousie University, Halifax, Nova Scotia, Canada

UNIVERSITY - RANK
2001 - 2015 Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received
1995 Awarded 2nd Prize (Resident/Fellow Competition), Canadian Association of Radiation Oncologists (CARO). (Distinction)
Increasing tumour oxygenation with a human hemoglobin blood substitute (Hemolink TM).

1984 - 1985 Summer Scholarship, Canadian Liver Foundation. (Distinction)

LOCAL

Received
1986 - 1987 Summer Scholarship, University of Toronto. (Distinction)
1983 - 1984 Summer Scholarship, Institute of Medical Sciences, University of Toronto. (Distinction)

Student/Trainee Awards

INTERNATIONAL

Received
2015 Jun Research Project: A Randomized Controlled Trial to Assess the Efficacy and Safety of Metabolically Adaptive Dose Escalation in Locally Advanced Non-Small Cell Lung Cancer, Co-Supervisor, Awardee Name: Srinivas Raman. 17th ECCO-AAACR-EORTC-ESMO Workshop on Methods in Clinical Cancer Research, Flims (Switzerland)
1 of 10, out of a total of 133 applications received.
Research Project: A Randomized Controlled Trial to Assess the Efficacy and Safety of Metabolically Adaptive Dose Escalation in Locally Advanced Non-Small Cell Lung Cancer, Co-Supervisor, Awardee Name: Srinivas Raman. Excellence in Radiation Research for the 21st Century (EIRR21)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

- **Member**, American Society of Therapeutic Radiology and Oncology (ASTRO)
- **Member**, Canadian Association of Radiation Oncologists (CARO)
- **Member**, Canadian Medical Association
- **Member**, European Society for Therapeutic Radiology and Oncology (ESTRO)
- **Member**, International Association for the Study of Lung Cancer (IASLC)
- **Member**, Medical Society of Nova Scotia
- **Member**, Ontario Medical Association
- **Member**, The College of Physicians and Surgeons of Nova Scotia
- **Member**, The College of Physicians and Surgeons of Ontario
- **Member**, The Royal College of Physicians and Surgeons of Canada

Administrative Activities

INTERNATIONAL

NRG (NSABP, RTOG, GOG)

- 2014 - present **Member**, RTOG Foundation Advisory Board
- 2014 - present **Centre Principal Investigator**, Princess Margaret Hospital
- 2014 - present **Member**, Lung Cancer Steering Committee

Radiation Therapy Oncology Group (RTOG)

- 2011 - 2014 **Member**, Publications Committee
- 2009 - 2014 **Member**, Nominations Committee
- 2008 **Member**, National Cancer Institute/National Institutes of Health (NCI/NIH) Grant Renewal Site Visit Team, Bethesda, Maryland, United States.
- 2006 - 2014 **Member**, Full Member PI Committee
- 2006 - 2008 **Co-Chair**, Clinical Trials Education and Recruitment Committee (CTER)
- 2006 - 2007 **Member**, Planning Committee, Tampa, Florida, United States.  
  *Winter Meeting, Recruitment Symposium.*
- 2004 - 2014 **Centre Principal Investigator**, Princess Margaret Hospital
- 2002 - 2014 **Member**, Lung Cancer Steering Committee
- 1995 - 2001 **Centre Principal Investigator**, Radiation Therapy Oncology Group [Clinical Trials] (Nova Scotia Cancer Centre)
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NATIONAL
(3CTN) Canadian Cancer Clinical Trials Network
2015 - present Member, Clinical Trials Strategy Group (CTSG) for Melanoma, Canada.

(RCPSC) Royal College of Physicians and Surgeons of Canada
2001 - 2002 Member, Specialty Committee for Radiation Oncology, Canada.

Canadian Association of Radiation Oncologists (CARO)
2001 Member, Scientific Abstract Review Panel, Quebec City, Quebec, Canada.
2001 Member, Planning Committee, Halifax, Nova Scotia, Canada.
   CARO Annual Meeting.
2000 - 2002 Member, Education Committee- Annual Scientific Program Task Force, Canada.
1996 - 2001 Member, Board of Directors, Canada.
   Eastern Provinces Representative.

GU 1st Atlantic Radiation Oncology Symposium
2000 Principal Organizer, Charlottetown, Prince Edward Island, Canada.
2000 Chair, Charlottetown, Prince Edward Island, Canada.
   meeting.

PROVINCIAL / REGIONAL
(CCO) Cancer Care Ontario
2014 - present PMH Site Radiation Oncology Representative, Radiation Therapy Program (RTP), Community of Practice (CoP), Ontario, Canada.
2013 - present Member, Lung Disease Site Group, Program in Evidenced Based Care (PEBC), Ontario, Canada.
2011 - present Radiation Oncology Representative, Melanoma Disease Site Group, Program in Evidenced Based Care (PEBC), Ontario, Canada.

(OARO) Ontario Association of Radiation Oncologists
2012 - 2014 Vice-Chair, Executive Committee

(OMA) Ontario Medical Association
2007 - 2010 Treasurer, Section on Radiation Oncology, Ontario, Canada.
2005 - 2010 Executive, Section on Radiation Oncology, Ontario, Canada.
2005 - 2007 Tariff Chair, Section on Radiation Oncology, Ontario, Canada.

Cancer Care Nova Scotia
2000 - 2001 Chair, Provincial Oncology Grand Rounds Planning Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Halifax, Nova Scotia, Canada.
   Oncology Program.

LOCAL
(PMH) Princess Margaret Hospital
2014 - present Centre Principal Investigator, NRG (NSABP, RTOG, GOG), Toronto, Ontario, Canada.
2013 - present Site Group Leader, Lung Cancer Site Group, Radiation Oncology, Toronto, Ontario, Canada.
Alexander Y. SUN

2010 - present  Site Group Leader, Skin Cancer Site Group, Radiation Oncology, Toronto, Ontario, Canada.
2008 - present  Co-Chair, Data Safety Monitoring Committee, Toronto, Ontario, Canada.

2004 - 2014  Centre Principal Investigator, Radiation Therapy Oncology Group (RTOG), Toronto, Ontario, Canada.

(PMH) Princess Margaret Hospital Radiation Oncologists

2008 - 2009  Chair, Partnership Executive, Toronto, Ontario, Canada.
2007 - 2008  Vice Chair, Partnership Executive, Toronto, Ontario, Canada.
2006 - 2007  Treasurer, Partnership Executive, Toronto, Ontario, Canada.
2003 - 2004  Secretary, Partnership Executive, Toronto, Ontario, Canada.

Dalhousie University

1997 - 2000  Member, Clinical Promotions and Tenure Committee, Halifax, Nova Scotia, Canada.
1995 - 2001  Member, Postgraduate Training Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Halifax, Nova Scotia, Canada.

Nova Scotia Cancer Centre

2000 - 2001  Chair, Project Team, 3D Conformal Radiotherapy for Prostate Cancer, Halifax, Nova Scotia, Canada.

Nova Scotia Cancer Centre (NSCC)

1999 - 2001  Co-Chair, Lymphoma Cancer Site Team, Halifax, Nova Scotia, Canada.
            QEII Health Sciences Centre (QEII-HSC).
            Radiation Oncology Residency Training Program.
1999 - 2000  Chair, Selection Committee, Halifax, Nova Scotia, Canada.
            Clinical Research Associate, Department of Radiation Oncology.
            Dosimetrist, Department of Radiation Oncology.
            Radiation Therapists, Department of Radiation Oncology.
            Department of Radiation Oncology Secretary.
1996        Chair, Selection Committee, Halifax, Nova Scotia, Canada.
            Clinical Trials Nurse, Department of Radiation Oncology.
            QEII Health Sciences Centre (QEII-HSC).

QEII Health Sciences Centre

2000 - 2001  Member, Oncology Services Clinical Trials, Executive Committee, Halifax, Nova Scotia, Canada.

QEII-HSC Oncology Services

Peer Review Activities

GRANT REVIEWS
Invited International Reviewer
2010  Cancer Research UK, project grant application, PCI vs. Observation in Radical Treated Patients with Stage III NSCLC: A Randomized Phase III Study (NVALT-DLCRG-11/02), Clinical Trials Advisory and Awards Committee (CTAAC)

MANUSCRIPT REVIEWS
Reviewer
International Journal of Radiation Oncology, Biology, Physics (IJROBP)
Journal of the National Cancer Institute (JNCI)
Journal of Thoracic Oncology
Leukemia and Lymphoma
Lung Cancer
Radiotherapy and Oncology

PRESENTATION REVIEWS
Judge
1997  Canadian Association of Radiation Oncologists (CARO), Radiation Oncology Resident Paper Award

C. Academic Profile

1. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

My Creative Professional Activities have resulted in 2 major themes and 1 minor theme. The 2 major themes fall under the category of professional innovation and creative excellence.

Theme 1:  Prophylactic Cranial Irradiation (PCI) in Lung Cancer
Theme 2:  Positron Emission Tomography (PET) Imaging in Lung Cancer
The minor theme falls under the category of contributions to the development of professional practices.

Theme 3: The Role of Radiotherapy in Skin Cancer.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2015 - 2018


2013 - 2016

**Principal Investigator.** A Feasibility Study of Hypoxia Imaging in Patients with Lung Cancer using Positron Emission Tomography (PET) with 18F-Fluoroazomycin Arabinoside (18F-FAZA). Ontario Research Fund (ORF). Collaborator(s): Breen S, Yeung I, Vines D, Jaffray D. 420,000. [Grants]

**Ontario Consortium for Adaptive Interventions in Oncology and GE Healthcare Systems.**

2010 - 2015

**Co-Principal Investigator.** Randomized Phase II Study Comparing Prophylactic Cranial Irradiation Alone To Prophylactic Cranial Irradiation And Consolidative Extra-Cranial Irradiation For Extensive Disease Small Cell Lung Cancer (ED-SCLC). National Cancer Institute (USA). PI: Gore E, **Sun A.** Collaborator(s): Ramalingam S, Grimm D, Hu C. 385,000 USD. [Clinical Trials]

**RTOG 0937.**

2009 - 2013


2009 - 2012

**Principal Investigator.** A Randomized Phase III Comparison of Standard Dose (60 Gy) versus High Dose (74 Gy) Conformal Radiotherapy with concurrent and Consolidation Carboplatin/Paclitaxel +/- Cetuximab in patients with Stage IIIA/IIIB Non-Small Cell Lung Cancer. RTOG. PI: Bradley J. [Clinical Trials]

**RTOG 0617.**

2007 - 2009

Alexander Y. SUN


2003 - 2008  **National Representative, Principal Site Investigator.** A Phase II/III Randomized Trial of Two Doses (Phase III-Standard vs. High) and Two High Dose Schedules (Phase II-Once vs. Twice Daily) for Delivering Prophylactic Cranial Irradiation for Patients with Limited Disease Small Cell Lung Cancer. Radiation Therapy Oncology Group. PI: Wolfson A. Collaborator(s): Komaki R, Meyers C, Moversas B, Le Pechoux, Gaspar L, Bonner J, Bogart J. [Clinical Trials] **RTOG 0212.**

2003 - 2007  **Trial Committee, Principal Site Investigator.** The Impact of Positron Emission Tomography (PET) Imaging In Stage III Non-Small Cell Lung Cancer: A Prospective Randomized Clinical Trial. (PET-START). Ministry of Health of Ontario. PI: Ung Y. Collaborator(s): **Sun A**, Leigh N, Darling G, Yu E, Macrae R, Wright J, Levine M. 750,000. [Clinical Trials]


2000 - 2001  **Principal Site Investigator.** Phase III Trial to Evaluate the Duration of Neoadjuvant Total Androgen Suppression (TAS) and Radiation Therapy (RT) in Intermediate Risk Prostate Cancer. Radiation Therapy Oncology Group. [Clinical Trials] (Nova Scotia Cancer Centre) **RTOG-99-10.**

2000 - 2001  **Principal Site Investigator.** A Double-Blind, Randomized Clinical Trial Comparing Ondansetron and Dexamethasone versus Ondansetron and Placebo in the Prophylaxis Against Radiation Induced Emesis. National Cancer Institute of Canada (NCIC). [Clinical Trials] (Nova Scotia Cancer Centre) **NCIC-CTG, SC19.**

2000 - 2001  **National Trial Committee.** A Double-Blind, Randomized Clinical Trial Comparing Ondansetron and Dexamethasone versus Ondansetron and Placebo in the Prophylaxis Against Radiation Induced Emesis. National Cancer Institute of Canada (NCIC). PI: Wong R. [Clinical Trials] **National Trial Committee, CTG, SC19.**

1999 - 2001  **National Trial Committee.** A Phase III Study of Involved Field Radiation Therapy (IFRT) in Patients with Histologically Aggressive Non-Hodgkin’s Lymphoma Following High Dose
Chemotherapy and Autologous Hematopoietic Stem Cell Transplantation (ASCT). National Cancer Institute of Canada (NCIC). [Clinical Trials]
National Trial Committee, CTG, LY.8.

1998 - 2001
Principal Site Investigator. Randomized trial of palliative radiation therapy for osseous metastases: a study of palliation of symptoms and quality of life. Radiation Therapy Oncology Group. [Clinical Trials]
(Nova Scotia Cancer Centre), RTOG 97-14.

1998 - 2001
Principal Site Investigator. A phase II randomized trial comparing intermittent versus continuous androgen suppression for patients with prostate-specific-antigen progression in the clinical absence of distant metastases following radiotherapy for prostate cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials]
(Nova Scotia Cancer Centre) PR.7 (NCIC-CTG).

1998 - 1999

1996 - 2001
Principal Site Investigator. A phase III study of radiotherapy or ABVD plus radiotherapy versus ABVD alone in the treatment of early stage Hodgkin’s Disease. National Cancer Institute of Canada (NCIC). [Clinical Trials]
(Nova Scotia Cancer Centre), HD.6 (NCIC-CTG).

1996 - 1998
Principal Site Investigator. A phase III study of an assessment of the efficacy of dexamethasone in the prophylaxis of radiation induced emesis. National Cancer Institute of Canada (NCIC). [Clinical Trials]
SC.12 (NCIC-CTG) (Nova Scotia Cancer Centre).

1995 - 2001
Principal Site Investigator. A phase III trial of the study of endocrine therapy used as a cyto-reductive and cyto-static agent prior to radiation therapy in good prognosis locally confined adenocarcinoma of the prostate. Radiation Therapy Oncology Group. [Clinical Trials]
RTOG 94-08 (Nova Scotia Cancer Centre).

1995 - 1998
Principal Site Investigator. A randomized trial of a shorter radiation fractionation schedule for the treatment of localized prostate cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials]
PR.5 (NCIC-CTG) (Nova Scotia Cancer Centre).

1995 - 1997
Co-Investigator. A randomized trial comparing the efficacy and safety of Ondansetron plus single fraction radiation therapy with fractionated therapy in the palliation of skeletal metastases. Glaxo Wellcome Inc. Protocol No. 517-400. 30,000. [Grants]
(Nova Scotia Cancer Centre).
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


Treatment of locally advanced non–small cell lung cancer with chemoradiotherapy (CRT) is limited by development of toxicity in normal tissue, including radiation esophagitis (RE). Increasingly, fluorodeoxyglucose (FDG) positron emission tomography (PET) is being used for adaptive planning. We showed that changes in FDG-PET images during CRT may predict for the development of RE, which has implications for adaptive RT planning. This is the first of a series of publications resulting from our grant funded study on adaptive RT planning for lung cancer. The Journal of Thoracic Oncology is the official journal of the International Association of the Study of Lung Cancer (IASLC), the foremost international multi-disciplinary organization for lung cancer in the world, with an impact factor of 5.8.


This study built upon the initial experience of the manuscript published below by Dahele et.al., but took it a step further. We showed that fluorodeoxyglucose (FDG) positron emission tomography (PET) was a predictor of outcome for early stage non-small cell lung cancer (NSCLC) patients treated radically with stereotactic body radiotherapy (SBRT). These results have implications for future trials of adjuvant therapies post SBRT. This manuscript was published in the journal Radiotherapy and Oncology, the leading radiotherapy journal in Europe (impact factor 4.86), where the fellow I supervised was from. This article has been cited 29 times so far.


Response assessment after stereotactic radiotherapy (SBRT) for lung cancer typically makes use of computed tomography (CT)-based anatomic changes. However, maximum tumour shrinkage can take several months and treatment-induced lung changes can confound the evaluation. An accurate and timely response assessment has become even more important as SBRT is being proposed as a possible alternative to surgery in patients with medically operable, early stage disease. In this context, identifying or predicting treatment failure could still allow definitive ‘salvage’ therapy. Here we described a pilot experience with 18F-fluorodeoxyglucose positron emission tomography-CT (FDG PETCT) for response assessment 3 months after SBRT. With this initial information we are now continuing this imaging strategy with the aim of trying to identify PET metrics for response assessment and prognosis. This study lead to the manuscript published above (Clarke et.al.).

This is the largest randomized phase III study of PCI in locally advanced non-small cell lung cancer. It is also one of the very rare times that the primary and secondary endpoint analyses were published back to back in the same issue of The Journal of Clinical Oncology (JCO), one of the most prestigious journals for Oncology research in the world with an impact factor of 18.4. This manuscript has been instrumental in establishing the basis of the very topical area of neurocognitive function with cranial irradiation. The results can be summarized by an editorial from JCO, where Khan et al. wrote “To discriminate the relative contributions of disease and therapy on cognitive impairment, we can turn to....Sun et al....from RTOG 0214....There were several important findings reported in this study: memory decline after cranial radiotherapy is relatively frequent when measured with sensitive tools; both immediate and delayed recall are affected; QOL scores do not correlate with neurocognitive function and do not seem to be worse with PCI”. Currently there are many ongoing clinical trials worldwide in brain metastases and PCI, which are using neurocognitive endpoints as their primary endpoints and are using the same tools as used in our study. One example is the newly approved cooperative group study “Randomized Phase II/III trial of PCI +/- hippocampal avoidance for small cell lung cancer, NRG-CC003”, which I am the Lung Co-PI of. In addition, this article has been cited 128 times so far.


This study was one of the first studies to identify young age as a predictor of brain relapse in locally advanced non-small cell lung cancer patients treated radically with combined chemotherapy and radiotherapy. It was also an important part of the body of literature that supported the randomized phase III study of PCI in LA-NSCLC, RTOG 0214 (above). This manuscript was published in the journal Lung Cancer, which at that time, was the official journal of the International Association of the Study of Lung Cancer (IASLC), the foremost international multi-disciplinary organization for lung cancer in the world. The first author was my radiation oncology resident that I primarily supervised. This study has been cited 54 times so far.

### 2. PEER-REVIEWED PUBLICATIONS

#### Journal Articles


Alexander Y. SUN


Book Chapters


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2016 Jul  Invited Speaker. NRG CC001. Phase III trial of Memantine and Whole-Brain Radiotherapy with or without Hippocampal Avoidance in Patients with Brain Metastases. NRG (NSAPB, RTOG,GOG) Oncology Meeting. Dallas, Texas, United States. Presenter(s): Sun A. (Continuing Education).


2013 Oct  Invited Speaker. Neurotoxicity of Cranial Irradiation. 15th World Conference on Lung Cancer (International Association for the Study of Lung Cancer (IASLC)). Sydney, Australia. Presenter(s): Sun A. (Continuing Education).


2010 Jun  Invited Speaker. Randomized Phase II Trial of Standard Versus Hypofractionated Thoracic Radiotherapy
Alexander Y. SUN


2010 Jan


2009 Jun


2009 Jan


2008 Jul

**Invited Speaker.** Clinical Trials Education and Recruitment Committee (CTER). Radiation Therapy Oncology Group (RTOG). Bethesda, Maryland, United States. Presenter(s): Sun A. National Cancer Institute/National Institutes of Health (NCI/NIH) Grant Renewal Site Visit.

2007 Jun


2007 Jun


2007 Feb


2006 Jan


2006 Jan


2005 Jun


2004 Jan


2003 Jan


2001

**Chair.** Group Session. Congress on Uro-Oncology: A Canada-Mexico Alliance. Ixtapa, Mexico. (Continuing Education).
Presented and Published Abstracts

2016 Feb  

Publication Details:

2015 Nov  

Publication Details:

2015 Nov  
NRG Oncology/RTOG 0937: Randomized Phase II Study Comparing PCI Alone To PCI And Consolidative Extra-Cranial Irradiation For Extensive Disease Small Cell Lung Cancer. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Antonio, Texas, United States. Late Breaking Abstract.

Publication Details:

2015 Oct  

Publication Details:

2015 Oct  
Outcomes in Patients with Stage III Non-Small Cell Lung Cancer Treated with Neoadjuvant Concurrent Chemotherapy and Radiotherapy Followed by Surgical Resection. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Antonio, Texas, United States. Abstract # 3031.

Publication Details:

2015 Oct  
Publication Details:

2015 Oct

Publication Details:

2015 Sep
Trial of Stereotactic Body Radiotherapy (SBRT) for Central Tumours - Adverse Events. 16th World Conference on Lung Cancer (WCLC/IASLC). Denver, Colorado, United States. Oral 19.03 NRG Oncology/RTOG 0813.

Publication Details:

2014 Sep
Predicting Esophagitis During Radical Lung Radiation Therapy Using 18-FDG-PET. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:

2013 Nov
Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT). 15th World Conference on Lung Cancer (WCLC/IASLC). Sydney, Australia.
Publication Details:

2013 Nov
Late radiographic changes after lung stereotactic body radiotherapy: Piloting a recurrence scale and synoptic reporting scale. 15th World Conference on Lung Cancer (WCLC/IASLC). Sydney, Australia.

Publication Details:

2013 Nov
Impact of medical co-morbidities on survival in patients treated with stereotactic body radiotherapy for early stage non-small cell lung cancer. 15th World Conference on Lung Cancer (WCLC/IASLC). Sydney, Australia.

Publication Details:

2013 Nov
Genetic polymorphisms of inflammatory and DNA repair pathways, radiation-related esophagitis and pneumonitis in definitive chemoradiation treated non-small cell lung cancer patients. 15th World Conference on Lung Cancer (WCLC/IASLC). Sydney, Australia.

Publication Details:

2013 Nov

Publication Details:

2013 Nov
Incidental Prophylactic Nodal Irradiation and Patterns of Nodal Relapse in Inoperable Early Stage NSCLC Patients Treated with SBRT: A Case-Matched Analysis. 15th World Conference on Lung Cancer (WCLC/IASLC). Sydney, Australia.

Publication Details:

2013 Oct
Dosimetric Variations to Organs at Risk Based on Serial 4DCT Scans During Radiation Therapy Treatment for Patients With Locally-Advanced Non-Small Cell Lung Cancer. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Atlanta, Georgia, United States.

Publication Details:


Publication Details:

2012 Nov 1 Impact of Pretreatment Growth Rate on Outcome of Stage I Non-small Cell Lung Cancer After Stereotactic Body Radiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov 1 Comparison of 3D Conformal Radiation Therapy (3DCRT) and Intensity Modulated Radiation Therapy (IMRT) in Stage III Non-small Cell Lung Cancer (NSCLC). American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov 1 Patterns of Failure in Patients with Stage I-II Hodgkin Lymphoma Treated with CMT: Implications of Partial Nodal Region Coverage and the Need for Adjacent Uninvolved Nodal Region Coverage. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

Publication Details:


Publication Details:

2012 Sep Comparison of 3D Conformal Radiatehrapy (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non-Small Cell Lung Cancer (NSCLC). Chicago Multidisciplinary Symposium in Thoracic
Oncology. Chicago, United States.

Publication Details:

2012 Jul
Serial FDG 4DPET imaging during radiotherapy in advanced lung cancer patients.

Publication Details:

2011
FDG-PET SUV uptake as a predictor of outcome in stereotactic body radiotherapy (SBRT) for non-small cell lung cancer (NSCLC). 14th World Conference on Lung Cancer.

Publication Details:

2011
Is SBRT alone appropriate for early-stage non-small cell lung cancer with primary tumours larger than 4cm? 14th World Conference on Lung Cancer, Amsterdam. Amsterdam, Netherlands.

Publication Details:

2011

Publication Details:

2011

Publication Details:

2011

Publication Details:


2010 Stereotactic body radiotherapy (SBRT) for non-small cell lung cancer (NSCLC) – is FDG-PET a predictor of outcome? American Society of Radiation Oncology (ASTRO) Annual Meeting. San Diego, California, United States.


2009 Jul **Presenter.** A Phase III Comparison of Prophylactic Cranial Irradiation (PCI) versus Observation in Patients with Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC). Initial Analysis of Primary and Secondary Endpoints: RTOG 0214. 13th World Conference of Lung Cancer. San Francisco, California, United States.


2009


Publication Details:

2009

Comparison of tumor coverage in radical lung radiotherapy: impact of cone-beam CT image guidance using spine or carina matching. International Association for the Study of Lung Cancer (IASLC) World Conference on Lung Cancer. San Francisco, California, United States.

Publication Details:

2009


Publication Details:

2008 Sep


Publication Details:

2008 Sep

Quantifying the benefits of adaptive radiotherapy on lung sparing for thoracic tumors. American Society of Therapeutic Radiation Oncologists (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2008 Sep


Publication Details:

*Publication Details:*  


*Publication Details:*  


*Publication Details:*  
Vines D, Keller H, Breen S, **Sun A**. Lung FDG-PET dual time point SUVs: Effects of radiation treatment and uptake time. 2008. Senior Responsible Author.


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  

Publication Details:

2007 Aug The dosimetric effects of changes in thoracic cavity fluid levels during adjuvant hemithoracic intensity modulated radiotherapy following extrapleural pneumonectomy for mesotheliomas. 12th World Conference of Lung Cancer. Seoul, Korea, Democratic People’s Republic Of.

Publication Details:

2007 Jun To investigate the dominant pattern of current practice in radiation therapy (RT) for lung cancer among members of American Society of Therapeutic Radiology and Oncology (ASTRO). ASCO Annual Meeting.

Publication Details:

2007 Apr Early Results of Image-guided Radiation Therapy in Lung Stereotactic Body Radiotherapy (SBRT).

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2006 Sep Outcome of hyperfractionated radiotherapy in chemotherapy-resistant non-Hodgkin's lymphoma. ASTRO
Annual Meeting.

Publication Details:

2006 Sep

Publication Details:

2006 Sep

Publication Details:

2006 Jun
Stereotactic body radiotherapy (SBRT) and medical inoperability of early stage non-small cell lung cancer. ASCO Annual meeting.

Publication Details:

2005 Oct

Publication Details:

2005 Oct

Publication Details:

2005 Oct
A Prospective Study to Evaluate the need for an Immobilization Device for Treating Modified Mantle Fields in Lymphoma Patients. ASTRO Annual Meeting. Denver, Colorado, United States.

Publication Details:

2005 Oct
Radiation Pneumonitis in Lung Cancer Patients – The Neglected patient-Related Variables. ASTRO
Annual Meeting. Denver, Colorado, United States.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

Publication Details:

2004 Oct Cardiac toxicity following modern treatment for Hodgkin’s disease: Impact of combined modality treatment with Doxorubicin and Mediastinal radiation therapy. ASTRO Annual Meeting. Atlanta, Georgia, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2003 Sep

Localized mucosa-associated lymphoid tissue (MALT) lymphoma treated with radiation therapy has excellent clinical outcome. ECOO12.

**Publication Details:**

2003

Comparison of Transradial Versus Transfemoral Arterial Access for Intracoronary Brachytherapy.

**Publication Details:**
Nguyen-Ho P, Seidelin PH, Payne D, **Sun A**, Vitkin A, Dzavik V. Comparison of Transradial Versus Transfemoral Arterial Access for Intracoronary Brachytherapy. 2003. **Coauthor or Collaborator.**

2003


**Publication Details:**

2003

Hemithoracic Radiotherapy for Mesothelioma - Challenges and Solutions. World Conference on Lung Cancer (WCLC/IASLC).

**Publication Details:**

2003

**Presenter.** Brain Metastases in the Initial Site of Failure in Locally Advanced Non-Small Cell Lung Cancer Treated with Combined Modality Therapy: Implications for Prophylactic Cranial Irradiation. World Conference on Lung Cancer (WCLC/IASLC).

**Publication Details:**

2002 Oct


**Publication Details:**

2002 Oct

**Presenter.** Combined Modality Therapy for Clinical Stage I and II Primary Mediastinal Large B-Cell Lymphoma Treated at The Princess Margaret Hospital. American Society of Therapeutic Radiology and Oncology (ASTRO).

**Publication Details:**
**Sun A**, Tsang R, Pintilie M, Gospodarowicz M, Wells W, Hodgson D, Crump M, Patterson B. Combined Modality Therapy for Clinical Stage I and II Primary Mediastinal Large B-Cell Lymphoma Treated at The
Princess Margaret Hospital. Int J Radiat Oncol Biol Phys. 2002;54(2 Suppl.):298. **Principal Author.**

**2002 Jun**

Radiation Therapy has Curative Potential in Stage I & II MALT Lymphomas. 8th International Conference on Malignant Lymphoma. Lugano, Switzerland.

**Publication Details:**

**2002 Jun**

**Presenter.** Primary Mediastinal Large B-Cell Lymphoma (PMLBL): 63 Clinical Stage I and II Patients Treated with Combined Modality Therapy (CMT), The Princess Margaret Hospital Experience. 8th International Conference on Malignant Lymphoma. Lugano, Switzerland.

**Publication Details:**
Sun A, Tsang R, Pintilie M, Gospodarowicz M, Wells W, Hodgson D, Crump M, Patterson B. Primary Mediastinal Large B-Cell Lymphoma (PMLBL): 63 Clinical Stage I and II Patients Treated with Combined Modality Therapy (CMT), The Princess Margaret Hospital Experience. Ann Oncol. 2002;13(6 Suppl. 2). **Principal Author.**

**2001**


**Publication Details:**

**2000 Oct**


**Publication Details:**

**1998 May**


**Publication Details:**

**1997 Oct**

**Presenter.** Virtual 5 mm-width multileaf collimation. 39th Annual American Society of Therapeutic Radiology and Oncology Meeting.

**Publication Details:**

**1995 Aug**

Measurement of Oxygen levels in cervical tumor xenografts: multiple techniques in single tumors and a comparison with human tumors. 10th International Congress of Radiation Research.

**Publication Details:**
**Coauthor or Collaborator.**

1995 Apr  

*Publication Details:*
Kavanagh M-C, **Sun A**, Hu Q, Hill RP. A comparison of techniques of measuring hypoxia in different murine tumors: Eppendorf pO2 histograph, 3H-misonidazole binding, and paired survival curve assay. 1995 Apr. **Coauthor or Collaborator.**

1995 Mar  

*Publication Details:*
Milosevic M, Fyles A, **Sun A**, Keane T. The measurement of interstitial fluid pressure in cervix cancer. 1995 Mar. **Coauthor or Collaborator.**

1995 Mar  
Measurement of oxygen levels in murine tumors: a comparison of five techniques. American Association for Cancer Research (AACR).

*Publication Details:*
Kavanagh MC, **Sun A**, Hu Q, Koch C, Lord E, Hill RP. Measurement of oxygen levels in murine tumors: a comparison of five techniques. 1995 Mar. **Coauthor or Collaborator.**

1995  

*Publication Details:*

1995  
Hypoxia in cervix cancer- Preliminary results with the Eppendorf electrode. ESTRO Annual Meeting. Paris, France.

*Publication Details:*
Fyles A, Milosevic M, **Sun A**, Kavanagh M-C, Levin W, Manchul L, Hill R. Hypoxia in cervix cancer- Preliminary results with the Eppendorf electrode. Eur J Cancer. 1995;31A(Supp. 5):S103. **Coauthor or Collaborator.**

1994 Oct 3  
**Presenter.** Delayed axillary node dissection in breast cancer patients treated at the Princess Margaret Hospital. American Society for Therapeutic Radiology and Oncology. San Francisco, California, United States. October 3-6, 1994.

*Publication Details:*
**Sun A**, Liu F-F, Rawlings G. Delayed axillary node dissection in breast cancer patients treated at the Princess Margaret Hospital. 1994 Oct. **Principal Author.**

Safety and Outcomes of Multiple Courses of Stereotactic Body Radiation Therapy to the Lung. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Antonio, Texas, United States.

*Publication Details:*
Media Appearances

2009 Jul  **Invited Speaker.** A Phase III Comparison of Prophylactic Cranial Irradiation (PCI) versus Observation in Patients with Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC). Initial Analysis of Primary and Secondary Endpoints: RTOG 0214. 13th World Conference of Lung Cancer. San Francisco, California, United States. 1 of only 12 top abstracts selected for press release by multiple National United States News Publications. (Presentation to Patients/Public).


2. NATIONAL

Invited Lectures and Presentations


2015 Apr  **Invited Speaker.** A Randomized Phase II Trial to Assess the Efficacy and Safety of Metabolically Adaptive Dose Escalation in LA-NSCLC. NCIC-CTG Lung Site Group Meeting. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


2009 Sep  **Invited Speaker.** Princess Margaret Hospital experience with lung stereotactic body radiotherapy for early stage non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual meeting. Montreal, Quebec, Canada. Presenter(s): Sun A. (Continuing Education).


2007 Apr  **Invited Speaker.** A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).

2006 Sep  **Chair.** Lung Session. Canadian Association of Radiation Oncology (CARO). Calgary, Alberta, Canada. (Continuing Education).

2006 Apr  Invited Speaker. A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Montreal, Quebec, Canada. Presenter(s): Sun A. (Continuing Education).


2005 Apr  Invited Speaker. A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Montreal, Quebec, Canada. Presenter(s): Sun A. (Continuing Education).

2004 Apr  Invited Speaker. A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


2003 Apr  Invited Speaker. A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


Presented and Published Abstracts

2015 Sep  Outcomes in Patients with Stage III Non-Small Cell Lung Cancer Treated with Neoadjuvant Concurrent Chemotherapy and Radiotherapy Followed by Surgical Resection. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada.

Publication Details:

Alexander Y. SUN

Kelowna, British Columbia, Canada.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2013 Aug  Dosimetric Variations to Organs at Risk From Serial 4DCT Scans During Radical Radiotherapy of Patients with Locally Advanced Non-Small Cell Lung Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2013 Aug  Late Radiographic Changes After Lung Stereotactic Body Radiotherapy: Piloting a Synoptic Reporting and Recurrence Predicition Scale. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**


**Publication Details:**

2012 Sep  Can FDG PET during the course of radiation therapy for lung cancer predict for esophagitis and pneumonitis. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Canada.

**Publication Details:**


**Publication Details:**

2012 Sep  Comparison of 3D Conformal Radiotherapy (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non-Small Lung Cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) Annual Meeting.

**Publication Details:**
Meeting, Winnipeg. Manitoba, Canada.

Publication Details:
Coauthor or Collaborator.

2011
Is SBRT alone appropriate for early stage non-small cell lung cancer with primary tumours larger than 4cm? Canadian Association of Radiation Oncology (CARO) Annual Meeting, Winnipeg. Manitoba, Canada.

Publication Details:

2011

Publication Details:

2009
Improvement of target coverage in radical lung radiotherapy using image guidance cone-beam (CBCT). Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

2009
Princess Margaret Hospital experience with lung stereotactic body radiotherapy for early stage non-small cell lung cancer. Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

2009
Impact of daily volumetric imaging in reducing set-up margins for lung cancer patients treated with conventionally fractionated radiotherapy. Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

2009
Assessment of intra-fraction target position accuracy for lung stereotactic body radiotherapy (SBRT) using cone-beam CT (CBCT). Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

**2008 Sep**

A pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during, and after radiotherapy in lung cancer. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

A comprehensive team-based approach to lung SBRT treatment planning and delivery. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

Pain and rib fracture after SBRT for peripheral non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

Respiratory correlated cone beam CT in the assessment of volumetric and geometric tumour changes in non-small cell lung cancer during radiotherapy. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

Selection of patients with stereotactic lung radiotherapy (SBRT) for early stage non-small cell lung cancer (NSCLC). CARO Annual Meeting. Calgary, Alberta, Canada.

**Publication Details:**


**Publication Details:**

Extranodal NK/T lymphoma of nasal type: the Princess Margaret Hospital experience. CARO Annual Meeting. Calgary, Alberta, Canada.
**Publication Details:**
Tsang R, Gospodarowicz M, Pintilie M, Wells W, **Sun A**, Hodgson D, Crump M. Extranodal NK/T lymphoma of nasal type: the Princess Margaret Hospital experience. Radiother Oncol. 2006 Sep;80(Suppl 1):S67, A230. **Coauthor or Collaborator.**

**2006 Sep**

**Publication Details:**

**2005 Sep**

**Publication Details:**

**2005 Sep**

**Publication Details:**

**2005 Sep**
Radiation Pneumonitis in Lung Cancer Patients Treated with High Dose Radiotherapy – Role of Concurrent Medications. CARO Annual Meeting. Victoria, British Columbia, Canada.

**Publication Details:**

**2005 Sep**
**Presenter.** How to Improve Accrual to an Important Prospective Randomized Study: Prophylactic Cranial Irradiation (PCI) in Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC)-RTOG 0214. CARO Annual Meeting. Victoria, British Columbia, Canada.

**Publication Details:**

**2005 Sep**
**Presenter.** An Audit of Prophylactic Cranial Irradiation (PCI) in Limited Disease Small Cell Lung Cancer: Do We Practice What We Preach? CARO Annual Meeting. Victoria, British Columbia, Canada.

**Publication Details:**

**2005 Sep**
**Presenter.** A Prospective Study to Evaluate the Need for an Immobilization Device for Treating Modified Fields in Lymphoma Patients. CARO Annual Meeting. Victoria, British Columbia, Canada.
**Publication Details:**

Sun A, Billingsley S, McKinnon S, Pond G, Tsang R, Wells W, Hodgson D, Gospodarowicz M, Medlam G. A Prospective Study to Evaluate the Need for an Immobilization Device for Treating Modified Fields in Lymphoma Patients. Radiother Oncol. 2005 Sep;761(S22):A73. **Principal Author.**

**2005 Sep**


**Publication Details:**

Koh E-S, Tran TH, Heddarian M, Tsang R, Pintilie M, Gospodarowicz M, **Sun A**, Well W, Paul N, Hodgson DC. Transition from mantle RT to Low-Dose Involved-Field RT: Implications for Second Cancer Risk Among Hodgkin’s Lymphoma Survivors. Radiother Oncol. 2005 Sep;761(S22):A74. **Coauthor or Collaborator.**

**2005 Sep**


**Publication Details:**

Koh E-S, **Sun A**, Tran TH, Tsang R, Wells W, Hodgson D, Gospodarowicz M, Heaton R, Pintilie M. Clinical Dose-Volume Histogram Analysis in Predicting Radiation-Pneumonitis in Hodgkin’s Disease. Radiother Oncol. 2005 Sep;761(S22):A75. **Senior Responsible Author.**

**2005 Sep**


**Publication Details:**

Koh E-S, **Sun A**, Tran TH, Tsang R, Wells W, Hodgson D, Gospodarowicz M, Heaton R, Pintilie M. Clinical Dose-Volume Histogram Analysis in Predicting Radiation-Pneumonitis in Hodgkin’s Disease. Radiother Oncol. 2005 Sep;761(S22):A75. **Senior Responsible Author.**

**2005 Sep**

Retrospective Review of Delays in Diagnostic Work-up and Treatment Decision. CARO Annual Meeting. Victoria, British Columbia, Canada.

**Publication Details:**

Sturdza A, Bezjak A, Hodgson D, Payne D, Kane G, **Sun A**, Waldron J, Cho J, Keshavjee S, Shepherd F. Retrospective Review of Delays in Diagnostic Work-up and Treatment Decision. Radiother Oncol. 2005 Sep;761(S22):A195. **Coauthor or Collaborator.**

**2004 Sep**

An Accelerated Hypogtractioned Radiation Treatment Regimen for Early-Stage Non-Small Cell Lung Cancer. CARO Annual Meeting.

**Publication Details:**


**2004 Sep**

Cardiac Mobidity Among Hodgkin’s Disease Survivors Treated with Modern Therapy. CARO Annual Meeting.

**Publication Details:**


**2004 Sep**

Stage I and II Hodgkin’s Disease: Long Term Outcome and Second Cancer Risk. CARO Annual Meeting.

**Publication Details:**


**2004 Sep**

Outcome in Patients with Stage I & II Aggressive Lymphoma Treated with Combined Modality Therapy. CARO Annual Meeting.

**Publication Details:**
Alexander Y. SUN


2004 Sep
4DCT Imaging to Track the Motion of Lung Tumor and Thoracic Structures During Breathing. CARO Annual Meeting.

Publication Details:

2004 Sep

Publication Details:

2004 Sep

Publication Details:

2004 Sep

Publication Details:

2004 Aug
Drill is Like Asparagus: The Resident’s Perspective on ‘Drill” and it’s Evolutions from a Testing Tool into a Learning Toll.

Publication Details:

2003 Oct

Publication Details:

2003 Oct
A Retrospective Analysis to Examine the Reproducibility of Treatment Set-up in Patients with Hodgkin’s Disease. Canadian Association of Radiation Oncologists 2003 Annual Scientific Meeting (CARO).
Alexander Y. SUN

Publication Details:

2002 Oct Three Dimensional (3D) Radiation Treatment Planning of Gastric Lymphoma. Canadian Association of Radiation Oncologists (CARO).

Publication Details:

2002 Oct Stage I/II Mucosa-Associated Lymphoid Tissue (MALT) Lymphoma Treated with Radiation Therapy has Excellent Local Control and Survival. Canadian Association of Radiation Oncologists (CARO).

Publication Details:

2002 Oct Presenter. Stage I and II Primary Mediastinal Large B-Cell Lymphoma (PMLBL) Treated with Combined Modality Therapy (CMT). Canadian Association of Radiation Oncologists (CARO).

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

1998


**Publication Details:**

1997

Virtual 5 mm-width multileaf collimator and its clinic implementation. CARO Annual Meeting.

**Publication Details:**
Meng JS, **Sun A**, Joseph PK. Virtual 5 mm-width multileaf collimator and its clinic implementation. Clin Invest Med. 1997;(20 Suppl.). **Senior Responsible Author.**

1997

Presenter. Improving the dose distribution of multileaf collimator fields. CARO Annual Meeting.

**Publication Details:**

1996


**Publication Details:**

1996


**Publication Details:**

1995 Sep


**Publication Details:**

1994 Sep

Presenter. Delayed axillary node dissection in breast cancer patients treated at the Princess Margaret Hospital. Canadian Association of Radiation Oncologists (CARO). Canada.

**Publication Details:**

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2015 May  **Invited Speaker.** The Use of Adjuvant Radiation Therapy for Curatively Resected Melanoma. Cancer
Alexander Y. SUN

Care Ontario; Program in Evidence-based Care. Melanoma Disease Site Group. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


2009 Dec  **Invited Speaker.** The Role of IMRT in Skin Cancers. Cancer Care Ontario (CCO); Program in Evidence-Based Care (PEBC) - IMRT (Intensity Modulated Radiotherapy) Indications Expert Panel. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


**Presented and Published Abstracts**


*Publication Details:*


*Publication Details:*
Lack of effect of B-endorphin on basal or glucagon-stimulated hepatic glucose production in vitro. Co-Principal Author.

4. LOCAL

**Invited Lectures and Presentations**

2013  Treatment Intent and Patient Selection. IGRT in Lung Cancer Education Course, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


2012  Treatment Intent and Patient Selection. IGRT in Lung Cancer Education Course, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).

2011 Treatment Intent and Patient Selection. IGRT in Lung Cancer Education Course, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


Other Lectures and Presentations


2012 May Presenter. RTOG Energy….Pre- NRG. Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2010 Oct Presenter. PMH (RMP/DMOH) and the RTOG (not TROG). Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2008 May Presenter. RTOG Clinical Trials. Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2006 Dec Presenter. RTOG Lung Studies. Lung Retreat, Radiation Medicine Program, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2006 Oct Presenter. PMH and the RTOG. Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2005 Mar Presenter. Thoracic Oncology Tumour Conference_Clinical Trials Update. Princess Margaret Hospital. (Continuing Education).

2005 Feb Presenter. PCI in LA-NSCLC and LD-SCLC (how the brain is connected to the lung). Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2015 Feb Contributing Faculty, Radiation Oncology Residents Longitudinal Physics Imaging Course - PET Imaging, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology

2015 Chair, Organizing Committee, Lung SBRT Workflow Overview, Moncton Lung SBRT Coaching Session, Princess Margaret Cancer Centre, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology

2014 Feb Contributing Faculty, Radiation Oncology Residents Longitudinal Physics Imaging Course - PET Imaging, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology

2013 Apr Contributing Faculty, Radiation Oncology Residents Longitudinal Physics Imaging Course - PET Imaging, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology

2013 Chair, Organizing Committee, Image-Guided Radiotherapy (IGRT) Education Course, Princess Margaret Cancer Centre, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology

2012 Contributing Faculty, Image-Guided Radiotherapy (IGRT) Education Course, Princess Margaret Cancer Centre, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD


Postgraduate MD


2013 Jul - 2014 Jun  Primary Supervisor. Clinical Fellow. Qurrat Mehmood, United Kingdom. *Predicting Esophagitis During Radical Lung Radiotherapy Using 18-FDG-PET.*


2009 Jul - 2010 Jun  Primary Supervisor. Clinical Fellow. Katy Clarke, United Kingdom. *FDG-PET SUV uptake as a predictor of outcome in stereotactic body radiotherapy (SBRT) for non-small cell lung cancer (NSCLC).*


2002 Jul - 2005 Jun  Primary Supervisor. Core Program. Hannah Carolan. Does the incidence and outcome of brain metastases in locally advanced non-small cell lung cancer justify prophylactic cranial irradiation or early detection?

Other


I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

Positron Emission Tomography (PET) imaging in Lung Cancer. My goal is to improve outcomes in lung cancer patients through the integration and establishment of Positron Emission Tomography (PET) imaging in the management of lung cancer.

Firstly, to establish a unique and innovative program with the use of PET imaging as a means of developing an adaptive or personalized approach to radical radiotherapy for the treatment of locally advanced non-small cell lung cancer (LA-NSCLC). The concept of "adaptive radiotherapy" refers to adapting or altering a course of radiotherapy depending on changes observed prior to, during or after a course of radiotherapy. The need for such an approach stems from the results of a large prospective randomized trial, RTOG 0617, comparing a higher dose of radiotherapy to the standard dose in LA-NSCLC. There is strong evidence for a dose response relationship in lung cancer, meaning higher doses are more effective. However, RTOG 0617 was a negative trial. Not only was there no benefit to higher doses, but there may have even been a detriment effect. Thus the standard dose remains the same, and survival of lung cancer patients has not significantly improved for many years. The interpretation of this study is that a "class" solution to higher doses is not the answer, but a more innovative approach is required ie. an approach that is adaptive to the individual patient rather than to the entire "class" of patients. One innovative strategy is with the use of PET.

Secondly, to establish the role of PET imaging as a predictor of response to Stereotactic Body Radiotherapy (SBRT) for early stage lung cancer. Response assessment after SBRT for lung cancer typically makes use of computed tomography (CT)-based anatomic changes. However, maximum tumour shrinkage can take several months and treatment-induced lung changes can confound the evaluation. An accurate and timely response assessment has become even more important as SBRT is being proposed as a possible alternative to surgery in patients with medically operable, early stage disease. In this context, identifying or predicting treatment failure could still allow definitive ‘salvage’ therapy or additional adjuvant therapies. This can be potentially achieved through the use of PET. It was originally thought that PET imaging could not be interpreted during a course of radiotherapy. However, we along with others have found that this is not the case, through a funded pilot study that I led as Principal Investigator. As a result of this initial pilot experience, our group (I am the Clinical PI and Dr. Bissonnette is the Physics PI) was successful in obtaining a peer reviewed grant from the Canadian Cancer Society, to further characterize “adaptive radiotherapy”. So far, 2 manuscripts have been submitted for publication (I am the corresponding author for both). One of which has just recently been accepted for publication in the Journal of Thoracic Oncology, which is the current official journal of the International Association for the Study of Lung Cancer, the leading international multidisciplinary lung cancer organization in the world. This journal has an impact factor of 5.8. We showed that changes in PET images during radiotherapy may predict for the development of radiation
esophagitis, one of the dose limiting toxicities, which has implications for adaptive radiotherapy planning.

Building upon our experience, we have drafted a proposal for a prospective randomized study utilizing PET as a method of adaptive dose escalation. Our resident, Srinivas Raman, recently attended a prestigious Workshop on Methods in Clinical Cancer Research, in Flims (Switzerland) based on this proposal. He was 1 of 10 accepted out of 133 applicants. He also won another award based on the same project. More importantly, we have just secured funding for this trial. This is the only study of its kind being performed in multi-institutions across Canada and is on the leading edge of the future of radical radiotherapy in lung cancer management. We are one of only a few groups worldwide performing this kind of research and hope to change the standard of care of radical radiotherapy in lung cancer.

I have published on the role of PET imaging in SBRT for early stage lung cancer. In one study we described a pilot experience with fluorodeoxyglucose positron emission tomography (FDG-PET) for response assessment 3 months after SBRT. With this initial information we continued this imaging strategy with the aim of trying to identify PET metrics for response assessment and prognosis. Another study built upon the initial experience of the manuscript published above, but took it a step further. We showed that FDG-PET was a predictor of outcome for early stage non-small cell lung cancer patients treated radically with SBRT. These results have implications for future trials of adjuvant therapies post SBRT.

I have published on the role of PET imaging in SBRT for early stage lung cancer. In one study we described a pilot experience with fluorodeoxyglucose positron emission tomography (FDG-PET) for response assessment 3 months after SBRT. With this initial information we continued this imaging strategy with the aim of trying to identify PET metrics for response assessment and prognosis. Another study built upon the initial experience of the manuscript published above, but took it a step further. We showed that FDG-PET was a predictor of outcome for early stage non-small cell lung cancer patients treated radically with SBRT. These results have implications for future trials of adjuvant therapies post SBRT.

Princess Margaret is the premier centre for SBRT in lung cancer in Canada and one of the leading centres worldwide. I am currently the lung cancer site group leader and am also the leader of the PET program within the Princess Margaret lung cancer and SBRT program.

In addition, I am the PI of a grant funded study using PET with 18F-Fluoroazomycin Arabinoside (18F-FAZA)*. All of the previously mentioned PET studies have been done with FDG. FAZA is a hypoxic marker that can be used in conjunction with FDG-PET and we are one of a few groups worldwide investigating this relatively untested but potentially promising PET agent in lung cancer.

As a result of my leadership of our innovative and creative PET adaptive radiotherapy program for lung cancer, I have been able to attract a number of trainees from locally, provincially, nationally and internationally to help develop and move the program forward.

My recognition in this area of research in Canada is exemplified by my invited presentations at various venues nationally including one at Canadian Association of Radiation Oncology, our national organization and national annual meeting for our specialty.

Prophylactic Cranial Irradiation (PCI) in Lung Cancer.
My goal is to define the role of prophylactic cranial irradiation (PCI) in lung cancer. PCI is the most effective means of preventing metastases to the brain, but had unrecognized toxicities. Currently PCI is considered standard of care in limited disease small cell lung cancer (LD-SCLC) as it has shown a survival benefit. There was a large international randomized trial comparing a higher dose to the standard dose of PCI in an attempt to improve this survival benefit. I was the Canadian Representative of this study as I was invited to present this study at the National Cancer Institute of Canada Clinical Trials Meeting (NCIC-CTG) annually from 2003 to 2007. The study resulted in no change to the standard dose of PCI.

At that time, it was recognized that brain metastases rates in locally advanced non-small cell cancer (LA-NSCLC) were approaching that of LD-SCLC due to patients living longer from more effective treatment. In 2002, I became the Canadian Principal Investigator (PI) for the largest randomized phase III trial of PCI in LA-NSCLC, led by the Radiation Therapy Oncology Group (RTOG), 0214. RTOG (now NRG) is the foremost clinical trials group dedicated to Radiotherapy trials based in the United States, but with international participation.
RTOG 0214 resulted in 2 publications in the Journal of Clinical Oncology (JCO), one of the most prestigious journals for Oncology research with an impact factor of 18.4. It is also one of the rare times that the primary and secondary endpoint analyses were published back to back in the same issue of JCO. I was the lead author in the secondary analysis and played a major role in the primary analysis. They have been cited 150 and 128 times, respectively. Furthermore, my secondary analysis has been instrumental in identifying and characterizing the toxicities of PCI and has helped form the basis of the very topical research field of neurocognitive function with cranial irradiation. Currently there are many ongoing clinical trials worldwide in brain metastases and PCI, which have neurocognitive endpoints as their primary endpoint. This is a departure from the traditional primary survival endpoints. The neurocognitive tools used in these studies are also based on our study. In an editorial from JCO, Khan et al. wrote “To discriminate the relative contributions of disease and therapy on cognitive impairment, we can turn to…Sun et al….from RTOG 0214….There were several important findings reported in this study: memory decline after cranial radiotherapy is relatively frequent when measured with sensitive tools; both immediate and delayed recall are affected; QOL scores do not correlate with neurocognitive function and do not seem to be worse with PCI.”

I presented the primary and secondary analyses at the World Lung Conference (IASLC-International Association for the Study of Lung Cancer) in 2009, the most prestigious and well attended multi-disciplinary International Conference in Lung Cancer. My abstract was 1 of the top 12 abstracts selected for media presentation at this meeting. The secondary analysis was also selected for presentation in the Plenary Session (top 4 abstracts) at ASTRO (American Society for Radiation Oncology – the largest and most prestigious International meeting focusing on Radiation Oncology) and at the RTOG meeting Plenary Session (top 4 RTOG abstracts) in 2010. Currently, I am the Principal Author, of the 5 year long term updated results of RTOG 0214, submitted for publication to the JCO.

I also conducted a sub-study of RTOG 0214 addressing accrual issues, which resulted in an invited presentation at the RTOG meeting in 2005. I was also invited to present this study at the NCIC-CTG from 2002-2007. As a result of my national leadership, Canadian centres represented 8 of the top 15 accruing centres around the world, representing more than 20% of the overall accrual. This success resulted in an invitation in 2007, as a speaker at the RTOG Main Scientific Session.

More recently, PCI is becoming the standard of care in extensive disease small cell lung cancer (ED-SCLC) based on the results of a European study published in the New England Journal of Medicine. During the European study, a similar North American study was being led by the RTOG (0937) for which I am a Co-PI. RTOG 0937 closed this year and preliminary results were presented as a late breaking abstract at ASTRO. The final results of this study are highly anticipated as it may alter the newly adopted standard of practice.

Currently, I am the Lung Co-PI of a newly approved North American study led by NRG (previously RTOG), which is addressing neurocognitive function and memory change, the main toxicity of PCI. Much of this study was based on the results of my JCO publication addressing this issue in RTOG 0214. A similar study is also being conducted separately in Europe.

My success in RTOG studies has led to a number of significant leadership positions at RTOG/NRG. I was appointed to the Publications Committee in 2011 in part because of the 2 landmark publications back to back in the same issue of JCO, which was viewed extremely favourably by RTOG. I was only 1 of 2 Canadians serving on that committee. I was also 1 of only 4 members of the Nominations Committee. I served as Co-Chair of the Clinical Trials, Evaluation and Recruitment (CTER) Committee. This committee was an innovative initiative designed to investigate and implement new strategies to increase accrual to RTOG studies. As a result of the CTER initiatives, various strategies have been implemented at RTOG Headquarters to facilitate successful accrual to newly proposed studies. As a result of my
work, I was an invited speaker at the RTOG Theme Symposium on Recruitment to Clinical Trials held in 2007. In addition, I was an invited presenter as Co-Chair of the CTER committee on behalf of RTOG at the National Institutes of Health Core Grant Renewal Site Visit in Bethesda, MD, in 2008, which was successful in renewing their grant.

At the RTOG Symposium in 2004, I was the only Canadian Invited Panel Discussant, along with some of the most prominent Radiation Oncology lung cancer experts in the US. I was an invited speaker at the Canadian Lung Cancer Conference in 2012, where my topic was RTOG Lung Cancer Clinical Trials. In addition, I was the invited speaker as the expert on the topic of “Neurotoxicity of Cranial Irradiation” at the World Lung Cancer Conference (IASLC) in Australia in 2013.

My recognition in this field was also exemplified by being the Invited International Reviewer for a project grant application of a European study similar to RTOG 0214, but smaller in scope, the results of which are pending. I have already been contacted by my European colleagues leading this trial regarding the possibility of combining our data for a meta-analysis.

I am also one of the recognized leaders on the Lung Cancer Steering Committee exemplified by my leadership as PI or co-PI on a number of RTOG/NRG lung cancer studies as discussed above.

In summary, I am recognized as the leader in the field of PCI for lung cancer in Canada and also as a leader in this field in North America and Internationally.

2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

The Role of Radiotherapy in Skin Cancer.
My goal is to improve the care of skin cancers (melanoma and non-melanoma) treated with radiation therapy. I joined the Skin Cancer Site group as a member in 2009 and have been the Site Group Leader in Radiation Oncology at Princess Margaret since 2010. I was the only Radiation Oncology Representative on the Melanoma Disease Site Group, Program in Evidenced Based Care, at Cancer Care Ontario until recently. I have published and led guidelines on radiation therapy of skin cancers. I am a contributing author to book chapters related to the management of skin cancers.

I was invited to lead a guideline examining the expanding role of IMRT (Intensity Modulated Radiation Therapy) use in treating skin cancers. I was also the Principal author on a recently completed guideline entitled “The Use of Adjuvant Radiation Therapy for Curatively Resected Melanoma”. This manuscript is currently in press. Both of these guidelines were performed through the Program in Evidenced Based Care at Cancer Care Ontario. This program provides evidence based care information for health care providers and the public. This is an internationally recognized guideline development program. The aim is to provide clinicians and policy makers the best scientific evidence to support standard practice and policy decisions. These guidelines are used to define standard practice across Ontario and are often used across the country and internationally.

My recognition in this area is exemplified by being invited to be the representative Radiation Oncology author to book chapters in the Surgical Oncology Manual, developed by the University of Toronto’s Department of Surgery, the leading Surgical Oncology Department in Canada. I contributed to 2 separate chapters, one on Non-melanoma skin cancer and the other on Merkel Cell Carcinoma. The second edition of this manual is currently in press. This manual is used by surgical oncology programs across the country.

I was also recently invited as a contributing author for a chapter entitled “Cancers of the Skin, Including Mycosis Fungoides.” in: Faiz M. Khan, et.al., editor(s), Treatment Planning in Radiation Oncology, 4th Edition. (United States); 2015, currently in press. This is the most widely used Radiation Treatment Planning textbook amongst trainees, and reference
textbook for practicing Radiation Oncologists in non-academic centres, throughout the US, Canada and internationally.

My recognition in this area is also exemplified by my recent invitation to join the newly founded Clinical Trials Strategy Group for Melanoma, for the Canadian Cancer Clinical Trials Network (3CTN). This is the first group that 3CTN has formed, with other cancer subtype groups to follow. 3CTN is the recent creation of a pan-Canadian program to strengthen academic-sponsored cancer clinical trials capacity to improve patient outcomes. I am one of only 2 Radiation Oncologists on this multidisciplinary committee, where our goal is to shape the research landscape in melanoma across Canada.
A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

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Sunnybrook Health Sciences Centre
Odette Cancer Centre
Department of Radiation Oncology
2075 Bayview Avenue, T Wing
Toronto, Ontario, Canada
M4N 3M5

Telephone (416) 480-4834
Fax (416) 480-6002
Email Ewa.Szumacher@sunnybrook.ca

1. EDUCATION

Degrees
2003 - 2005 MEd, Department of Theory and Policy Studies in Education, OISE/UT, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr Pamela Catton, Dr Glen Jones
1976 - 1982 MD, Medical University of Lodz, Lodz, Poland

Postgraduate, Research and Specialty Training
1993 - 1997 Resident, Radiation Oncology, University of Ottawa, Ottawa, Ontario, Canada
1988 - 1990 Resident, Diagnostic Radiology, Medical, University of Lodz, Lodz, Poland
1983 - 1987 Resident, Radiation Oncology, Medical, University of Lodz, Lodz, Poland
1976 - 1982 Intern, Internal Medical, University of Lodz, Lodz, Poland

Qualifications, Certifications and Licenses
2006 Teacher Trainer Certificate, Stepping Stones Program, University of Toronto, Toronto, Ontario, Canada
2006 Interprofessional Education Faculty Development: Advancing the Future of Health Care Through Learning Certification, University of Toronto, Toronto, Ontario, Canada
1998 Licentiate, Medical Council of Canada, Canada
1997 General Medical License, College of Physicians and Surgeons of Ontario
1997 Specialist License, Radiation Oncology, University of Alberta, Edmonton, Alberta, Canada
1997 Specialist Certificate, Royal College of Physicians and Surgeons of Canada, Toronto, Ontario, Canada
1994 Federation Licensing Examination (FLEX) Certificate, Federation of State Medical Boards, United States
2. EMPLOYMENT

Current Appointments

2013 - present  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2011 - present  Associate Courtesy, The Scarborough Hospital, Toronto, Ontario, Canada
2009 - present  Associate Courtesy, Toronto East General Hospital, Toronto, Ontario, Canada
2006 - present  Regional Affiliate, The Royal Victoria Hospital of Barrie, Barrie, Ontario, Canada
1998 - present  Staff Radiation Oncologist, Odette Cancer Centre, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

CONSULTING

1997  Consultant, Radiation Oncology, Tom Baker Cancer Centre, Calgary, Alberta, Canada

UNIVERSITY - RANK

2001 - 2013  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2006  Abbott Travel Award, Canadian Association of Radiation Oncologists. (Distinction)
2005  Physician Manager Institute Certificate of Achievement, Canadian Medical Association. (Distinction)

PROVINCIAL / REGIONAL

Received

2015 Mar  Sunnybrook Education Advisory Council (SEAC) Educational Research Award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Research Award)
The Educational Research Award recognizes sustained effort and excellence in research related to education. Research may be theoretical or applied, and utilize any range or combination of research approaches.

Examples of nominee contributions to educational research include, but are not limited to:

- Publications, posters, and presentations related to educational research at the local, regional, national, or international level
- Leadership roles in support of educational research
- Foster.

1999  Short Programs in Oncology Award, Cancer Care Ontario. (Distinction)
LOCAL
Received

2015 May  ACURA Uro-Oncologic Radiation Research Award, CARO - Canadian Association of Radiation Oncology. (Research Award)
2005 - 2006  Academic Performance Award, Department of Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
2003  Fifteen Year Service Award, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
2003  Five Year Service Award, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
2003  Ten Year Service Award, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)

Teaching and Education Awards

LOCAL
Received

2016  Ivy Oandasan Leadership Award for Outstanding Contributions in Advancing Interprofessional Education, University of Toronto, Sunnybrook Health Sciences Centre - Odette Cancer Centre

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2012 Jul - present  Member, American Association of Cancer Education - AACE
2005 - present  Member, Association for Medical Education Europe (AMEE)
2005 - present  Member, Canadian Association for Medical Education
2005 - present  Member, The American Association for Women Radiologists (AAWR)
1997 - present  Member, Canadian Medical Association
1994 - present  Member, American Society of Therapeutic Radiolon Oncology (ASTRO)
1994 - present  Member, European Society for Therapeutic Radiology and Oncology (ESTRO)
1993 - present  Member, Canadian Association of Radiation Oncologists (CARO)
1993 - present  Member, Ontario Medical Association (OMA)

Administrative Activities

INTERNATIONAL
American Association of Cancer Education AACE
2015 - present  Executive Council: Memeeber at Large

American Association of Cancer Education; Annual Conference - October 2015
2014 Jul 1 - present  Planning Committee Member, Tuscon, Arizona, United States.
NATIONAL

Parkhurst Publishing
2007 - present  Member, Advisory Board, Oncology Exchange

University of Toronto
2006 - 2007  Member, Organizing Committee, 5th and 6th Annual Radiation Therapy Conference

LOCAL

Cancer Patient Education Network
2011 - present  Member

Hospital News
2007 - present  Member, Advisory Board

Michener Institute for Applied Health Sciences
2005 - present  Member, Joint Curriculum Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education
2000 - present  Academic Coordinator, Medical Radiation Sciences Program, Faculty of Medicine, Dept of Radiation Oncology
2003 - 2007  Member, Medical Radiation Sciences Board of Examiners, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education
2003  Academic Coordinator, Medical Radiation Sciences Board of Examiners, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education

Odette Cancer Centre
2011 - present  Member, Cancer Patient Education Committee

Sunnybrook Health Sciences Centre
2012 Jul - present  Sunnybrook Education Advisory Committee - SEAC Member, Toronto, Ontario, Canada.
2011 - present  Co-Chair, Education Research Committee
2011 - present  Member, Sunnybrook-Based Education EDU Working Group
2005 - present  Chair, Radiation Program Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education
2005 - 2007  Secretary, Executive, Radiation Oncology Associates, Odette Cancer Centre
2005 - 2007  Director of Education, Radiation Treatment Program, Department of Radiation Oncology, Odette Cancer Centre, Undergraduate Education

University Health Network
2006 - present  Member, Centre for Research in Education, Wilson Centre

University of Toronto
2012 - present  Member, Centre for Interprofessional Education
2011 - present  Member, Centre for Faculty Development
2004 - present  Member, Continuing Education Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2004 - present  Member, Teaching Effectiveness Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
Ewa SZUMACHER

Medicine, Dept of Radiation Oncology

2002  Member, Stream Specific Research Review Committee, Faculty of Medicine, Dept of Radiation Oncology
Research Methods, II RERE510/RSC510Y.

1999 - 2009  Coordinator, PGY 1 Radiation Oncology Residency Program, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD

1999 - 2007  PGY-1 Coordinator, Radiation Oncology Residency Program, Department of Radiation Oncology

Peer Review Activities

EDITORIAL BOARDS

Member
2013 Jan - present  Journal of Cancer Education
2009 Jul - present  Journal of Medical Imaging and Radiation Sciences (JMIRS)

Reviewer
2014 - present  Journal of Cancer Education, Number of Reviews: 4
2014 - present  Journal of Medical Imaging and Radiation Sciences (JMIRS), Number of Reviews: 3

Member
2007 - present  Anatomical Sciences Education
2007 - present  Medical Teacher
2005 - present  Oncology Exchange

MANUSCRIPT REVIEWS

Reviewer
2007 - present  Journal of Anatomical Sciences Education, Number of Reviews: 2
2005 - present  Journal of Health Professions Education, Number of Reviews: 2
2005 - present  Medical Teacher, Number of Reviews: 2
2015 - 2016  Journal of Radiation Oncology Biology and Physics, Number of Reviews: 2
2014 Jul 1 - 2015  Journal of Cancer Education, Number of Reviews: 4
2014 Jul 1 - 2015 Jun 30  Journal of Medical Imaging and Radiation Sciences, Number of Reviews: 3

ABSTRACT

Reviewer
2009 - 2010  Canadian Association of Radiation Oncologists (CARO)

Other Research and Professional Activities

CO-ORGANIZER
2013 Jul - 2014  Associate Director, Educational Research and Scholarship Grant Terms of Reference & Call for Proposals. Sunnybrook Education Advisory Council (SEAC) - Educaiton Research Unit (ERU), Toronto, Ontario, Canada. Supervisor(s): Carilynne Yarascavitch. Collaborator(s): Ewa Szumacher, Agnes Ryzynski, Ari Zaretsky.
C. Academic Profile

1. RESEARCH STATEMENTS

Needs assessments of patients, healthcare providers and trainees in radiotherapy practice.

Enhancing patients and healthcare providers’ decisional preferences for radiotherapy treatment.

Developing an interprofessional learning environment and creating modalities for continuing professional education in radiation therapy.

2. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

My Creative Professional Activity (CPA) is focused on two themes. This CPA dossier outlines my contributions to innovative/creative excellence and the development of professional practices in these two themes.

• Theme 1: Understanding the needs and preferences of cancer patients in radiation oncology practice
• Theme 2: Working together as an inter-professional team in radiation oncology practice to improve the care of cancer patients

Theme 1: The first theme focuses on investigating cancer patients’ needs in radiation oncology practice to give health care providers a better understanding of patients’ needs and incorporating these needs into patient care. I have contributed to professional innovations and creative excellence within this first theme through the following activities: 1) understanding patient preferences in the treatment of bone metastases with palliative radiotherapy (RT), 2) understanding needs of older patients with early breast cancer while undergoing adjuvant RT, 3) development of a patient decision aid for adjuvant RT for older women with early breast cancer, and 4) understanding the needs of prostate cancer patients treated with radical prostatectomy who require adjuvant and salvage RT. The contributions to the development of professional practice in these four areas are outlined in my peer reviewed papers published since my last academic promotion. These scholarly works included information about cancer patients’ needs to voice their opinions and to inform and guide clinicians on how to address these needs and incorporate them into cancer care.

Theme 2: The second theme of my CPA focuses on creating an inter-professional team in radiation oncology practice for better care of cancer patients. This is achieved by fostering an inter-professional practice in radiation oncology through continuing medical education (CME), scholarly work and research. Here, I have provided significant contributions in the following areas: 1) understanding the needs of healthcare providers in cancer care and enhancing RT services and treatment in underserviced areas, 2) developing and assessing the effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for three-dimensional RT (3D-CRT) for prostate cancer, 3) developing an inter-professional learning environment and creating modalities for continuing professional education in radiation therapy by organizing inter-professional CME events such as Radiation Oncology Palliative Care Rounds, Inter-professional Radiation Oncology Rounds (IROR), and the HOT SPOT newsletter CME section, and 4) investigating inter-professional needs of cancer care providers and trainees. Under theme 2, the development of professional practice has focused on providing interdisciplinary leadership for cancer care providers and trainees through education and mentorship. Evidence for my contributions in this theme is documented in my publications, international and national presentations and my participation in a number of workshops.

There is growing recognition throughout the medical and scientific research community that an interdisciplinary approach to cancer care should incorporate patient communication to maximize the benefits of current medical discoveries in diagnosis and treatment—particularly in the emerging era of personalized medicine. Cancer treatment often involves multiple options and choices; it can be toxic, costly, intense and protracted and may be associated with serious long-term
complications. In addition, responses to cancer treatments are quite variable, so predicting the potential risks and benefits of various treatment options for individual patients is often difficult. Furthermore, because of the complexity of treatment choices, compiled with the life threatening nature of cancer and its emotional repercussions, it is often difficult for cancer patients to make decisions about their care. The fragmented nature of the cancer care system also presents challenges that may impede coordinated care and the development of a comprehensive treatment plan. Evidence indicates that clinicians cannot predict cancer patients’ needs and patients’ roles in the treatment decision process. These areas require further investigations. My research and CPA have been focused on attempting to better understand cancer patients’ needs when they experience RT and how these needs can be incorporated into the patient care paradigm. I have disseminated this new knowledge through several avenues including publications and presentations at national and international meetings, active participation on editorial boards, grant and review committees, guideline working groups, and workshops. This work has also contributed to the training of health care professionals to practise within this new paradigm.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2015 Apr - 2016 Mar

Co-Principal Investigator. The Senior Toronto Oncology Panel. Funding CIHR 15,000, St. Michael’s hospital $6,000, University Health Network $3,000, Odette Cancer Centre $3,000, Mount Sinai Hospital $1,000, Leukemia and Lymphoma Society Canada $2,500, Prostate Cancer Canada $1,000, Toronto East General Hospital $1,000. Patient Engagement Collaboration. PI: Martine Puts. Collaborator(s): Ms. J. Manthorne (Canadian Cancer Survivor Network), Mr. B. Stein (Colorectal Cancer Association Canada), Dr. C. Simone (Toronto East General Hospital), Dr. Y. Rahim (Stronach Cancer Centre), Dr. J. Richards (University Health Network), Dr. S. Sinha (Mount Sinai Hospital), Dr. C. Law (Odette Cancer Centre), ELLICS, Mr. A. Quinn (Carp Canada), M. Winkler (BrainTumour Canada), Mr. Stuart Edmonds (Prostate Canc. 30,500 CAD

To understand how we can involve patients in research.

2015 Mar - 2016 Mar

Principal Investigator. Assessing the impact of an instructional video on patients’ compliance with bowel and bladder preparation instructions for CT scan planning for intensity modulated radiotherapy (IMRT) for prostate cancer. Sunnybrook Health Sciences Centre SEAC. SEAC ERC Education and Research and Scholarship Grant. Collaborator(s): Dawdy K, Russell S, Cao X, Ryzymski A, Harth T, Townsend C. 8,600 CAD

2014 Jul - 2015 Jun

Principal Investigator. Empowering patients through education – development and evaluation of a multimedia patient education tool to ensure patient preparedness for planning CT scan for prostate cancer (randomized study). ACURO/ CARO. 15,000 CAD

2014 - 2016

Co-Principal Investigator. High Fidelity Simulation-based Training in Radiation Therapy: Attitudes and Behaviours towards Safety in Radiation Therapy. UT-DRO. 50,000 CAD

2009

Co-Investigator. Exploring meanings of caring among health care professionals providing cancer care. Sunnybrook and Women’s College Health Sciences Centre. Practice-Based Research Award Grant. PI: Osmar K. Collaborator(s): DasGupta T, Daley A, Szumacher E, Fitch M. 15,500 CAD
2008 Jul - 2010 Jun **Principal Investigator.** The development of the decision-aid investing patients’ preferences for adjuvant radiotherapy and antiestrogen therapy versus antiestrogen therapy alone in patients 70 years or older with stage I, EP/PR positive, invasive breast cancer. Canadian Breast Cancer Foundation (CBCF). Collaborator(s): Paszat L, Angus J, Metcalfe K, Whelan T, Llewellyn-Thomas H. 121,076 CAD

2006 **Principal Investigator.** The effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for three-dimensional radiotherapy for prostate cancer (3D-CRT). Canadian Association of Radiation Oncologists (CARO). Abbott-CARO Uro-Oncologic Radiation Award (ACURA). 10,000 CAD

2005 **Principal Investigator.** Educational Scholarship in Radiation Oncology. Mr. Clive Siedel. 20,000 CAD


2000 **Collaborator.** A prospective assessment of symptom palliation for patients attending rapid response radiotherapy program and bone metastases clinic. Geoffrey H. Wood Foundation. PI: Chow E. Collaborator(s): Danjoux C, Wong R, **Szumacher E**. 10,000 CAD


1997 **Collaborator.** A phase III double blind randomized study to compare the effectiveness of radiotherapy and pamidronate versus radiotherapy and placebo in the relief of pain due to bone metastases. Toronto-Sunnybrook Regional Cancer Centre. Radiation Program Fund. PI: Wong R. Collaborator(s): Hoegler D, Danjoux C, Chow E, **Szumacher E**, Franssen E. 61,000 CAD

1997 **Co-Investigator.** A prospective assessment of symptom palliation for patients attending a rapid response radiotherapy program. Toronto-Sunnybrook Regional Cancer Centre. Radiation Program Fund. PI: Chow E. Collaborator(s): Danjoux C, Wong R, **Szumacher E**. 8,000 CAD

1997 **Collaborator.** Survey of patterns of practice among Canadian radiation oncologists on the management of bony metastases in cancer patients. Toronto-Sunnybrook Regional Cancer Centre. Radiation Program Fund. PI: Chow E. Collaborator(s): Danjoux C, Wong R, **Szumacher E**. 1,250 CAD

NON-PEER-REVIEWED GRANTS

**Funded**

2014 Sep **Travel Grant.** Breast Cancer Patient Preferences for Adjuvant Radiotherapy Post-Lumpectomy: Whole Breast Irradiation versus Partial Breast Irradiation - Preliminary Results. Sanofi Avantis Pharmaceuticals. ASTRO. PI: **Szumacher, E**. 4,000 CAD

2014 Jul **Principal Applicant.** Unrestricted Education Grant. ASTRA - ZENECA. 5,000 CAD
2014 Jul  Principal Applicant. Travel Grant. ABBVIE. 2,000 CAD  
*World Cancer Congress, Melbourne, Australia.*

2014 - 2016  Principal Investigator. Empowering Patients Through Education Post-prostatectomy Radiation Therapy: On-line patient Education Program Resource. GU Trust Fund SHSC. 24,000 CAD

2014  Principal Investigator. Treatment for older women with breast cancer - challenges and opportunities. An experience from Toronto Sunnybrook Odette Cancer Centre, Toronto, Ontario, Canada. Abvie Perceptorship. Industrial Grant. 2,000 CAD

2014  Travel to Conference. Unrestricted Education Grant. Astra Zeneca Pharmaceuticals. Unrestricted Education Grant. 5,000 CDF

2010 Jul - 2011 Jun  Principal Investigator. Investigating the opinions of health care providers involved in treatment of patients with prostate cancer in the province of Ontario, regarding the informational needs of non-metastatic post-prostatectomy cancer patients referred for adjuvant or salvage radiotherapy (a multidisciplinary approach). Abbott Laboratories. Unrestricted Education Grant. Collaborator(s): Maamoun J, Feldman-Stewart D, Fitch, M, DasGupta T, Court A, Kiss A. 20,000 CAD

2007 - 2009  Principal Investigator. Sanofi-Aventis (Canada). Veronique Benk Professorship Grant – Education. 16,000 CAD

2005  Principal Investigator. Canadian patterns of practice in adjuvant radiotherapy for elderly women with stage I breast cancer – survey. Astra Zeneca Inc. 7,500 CAD

2005  Principal Investigator. Touch pads interactive technology to improve interactivity at CME at the radiation program Odette Cancer Centre. Abbott Laboratories. 4,000 CAD

2005  Principal Investigator. Astra Zeneca Inc. Alon Dembo Professorship Grant – Education. 2,500 CAD

2005  Principal Investigator. Abbott Laboratories. Education Grant. 2,500 CAD

2003 - 2005  Principal Investigator. Abbott Laboratories. Alon Dembo Professorship Grant – Education. 18,000 CAD
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


The study aims to investigate the information needs and unique illness experiences of older women with early stage breast cancer. Breast cancer patients have expressed a high need for information to help them cope with their disease and treatment decision making. Satisfying information needs can also improve patient outcomes including perceptions of control, levels of distress, and psychological well-being. Focus groups and one patient interview were conducted investigating the informational needs of patients 70 years or older who were diagnosed with stage I breast cancer. Women identified their experiences and information needs related to diagnosis, participation in treatment decision making, treatment onset, and unexpected life changes. They provided several suggestions to healthcare professionals related to breast cancer treatment. The study’s findings increase our understanding of older breast cancer patients’ needs and provide a foundation for the development of a decision aid to help patients better understand their treatment options.


The purpose of this study was to examine the effect of a teaching intervention, “Prostate and Rectum Contouring Workshop”, on the accuracy of delineation of the prostate and rectum for three-dimensional conformal radiotherapy (3D-CRT) for prostate cancer. Participants were randomly assigned to one of two workshop sessions. Subjects included radiation oncology trainees, therapists and therapy students. Training sessions were found to improve technical performance similarly and non-significantly for both groups. The delayed survey reflected that participants in the experimental group alone felt more confident with prostate and rectum contouring after the training session, and a majority of subjects in both groups would investigate further opportunities to learn more about organ contouring. The enthusiastic response to this program and opportunities for further educational interventions indicated both the lack of and the need for formal training in organ contouring. Optimal course content and format has yet to be determined.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


9. Derek Tsang, MD Christopher Townsend. MEd, Xingshan Cao, PhD and **Ewa Szumacher**, MD, MEd, FRCP(C). RBApp: Creation and Patterns of Use of an Educational Mobile Application for Radiobiology Calculations in Radiation Therapy. Journal of Medical Imaging and Radiation Sciences. 2015 Apr 9;46(2):215-222. **Senior Responsible Author.**


Ewa SZUMACHER


Book Chapters


Multimedia


Journal Articles, Multicenter Study, Randomized Controlled Trial

3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


4. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Mar Presenter. Incorporating Interprofessional Education and Practice within the Radiation Oncology Department at the Odette Cancer Centre: Challenges and Opportunities. Ottawa Conference MED Education. Perth, Australia. Presenter(s): Ewa Szumacher.


2011 Chair. Oral presentation session. 1st International Faculty Development in Health Professions Conference. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).
Ewa SZUMACHER

2011 **Presenter.** Workshop - Fostering Scholarship in Medical Education in Cancer Care through Inter-Institutional Collaboration. Study 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Winnipeg, Manitoba, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).


2008 The Effectiveness of an Educational Intervention on the Congruence of Prostate and Rectal Contouring as Compared to a Gold Standard in Planning for Three-Dimensional Radiotherapy for Prostate Cancer (3D-CRT). Ottawa Conference in Medical Education. Melbourne, Australia. Presenter(s): Szumacher, Ewa. (Continuing Education).

2007 **Chair.** Multiprofessional education short communication session. Association for Medical Education in Europe (AMEE). Trondheim, Norway. Presenter(s): Szumacher, Ewa. (Continuing Education).


2004 Palliative Radiotherapy Treatment for Bone Metastases: Patients’ Treatment Preferences. American Society for Therapeutic Radiology and Oncology (ASTRO). Presenter(s): Szumacher, Ewa. (Continuing Education).


2001 **Presenter.** Phase II study assessing effectiveness of Biafine cream as a prophylactic agent for radiation induced acute skin toxicity to the breast in women undergoing radiotherapy with concomitant chemotherapy (CMF). International Congress of Radiation Oncology (ICRO) Congress. Melbourne, Victoria, Australia. Presenter(s): Szumacher, Ewa.


2000 **Presenter.** Phase II study assessing effectiveness of Biafine cream as a prophylactic agent for radiation induced acute skin toxicity to the breast in women undergoing radiotherapy with concomitant chemotherapy (CMF). European Society for Therapeutic Radiology Oncology. Istanbul, Turkey. Presenter(s): Szumacher, Ewa.

**Presented Abstracts**

2016 Nov 17 **Presenter.** Senior Toronto Oncology Panel - Research Participation for Older Adults with Cancer and Family Members/Caregivers. SIOG - International Society of Geriatric Oncology. Milano, Italy. Presenter(s): Dr. Szumacher.


Presenter(s): Bishop MC, Szumacher E.

2014 Sep  

2014 Mar 28  
**Presenter.** Creating an inter professional education environment for patients, trainees and staff at the Sunnybrook Odette Cancer Centre in Toronto. European Association for Cancer Education - 27th Annual Scientific Meeting. Caen, Normandy, France. Presenter(s): Szumacher, E.

2014 Jan 17  
**Presenter.** Exploring Attitudes of Canadian Radiation Oncologists, Radiation Therapists, and Physicists Regarding Interprofessional Teaching and Learning. 11th Asia Pacific Medical Education Conference (APMEC). Singapore, Singapore.

2014 Jan 17  
**Presenter.** Getting Started in Scholarship: Fostering, Coaching and Mentoring Interprofessional Education Scholarship. 11th Asia Pacific Medical Education Conference (APMEC). Singapore, Singapore. Presenter(s): Szumacher, E.

2013 Sep 18  

2013 Sep  
**Presenter.** Decisional Support for Women 60 Years and Older During their Treatment for Stage I and II Breast Cancer: A single Institutional Study. ASTRO. San Francisco, California, United States. Presenter(s): Szumacher E, D’Almonte L, Feldman-Stewart D, Court A, Fitch M, Di Prospero L, Maamoun J, Kiss A, Warner E.

2013 Jan 16  
**Presenter.** Building an Interprofessional Structure for Practice-Based Education Research and Scholarship Within an Academic Health Sciences Centre - Early Experiences. 10th Asia Pacific Medical Education Conference (APMEC). Singapore, Singapore. Presenter(s): Dr. E. Szumacher.

2012 Oct 29  

2012 Oct  

2012 Oct  
**Presenter.** Patients’ decision-making in radiation oncology. 3rd Oncology Congress. Poland. Presenter(s): Ewa Szumacher.

2012 Oct  
**Presenter.** Development of Patients’ decision aid for older women with stage I breast cancer considering radiotherapy post lumpectomy. 3rd Oncology Congress. Poland.

2012 Oct  
**Presenter.** Opinions from the experts exploring what prostate cancer patients should know about post-operative radiotherapy post prostatectomy: Health professionals’ opinion. 3rd Oncology Congress. Poland. Presenter(s): Ewa Szumacher.

2012 Sep  

2012  

2012  
**Presenter.** A schema for successful remediation within allied health programs: practice points based on existing literature. Ottawa Conferences. Kuala Lumpur, Malaysia. Presenter(s): Szumacher, Ewa. (Continuing Education).
2011 **Presenter.** Development of a patient decision aid for women with stage I breast cancer considering adjuvant treatment and post-lumpectomy. An International Association for Medical Education (AMEE) 2011. Vienna, Austria. Presenter(s): **Szumacher, Ewa.** (Continuing Education).


2011 **Presenter.** Abstract # 439 Are social determinants of health, more specifically socioeconomic status, associated with prostate and breast cancer patient perception of team membership within the multidisciplinary health care team while undergoing radiation therapy?: A Pilot Study. Collaborating Across Borders III 2011. Tucson, Arizona, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2011 **Presenter.** Development of a patient decision aid for women with stage I breast cancer considering adjuvant treatment and post-lumpectomy. San Antonio Breast Cancer Symposium. San Antonio, Texas, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).


2010 **Chair.** The Trainee in Difficulty. 2010 Ottawa Conference on the Assessment of Competence in Medicine and the Healthcare Professions. Miami, Florida, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2010 **Presenter.** Informational needs of older women with stage I breast cancer – Needs assessment study. An International Association for Medical Education (AMEE) 2010. Glasgow, United Kingdom. Presenter(s): **Szumacher, Ewa.**

2009 **Presenter.** Collaborating Across Borders: Building Bridges between Interprofessional Education & Practice through Continuing Education in Academic Cancer Centre: Clinical and Scientific rounds (R-3) and Interprofessional Radiation Oncology rounds (IROR). Presented at: Association for Medical Education in Europe (AMEE). Malaga, Spain. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2009 **Presenter.** Attitudes of Canadian Radiation Oncologists Towards Post-Lumpectomy Radiotherapy for Elderly Women with Stage I Hormone Responsive Breast Cancer. Association for Medical Education in Europe (AMEE). Malaga, Spain. Presenter(s): **Szumacher, Ewa.**

2009 **Presenter.** Collaborating Across Borders: Building Bridges between Interprofessional Education & Practice through Continuing Education in Academic Cancer Centre: Clinical and Scientific rounds (R-3) and Interprofessional Radiation Oncology rounds (IROR). American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Chicago, Illinois, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).


2008 **Presenter.** Canadian Patterns of Practice in Adjuvant Radiotherapy for Elderly Women with Stage 1 Breast Cancer. Not presented but accepted for the 31st Annual San Antonio Breast Cancer Symposium. San Antonio, Texas, United States. Presenter(s): **Szumacher, Ewa.**

2007 **Presenter.** Improving access to radiotherapy services in the Simcoe-Muskoka region of Ontario-needs Assessment Study. American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).
2007 **Presenter.** Ontario radiation oncology residents needs in the PGY – 1 year- residents’ perspective survey. American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): Szumacher, Ewa. (Continuing Education).

2007 **Presenter.** Helping Learners in Difficulty – The Experience from the Program Review Committee at the Medical Radiation Sciences Program, University of Toronto and the Michener Institute for Applied Health Sciences. 4th Asia Pacific Medical Education Conference. Singapore. Presenter(s): Szumacher, Ewa. (Continuing Education).

2007 **Presenter.** Risks for clinical failure-strategies to facilitate academic success. Association for Medical Education in Europe (AMEE). Trondheim, Norway. Presenter(s): Szumacher, Ewa. (Continuing Education).

2006 **Presenter.** The development of an interprofessional mentorship program for faculty members within the Department of Radiation Oncology, University of Toronto – needs assessment. Association for Medical Education in Europe (AMEE). Genoa, Italy. Presenter(s): Szumacher, Ewa. (Continuing Education).


2005 **Presenter.** Systemic problems of women’s leadership in medicine. Association for Medical Education in Europe (AMEE). Amsterdam, Netherlands. Presenter(s): Szumacher, Ewa.

2004 **Presenter.** Results of a needs assessment for education in rectal contouring in planning of three-dimensional conformal radiotherapy (3D-CRT) for prostate cancer. 11th International Ottawa Conference. Barcelona, Spain. Presenter(s): Szumacher, Ewa. (Continuing Education).

2004 **Presenter.** Treatment for bone metastases - Patients’ treatment preferences. American Society for Therapeutic Radiology and Oncology (ASTRO). Atlanta, Georgia. Presenter(s): Szumacher, Ewa.

2003 **Presenter.** The educational needs of the multidisciplinary audience attending monthly Radiation Oncology Palliative Care rounds at the Toronto Sunnybrook Cancer Centre. European Cancer Organization (ECCO). Copenhagen, Denmark. Presenter(s): Szumacher, Ewa. (Continuing Education).


**Presented and Published Abstracts**


*Publication Details:*


*Publication Details:*
Empowering Patients Through Education: Online Education Resource for Patients who require Post-
2015 May  **Presenter.** CARO. Hamburg, Germany. RBApp: Usage Patterns & Evaluation of a Mobile Application for Radiobiology Calculations in Radiation Oncology.


2015 Apr  **Presenter.** Empowering Patients Through Education: Online Education Resource for Patients who require Post-prostatectomy RT. European Association of Cancer Education. Germany. **Presenter(s): Ewa Szumacher.**

*Publication Details:* Empowering Patients Through Education: Online Education Resource for Patients who require Post-prostatectomy RT.

## 2. NATIONAL

### Invited Lectures and Presentations


2013 Apr 22  **Presenter.** Building an Interprofessional Structure for Practice-Based Education Research and Scholarship Within Sunnybrook Health Sciences Centre - Early Experience. Canadian Conference on Medical Education (CCME 2013). Quebec City, Quebec, Canada. **Presenter(s): Ewa Szumacher, Shamena Maharaj, Agnes Ryzynski.**

2011  **Presenter.** Workshop Fostering Scholarship in Medical Education in Cancer Care through Inter-Institutional Collaboration (Challenges and Opportunities). 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Winnipeg, Manitoba, Canada. **Presenter(s): Szumacher, Ewa.** (Continuing Education).

2007  **Invited Speaker.** Workshop - An interprofessional approach to remediation in undergraduate education: The experience of the Medical Radiation Sciences Program at the Michener Institute of Applied Health Sciences University of Toronto, Faculty of Medicine. Canadian Medical Education Conference. Victoria, British Columbia, Canada. **Presenter(s): Szumacher, Ewa.** (Continuing Education).

2007  **Invited Speaker.** Workshop - Exploring interprofessional and collaborative roles for patient-centered care. Canadian Association of Radiation Oncologists. Toronto, Ontario, Canada. **Presenter(s): Szumacher, Ewa.** (Continuing Education).

### Presented Abstracts


2014 Aug 26  **Co-author.** Assessing the Psychological Impact of Daily Bowel Preparation on Prostate Patients Who

2013 Sep 18 **Presenter.** Decisional Support for Women 60 Years and older During their Treatment for Stage I and II Breast Cancer - Single Institutional Study. Joint Scientific Meeting CARO-COMP. Montreal, Quebec, Canada. Presenter(s): E. Szumacher. Abstract No: 0015.


2012 **Presenter.** Opinions from the experts: What prostate cancer patients should know about post-operative radiotherapy post-prostatectomy. 26th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Ottawa, Ontario, Canada. Presenter(s): Szumacher, Ewa.


2011 **Presenter.** The Informational Needs of Prostate Cancer Patients Treated with Radical Prostatectomy Regarding Adjuvant or Salvage Radiotherapy: Sooner or Later? 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3). Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2011 **Presenter.** Development of a Decision Aid and 1st Impressions: A Pilot Study for Older women with stage I hormone-sensitive breast cancer. 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3). Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2011 **Presenter.** Development of a Patient Decision Aid for Women 70 years and Older with Stage I, Hormonally Sensitive, Breast Cancer Considering Adjuvant Treatment Post-lumpectomy. 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Winnipeg, Manitoba, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2011 **Presenter.** Fostering Scholarship in Medical Education in Cancer Care through Inter-Institutional Collaboration (Challenges and Opportunities). 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3). Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa.

2011 **Presenter.** An Evaluation of the Usability and Usefulness of a Multi-language Online Patient Education Module: A Pilot Study. 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Winnipeg, Ontario, Canada. Presenter(s): Szumacher, Ewa.

2011 **Presenter.** Development of a Decision Aid and 1st Impressions: A Pilot Study for Older women with stage I hormone-sensitive breast cancer. 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Winnipeg, Manitoba, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2011 **Presenter.** Development of a Patient Decision Aid for Women 70 years and Older with Stage I, Hormonally Sensitive, Breast Cancer Considering Adjuvant Treatment Post-lumpectomy. 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3). Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2010 **Presenter.** The informational needs of prostate cancer patients treated with radical prostatectomy regarding adjuvant or salvage radiotherapy DOCH 2 project. 24th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Vancouver, British Columbia, Canada. Presenter(s): Szumacher, Ewa.
Ewa SZUMACHER


2009 **Presenter.** Canadian Patterns of Practice in Adjuvant Radiotherapy for Elderly Women with Stage I Breast Cancer. Canadian Association of Radiation Oncology (CARO) Scientific Meeting. Quebec City, Quebec, Canada. Presenter(s): Szumacher, Ewa.

2009 **Presenter.** Attitudes of Canadian Radiation Oncologists Towards Post-Lumpectomy Radiotherapy for Elderly Women with Stage I Hormone Responsive Breast Cancer. Canadian Association of Radiation Oncologists (CARO) Scientific Meeting. Quebec City, Quebec, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2008 **Presenter.** Effectiveness of educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in three-dimensional radiotherapy for prostate cancer. Abstract #:195. Canadian Association of Radiation Oncologists (CARO). Montreal, Quebec, Canada. Presenter(s): Szumacher, Ewa.

2007 **Presenter.** Ontario radiation oncology residents needs in the PGY – 1 year- residents’ perspective survey. Canadian Association of Radiation Oncologists (CARO). Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).


2007 **Presenter.** Improving access to radiotherapy services in the Simcoe-Muskoka region of Ontario-needs Assessment Study. Canadian Association of Radiation Oncologists (CARO). Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2006 **Presenter.** The development of an interprofessional mentorship program for faculty members within the Department of Radiation Oncology, University of Toronto – needs assessment. Canadian Association of Radiation Oncologists (CARO). Calgary, Alberta, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).


2005 **Presenter.** The incidence and effectiveness of remedial programs of the Medical Radiation Sciences Program at University of Toronto and the Michener Institute for Applied Health Sciences. Canadian Association of Radiation Oncologists (CARO). Victoria, British Columbia, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2002 **Presenter.** Comprehensive geriatric assessment as an indicator of health related quality of life in elderly patients with advanced cancer. 12th Annual Hospice Palliative Care Conference. Winnipeg, Manitoba, Canada. Presenter(s): Szumacher, Ewa.


2000 **Presenter.** Should we involve patients in the decision making process involving palliative radiotherapy treatment? Canadian Association of Radiation Oncologists (CARO). Edmonton, Alberta, Canada. Presenter(s): Szumacher, Ewa.
2000 **Presenter.** Fractionated stereotactic radiotherapy for acoustic neuromas. Canadian Association of Radiation Oncologists (CARO). Edmonton, Alberta, Canada. Presenter(s): **Szumacher, Ewa.**

1999 **Presenter.** Linac Radiosurgery for Acoustic Neuroma. The Royal College of Physicians and Surgeons of Canada. (CARO) Annual Meeting. Montreal, Quebec, Canada. Presenter(s): **Szumacher, Ewa.**

**Poster Presentations**

2014 Aug **TBD.** Assessing the Psychological Impact of Daily Bowel Preparation on Prostate Patients who receive Radiation Therapy. CARO -. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Bristow B, Szumacher E.

**3. PROVINCIAL / REGIONAL**

**Invited Lectures and Presentations**

2015 Mar 10 **Invited Speaker.** What Prostate Patients Should Know About Adjuvant and Salvage RT for Prostate Cancer. Prostate Cancer Canada Network, Terry Miller Recreation Centre. Brampton, Ontario, Canada. Presenter(s): E. **Szumacher.** Online Education Resource for Patients who Require Post-prostatectomy RT.


2005 **Invited Speaker.** Workshop - Palliative Radiotherapy at Toronto Sunnybrook Regional Cancer Centre. Orillia Memorial Soldiers Hospital. Orillia, Ontario, Canada. Presenter(s): Szumacher, Ewa.

**4. LOCAL**

**Invited Lectures and Presentations**

2016 May 13 **Lecturer.** EBRT for Muscle-Invading TCC of the Bladder. Toronto, Ontario, Canada. Presenter(s): Ewa Szumacher.

2013 Nov 28 **Presenter.** Breast and Prostate Cancer Patients Involvement in the Decision-Making Process for Radiation Treatment. UHN, DRO. Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.**


2013 Jul 16 **Continuing Education.** The Changing Landscape of mCRPC. Dr. Victor Mak, MacKenzie Richmond Hill Hospital. Toronto, Ontario, Canada. Presenter(s): Bobby Shayegan. Department of Surgical Oncology, McMaster Institute of Urology, Department of Surgery.

2012 **Invited Lecturer.** Teaching in the workplace. Clinical Competence and Continuous Learning Course. Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.**

2008 **Presenter.** Canadian (ES1) Patterns of Practice in Adjuvant Radiotherapy for Elderly Women with Stage I Breast Cancer. Wilson Centre/U of T Research Day. Melbourne, Australia. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2007 **Presenter.** Interdisciplinary Radiation Oncology Rounds (IROR), Jenkin Auditorium, Sunnybrook Regional Cancer
Centre. Presenter(s): **Szumacher, Ewa**. Topics, presenters and evaluations are available on request. (Continuing Education).

2007 Remediation in Undergraduate Education. Scholarship Rounds, Sunnybrook Health Sciences Centre. Presenter(s): **Szumacher, Ewa**. (Continuing Education).


2007 Veronique Benk Professorship Program: Invasive Bladder Cancer: Curing the Patient Without Removing the Bladder. Jenkin Auditorium, Toronto Sunnybrook Regional Cancer Centre. Presenter(s): **Szumacher, Ewa**. (Continuing Education).

2007 University of Toronto Prostate Cancer Day, University of Toronto. Presenter(s): **Szumacher, Ewa**. (Continuing Education).

2007 **Invited Speaker.** Exploring interprofessional and collaborative roles for patient-centered care. Radiation Medicine Conference. Kingsbridge, Ontario, Canada. Presenter(s): **Szumacher, Ewa**. (Continuing Education).


2007 **Invited Speaker.** Workshop - Exploring interprofessional and collaborative roles for patient-centered care. 4th Annual Toronto Radiation Medicine Conference. Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa**. (Continuing Education).

2006 Developing Medical Education Culture. Educational Retreat Radiation Oncology. Presenter(s): **Szumacher, Ewa**. Estates of Sunnybrook. (Continuing Education).

2006 Interdisciplinary Radiation Oncology Rounds (IROR), Jenkin Auditorium, Sunnybrook Regional Cancer Centre. Presenter(s): **Szumacher, Ewa**. Topics, presenters and evaluations are available on request. (Continuing Education).


2005 Interdisciplinary Radiation Oncology Rounds (IROR), Jenkin Auditorium, Sunnybrook Regional Cancer Centre. Presenter(s): **Szumacher, Ewa**. Topics, presenters and evaluations are available on request. (Continuing Education).


Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2002

Educational Retreat Radiation Oncology. Presenter(s): **Szumacher, Ewa.** Estates of Sunnybrook. (Continuing Education).

2002

Patients’ decisional preferences in palliative radiotherapy for bone metastases. Canadian Association of Radiation Oncologists (CARO). Toronto. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2000

**Invited Speaker.** Palliative radiotherapy workshop. 7th Annual Conference: The Science and Art of Pain and Symptom Management. Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.**

2000


1999

Patients’ Preferences for Palliative Radiotherapy for Bone Metastases. TSRCC Grand Rounds Presentation. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

1999

Making a Difference in Quality of Life by Toronto Regional Cancer Centre & CONVATEC. McLaughlin Lecture Theatre, Toronto Sunnybrook Regional Cancer Centre. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

1999

Palliative Radiation Oncology Research Methods Workshop. University of Toronto. Old Mill, Toronto. Presenter(s): **Szumacher, Ewa.**

1999

Palliative Radiotherapy Workshop. 6th Annual Pain and Symptom Management Course. Toronto, Ontario. Presenter(s): **Szumacher, Ewa.** Royal York Hotel. (Continuing Education).

**Presented Abstracts**

2014 Oct


2014 Oct

**Presenter.** RBApp creation and evaluation of a ? application for radiobiology calculations in radiation oncology. 3rs Annual Sunnybrook Education Conference - Technology Education Learning. Toronto, Ontario, Canada.

2014 Oct

**Presenter.** Empowering patients’ through education: Prostate Cancer patients decisional preferences for intermittent versus continuous androgen deprivation. 3rd Annual Sunnybrook Education Conference - Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada. Presenter(s): DOCH-2 Pilot Study.

2014 Oct


2013 Oct

**Presenter.** Radiotherapy Preferences following Lumpectomy. 2nd Annual Sunnybrook Education Conference - Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.

2013 Oct

**Presenter.** Decisional Support for women 60 years and older during their treatment for Stage I and II breast Cancer - single institutional study. 2nd Annual Sunnybrook Educational Conference - Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.

2013 Oct

**Presenter.** When cancer patients’ should know about post operative ? post prostatectomy - patients’ needs assessment. Toronto, Canada.

2012 Nov 23


2011  Presenter. Fostering Scholarship in Health Professions Education in Cancer Care through Inter-Institutional Collaboration: Creating Opportunities. 2nd Interprofessional Education/Interprofessional Care (IPE/IPC) Showcase. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).


2010  Presenter. The informational needs of prostate cancer patients treated with radical prostatectomy regarding adjuvant or salvage radiotherapy DOCH 2 project. Wilson Centre Research Day. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa.


2007  Presenter. The effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for a three-dimensional radiotherapy for prostate cancer (3D-CRT). Wilson Centre Research Day. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).


2005 **Presenter.** The incidence and effectiveness of remedial programs of the Medical Radiation Sciences Program at University of Toronto and the Michener Institute for Applied Health Sciences. Wilson Centre Research Day. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2000 **Presenter.** Evaluations of our first year’s experience of new combined bone metastases clinic - the first of its kind in Canada - are we achieving what we initially planned? Humber College 10th Annual Palliative Care Conference. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa.

2000 **Presenter.** Exploring reasons for poor accrual in palliative bone metastases trial at Rapid Response Radiotherapy Program, Toronto Sunnybrook Regional Cancer Centre (TSRCC), University of Toronto. Humber College 10th Annual Palliative Care Conference. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa.


2000 **Presenter.** Should we involve our patients in the decision making process involving palliative radiotherapy treatment? A review of the literature. Humber College 10th Annual Palliative Care Conference. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa.


eLearning

2013 Jun 7 **Attendee.** Li Ka Shing International Healthcare Education Centre - St. Mike’s Hospital. Toronto, Ontario, Canada.

Other Presentations


G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2012 - present Education Research and Scholarship Grant, Multilevel Education, Faculty of Medicine, SEAC Education & Research Co-Organizer, Associate Director role.

2010 - present Interdisciplinary Radiation Oncology Rounds - IROR, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Odette Cancer Centre The following topics were presented by the invited speakers: March 8, 2011 - Radiation Induced nausea and Vomiting - Speakers; Dr. K. Dennis and Dr.
M. Pasetka  
April 19, 2011 - Permanent Breast Seed Implants: The Physics Perspective - Speaker; Dr. B. Keller  
May 24, 2011 - Exploring Meanings of Caring among Health Care Professionals Providing Cancer Care - Speaker(s); Tracey DasGupta, Dr. A. Daley, Kari Osmar  
June 14, 2011 - Management of Brain Metastases Using the Currently Available Evidence. - Speaker; Alon Dembo Visiting Professor Dr. Eric L. Chang  
Sept 13/2011 - A Discussion of Study Findings Regarding RT Patient Group Education at the Odette Cancer Centre - Speaker; John Maamoun  
Oct 11/2011 - Treatment Outcome for Early Stage Hodgkin’s Disease Treated at the OCC  
Dec 13/2011 - Understanding the Pathophysiology of Pain Flare - The role of Cytokines and Chemokines - Speaker; Carlo DeAngelis  
Jan 10/2012 - Managing Concurrent Chemoradiation in GI Cancers: a Multi-disciplinary approach  
Feb 21/2012 - Achieving the Achievable: The Role of Health Services Research in Radiation Oncology  
Mar 13/2012 - Trends in Simulation Augmented Education  
March 28/2012 - Radiation Oncology: Program QA Rounds  
April 10/2012 - Enhancing Your Lifelong Learning to Support Your Practice in Teaching  
May 8/2012 - Dynamic Acquisition of Knowledge: Are We Ready  
June 12/2012 - The Interface between Psychiatry and Cancer  
Sep 10/2013 - Developing and testing of Couplelinks.ca: The first online intervention for young couples coping with Breast Cancer  
Oct 8/2013 - Stories at Work: Writing to Learn, Care, and Collaborate in Radiation Therapy  
Nov 12/2013 - The Dynamically evolving VMAT program at the OCC  
Jan 14, 2014 - Understanding the discharge planning needs of Medical and Radiation Oncology Patients.  
Feb 11, 2014 - Dose Escalation and Margin Reduction in SBRT  
Mar 11, 2014 - A National System for Incident Reporting in Radiation Therapy: The CPQR, CIHI and you.  
Apr 8, 2014 - Human Factors in the Health Care Context  
May 13, 2014 - Tiny Cancer Warriors - nanomedicine  
June 10, 2014 - Leadership: Are you the allocentric leader of the future?  
Sept 9, 2014 - Let’s Talk About It: Quality Dying  
Oct 14, 2014 - Shining a light on PDT  
Nov 12, 2014 - Communities of Competence: Approaching changing practice collaboratively  
Dec 15, 2014 - What’s inside the box? - SRS at Odette  

2014 Oct 17  
3rd Annual Sunnybrook Education Council: Technology Enhanced Learning, Patient and Public Education, Faculty of Medicine, University of Toronto, CEPD accredited, Sunnybrook Health Sciences Centre  

2013 Oct 10  
2nd Annual Sunnybrook Education Conference: Digital Learning, Patient and Public Education, Co-Chair of the committee, University of Toronto, Sunnybrook Health Sciences Centre  

2013 Jul 1 - 2014 Jun 30  
Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, DOCH-2  

2012 Oct 4  
First - Sunnybrook Education Conference: Educational Expo, Patient and Public Education, Member Planning Committee, University of Toronto, Sunnybrook Health Sciences Centre  

2004 Jul - 2005 Jun  
Radiation Oncology Palliative Care Rounds (Monthly), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto  
Acted as coordinator for these rounds.
The following topics were presented by the invited speakers:

September – An Overview on Art Therapy and Music Therapy

October – Money Worries: Research About Financial Issues for people With Cancer

November – Love, Learning and Listening – The Art of Communication in Palliative Care

January – Re-thinking Palliative Care

February – How Best to Treat My Patient…? Setting Goals of Care and making Treatment Decisions with Patients and Families

March – Spirituality and Breast Cancer Research

May – Discussing Prognosis for Patients with Metastatic Cancer: What Does the Literature Tell Us?

June – Culture and End of Life Care.

2003 Jul - 2004 Jun

Radiation Oncology Palliative Care Rounds (Monthly), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Acted as coordinator for these rounds.

The following topics were presented by the invited speakers:

September – Technology in Palliative Radiotherapy – Which Simulator Should We Use?

October – Suffering and Healing in Palliative Care – The Patient, Family and the Professional Caregiver

November – Issues in the Management of Patients with Brain Metastases: Case-based Discussions

January – Symptom Control – The Research Update From PMH

February – Cannabinoids – A New Frontier

March – Preliminary Results of a Randomized Study of Accelerated Whole Brain Irradiation in Patients with Brain Metastases

May – E-Resources Available to TSRCC Staff

June – Children of Cancer Patients and Their Grief.

2003

Online Suite, Development of the Needs Assessment for Prostate Cancer Patients Online Course, Continuing Education, The University of British Columbia

Course on line suite/ www.suite101.com/course.cfm/17126/overview/253861.

1998 Jul - 1999 Jun

Radiation Oncology Palliative Care Rounds (Monthly), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Acted as coordinator for these rounds.

The following topics were presented by the invited speakers:

September – Innovative Way of Caring-Palliative Radiation Therapy Beginnings of Rapid Radiation Response Clinic

October – Prevention and management of Skeletal Complications of Malignancy
November – Teens Coping with the Illness and Death of a Parent

December – Christmas Rounds – Cases

January – Orthopedic Aspect of Metastatic Disease

February – Radiosurgery for Brain Metastases

March – Pain and Symptoms Management

April – Single Dose Wide Field Irradiation for Palliation of Bone Metastases

May – Utilization of Palliative Radiotherapy in Canada

June – Palliative Care Information Centre Metropolitan Toronto.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2010 Primary Supervisor. Leila Makhani. Remediation in academic medicine.

2010 Primary Supervisor. Leila Makhani. Informational needs of prostate cancer patients.

Undergraduate MD


Other

2013 Jun - 2013 Aug Primary Supervisor. Kaitlin Koo. TBD.
2. OTHER SUPERVISION

Undergraduate Education

Research Supervisor


2012 Kaitlin Koo. *Treatment decisional support for older women with breast cancer considering adjuvant RT.*

2012 Kaitlin Koo. *Attitudes of Canadian radiation oncologists, radiation therapists, physicists and oncology nurses regarding interprofessional teaching and learning.*

2012 Rebecca Reinhart. Supervisee Position: Medical Radiation Sciences Program (MRSP), Supervisee Institution: Michener Institute for Applied Health Sciences, University of Toronto, Department of Radiation Oncology. *Research Methods II Project – Would a small group inter-professional patient education session for patients undergoing radiation treatment for prostate cancer be useful and acceptable for the patients? A Pilot Study.*


2010 Cindy Tran. Supervisee Position: Medical Radiation Sciences Program (MRSP), Supervisee Institution: Michener Institute for Applied Health Sciences, University of Toronto, Department of Radiation Oncology. *An evaluation of the usability and usefulness of a multi-language online patient education module – A pilot study – Assessment of the module.*

2010 Andrew Warkentin. Supervisee Position: Determinants of Community Health (DOCH-2), Supervisee Institution: University of Toronto, Faculty of Medicine, Peters-Boyd Academy. *Are social determinants of health, more specifically socioeconomic status, associated with prostate and breast cancer patient perception of team membership within the multidisciplinary health care team, while undergoing radiation therapy at the Odette Cancer Centre?: A survey based pilot study.*

2009 - 2010 Sarah Hahn. Supervisee Position: Determinants of Community Health (DOCH-2), Supervisee Institution: University of Toronto, Faculty of Medicine, Peters-Boyd Academy. *The informational needs of patients with prostate cancer treated with radical prostatectomy regarding salvage or adjuvant radiotherapy: Sooner or later? The development of the needs assessment questionnaire and how social determinants of health affect their informational needs.*


2005 - 2007 Jen Dewhurst. Supervisee Position: Medical Radiation Sciences Program (MRSP),
Supervisee Institution: Michener Institute for Applied Health Sciences, University of Toronto,
Department of Radiation Oncology. Research Methods II Project – Is there a standardized
protocol for the management of lymphedema in patients with breast cancer in Ontario?.

2005 - 2006 Peter Choi. Supervisee Position: Determinants of Community Health (DOCH-2), Supervisee
Institution: University of Toronto, Faculty of Medicine, Peters-Boyd Academy. Radiation
Oncology Practice and Patients’ Needs Project.

2003 - 2004 Claudia So. Supervisee Position: Medical Radiation Sciences Program (MRSP), Supervisee
Institution: Michener Institute for Applied Health Sciences, University of Toronto, Department
of Radiation Oncology. Research Methods II Project – Information needs and source
preferences of patients with primary caregivers.

2003 Christine Chan. Supervisee Position: Medical Radiation Sciences Program (MRSP),
Supervisee Institution: Michener Institute for Applied Health Sciences, University of Toronto,
Department of Radiation Oncology. Research Methods II Project – Short-term functional
status in the Performance of Activity of Daily Living among post-axially dissection in breast
cancer patients receiving radiotherapy.

2002 - 2003 Thalicia James. Supervisee Position: Medical Radiation Sciences Program (MRSP),
Supervisee Institution: Michener Institute for Applied Health Sciences, University of Toronto,
Department of Radiation Oncology. Research Methods II Project – Patients’ assessment of
the effectiveness of external Beam Radiation therapy for the palliation of metastases in the
weight-bearing bone.

Graduate Education

Research Supervisor

2009 - present MHSc Medical Radiation Science. Laura D’Alimonte. Supervisee Position: Master of Health
Science in Medical Radiation Sciences, Supervisee Institution: University of Toronto. What
prostate cancer patients should know about post-operative radiotherapy post-prostatectomy -
Health professionals’ opinions.

Science in Medical Radiation Sciences, Supervisee Institution: University of Toronto.
Treatment decisional support for older women with breast cancer considering adjuvant RT
post lumpectomy.

Science in Medical Radiation Sciences, Supervisee Institution: University of Toronto.
Working towards a decision: The development and first impression of a decision aid for older
women with early stage breast cancer.

Other

Research Supervisor

2012 Bonnie Bristow, Research Radiation Therapist, Odette Cancer Centre. Psychological impact
of daily bowel preparation on prostate patients who received radiation therapy.

I. Creative Professional Activities

1. Understanding the needs and preferences of cancer patients in radiation oncology
practice.
   The first theme of this CPA is on understanding the needs of cancer patients in radiation
oncology practice to empower them to play an active role in their care and treatment
decision-making process. These activities have been centered on understanding the needs
of cancer patients and disseminating this knowledge to healthcare providers so these needs
can be incorporated into patient centered cancer care. The goal of my scholarly work within
this theme is to help healthcare providers to communicate better with cancer patients, offering them better support.

In first project, I examined patients’ roles in the decision-making process for treatment of painful bone metastases. A number of randomized studies have reported that single fraction RT was as effective as multi-fraction RT in relieving pain due to bone metastasis. However, patients’ preferences had never been previously investigated in the context of which palliative treatment regimens patients would prefer. I thus initiated a study to determine patients’ preferences for the two commonly used palliative RT regimens for bone metastases: 800 cGy in one fraction vs. 2000 cGy in five fractions. This study showed that patients preferred to decide about their treatment by themselves or together with the radiation oncologist, and patients were more likely to select the single fraction regimen. The convenience of the treatment plan and the likelihood of bone fracture were the most important factors influencing patients’ choices. Results of this study have been presented at several international meetings, and my paper (Szumacher et al, 2005) has been cited by several authors investigating patients’ preferences for palliative treatment.

My next research project concentrated on cancer patients’ satisfaction with the information they received about radiotherapy and how this information can be improved. The results showed that although the patients were satisfied with the information, language barriers prevented many non-English-speaking patients from participating in this study. With the transition towards more patient-centered care, it is important that we customize our practice to meet each patient’s needs.

The chronic nature of cancer means that patients’ information needs are not static in nature. In addition, most healthcare professionals’ interactions tend to remain low in patient centeredness due to our focus on the management of their medical conditions. Therefore, the informational needs of patients (and their families) living with advanced cancer was addressed. The primary objective of this research project was to determine the content and format that is most suitable for educational events targeting patients and caregivers who are living with advanced cancer. Secondary objectives included examining the differences in information needs between patients and their caregivers and providing an estimate of the rate of participation in educational events targeting such patients and caregivers. The participants identified the management of pain, fatigue, and home palliative care resources as the areas in which information was most needed. Caregivers displayed greater interest, and the range of topics for which they continue to seek additional information is wider than patients. Thirty-one percent of respondents including patients and caregivers said they would participate in an educational event. A ‘one-on-one’ interview approach and short written materials were the preferred sources of information. The findings provide information on the type of topics and format that are preferred when educators are developing educational events for patients and their caregivers. The outcomes of this study were published in Supportive Cancer Care Journal.

Breast cancer is the most frequently diagnosed cancer in Canadian women, with the probability of developing breast cancer significantly increasing over the age of 50. Although adjuvant breast RT after lumpectomy is considered the standard of care for all patient subgroups, older breast cancer patients are at a greater risk for side-effects and more complicated recovery from this treatment. Breast cancer is also less aggressive in older women with a higher proportion of estrogen receptor positive, well-differentiated, slowly proliferating tumors. Stage I breast cancer on adjuvant tamoxifen therapy have a low risk of local recurrence after lumpectomy without adjuvant breast radiation.

We wanted to understand whether evidence on breast cancer treatment in older women corresponded with the patterns of practice of radiation oncologists in Canada. To more specifically look at the needs of older women with breast cancer, and to understand the national pattern of their care, I conducted a survey among Canadian radiation oncologists who treat breast cancer. The survey also explored the willingness of radiation oncologists to implement a decision aid in this patient population. Results of this study provided evidence of
significant variation in practice patterns and attitudes among Canadian radiation oncologists regarding post-lumpectomy RT for elderly, low-risk breast cancer patients. However, the vast majority of oncologists valued the concept of patient choice and would be willing to use a decision aid designed for this population in their practice. Understanding radiation oncologists’ attitudes towards adjuvant RT confirmed that a decision aid could be useful to facilitate shared decision-making. In addition, with my guidance and mentorship, Eiran Warner, a medical student was successful in publishing our findings in Clinical Oncology.

Although there is a body of literature focusing on the information needs among breast cancer patients, most studies have been conducted with younger patient populations which offer limited insight on the specific information older women would like to know when considering adjuvant treatment. Older female cancer patients may differ from younger patients in terms of information needs due to differences in educational attainment, value of experiential knowledge versus medical sources and age-associated motivational changes. Thus, it is a concern that the informational needs and the unique illness experiences of older women with early stage breast cancer are under-reported in the literature. In addition, the use of decision aids has been advocated in breast cancer decisions to promote patient involvement in the decision-making process. Decision aids (DA) are developed with the intent to support people in making specific and deliberate choices by improving information transfer about different outcomes. Previous research has shown that DA can greatly increase patient knowledge regarding treatment options, reduce decisional conflict, and increase patient satisfaction with the decision-making process.

Taking into consideration the results of the national survey and evidence from the literature indicating uniqueness of this group of patients -I lead as principal investigator, a two year research project to develop a DA for older women with early stage breast cancer. This study was supported by a grant from the Canadian Breast Cancer Foundation. In the first year, we conducted a needs assessment and the draft DA was developed specific to older post-lumpectomy patients with Stage I hormone receptor-positive breast cancer. The objectives of the DA were to increase patients’ knowledge of their options, reduce conflict and distress in decision-making, and improve satisfaction with the decision-making process. In the second year, we conducted a needs assessment from the lay perspective with the intention of designing a DA. In our study, we qualitatively described the views of older women who had made decisions about adjuvant treatment for their early stage breast cancer with respect to the challenges of decision making, supports and resources needed during the process of choosing the treatment. Women participated in one of six focus groups following their radiation treatment for stage I breast cancer. Many women identified several challenges in the decision-making process and identified different informational needs for making decisions about their treatments. These participants and our steering committee also reviewed the draft of the DA. This research documented that all women who participated in this study felt that the DA we developed was helpful and informative. Compared with baseline scores patients had a statistically significant reduction in decisional conflict, increased clarity of treatment benefits and risks, and improved general treatment knowledge after using this decision aid. This study was published in the International Journal of Radiation Oncology, Biology and Physics, and provided evidence that this DA may be a helpful educational tool for this group of women. The quality of care for older cancer patients may be enhanced by using a tailored patient DA to help them informed about treatment options. The next goal of this work is to test the DA in several major cancer centres across Canada, evaluating both patient and physician outcomes. Ultimately, we plan to have the DA disseminated across the nation to facilitate better decision-making and patient communication. Jen Wong the student whom I supervised published the results of this work in the Journal of Cancer Education. In addition, many findings of this work were presented at the national and international conferences such as American Association of Radiation Oncologists, Canadian Association of Radiation Oncologists and International Association of Medical Education.

While discussing their treatment options with oncologists, women with breast cancer frequently express many concerns regarding treatment side effects, and sometimes decline
conventional treatment when the risks are too high. Indigenous medical knowledge and alternative medical treatments are not widely accepted because of the lack of confirmed efficacy of such treatments in evidence-based literature. Therefore a review of the literature was conducted to investigate a feminist approach to the decision-making process for women with breast cancer. The review was divided into the following themes: (1) limitations of the patient decision-making process in conventional medicine; (2) participation of native North American patients in healthcare decisions; (3) a feminist approach to breast cancer; and (4) a feminist theory of breast cancer. The literature provides evidence that the needs of minority patients are not completely fulfilled in Western medical culture. We conclude that introducing a feminist theory into evidence-based medicine will help patients to be better informed about treatment choices and will assist them to select treatment according to their own beliefs and values. This published review also provided some perspectives about treatment decision for minority women, who may not follow conventional treatment options (Szumacher et al, 2006). This research enables the health care providers to be more receptive to this group of patients when discussing treatment options. I have also presented the findings at several national and international meetings. Another group of patients whose needs are not clear are prostate cancer patients facing decisions regarding post-operative RT. The role of adjuvant and salvage RT remains controversial in terms of timing of the treatment after radical prostatectomy. Current trials demonstrate improved biochemical control and/or disease-free survival with adjuvant RT, and one long-term follow-up of a randomized clinical trial showed that adjuvant RT significantly reduced the risk of metastasis and increased survival. Despite these outcomes, several investigators propose waiting for evidence of biochemical failure and then attempting salvage RT. I supervised a medical student, Sara Hahn, who developed a research project to assess whether the social determinants of health (e.g., income, education attainment) affect the informational needs of prostate cancer patients who may face the decision of postoperative RT. Our pilot study allowed us to identify a variety of patient information needs. Through an understanding of the impact of social determinants of health on this patient population, healthcare professionals can tailor patient education tools to suit patients’ needs to allow them to make informed decisions. This work was presented at several national and international meetings and published in the Journal of Medical Imaging and Radiation Sciences.

Growing attention has been devoted to developing patient decision aids and decisional support interventions to aid patients in their decisions when making treatment choices in oncology. Treatment discussions are challenging both for physicians to transfer medical information to patients, and for patients to conceptualize the risks and benefits of treatment, and ultimately form a treatment decision. Jennifer Wong, an undergraduate student whom I supervised reviewed the recent literature on decision-making preferences, treatment preferences and decisional support development in radiation oncology. We reviewed the findings from studies conducted in radiation oncology that investigated patients’ preferences for radical or palliative RT across all cancer sites and discussed the challenges of transferring medical information to patients. This work provides a comprehensive review of the current status of patients’ decision-making process in radiation oncology, including radical and palliative treatments. The review was published in the Expert Review of Pharmacoeconomics and Outcomes Research and presented at several international conferences.

2. Working together as an inter-professional team in radiation oncology practice to improve the care of cancer patients. A collaborative multidisciplinary approach breaks down the silos of traditional care, and is considered the most valued service by patients. In the last few decades, this approach has changed the cancer care landscape. A multidisciplinary approach has distinct advantages over uni-professional fragmented care. Radiation oncology is a specialty that requires multidisciplinary care and communication between staff, clinicians, trainees, radiation therapists, other allied health care professional and patients. Collaborative practice is an
inter-professional process for communication and decision-making that enables the separate and shared knowledge and skills of cancer providers to synergistically influence the client patient care provided. However, implementing an inter-professional care curriculum into radiation oncology practice can be challenging. For the last 11 years my academic efforts have focused on developing and implementing inter-professional patient care through education, research and undergraduate training and mentoring.

The goal of Theme 2 of my CPA is the development of professional practice by providing interdisciplinary leadership for cancer care providers and trainees through education and mentorship. Evidence for my contributions in this theme is documented in my publications, international and national presentations and my participation in a number of workshops. One outcome of this work was a study on understanding the needs of health care providers in cancer care and the subsequent enhancement of RT services in the Simcoe-Muskoka area. The Simcoe-Muskoka region of Ontario is an underserviced area with respect to RT utilization. I led a group from the Sunnybrook Health Sciences Centre and the Royal Victoria Hospital in Barrie, Ontario, to conduct a study to investigate the healthcare needs and access to RT services in the region. The study consisted of a questionnaire to evaluate access to and knowledge about palliative RT, and two radiation therapy education focus groups to investigate regional knowledge and utilization of RT. The major barrier to RT access was distance to regional radiation cancer centers. Many respondents were unaware of the effectiveness of palliative RT for cancer patients. However, most were eager to learn more about RT. The focus groups identified several ways to offer health-care providers in Simcoe-Muskoka up-to-date information about palliative RT. Following this study, several continuing education sessions were conducted in community hospitals in the Simcoe-Muskoka region. These sessions were well attended and evaluated highly by the healthcare providers.

Three dimensional conformal RT (3D-CRT) is a well-established treatment modality for prostate cancer as it spares surrounding normal tissues and increases tumour kill. However, the complex task of organ contouring for 3D-CRT requires synthesis of information from MR and CT as well as a precise delineation of the prostate and the rectum. In 2006, I received peer-reviewed funding (Abbott-CARO Uro-Oncologic Radiation Award) to research the effect of a prostate and rectal contouring workshop on precise delineation of the prostate and rectum during planning for 3D-CRT for prostate cancer. The main objective of this workshop was to see if formal training on MR prostate/rectal anatomy and the use of MR-CT fusion would improve the skills in CT planning scans. Previously in Canada there was no formal training program in prostate or rectal contouring. The enthusiastic response to the workshop and to opportunities for further educational interventions indicated a need for this formal training. The effectiveness of this educational intervention was published in International Journal of Radiation Oncology, Biology and Physics.

Inter-professional care is the provision of comprehensive health services to patients by multiple healthcare providers who work collaboratively to deliver quality care within and across specialties. To improve inter-professional care and collaboration within our own cancer centre, we focused our research efforts on understanding the inter-professional needs of faculty members within radiation oncology and RT. These needs were translated into the following inter-professional CME activities.

First, from 1999 to 2005, I developed and organized the monthly Radiation Oncology Palliative Care Rounds at the Toronto Sunnybrook Regional Cancer Centre (TSRCC). Grand rounds have long been used as a tool for CME. The objectives of the rounds were to educate the healthcare providers about palliative RT and to complement the Rapid Response Radiotherapy Program at the TSRCC. I obtained funding for these events and invited leading national and international experts in palliative RT and palliative care to present at the rounds. The evaluations collected from these sessions indicated that this CME program was very effective in disseminating knowledge to interdisciplinary healthcare providers and serves as model for CME.
Second, since 2003, I have been organizing a CME program (Inter-professional Radiation Oncology Rounds, IROR) at the Odette Cancer Centre, that serves a monthly inter-professional education program to provide a venue where different disciplines (radiation oncology, radiation therapy, radiation nursing and medical physics) could showcase their contributions to the care and treatment of patients referred for radiation therapy. Two special memorial lectures have also been developed to honour two previous radiation oncology colleagues (Dr. Alon Dembo and Dr. Veronique Benk). These activities take the form of an invited professorship with the culmination of each visit consisting of a presentation to the Odette Cancer Centre at the IROR. The rounds are fully accredited by the Maintenance of the Certification Program of the Royal College of Physicians and Surgeons as well as other professional associations. Needs assessments evaluating the IROR demonstrate that these rounds have been valuable to an inter-professional audience and help facilitate an inter-professional learning environment.

A third need identified that family physicians and community-based oncologists play a key role in cancer care. To promote knowledge transfer, academic cancer centres like the Odette Cancer Centre need to provide support in the form of guidance and continuing education resources. I have served as a CME advisor to the editorial board of Hot-Spot, a quarterly newsletter of the Rapid Response Radiotherapy Program of Sunnybrook’s Odette Cancer Centre, and prepared its continuing education section. The newsletter is distributed to over 2000 readers (oncologists, family physicians and inter-professional healthcare team members in palliative medicine) in Toronto and Canada. It is also posted on the Sunnybrook Health Sciences Centre website.

Also, collaborative patient-centered practice is designed to promote active participation of each discipline in patient care. It enhances patient and family centered goals and values, provides mechanisms for communication among caregivers, and optimizes staff participation in clinical decision-making within and across disciplines, fostering respect for the contributions of all professionals. In light of this, we developed a workshop to explore the theory and practice of professional and collaborative roles in patient-centered care, using inter-professional collaboration within the radiation medicine program as a model. The goals were to advance participants’ awareness of how understanding professional roles is integral to patient-centered practice and collaboration. I have since conducted this workshop at several national and international conferences. More recently, I have been a co-investigator on a study to explore the needs of healthcare professionals who provide cancer care. The purpose of the study is to develop an understanding of the similarities and differences in the meaning of care among health care providers working in an Oncology Program of a Regional Cancer Centre and to develop educational initiatives from which inter-professional groups can learn, with and about each others’ perspectives on caring.

I have taken the lead role in several research initiatives to understand the needs of multiple disciplines (radiation oncology residents, radiation therapy students, etc) in radiation oncology. Each of these areas highlights a need for more inter-professional training and education to ultimately improve collaboration, academic medicine and quality of care. The University of Toronto, Department of Radiation Oncology (DRO) identified mentorship as a priority issue to be explored. I was the principal investigator in a mentorship working group where we conducted a needs assessment for the development of an inter-professional mentorship program for the DRO faculty members across three disciplines: radiation oncology, radiation therapy and medical physics. The study identified a need for a comprehensive interdisciplinary mentorship program within the department, as well as for a survey assessing the needs of different groups and development of an orientation program for new faculty members. The findings of these projects have since been incorporated into the residency program at the UTDRO. Also, I lead a national group of investigators to specifically investigate the needs of junior residents, PGY1, in radiation oncology across Ontario residency programs in radiation oncology.

As a PGY-1 coordinator within the residency program at the DRO, University of Toronto, I
noticed that many residents were experiencing a lack of mentorship in their training and career planning. The results of this survey, presented at national meetings, and now published in International Journal of Radiation Oncology, Biology and Physics showed that most of the Ontario residents in their first postgraduate year were satisfied with their training program, but more counselling should be offered by radiation oncology faculty members to help the residents with their career planning and stress management strategies. The findings from this survey were incorporated informally into the DRO residency programs to improve the mentorship relationships and well-being of junior residents in Ontario radiation oncology programs.

As academic coordinator of the Medical Radiation Sciences Program (MRSP), Michener Institute for Applied Health Sciences at the University of Toronto, I have a leadership role on the Program Review Committee which reviews students with difficulties and recommends remedial programs. Academic difficulty can often be a significant problem for students in health professional programs. Students in difficulty are often identified late in their training and run the risk of dismissal if remediation is not successful. Since the inception of the MRSP in 1999, a number of students have required remediation in the didactic or clinical components of their training. Not all remediation was successful, and a number of students have been dismissed. There is relatively sparse evidence in the educational literature regarding the nature of academic difficulties that health professional students encounter, and what constitutes appropriate remedial education. The purpose of this research was to evaluate the incidence and prevalence of remediation in the MRSP and the nature of the academic problems. In addition, this study looked at the type of remedial instruction that the Radiation Sciences Board of Examiners recommended for these students as well as the effectiveness of these recommendations. This study provided an important perspective about the remediation process at the MRSP. Despite its retrospective methodology, it attempted to identify the magnitude of learning problems that lead to remediation, and identified the efficacy of the remedial program (Makhani et al, 2012). I presented several workshops at national and international medical education conferences on remedial education in healthcare professional programs and the need for the development of student-based remedial programs. The program review committee that oversees the progress of trainees in difficulty in the MRSP has been well structured and incorporates new remedial strategies to students in difficulties. All the remedial cases are now regularly reviewed by this inter-professional committee and feedback with recommendations are forwarded to Oversight Committee which makes final recommendations about the remedial students to the Board of Examiners, at the University of Toronto.
CURRICULUM VITAE

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Last updated: October 2015

EDUCATION

Post Graduate and Medical Training:

1990 -1995 Medical Doctor Diploma
       Azad Tehran University

1995–1997 Internship,
       Torpe and Fayazbakhsh Hospitals, Tehran, Iran

2002-2003 Internship
       Ontario International Medical Graduate Program

2003-2004 Radiation Oncology Residency
       Queen’s University

2004-2008 Radiation Oncology Residency
       University of Toronto

2008-2009 Clinical/Research Fellowship
       Stereotactic Lung Radiotherapy
       Princess Margaret Hospital, Toronto, Ontario

2008-present Masters Degree (IMS program), University of Toronto
       Radiotherapy Induced Bone Injury as a Lung SBRT Late Toxicity

Certificate & Licensures:

- Neurosurgery Residency admission Exam, University of Tehran, Iran (1997)
- Ontario IMG Program, Written Exam (2001)
- Ontario IMG Program OSCE Exam (2002)
- Radiation Oncology Board of Royal College of Physicians and Surgeons of Canada (2008)
BIOGRAPHICAL INFORMATION

Hospital/Staff Appointments:

2009-Present  
**Active Staff, Radiation Oncology**  
Stronach Regional Cancer Centre (SRCC)  
Southlake Regional Health Centre, Newmarket, Ontario, Canada

**Active Staff, Radiation Oncology**  
The Princess Margaret Cancer Centre, Toronto, Ontario, Canada

Professional Affiliations:

- Royal College of Physicians and Surgeons of Canada
- College of Physicians and Surgeons of Ontario

Peer Review Activities:


- Journal of Cancer Research and Therapeutics, November 2011

Other Professional Activities:

- Taremi M; “A Rare Feature of Cerebral Toxoplasmosis as a Solitary Cerebral Tumour” Medical Degree Thesis, Supervisor: Dr. A. Naderi, Chief of Neurological Research, and Neurosurgery Department, Department of Medical Sciences, Azad Tehran University, 1996
**Current Clinical Studies**

2011  
**Principle Investigator: Proclaim Study**  
Southlake Regional Health Centre  
Phase 3 Study of Pemetrexed, Cisplatin and Radiotherapy vs. Etoposide, Cisplatin and Radiotherapy

2011  
**Co-investigator: Proclaim Study**  
Princess Margaret Hospital  
A Phase 3 Study of Pemetrexed, Cisplatin and Radiotherapy Followed by Consolidation Pemetrexed versus Etoposide, Cisplatin and Radiotherapy Followed by Consolidation Cytotoxic Chemotherapy of Choice in Patients with Unresectable, Locally Advanced, Stage III Non-Small Cell Lung Cancer Other than Predominantly Squamous Cell Histology (PROCLAIM)

2011  
**Co-investigator: NCIC BR.28/CONVERT**  
Princess Margaret Hospital  
Concurrent ONce-daily VErsus twice-daily RadioTherapy: A 2-arm randomized controlled trial of concurrent chemo-radiotherapy comparing twice-daily and once-daily radiotherapy schedules in patients with limited stage small cell lung cancer (SCLC) and good performance status

2011  
**Co-investigator: RTOG 0617**  
Princess Margaret Hospital  
A Randomized Phase III Comparison of Standard-Dose (60Gy) versus High-Dose (74Gy) Conformal Radiotherapy with Concurrent and Consolidation Carboplatin/Paclitaxel in Patients with Stage IIIA/IIIB Non-small Cell Lung Cancer

2011  
**Co-investigator: RTOG 0813**  
Princess Margaret Hospital  
Seamless Phase I/II Study of Stereotactic Lung Radiotherapy (SBRT) for Early Stage, Centrally Located, Non-Small Cell Lung Cancer (NSCLC) in Medically Inoperable Patients (RTOG 0813)

2011  
**Co-investigator: RTOG 0915**  
Princess Margaret Hospital  
A Randomized Phase II Study Comparing 2 Stereotactic Body Radiation Therapy (SBRT) Schedules for Medically Inoperable Patients with Stage I Peripheral Non-Small Cell Lung Cancer

2011  
**Co-investigator: MRI Assessment SBRT NSCLC**  
Princess Margaret Hospital  
MRI Assessment of Post-Radiation Changes following Stereotactic Body RT for Non-Small Cell Lung Cancer: A Pilot Study
2011 Co-investigator: PET CT Re-Planning NSCLC  
Princess Margaret Hospital  
Prospective Study of CT and PET Imaging during a course of Radical  
Radiotherapy to determine the Dosimetric Benefits of Re-planning in Non-Small  
Cell Lung Cancer

2011 Co-investigator: SBRT LUNG  
Princess Margaret Hospital  
Lung Stereotactic Radiation Therapy for Patients with Non-Small Cell Lung  
Cancer and Other Cancers

2011 Co-investigator: Survey of Anti-cancer and Non Anti-cancer Drug Cost and Adherence  
Multi-centre Study between UHN, St Michaels Hospital, and SRHC

2011 Co-investigator: Patient Preferences for Completing Epidemiology Questionnaires  
Incorporated into Cancer Clinical Trials  
Collaboration between UHN, St Michaels Hospital, and SRHC

2012 Co-investigator: The Influence of Social Determinants of Health, Physical Activity, and Supplement Use on Smoking Cessation and Recidivism in Cancer Patients  
Collaboration between UHN and SRHC

2013 Co-investigator: Complementary and Alternate Medicine for Patients undergoing Treatment  
Stronach Regional Cancer Centre at Southlake Regional Health Centre

2013 Co-investigator: Complementary and Alternate Medicine for Patients undergoing treatment at Stronach Regional Cancer Center  
Stronach Regional Cancer Centre at Southlake Regional Health Centre

2013 Co-investigator: Ontario Health Study  
Stronach Regional Cancer Centre at Southlake Regional Health Centre

2014 Co-investigator: Patient Preferences for Research Access to Administrative Data in Ontario  
Stronach Regional Cancer Centre at Southlake Regional Health Centre

**Publications**


Publications – Non-Peer Reviewed:

- **Taremi, M**, Hope, A, Dahele, M, Pearson, S, Fung, S, Purdie, T, Brade, A, Cho, J, Sun, A, Bissonnette, JP, Bezjak, A; “Four Year Outcomes of Patients with Stage 1 Lung Cancer Treated with Stereotactic Body Radiation Therapy”, Princess Margaret Hospital, Toronto, ON, Caro 2010

- Clarke, K, **Taremi, M**, Freeman, Fung, S, Bico-Ponce, J, Bezjak, A, Brade, A, Hope, A, Cho, J, Franks, K; “FDG PET SUV Uptake in Stereotactic Body Radiotherapy (SBRT for Non-Small Cell Lung Cancer (NSCLC)”; Princess Margaret Hospital, Toronto, ON; Caro 2010

Publications in Preparation:

- Assessment of shortness of breath (evaluated by ESAS scores in patients with lung cancer) Lynne Penton, Taremi M

- Radiation pneumonitis risk factors in patients with collapsed lung. Edwin Chung, Taremi M

**Presentations & Special Lectures**

**Invited Lectures & Presentations:**

- Anti-Serotonin Treatment, an Interesting Case of Multi-Pharmaceutical Approach. Kingston Regional Cancer Centre, 2004

- “CanMEDS” Presentation; Communication with the Patients and their Families. Princess Margaret Hospital, 2004

- Review of Articles in Management of Locally Advanced Cervical Cancer. Princess Margaret Hospital, Journal Club, 2004

- Diagnosis and Management of Lobular Carcinoma In Situ, Sunnybrook Regional Cancer Centre, Breast Tumour Board, 2006

- Review of Articles in Management of Elderly Patients with Diffuse Large B-Cell Lymphoma. Princess Margaret Hospital, Journal Club, 2007

- Diagnosis, Management, and Outcome of Patients with Stage I Follicular Lymphoma; Review of PMH Experience. Princess Margaret Hospital, Lymphoma Tumour Board, 2007

- Diagnosis and Management of Penile Carcinoma. Princess Margaret Hospital, Genito-Urinary Tumour Board, 2007

- Several Presentations on the Management of Early Stage Non-Small Cell Lung Cancer with Stereotactic Radiotherapy. Princess Margaret Hospital, Stereotactic Radiotherapy Rounds, 2008 – 2009


• Review on Lung Cancer. Southlake Regional Health Centre, Cancer Education Series, 2011

• Prognosis and treatment of Lung Cancer, Southlake Regional Health Centre, Cancer Education Series, 2012

• Presentations in Prevention and Management of Breast, Gynaecological, Colo-Rectal and Lung Cancers. Canadian Cancer Society, Iranian Community, 2005 - present

Presented & Published Abstracts:


• **Taremi M**, Hope A, Waddell T et al; “Assessment of Local Failure in Patients Treated with Stereotactic Lung Radiotherapy; Princess Margaret Hospital Experience”, Oral Presentation, CaRS (Canadian Radiosurgery) Conference, July 2009.


• **Taremi, M**, Hope A, Max D, et al; “Four Year Outcomes of Patients with Stage I Lung Cancer Treated with SBRT”, Oral Presentation, *CARO (Canadian Association of Radiation Oncology)*, Sep 2010.


• Karan T, Kim S, Abbas A, Moseley D, Taremi M, Yeung I; “Dosimetric Discrepancies due to Positional Errors in MLC Movement during Stereotactic Lung VMAT” Poster Presentation, ASTRO (American Association of Radiation Oncology), September 2014


Teaching:

2011 Supervising Radiation Therapists’ Research Southlake Regional Health Centre Project: Dose volumetric Study on Collapsed Lung and their Relationship with Radiation Pneumonias


2003-2009 Teaching Medical Students, Junior Residents Queen’s University and University of Toronto (Princess Margaret Hospital)

1990-1997 Teaching Junior Medical Students Azad Tehran University

1984-1985 Teaching Physics to High School Students as a Part-Time Job Iran-Tehran
Curriculum Vitae

Gillian Monica Thomas
BSc, MD, FRCPC, FCR (Hon), FRCOG

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

Primary Office
Ovette Cancer Centre
Sunnybrooke Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone
(416) 480-6165
Fax
(416) 480 6002
Email
Gillian.thomas@sunnybrook.ca

1. EDUCATION

Degrees
1970 MD, University of Toronto, Canada
1967 Honours B.Sc. Biological and Medical Sciences, University of Toronto, Canada

Postgraduate, Research and Specialty Training
1994 Jun 5 - 1994 Jun 7 (Follow-up - October 14, 1994), Communications, Conflict Resolution, and Negotiations Workshop, Pecos River Learning Centers, Inc, Sunnybrook Health Science Centre, Toronto, Ontario, Canada
1977 Jul - 1977 Nov Fellow, Princess Margaret Hospital, Canada, Supervisor(s): Radiation Oncology
1976 Dec - 1977 Jun Chief Resident, Princess Margaret Hospital, Canada, Supervisor(s): Radiation Oncology
1975 Jul - 1977 Jun Resident, Princess Margaret Hospital, Canada, Supervisor(s): Radiation Oncology
1972 Jul - 1972 Oct Assistant Resident, Toronto General Hospital, Canada, Supervisor(s): Medicine
1971 - 1972 Family Practice, London, United Kingdom
1970 - 1971 Straight Intern, Toronto General Hospital, Canada, Supervisor(s): Medicine
Straight Intern, The Hospital for Sick Children, Canada, Supervisor(s): Paediatrics

Qualifications, Certifications and Licenses
2012 Admitted: Fellow (ad eundum), Obstetricians and Gynecology, Royal College of Obstetricians and Gynecologists, United Kingdom
2006 Honorary Fellow, Royal College of Radiologists
1977 FRCP(C), Radiation Oncology, Royal College of Physicians and Surgeons of Canada,
2. EMPLOYMENT

Current Appointments

2004 Aug - present  Staff Radiation Oncologist, Toronto-Sunnybrook Regional Cancer Centre, Canada
1996 - present  Professor, Division of Gynecologic Oncology, Obstetrics and Gynaecology, University of Toronto
1995 Jul - present  Professor, Obstetrics and Gynaecology, University of Toronto
1995 Jul - present  Professor, Radiation Oncology, University of Toronto, Canada
1988 Jun - present  Staff Radiation Oncologist, Toronto-Sunnybrook Regional Cancer Centre, Canada (now Odette Cancer Centre)
1996  Professor, Obstetrics and Gynaecology, University of Toronto
1978  Lecturer, University of Toronto

Previous Appointments

HOSPITAL

2002 Jan - 2004 Jul  Consultant, Department of Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre, Canada
1994 Mar - 2001  Head, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Canada
1991 Aug - 2001 Mar  Head, Division of Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre, Canada

Responsible for the overall activity of the department including the clinical, academic, research and educational functions.

In my administrative/management role as Head of the Department of Radiation Oncology, Sunnybrook & Women’s College Health Science Centre/Toronto-Sunnybrook Regional Cancer Centre and Head of the Radiation Program at Toronto-Sunnybrook Regional Cancer Centre, I was responsible, with the help of an administrative assistant, for the full operation and budget of the program. The program is the largest in the Centre, having approximately 220 employees, of which 23 physicians were direct reports to the head as were 2 managers of the physics and radiotherapy departments. As Head, I was part of the senior management team for the TSRCC and SWC. I was directly involved in defining the Centre’s vision, strategic planning, developing and managing changes in operations, setting annual program and Centre budgets and allocation of resources. Quality assurance programs and continuous quality improvement were part of my mandate.

At the provincial level, I was responsible, with the heads of radiation for the other CCO Centres and other senior radiation management personnel, for developing strategic directions for provincial radiotherapy programs

1988 - 1991  Staff Radiation Oncologist, Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre
1977 Dec - 1988 May  Staff Radiation Oncologist, Princess Margaret Hospital, Canada
1972 Nov - 1975 Jun  Clinical Associate, Princess Margaret Hospital, Canada

RESEARCH

2001 Dec - 2003 Feb  Medical Director, GlaxoSmithKline Canada, Canada

UNIVERSITY - CROSS APPOINTMENT

1988 Jul - 1995 Jun  Associate Professor, Division of Gynecologic Oncology, Obstetrics and Gynaecology,
Gillian Monica THOMAS

University of Toronto, Canada

1987 Jul - 1988 Jun Assistant Professor, Division of Gynecologic Oncology, Obstetrics and Gynaecology, University of Toronto, Canada

UNIVERSITY - RANK

1988 Jul - 1995 Jun Associate Professor, Radiation Oncology, University of Toronto, Canada
1981 Jul - 1988 Jun Assistant Professor, Department of Radiology, University of Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2014 Boudwdijk Bastiaanse Award, Dutch Gynecologic Oncology Group, Netherlands. (Distinction, Specialty: Gynecologic Oncology) "Lifetime Contribution and Achievement in Gynecologic Oncology".

2008 Award for Excellence, International Gynecologic Cancer Society. (Distinction)
2006 Honorary Fellow, Royal College of Radiologists, United Kingdom. (Distinction)
2005 Felix Rutledge Lectureship in Gynecologic Oncology, MD Anderson Hospital, United States. (Distinction)
2003 Honorary Fellowship, Society of Gynecologic Oncologists of the Philippines, Philippines. (Distinction)
2002 - 2004 President, International Gynecologic Cancer Society. (Distinction)

NATIONAL

Received

2012 May Queen's Diamond Jubilee Medal, Queen Elizabeth II Diamond Jubilee Medal program. Canada. (Distinction, Specialty: Gynecology) Significant contributions and achievements in the field of Gynecology.
1969 Alpha Omega Alpha Honour Medical Society, Canada. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1995 - present American Radium Society
1990 - present Society of Gynecologic Oncology
1988 - present Canadian Association of Radiation Oncologists
1987 - present Founding Member, International Gynecology Cancer Society
1986 - present Society of Gynecologic Oncology of Canada
1983 - present American Society of Therapeutic Radiology and Oncology
1978 - present American Society of Clinical Oncology
1970 - present Canadian Medical Association
1970 - present Ontario Medical Association
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1998 - 2001  Gynecologic Cancer Foundation
1990 - 2000  Affiliate Member, Society of Urologic Oncology
1978 - 1988  Canadian Oncology Society

Administrative Activities

INTERNATIONAL

4th National Hellenic Congress & Gynecologic Oncology
2002  Participant, Tumour Board

American College of Obstetricians and Gynecologists
1991 - 1997  Member, Committee on Human Research

American College of Radiologic Imaging Network
2004 - present  Member, Gynaecological cancers committee

American College of Radiology
1988 - present  Member, Patterns of Care: Cervix Committee
1995 - 2001  Chair, Patterns of Care: Member GU, Seminoma Committee
1995  Member, Data Monitoring Committee of Radiation Therapy Oncology Group
1995  Member, Data Monitoring Committee of Radiation Therapy Oncology Group

American College of Surgeons
2003 - present  Member, Gynecologic Oncology Disease Site Team of the Commission on Cancer

American Radium Society
1996  Member, Scientific Program Committee

American Society for Therapeutic Radiology and Oncology
2000  Member, Scientific Program Subcommittee

American Society of Clinical Oncology
1996  Member, Scientific Committee (Gynecology)
1996  Member, Scientific Committee (Gynecology)
1989 - 1990  Member, Patient Advocacy Committee
1981 - 1984  Member, Exhibit Screening Committee

Ehrreich Consulting
1997 - 2000  Consultant, DBD Advisory Panel

European Society of Gynaecological Oncology
2000  Member, International Scientific Committee

Gynecologic Oncology Group
2004 - present  Vice Chairman, Protocol Committee, United States.
2002 - present  **Member**, Cervix and Vulva Committee, United States.
1994 - present  **Member**, Publications Committee, United States.
1988 - present  **Member**, Protocol Committee, United States.
1986 - present  **Member**, Cervix, Vulva, Vagina Committee, United States.
2011  **Program Chair**, GOG Winter 2011 Symposium, San Diego, California.
2000  **Member**, R.F.A. Review Committee
2000  **Member**, Management Committee, United States.
1994 - 2002  **Chair**, Cervix, Vulva, Vagina Committee, United States.
1994 - 2002  **Chair**, Cervix and Vulva Committee, United States.
**Responsibilities for administration of the Committee include:**
• setting research directions
• guiding research protocol development
• liaising with basic researchers to develop translational research protocols
• presentation of the site activities to obtain five-year grant funding from NIH. (Total current application this year $46 million, of which approximately one quarter is for support of Cervix and Vulva Committee).
1993 Feb  **Moderator**, General Scientific Session, “The Effect of Overall Treatment Time on Recurrence in Cancer of the Cervix”
1991 - 1997  **Member**, Executive Committee, United States.
1991 - 1997  **Member**, Membership Committee, United States.
1988 - 1994  **Co-Chair**, Cervix, Vulva, Vagina Committee, United States.

**International Gynecologic Cancer Society**
1995 Sep - present  **Member**, Scientific Committee
1995 - present  **Member**, Program Committee
2008  **Member**, Scientific/Program Committee, 12th Biennial Meeting
2006  **Chairman**, Scientific/Program Committee, 11th Biennial Meeting
2004 - 2006  **Past President**
2002 - 2004  **President**
2000 - 2002  **Chair**, Sub-Committee on Awards
2000  **President Elect**
2000  **Council Member**, Executive Committee
1998  **Member**, International Scientific Committee
1998  **Member**, International Scientific Committee
1993 Sep  **Member**, Scientific Committee
1991 Sep  **Chairman**, Workshop, “New Approaches for Gynecological Malignancies”
1991 - 1996  **Council Member**, Executive Committee

**International Prostate And Testicular Cancer Conference**
1990 Oct  **Co-Chairman**
(Major role in planning topics and speakers and reviewing abstracts for presentation).

**National Cancer Institute**
2006 - present  **Co-Chair**, Gynecologic Cancer Steering Committee, United States.
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2011 - 2014  **Member**, Clinical Trials and Translational Research Advisory Committee, United States.
2010 - 2011  **Reviewer**, NCI Cancer Clinical investigator Leadership Awards
2009 - 2011  **Reviewer**, NCI-ASCO Cancer Foundation Clinical Investigator Team Leadership Award
2005  **Chair**, Novel Approaches to IP Therapy, Ovarian Cancer State of the Science Meeting

**National Cancer Institute of Canada/Clinical Trials Group**
2008 - present  **Member**, Cervix Working Group

**Northern Oncology Centre**
2010  **Reviewer**, Graduate School Program – Northern Oncology Centre, Groningen, Netherlands.

**Ortho-Biotech**
1997 - 2001  **Member**, Speakers Panel and National Advisory Committee

**Society for Gynecologic Oncologists**
1995 - present  **Member**
2001  **Member**, Program Committee
1999  **Member**, Task Force 2000
1998  **Member**, International Committee
1997  **Member**, Education Committee
1996 - 1997  **Member**, Program Committee

**Society of Gynecologic Oncologists**
2011  **Member**, SGO Research Summit and Strategic Research Plan
2002  **Member**, Scientific Program Committee, 33rd Annual Meeting

**Society Of Gynecologic Oncologists**
2001 - 2002  **Member**, Scientific Committee
1996  **Member**, Program Committee

**TAP Holdings Inc**
1997 - 2001  **Chair**, Advisory Board, TNP-40

**NATIONAL**
**Alberta Cancer Board**
2001  **External Reviewer**, Clinical Research Program

**National Cancer Institute of Canada**
1991 - 1995  **Member**, Clinical Trials Gynecology Nucleus Committee
1990 - 1993  **Head**, Radiation Oncology Quality Assurance Committee
1987 - 1992  **Chairman**, Radiation Oncology Committee
1982 - 1989  **Member**, F Committee

**Royal College of Physicians and Surgeons of Canada**
1987 - 1991  **Chief Examiner**, Radiation Oncology
Gillian Monica THOMAS

1985 - 1987 Examiner, Radiation Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
1998 - 2001 Member, Research Advisory Committee
1998 - 2001 Member, Radiation Oncology Professional Advisory Committee
1998 - 2001 Member, Radiation Treatment Advisory Committee

Ontario Cancer Research Network
2002 - present Member, Scientific Advisory Committee
2002 - 2004 Member, Scientific Advisory Committee

Ontario Cancer Treatment and Research Foundation
1997 Member, Proton Radiation Treatment Working Group
1996 - 1997 Member, Radiation Therapy Program Committee
1994 - 1996 Member, Radiation Oncology Professional Advisory Committee
1992 Member, Research Planning Committee
1992 Member, GYN Disease Site Group
1991 - 1997 Member, Research Advisory Committee

Ontario Clinical Oncology Group
1990 - 1995 Site Representative
1982 - 1995 Member, Policy Committee

LOCAL

Kingston Regional Cancer Centre
1998 Member, Search Committee, CEO

Odette Cancer Centre
2008 - present Member, Image Guided Brachytherapy Committee
2007 - present Member, Research Advisory Committee

Princess Margaret Hospital
1980 - 1985 Member, Technical Procedures Committee
1979 - 1984 Member, Infection Control Committee
1978 - 1984 Member, Resident Committee

Sunnybrook and Women's College Health Sciences Centre
1999 Member, Bylaws Committee
1998 Member, Search Committee, Obstetrician & Gynaecologist in Chief

Sunnybrook Health Science Centre
1995 Member, Senior Medical Council
1995 Member, Search Committee, Head of Department of Obstetrics & Gynecology
Gillian Monica THOMAS

1994  Member, Medical Advisory Committee
1994  Member, Academic Medical Council
1993  Member, Search Committee, Head of Department of Gynaecology

Sunnybrook Health Science Centre & Toronto-Bayview Regional Cancer Centre
1992  Member, Search Committee, Head, Division of Medical Physics Research

Sunnybrook Health Sciences Centre
1991 - 1995  Member, Comprehensive Cancer Program: Executive Committee
1991 - 1993  Member, Comprehensive Cancer Program: Strategic Planning Committee

Toronto-Bayview Regional Cancer Centre
1993  Member, Search Committee, Director of Patient Services

Toronto-Sunnybrook Regional Cancer Centre
1996 - present  Member, Strategic Planning Committee
1996 - present  Member, Clinical Services Management Committee
1991 - present  Member, Executive Committee
1998  Member, Search Committee, Head, Division of Medical Oncology
1998  Member, Medical/Radiation Oncology Accreditation Team
1995  Member, Medical/Radiation Oncology Accreditation Team
1994 - 2001  Head, Radiation Program
1989  Member, Radiation Services Committee

University of Toronto
1992 - present  Member, Senior Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology
1994  Member, Gynecologic Fellowship Committee, Faculty of Medicine, Dept of Obstetrics & Gynaecology
1992 - 1993  Member, Academic Promotions Committee

Peer Review Activities

ASSOCIATE OR SECTION EDITING

Editor
2011  Associate Editor – Clinical Radiation Oncology
2009  Associate Chief-Editor–InternationalGynecologicCancerJournal
2006  Book Associate Editor: Clinical Radiation Oncology Ed: Gunderson & Tepper

EDITORIAL BOARDS

Associate Chief-Editor
2009  International Journal of Gynecological Cancer

Associate Editor
2005 - 2007  Gynecologic Oncology

Consultant
1987 - 1989  PDQ-NCI Computer DataBase for Physicians (GynMalignancies)
Gillian Monica THOMAS

Member
1991 - present International Journal of Gynecological Cancer
2001 - 2006 Advisory Board, The Women's Oncology Review
1991 - 1998 Gynecologic Oncology

GRANT REVIEWS
Reviewer
2010 - 2011 Dutch Cancer Society Grants
2009 - 2011 National Cancer Institute, Clinical Investigator Team Leadership Award Applications
2003 Health Services Research Committee, Hong Kong
2001 Alberta Cancer Foundation
2001 Anemia Institute
1993 Genesis Research Foundation
1985 - 1988 Alberta Heritage Savings Trust Funds Cancer Grants
Associate Editor
2005 - 2009 Gynecologic Oncology

MANUSCRIPT REVIEWS
Reviewer
1997 - present American Journal of Obstetrics and Gynecology
1997 - present International J of Gynecologic Cancer
1993 - present ACTA Oncologica
1993 - present Cancer
1992 - present Canadian Journal of Oncology
1992 - present Diagnostic Oncology
1992 - present Journal of Clinical Oncology
1992 - present The European Journal of Cancer
1985 - present Radiotherapy and Oncology
1984 - present Gynecologic Oncology
1984 - present International Journal of Radiation Oncology Biology Physics
2009 Clinical Cancer Research
1995 The European Journal of Obstetrics & Gynecology and Reproductive Biology

CLINICAL INVESTIGATOR TEAM LEadersHIP AWARDS
Reviewer

Other Research and Professional Activities

RESEARCH PROJECT

Sunnybrook PI. The impact of Positron Emission Tomography (PET) imaging in women with locally advanced cervical cancer.

Sunnybrook PI. Randomized Phase III trial comparing Concurrent Chemoradiation and Adjuvant Chemotherapy with Pelvic Radiation alone in high-risk and advanced stage endometrial cancer.
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2003

Per case funding 2000 (closed 2003) $2,200.00/case, 250 cases.

2001

Principal Investigator. Phase III trial to evaluate the efficacy of maintaining hemoglobin levels above 120 g/l with erythropoietin versus above 100 g/l without erythropoietin in anemic patients receiving concurrent radiation and cisplatin for cervical cancer. Gynecologic Oncology Group. [Grants]
Per case funding $3,300.00/case, (closed prior to accrual completion 2003, Awaiting analysis,460 cases International Intergroup Trial).

2000 - 2003

Co-Principal Investigator. Phase I study of weekly cisplatin and paclitaxel with whole abdominal radiation in advanced endometrial cancer. Gynecologic Oncology Group. [Grants]
Per case funding. $2,200.00/case, 60 cases.

1996 - 1998

Principal Investigator. Multivariate analysis of radiation factors predicting outcomes in cervical cancer. Janssen-Ortho Inc. 43,000 CAD. [Grants]

1994 - 1998

(Study closed early due to lack of accrual).

1994 - 1996


1994


1993 - 1995

Principal Investigator. A Phase II study of leuprolide acetate in advanced or recurrent endometrial cancer. Abbott Laboratories. 45,000 CAD. [Grants]

1993

Co-Principal Investigator. Circadian infusion 5-fluorouracil/leucovorin as radiosensitizers for hyperfractionated whole abdominal radiation in patients with abdominal malignancies. Berlex Canada Inc. Collaborator(s): Co-principal Investigator with Dr. G. Bjarnason. 41,600 CAD. [Grants]

1989

Industry Supported.
1979  **Principal Investigator.** Trials Secretary. Gastrointestinal Study Group. 20,220 CAD. [Grants]

1978  **Principal Investigator.** Phase I clinical trials of radiation sensitizer and study of some other therapeutic factors. Ontario Cancer Treatment and Research Foundation. 157,570 CAD. [Grants]

**AWARDED BUT DECLINED**


**D. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


11. van Lonkhuijzen L, Thomas G. Palliative Radiotherapy for Cervical Carcinoma, a systematic review. Radiotherapy and Oncology. 98(3); 287-291, 2011.


50. Thomas GM. The importance of hemoglobin levels during radiotherapy for carcinoma of the cervix. Anemia in Oncol. 3(2): 5-8, 2000.


64. Laframboise S, Thomas G. The role of radiation therapy in endodermal sinus tumors (EST) of the ovary. CME J Gynecol Oncol. 2(1), 93-150, 1997.


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89. Thomas GM. Is there a role for consolidation or salvage radiotherapy after chemotherapy in advanced epithelial ovarian cancer? Gynecol Oncol. 51(1): 97-103 1993.


Editorials


**Letters to Editor**


**Abstract**


2. **NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Books Edited**

1. Clinical Radiation Oncology. Ed: Gunderson & Tepper. **Associate Editor**.

2. Gynecologic Cancer: Controversies in Management. Ed; Gershenson et al. **Co-Editor**.

**Book Chapters**


**Conference Publications**


**Other Publications**

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2013  **Invited Speaker.** State of the Science in Cervical Cancer: Where we are today and where we need to go. Recurrent/metastatic cervical cancer to date: Success or Failure? Gynecologic Oncology Group. San Antonio, Texas, United States.

2012  **Invited Speaker.** ANZGOG - 2012. Australia.


2011  **Invited Speaker.** Concurrent Chemo/Radiotherapy in Cervical Cancer. How far have we come? ESTRO 30th Anniversary Conference. United Kingdom.

2011  **Invited Speaker.** Quando e quale radioterapia nel cancro cervical? Sicilian Gynecologic Oncology Meeting.

2011  **Invited Speaker.** The True Cost of Running Trials for CCTGs: An International Perspective on Cooperative Trials Groups. COSA. Perth, Australia.

2011  **Invited Speaker.** The Big Picture Downunder: Concurrent Chemo-Radiation: Where are we now? COSA. Perth, Australia.

2011  **Invited Speaker.** Debate: Pro side Endometrial Cancer should be managed by the Specialist Gynecologist not the Gynecologic Oncologist. The Complicated Pelvis Meeting. Perth, Australia.

2011  **Invited Speaker.** Vulvar Cancer:“Put Down the Knife and Bring on the Healing Rays”. The Complicated Pelvis Meeting. Perth, Australia.

2011  **Invited Speaker.** Are we missing the Boat? Peter MacCallum Cancer Centre. Melbourne, Australia.

2010  **Visiting Professor.** University of Groningen. Groningen, Netherlands.

2008  **Visiting Professor.** Importance of Lymph Nodes and Implications for Adjuvant therapy in Endometrial Cancer. Department of Radiation Oncology, Tehran University. Iran, Islamic Republic Of.

2006  **Visiting Professor.** Martin Schneider Memorial Lecturer Department of Radiation Oncology, University of Texas Medical Branch. Galveston, United States.

2005  **Visiting Professor.** Felix Rutledge Lectureship, Department Of Gynecologic Oncology MD Anderson Cancer. Houston, United States.

2003  **Visiting Professor.** Boerhaave Professor, University of Leiden Medical Centre, Departments of Gynecologic Oncology and Radiation. Netherlands.

2001  **Visiting Professor.** Department of Radiation Oncology, University of Pennsylvania School of Medicine. Philadelphia, United States.

2000  **Visiting Professor.** Netherlands Cancer Institute. Amsterdam, Netherlands.

2000  **Visiting Professor.** Barbara Moore Jordan Visiting Professor, Memorial Sloan Kettering Cancer Centre. New York, United States.

1998  **Visiting Professor.** Department of Radiation Oncology, Fox Chase Cancer Centre. Philadelphia, United States.


1997  **Visiting Professor.** University of Indianapolis. Indiana, United States.

1996  **Visiting Professor.** University of Wisconsin-Madison Medical School. Madison, United States.

1996  **Visiting Professor.** Mayo Clinic. Rochester, United States.

1995  **Visiting Professor.** Department of Radiation Oncology, Department of Obstetrics and Gynecology, University of California. Irvine, United States.

1994  **Visiting Professor.** Department of Radiation Oncology, Bowman-Gray School of Medicine, Wake Forest University. Winston-Salem, United States.

1994  **Visiting Professor.** Department of Radiotherapy, Loyola University Medical Centre. Maywood, United States.

1993  **Visiting Professor.** Department of Radiation Oncology, Fox Chase Cancer Centre. Philadelphia, United States.

1990  **Visiting Professor.** Department of Radiation Oncology, New England Medical Centre, Tufts University. Boston, United States.

1986  **Visiting Professor.** Department of Radiation Therapy, University of Pennsylvania Hospital and Fox Chase Cancer Centre. Philadelphia, United States.

1985  **Visiting Professor.** Radiation Oncology Center of Sutter Community Hospital. Sacramento, United States.

1984  **Visiting Professor.** Department of Gynecology Oncology, University of California School of Medicine. Los Angeles, United States.

1983  **Visiting Professor.** Department of Radiotherapy, Harper-Grace and Wayne State University Hospital. Detroit, United States.

**Presented Abstracts**


2006  **First Author.** A GOG Phase III trial to evaluate Maintaining Hemoglobin (Hgb) \(>120\text{g/l} \) with Erythropoetin (EPO) during chemoradiation (CT/RT) for cervical cancer. Int Gynecol Cancer Soc, 11th Biennial Meeting. Santa Monica, United States.


2000 Moving beyond quality of life to tissue oxygenation. 28th World Congress of the International Society of Hematology. Toronto, Ontario. Thomas G.


1999 Anemia associated with inferior outcomes in patients treated with radiotherapy (RT) for cancer of the cervix. IGCS Post Congress Satellite Symposium. Venice, Italy. Thomas G.


1997 Chemotherapy in cervix cancer: Is there a role? The 1st Annual Terry Fox & Chang Gung Memorial Hospital International Cancer Symposium on Cervical Cancer. Taipei, Taiwan, Province Of China. Thomas G.


1994 Whole abdominal radiotherapy should be considered reasonable treatment for small-volume Stage Ill


1989

1989

1989
First Author. Surveillance of Stage I seminoma post-orchidectomy. Am Urological Assoc Meeting. Dallas, United States.

1987

1987

1987

1985
First Author. Optimal management of Stage II seminoma. Am Urological Assoc. Atlanta, United States.

1984

1984

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1983


First Author. Adjuvant mediastinal irradiation for Stage II seminoma. 3rd Int Conf Adjuvant Therapy of Cancer. Tucson, United States.


Invited Lectures and Presentations - via video presentation


Lectures and Other Presentations

2011 The Big Picture Downunder: Concurrent Chemo-Radiation: Where are we now? COSA. Perth, Australia.


2011 The True Cost of Running Trials for CCTGs: An International Perspective on Cooperative Trials Groups. COSA. Perth, Australia.


2011 Are we missing the Boat? Peter MacCallum Cancer Centre. Melbourne, Australia.


2010 Should Management of Locally Advanced Adenocarcinoma and Squamous Cell Carcinoma (with nodal spread) be similar? European Society for Therapeutic Radiology and Oncology – ESTRO. Barcelona.


2010 **Chair.** Session: Advances in Radiation Oncology. International Gynecologic Cancer Society - IGCS. Prague.


2009 Risk Based Management of Early Endometrial cancer. University of Hong Kong Hospital. Hong Kong.


2009 Case presentation and expert discussion FIGO 2B: Which patients are suitable for surgery and which patients should receive radiotherapy? 6th European Congress: Perspectives in Gynecologic Oncology. Nice, France.


2008 Past, Present and Future in the treatment of Cervical Cancer. 30th Anniversary Meeting of The Dutch
Society of Radiation Oncology (NVRO).


2008 **Moderator.** Endometrial Cancer: Role of Adjuvant Radiotherapy vs Chemotherapy. British Gynecology Cancer Society. Liverpool, United Kingdom.


2008 **Discussant.** Gynecologic Cancer Oral Session. ASCO. Chicago, United States.


2007 Importance of Lymph Nodes in Early Endometrial Carcinoma. First Congress of Chilean Society of Gynecologic Oncology. Valdivia, Chile.


2007 Cervical Carcinoma, Update on Chemoradiation. 19th Congresso Nazionale – SIOG, Advances in Gynecological Oncology. Milan, Italy.

2007 **Moderator.** Current and Future Trials Addressing Staging and Imaging in Cervical cancer. NCI State of
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<tr>
<th>Year</th>
<th>Event</th>
<th>Location</th>
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<tr>
<td>2006</td>
<td>Meet the Professor- Dr G Thomas. Highlights in Ginecologica, Santa Margherita. Ligure, Italy.</td>
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<tr>
<td>2006</td>
<td>Lymphadenectomy and adjuvant therapy in endometrial carcinoma. Highlights in Ginecologica, Santa Margherita. Ligure, Italy.</td>
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<td>2006</td>
<td>Update on Concomitant chemo-radiotherapy in locally advanced cervical cancer. Highlights in Ginecologica, Santa Margherita. Ligure, Italy.</td>
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<td>2006</td>
<td><strong>Chair</strong>. NCI State of the Science Meeting in Endometrial Cancer. Consensus Group in Early Disease. Manchester, United Kingdom.</td>
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<tr>
<td>2005</td>
<td>Postgraduate Course#2. GOG: Trials and Tribulations. Society of Gynecologic Oncologists’ 36th Annual</td>
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Meeting. Florida, United States.

2005  

2005  
Radiation Therapy in Endometrial Cancer. Postgraduate Course in Gynecologic Cancer. Savannah, United States.

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2005  
Lymph Nodes in endometrial Cancer. 15th Annual Review Course on Gynecologic Oncology and Pathology a Satellite Meeting of the IGCS in Asia. Kyoto, Japan.

2005  
Chemo-Radiotherapy in Cervical Cancer. Challenges in the Practice of Evidence Based Oncology in Developing Countries, ESTRO International Symposium. Mumbai, India.

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2005  
Cervical Cancer Outcomes. Impact of Hemoglobin and Hypoxia. 15th Annual Review Course on
Gynecologic Oncology and Pathology a Satellite Meeting of the IGCS in Asia. Kyoto, Japan.

2004

2004

2004
Carcinoma of the Cervix. International Society of Radiation Oncology Teaching course. Capetown, South Africa.

2004

2004
Evidence Based decision Making in Stage IB2/IIA Cervix Cancer. IXth National Gynecologic Oncology Congress. Antalya, Turkey.

2004
The Role of Radiation in Endometrial Cancer. IXth National Gynecologic Oncology Congress. Antalya, Turkey.

2004

2004

2004

2004

2004

2004
Carcinoma of the Vulva. International Society of Radiation Oncology Teaching course. Capetown, South Africa.

2004

2004

2004
Integrating Multimodality Therapy in Vulvar Cancer. IXth National Gynecologic Oncology Congress. Antalya, Turkey.

2004

2004
**Moderator.** Afternoon Session. GOG Summer Symposium.

2004
Debate, Con side: Systemic Chemotherapy following Surgical Bulk Reduction is the Treatment of Choice for patients with Stage III-IV Endometrial Cancer confined to the Pelvis and Abdominal Cavity. Southern Association for Oncology.

2004

2004
Anemia in Cancer an Opportunity for Improving Treatment Outcomes? University of Helsinki. Helsinki, Finland.

2004
Multimodality treatment in vulvar carcinoma. Aarhus University Hospital. Norrebrogade, Denmark.


2003 Clinical Decision Making and Evidence Based Medicine, Adjuvant Treatment in Stage IB Cervical Cancer and Management of Vulvar Cancer. EORTC Symposium. Naples, Italy.


2002 Presentation on Chemoradiation in Cervical Cancer. 4th National Hellenic Congress & Gynecologic Oncology. Athens, Greece.

2002 **Chair.** Seminar – Innovations in Radiation Oncology. 18th UICC International Cancer congress. Oslo, Norway.


2002 Round Table Discussion – Cervical Cancer. 4th National Hellenic Congress & Gynecologic Oncology. Athens, Greece.


2001 Chemoradiation in “locally advanced” cervical cancer. Identification of patients likely to benefit from lymph node debulking – cervix. European Society of Gynaecological Oncology 12. Venice, Italy.


2000 Co-chair. Hemoglobin levels and radiation therapy outcomes – is there a correlation? Seville, Spain.


2000 Chemoradiotherapy is now standard treatment for cervical cancer. Chemoradiotherapy for vulvar carcinoma. Chemoradiation: From the Laboratory to the Clinic, Joint Leeds/Royal College of Radiologists Conference. York, United Kingdom.


Vienna, Austria.

1999  

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**Chair.** Anemia management in radiation oncology. Janssen-Ortho Advisory Board Meeting. San Antonio, United States.

1999  

1999  

1999  
**Chair.** Round Table on Cervical Cancer – raising treatment problems in cervical cancer. Satellite Symposium of the Seventh Biennial Meeting of the Int Gynecol Cancer Soc. Venice, Italy.

1998  

1997  
Changing concepts in the management of vulvar cancer. The New York Hospital Queens Oncology Conference. Flushing, United States.

1997  
Integration of therapies - Radiation therapy. Combined modalities therapies (Round table discussion) Treatment of Recurrent Cervical Carcinoma. Aviano, Italy.

1997  
Randomized study of adjuvant treatment including radiation therapy and chemotherapy in patients with vulvar cancer. EORTC Gynecological Group Meeting. Aviano, Italy.

1997  
**Breakfast Session: Management of early-stage ovarian cancer. 21st Annual Meeting of the Society of Gynecologic Oncologists. Phoenix, United States.**

1997  

1997  
**Moderator.** Plenary Session. 21st Annual Meeting of the Society of Gynecologic Oncologists. Phoenix, United States.

1997  

1997  

1997  
Vulva ca RT vs CT vs both (case discussion). American Radium Society. New York, United States.

1997  **Chair.** Cervix symposium. International Congress of Radiation Oncology. Beijing, China.

1997  Is there a role for chemotherapy in advanced cervical cancer? 1st Annual Terry Fox/Chang Gung Memorial Hospital International Cancer Symposium. Taipei, Taiwan, Province Of China.

1997  **Chair.** Multidisciplinary clinical decision-making. 6th Biennial Meeting International Gynecologic Cancer Society. Fukuoka, Japan.


1997  **Chair.** Radiotherapy of cervical cancer. 1st Annual Terry Fox/Chang Gung Memorial Hospital International Cancer Symposium. Taipei, Taiwan, Province Of China.


1996  When and how to use a combined approach (Disease of the vulva). Postgraduate Course on Gynaecologic Oncology. Heemskerk, Netherlands.

1996  Combined modality therapy in cervical cancer. 1st European Society for Medical Oncology Congress. Vienna, Austria.


1996  Optimising therapy in Stage IB cancer of the cervix. Irish Gynaecological Oncology Society. Dublin,
Ireland.

1996
The role of radiation therapy in the management of vulvar cancer. St. Lukes' Hospital. Dublin, Ireland.

1996
Should chemotherapy be used in the primary treatment of cervical cancer? Grand Rounds, M.D. Anderson Hospital. Houston, United States.

1995

1995

1995

1995
Is there a role for radiation therapy in ovarian cancer? Symposium on Gynecology and Gynecologic Oncology, University of Minnesota. Minneapolis, United States.

1995

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1994
Radiation therapy in high risk endometrial carcinoma. AGO Consensus Meeting. Freiburg, Germany.

1994

1994
Radiotherapy in early ovarian cancer. NIH Consensus Development Conference on Ovarian Cancer: Screening, Treatment and Follow-up. Bethesda, United States.

1994

1994

1994

1994

1994
Whole abdominal radiotherapy should be considered reasonable treatment for small-volume Stage III
ovarian carcinoma. Epithelial carcinoma of the ovary: Controversies in the management of newly

1994
Optimal management of seminoma. Medical Grand Rounds Lecture Series, Department of Medicine,
Roswell Park Cancer Institute. Buffalo, United States.

1994
Indications for postoperative therapy for carcinoma of the cervix post radical hysterectomy and post lymph
node dissection. Salvage of recurrences following primary therapy. Second Biennial Alon J. Dembo
Memorial Workshop. Toronto, Ontario.

1994
The current role of radiotherapy in the treatment of vulvar cancer. XIV FIGO World Congress. Montreal,
Quebec.

1994
Radiation therapy in cervical and endometrial carcinoma. 80th Scientific Assembly and Annual Meeting,
Radiological Society of North America. Chicago, United States.

1993
Testicular seminoma: Controversies in treatment. Integrating radiotherapy in ovarian malignancies.
Surveillance in Stage I testicular seminoma. Chemo/radiotherapy and cancer of the cervix after recurrent
surgery. Recent advances in the treatment of testicular seminoma. 45th Annual Midwinter Oncology
Conference, Los Angeles Radiological Society. Los Angeles, United States.

1993
Invited Discussant. Tumor oxygenation: A new independent prognostic factor influencing survival in
Palm Desert, California, United States.

1993
The role of radiation therapy in ovarian cancer. Puget Sound Oncology Consortium. Seattle, United
States.

1993
Argument for primary irradiation of patients with cervical cancer Stage IIB. 2nd Conference of the Austria
Soc Gynecol Oncol. Graz, Austria.

1993

1993
Adjuvant therapy for ovarian cancer. Hurley Medical Center. Flint, United States.

1993
The role of chemotherapy in advanced carcinoma of the cervix. Annual Joint Gynecology Meeting. Oxford,
United Kingdom.

1992
Radiation biology applied to therapy: Can modern radiation biology improve outcome of gynecologic

1992
Bulky Stage IB cervical carcinoma managed by primary radical hysterectomy followed by tailored
radiotherapy. Commentary, Society of Gynecologic Oncology, 23rd Annual Meeting. San Antonio, United
States.

1992
Integrating radiation therapy into the management of ovarian cancer. National Conference on
Gynecologic Cancers, American Cancer Society. Orlando, United States.

1992
The role of radiation in gynecologic malignancy. Carolinas Medical Centre Spring Symposium. Charlotte,
United States.

1992
Investigational strategies for detection and intervention in early ovarian cancer. Workshop - Radiation
therapy for early-stage disease, National Cancer Institute. Annapolis, United States.

1992
Management of seminomas. Georgetown University Medical Centre, Vincent T. Lombardi Cancer
Research Centre. Washington, District of Columbia, United States.

1992
Radiotherapy as second-line treatment for small volume disease. Symposium on Salvage Therapy in
Ovarian Carcinoma, Gynecologic Oncology Group. Minneapolis, United States.

1992
Experience in Toronto, Canada. Symposium: Update on organ confined (Stage I) testicular cancer


treatment (seminomatous and non-seminomatous) Sociedad Mexican de Urologia. Aguascalientes, Mexico.

1992

Adjuvant therapy for ovarian cancer. Midlands Branch of ASTRO, University of Nebraska. Omaha, United States.

1992


1991


1991


1991


1990

Concurrent 5-Fluorouracil and radiation in the management of advanced cervical cancer. Department of Radiation Oncology, New England Medical Center, Tufts University. Boston, United States.

1989

Conservative management of carcinoma of the anal canal. 1st European Winter Oncol Conf. Switzerland.

1989

The role of adjuvant therapy in the high risk early stage cervical cancer patient. Radiation therapy in ovarian cancer. 1st European Winter Oncol Conf. Switzerland.

1989

The role of adjuvant therapy in high risk stage IB cervical cancer patient. Breakfast Education Sessions with Dr. A. Dembo and Dr. F. Stehman. Soc. Gynecol Oncol. 20th Anniversary Meeting. Hawaii.

1989

Progress and controversies in seminoma. Prostate and Testicular Cancer Consensus Conference. Hull, United Kingdom.

1989


1989


1989

Chair. EORTC Consensus Conference on Testicular Seminoma. Prostate and Testicular Cancer Consensus Conference. Hull, United Kingdom.

1988

Princess Margaret Hospital Experience with radiotherapy in advanced locoregional seminoma. Recent advances in the systemic therapy of genitourinary malignancies. MD Anderson Hospital, 31st Annual Clinical Conference.

1988


1988


1988

How much therapy is necessary for low stage seminoma? Berlin, Germany.

1988


1987


1987


1986  Implication for future therapy for carcinoma of the cervix. 4th Annual Cancer Symposium Medical Center of Beaver County. United States.

1986  Radiation therapy for carcinoma of the ovary: The Princess Margaret Hospital Experience. 4th Annual Cancer Symposium Medical Center of Beaver County. United States.


1986  The role of radiation therapy in endometrial carcinoma. 4th Annual Cancer Symposium Medical Center of Beaver County. United States.


1986  Issues in the management of testicular seminoma. Fox Chase Cancer Center, Univ. Pennsylvania Hospital. United States.


1985  The role of radiation in the management of all stages and extent of seminoma. The 2nd Germ Cell Tumour Conf. Leeds, United Kingdom. (Chaired).


1985  Combined modality therapy for carcinoma of the cervix and anal canal. Aachen, Germany.


1983  Carcinoma of the cervix: The Princess Margaret Hospital results. Grand Rounds, Harper-Grace and Wayne State University Hospital. Detroit, United States.


1980  Results of treatment for seminoma: The Princess Margaret Hospital experience. Cambridge University. United Kingdom.

2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts

2010  Palliative Radiotherapy for Cervical Cancer: A systematic review. 31st Annual General meeting, the society of Gynecologic Oncology of Canada. Canada. van Lonkhuijzen L, Thomas G.

2001  New technology on radiation therapy treatment units... Does it make a difference? CARO. Pegler R, Robson S, Danjoux C, Chow E, Franssen E, Thomas G. (poster).
Gillian Monica THOMAS


1999  Impact of new technology on radiation therapy treatment deviations at T-SRCC. CARO. Robson S, Pegler R, Danjoux C, Chow E, Franssen E, **Thomas G.**

1998  Patients with high-risk stage I ovarian carcinoma should receive platinum-based adjuvant chemotherapy. A GOG Educational Symposium. Toronto, Ontario. **Thomas G.**


1996  Whole abdominal radiotherapy alone or preceded by 2 cycles of cisplatin in the post-operative management of ovarian cancer with chemotherapy at time of relapse. Annual Meeting of Royal College of Physicians and Surgeons of Canada. Morton G, Lavery B, **Thomas G**, Ackerman I, Covens A, Osborne R.


1980  **First Author.** Phase I study of metronidazole and misonidazole with conventional RT. Canadian Association of Radiologists. Montreal.


1980  **First Author.** Seminoma of the testes: Results of treatment following orchidectomy and radiation therapy. Cdn Urologic Assoc. Banff, Alberta.

**Lectures and Other Presentations**


1982  The role of radiation in the treatment of cancer of the endometrium. W.W. Cross Institute. Edmonton,

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

1987 **Visiting Professor**. Department of Radiation Oncology, University of Western Ontario. London, Ontario.

Lectures and Other Presentations


1995 **Chair**. Measuring the value and counting the cost of palliative radiotherapy - what are our questions? Controversies in Palliative Radiotherapy: Focus on Indications and Fractionation. Toronto, Ontario.


1981 Seminoma: The Princess Margaret Hospital experience. Ontario Cancer Treatment and Research Foundation, Hamilton Centre.


1980 Endometrial cancer: Problems in the study of treatment methods. Symposium on Advances in
Endometrial and Ovarian Carcinoma. Toronto, Ontario.

4. LOCAL

Lectures and Other Presentations


1993  Role surveillance for seminomatous and non-seminomatous germ cell tumours. Urology Update 1993, Continuing Education, Faculty of Medicine, University of Toronto, Department of Surgery, Division of Urology. Toronto, Ontario. (Continuing Education).


1989  Cancer of vulva -- tailored treatment with Dr. P. Bryson, Dr. T. Colgan. Annual Review Course in Obstetrics and Gynecology, University of Toronto.


F. Research Supervision

1. PRIMARY OR CO-SUPervision

Graduate Education


Postgraduate MD

2009 - 2010  Primary Supervisor. Dr. Behzad Banihashemi.
2008 - 2009  Primary Supervisor. Dr. Jennifer Forrest.
2005 - 2006  Primary Supervisor. Dr Marie Claude Beauchemin.
2001  **Primary Supervisor.** Clinical Fellow. Dr Viet Do. *Chronotherapy with chemo radiation in endometrial cancer.*

2000 - 2001  **Primary Supervisor.** Dr. Viet Do.

2000  **Primary Supervisor.** Clinical Fellow. Dr Margot Lehman. *Vaginal Dose Distribution Of two techniques of Brachytherapy in cervical cancer.*

1999 - 2000  **Primary Supervisor.** Dr. Margot Lehman.

1998 Dec  **Primary Supervisor.** Dr. John Boyle.

1998 - 1999  **Primary Supervisor.** Dr. Choan E.

1997 - 1998  **Primary Supervisor.** Dr. Michelle Grogan.

1996  **Primary Supervisor.** Dr. Stephane Laframboise.

1995 - 1996  **Primary Supervisor.** Dr. Vivian von Gruenigen.

1994 - 1995  **Primary Supervisor.** Dr. David Hoegler.

1993 - 1994  **Primary Supervisor.** Dr Clare Faul.

1992 - 1993  **Primary Supervisor.** Dr. Gerard Morton.

1992  **Primary Supervisor.** Dr. Laurie Elit.

1991 - 1992  **Primary Supervisor.** Dr. Bernadette Lavery.

1978 - 1979  **Primary Supervisor.** Dr. Wyman Bethune.

### 2. OTHER SUPERVISION

**Graduate Education**

**Thesis Examiner**


**External (international) Examiner**

2002  **PhD.** Dr E Pras.
Curriculum Vitae

Richard Wing-Chi Tsang
M.D., F.R.C.P. (C)

A. Date Curriculum Vitae is Prepared: 2016 August 2

B. Biographical Information

Primary Office  Department of Radiation Oncology
                 Princess Margaret Hospital
                 610 University Avenue
                 Toronto, Ontario, Canada
                 M5G 2M9
Telephone       416-946-6513
Cellphone       647-201-3478
Fax             416-946-4586
Email           richard.tsang@rmp.uhn.on.ca

1. EDUCATION

Degrees
1977 - 1981    MD, University of Ottawa
1975 - 1977    Undergraduate Year 1 and 2, Faculty of Arts and Science, Western University, London, Ontario, Canada

Postgraduate, Research and Specialty Training
1989           Visiting Research Fellow, Gray Laboratory, Cancer Research Campaign, Mount Vernon Hospital, Northwood, United Kingdom
1985 - 1988    Resident, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1982 - 1985    Resident, Internal Medicine, University of Ottawa, Ottawa, Ontario, Canada
1981 - 1982    Intern, St. Michael’s Hospital, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
1988 - present Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1986 - present Fellow, Internal Medicine, Royal College of Physicians and Surgeons of Canada
1982 - present Fellow, College of Physicians and Surgeons of Ontario
1990           Certificate, Radiation Oncology, American Board of Radiology
1985           Diplomate, American Board of Internal Medicine
1982           Licentiate, Medical Council of Canada (LMCC), Canada
1982           Diplomate, National Board of Medical Examiners, United States
2. EMPLOYMENT

Current Appointments
2008 Jul - present Professor, Radiation Oncology, University of Toronto
2007 - present Associate Director of Clinical Programs, Radiation Medicine Program, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada
1990 - present Staff Radiation Oncologist, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
1998 Clinical Assistant, Department of Radiation Oncology, Princess Margaret Hospital-Ontario Cancer Institute, Toronto, Ontario, Canada
1994 - 1996 Consultant Staff, Medicine, Wellesley Hospital, Toronto, Ontario, Canada

UNIVERSITY - RANK
2000 - 2008 Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1994 - 2000 Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1990 - 1993 Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards
INTERNATIONAL
Received
1999 Jul Travel Award, Radiation Research Society, Dublin, Ireland. (Research Award)
For the 11th International Congress of Radiation Research. Total Amount: 730
1998 Apr The International Karl Musshoff Prize, Fourth International Symposium on Hodgkin’s Lymphoma, Cologne, Germany. (Research Award)
Best clinical abstract.

PROVINCIAL / REGIONAL
Received
1989 Goldberg Fellowship, Ontario Cancer Institute, Ontario, Canada. (Research Award)
For Cancer Research.

Teaching and Education Awards
LOCAL
Received
2007 - 2008 Individual Teaching Excellence Award, Dept of Radiation Oncology, Faculty of Medicine, The Wightman-Berris Academy, Mount Sinai and University Health Network Hospitals, University of Toronto, Toronto, Ontario, Canada. (Postgraduate MD, Core Program)
Postgraduate medicine category.
2003 Residents’ award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. (Postgraduate MD)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1999 - present  Member, Canadian Bone Marrow Transplantation Group
1998 - present  Member, American Society of Therapeutic Radiology and Oncology
1992 - present  Member, Canadian Association of Radiation Oncologists
1989 - present  Member, Radiation Research Society
1981 - present  Member, Canadian Medical Protective Association
1981 - present  Member, Ontario Medical Association
1981 - 1985    Member, American College of Physicians

Administrative Activities

INTERNATIONAL

American Board of Radiology
2007 - present  Chair, Written Examination Committee for the Lymphoma-Leukemia category, United States. Responsible for the overall management and question selection for the upcoming Radiation Oncology qualifying examinations, and management of the questions pool.
2004 - present  Member, Written examination Angoff Panel, Lymphoma-Leukemia category, United States. Determination of the pass-fail cutoff for each examination question in the Clinical Oncology examination.

International Union Against Cancer (UICC)
2001 - 2006  Member, Expert Advisory Panel on Skin Tumours, Geneva, Switzerland.

Trans-Tasman Radiation Oncology Group
2006 - present  Member, Trials Management Committee

NATIONAL

Canadian Association of Radiation Oncologists (CARO)
2005 - 2009  Secretary/Treasurer, Executive, Canada.
2005 - 2009  Member, Board of Directors, Canada.
2003 - 2012  Member, Finance and Audit Committee, Canada.
1998 - 2001  Member, Manpower and Standards Committee, Canada.

National Cancer Institute of Canada
2006 - present  Member, Lymphoma Subcommittee, Canada.

Pituitary Tumor Support Network
1996 - 2006  Member, Medical Advisory Committee, Canada.

PROVINCIAL / REGIONAL

Ontario Association of Radiation Oncology
Richard Wing-Chi TSANG

2008 - 2011 Vice Chair, Executive, Ontario, Canada.

LOCAL

Princess Margaret Hospital

2001 - present Site Group Leader, Lymphoma, Radiation Medicine Program, Toronto, Ontario, Canada.
2003 - 2006 Executive, Radiation Oncologists-PMH (Department Practice Plan), Toronto, Ontario, Canada.
1996 - 1999 Executive, Radiation Oncologists-PMH (Department Practice Plan), Toronto, Ontario, Canada.
1995 - 1997 Member, Medical Advisory Committee, Toronto, Ontario, Canada.
1995 - 1997 Chair, Ambulatory Care Committee, Toronto, Ontario, Canada.
1994 - 1995 Member, Ambulatory Care Committee, Toronto, Ontario, Canada.
1993 - 2001 Site Group Leader, Endocrine Oncology, Radiation Medicine Program, Toronto, Ontario, Canada.
1992 - 2001 Member, Clinical Teachers Association of Toronto, Toronto, Ontario, Canada.
1992 - 1993 Secretary, Medical Staff Association, Toronto, Ontario, Canada.

The Toronto Hospital

1998 - 2006 Member, Radiation Trauma Unit, Toronto, Ontario, Canada.

University of Toronto/Michener Institute

2006 - 2012 Chair, Board of Examiners, Medical Radiation Sciences Program, Toronto, Ontario, Canada.
2005 - 2006 Member, Board of Examiners, Medical Radiation Sciences Program, Toronto, Ontario, Canada.

Peer Review Activities

EDITORIAL BOARDS

Editor
2007 - present Hematologic Oncology

MANUSCRIPT REVIEWS

Reviewer
1991 - present Bone Marrow Transplantation
1991 - present Cancer
1991 - present Journal of Clinical Oncology
1991 - present Leukemia & Lymphoma
1991 - present Radiotherapy and Oncology
C. Academic Profile

1. RESEARCH STATEMENTS

Expert in Radiation Therapy of Hematologic Malignancies.
To study the role of radiation therapy, for early stages of lymphoma, and when given in the setting of bone marrow transplantation.
My research focuses on defining the use of radiation therapy in rare hematologic malignancies, specifically extranodal MALT lymphoma, and solitary plasmacytoma. I have defined the role of radiation therapy through original work in stage I and II MALT lymphomas, which resulted in several peer-reviewed papers (see publications 33, 37, 50, 57). Prior to my work first published in 2001, the role of radiation therapy was not clearly defined in non-gastric stage I/II MALT lymphomas. I have authored and co-authored textbook chapters, and review articles on this subject. I have also lectured extensively on this topic. My research studies on solitary plasmacytoma have refined the factors that determine prognosis in this disease, particularly the importance of tumor bulk. This also resulted in collaborative studies internationally (see publications 35, 60, 62). I have authored and co-authored textbook chapters, and review articles on this subject. I am principal investigator in seven on-going clinical trials of hematologic malignancies at Princess Margaret Hospital, University Health Network.
My work in Hodgkin Lymphoma received recognition at the 4th International Symposium on Hodgkin’s lymphoma with the Karl Musshoff Award for the best clinical abstract (1998). As a result of this work (publication # 26), the clinical practice of administering radiotherapy in Toronto before stem cell transplantation was changed to the post-transplant period. This has become the most common accepted world-wide practice. I have continued with this area of research and have numerous publications in a similar line of work, defining toxicities of total body radiation therapy when given in the setting of stem cell transplantation in patients with lymphoma, and multiple myeloma. Each of these collaborative projects have changed the clinical practice in Toronto (see publications # 15, 20, 29, 34, 43, 44, 51, 52, 67). I have supervised residents and fellows in these areas of research, which had included a recent UICC-funded international technology transfer fellow. I have continued to study innovative ways of applying radiation therapy in difficult and specific situations, e.g. with novel fractionation regimens (publication 61), and conduct clinical trials in radioimmunotherapy, and assessing the role of FDG-PET in lymphoma.

The selective use of Radiation Therapy in Thyroid cancers.
Other research accomplishments include the study of endocrine neoplasm, specifically thyroid cancer (publications #8, 10, 12, 18, 1, 22, 24, 38, 55, 64, 68, 69). Together with my colleague Jim Brierley, we have performed original research in the management of thyroid cancer, including staging, radioactive iodine, and criteria for selection of patients who benefit from external beam radiation therapy. I have authored and co-authored textbook chapters, and review articles on this subject. Other related areas include staging, and policy issues in management of lymphomas and thyroid cancers (publications # 4, 6, 12, 18, 21, 22, 24, 40, 41, 47, 49, 59, 68), and late effects of radiation therapy (publication # 5, 23, 63, 65, 66).
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2005 - 2008  

2001 - 2003  
Study Chair.

NON-PEER-REVIEWED GRANTS

FUNDED

2002 - present  
Principal Investigator. A randomised multicentre trial of involved field Radiotherapy versus involved field radiotherapy plus chemotherapy for stage I-II low grade follicular lymphoma. Trans-Tasmin Radiation Oncology Group. [Clinical Trials]  
Principal Investigator at PMH/UHN.

1987 - present  
Co-Investigator. A multi-institution, North American prospective database for thyroid cancer. The National Thyroid Cancer Treatment Cooperative Study Group. PI: Sherman, S., Brierley, J. [Clinical Trials]

2007 - 2011  
Principal Investigator. Positron emission tomography for staging and treatment assessment of response in lymphomas, The PET-STAR lymphoma study. Princess Margaret Hospital Foundation. [Clinical Trials]

2007 - 2010  
Principal Investigator. Palliative radiation therapy for malignant lymphomas: A prospective cohort study. GlaxoSmithKline Inc. [Clinical Trials]

2006 - 2012  
Principal Site Investigator. A prospective single arm trial of involved field radiotherapy alone for stage I – II low grade non-gastric marginal zone lymphoma. Trans-Tasmin Radiation Oncology Group. PI: Manus, M. Mac. [Clinical Trials]  
Principal Investigator at PMH/UHN. Trials Management Committee Member.

2005 - 2011  
Principal Investigator. Molecular genetics study of Mucosa-Associated Lymphoid Tissue Lymphomas with fluorescent in-situ hybridization (FISH) technique from archival biopsy specimens. Princess Margaret Hospital Foundation. [Clinical Trials]

2005 - 2009  
Co-Principal Investigator. Spatio-temporal response of Non-Hodgkin’s lymphoma to external beam radiation therapy measuring 2-[18F]Fluoro-2-deoxyglucose (FDG) uptake with a combined PET/CT simulator: A Pilot Study. Princess Margaret Hospital Foundation. PI: Keller, Harry. [Clinical Trials]

2004 - 2006  
Principal Investigator. A single arm, open label, multicentre, phase II study of tositumomab and iodine I 131-tositumomab in subjects with indolent non-Hodgkin’s lymphoma who have
2004 - 2005  **Co-Investigator.** A phase I dosimetry and dose escalation study of lymphorad-131 (LR131; iodine I 131 labeled B-lymphocyte stimulator) in patients with relapsed or refractory multiple myeloma, or following autologous stem cell transplant LR131-MM02, and LR131 MM03. Human Genome Science, Inc. PI: Reece, Donna. [Clinical Trials]

2004 - 2005  **Principal Investigator.** A phase II study evaluating the safety and efficacy of ABT-510 in subjects with refractory lymphoma, Abbott protocol M02-457. Abbott Inc. [Clinical Trials]


2003 - 2004  **Co-Investigator.** Efficacy and safety of subsequent treatment with 90Y-ibritumomab tiuxetan versus no further treatment in patients with stage III or IV follicular non-Hodgkin’s lymphoma having achieved partial or complete remission after first line chemotherapy. A prospective, multicenter, randomized phase III trial. Berlex Canada Inc. PI: Crump, Michael. [Clinical Trials]

2002 - 2003  **Co-Investigator.** A randomized, double-blind, placebo-controlled trial of recombinant human keratinocyte growth factor (rHuKGF) in patients with hematologic malignancies undergoing total body irradiation (TBI) and high-dose chemotherapy with autologous peripheral blood progenitor cell (PBPC) transplantation. Amgen. PI: Keating, Armand. [Clinical Trials]

*Principal Investigator at PMH/UHN.*

1999 - 2000  **Collaborator.** Familial thyroid cancer genetic study. Princess Margaret Hospital. PI: Dr. Tuya Pal, and Dr. Steven Narod. [Clinical Trials]

### E. Publications

#### 1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

Journal Articles


70. Brierley J, **Tsang R**, Panzarella T, Bana N. Prognostic factors and the effect of treatment with radioactive iodine and external beam radiation on patients with differentiated thyroid cancer seen at a single institution over 40 years. Clin Endocrinol (Oxf). 2005;63(4):418-27. **Co-Principal Author.**


75. **Tsang RW**, Brierley JD, Asa SL, Sturgeon JF. Malignant teratoma of the thyroid: aggressive chemoradiation therapy is required after surgery. Thyroid. 2003;13(4):401-4. **Principal Author.**


Richard Wing-Chi TSANG


94. Wong CS, **Tsang RW**, Cummings BJ, Fyles AW, Couture J, Brierley JD, Pintilie M. Proliferation parameters in epidermoid carcinomas of the anal canal. Radiother Oncol. 2000;56(3):349-53. **Coauthor or Collaborator.**


100. **Tsang RW**, Brierley JD, Simpson WJ, Panzarella T, Gospodarowicz MK, Sutcliffe SB. The effects of surgery, radioiodine, and external radiation therapy on the clinical outcome of patients with differentiated thyroid carcinoma. Cancer. 1998;82(2):375-88. **Principal Author**.

101. Hodgson DC, Brierley JD, **Tsang RW**, Panzarella T. Prescribing 131Iodine based on neck uptake produces effective thyroid ablation and reduced hospital stay. Radiother Oncol. 1998;47(3):325-30 (Trainee publication, resident supervised: Hodgson D). **Senior Responsible Author**.

102. Chow E, **Tsang RW**, Brierley JD, Filice S. Parathyroid carcinoma--the Princess Margaret Hospital experience. Int J Radiat Oncol Biol Phys. 1998;41(3):569-72 (Trainee publication, resident supervised: Chow E). **Senior Responsible Author**.


110. Müller CG, Bayley TA, Harrison JE, **Tsang R**. Possible limited bone loss with suppressive thyroxine therapy is unlikely to have clinical relevance. Thyroid. 1995;5(2):81-7. **Coauthor or Collaborator**.


**Letters to Editor**


**Comment, Journal Articles, Letters to Editor**

1. Sawka AM, Brierley JD, **Tsang RW**, Rotstein L, Ezzat S, Goldstein DP. Unmet Information Needs of Low-Risk Thyroid Cancer Survivors. Thyroid. 2016 Mar 1;26(3):474-5. **Coauthor or Collaborator**.

3. **NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**


Richard Wing-Chi TSANG


4. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2008 Sep  Management of primary, refractory and recurrent diffuse large B-cell and other aggressive Lymphomas. 50th Meeting of the American Society for Therapeutic Radiology and Oncology. Boston, Massachusetts, United States. Educational Session #405. (Continuing Education).


2007 Oct  Management of primary, refractory and recurrent diffuse large B-cell and other aggressive Lymphomas. 49th Meeting of the American Society for Therapeutic Radiology and Oncology. Los Angeles, California, United States. Educational Session #311. (Continuing Education).


2005 Jun  Discussion Leader. MALT Lymphoma. 9th International Conference on Malignant Lymphoma. Lugano, Switzerland.


2005 Jan  Involved-field radiation therapy for Hodgkin’s Disease: Coming full circle. Postgraduate Rounds, Emory University Radiation Oncology. Atlanta, Georgia, United States.

2005  Visiting Professor. Radiation therapy for Hodgkin’s and non-Hodgkin’s lymphomas. Emory University, Department of Radiation Oncology. Atlanta, Georgia, United States. (Continuing Education).


2002 Sep  Radiation therapy in MALT lymphomas. Recent Developments in Gastric MALT lymphoma, a meeting jointly organized by the European Gastro-Intestinal Lymphoma Study Group (EGILS) and British Society of Gastroenterology, Gastro-Duodenal Sectio. London, United Kingdom.

2001 Nov  Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 43rd Meeting of the American Society for Therapeutic Radiology and Oncology. San Francisco, California, United States. Refresher course 405.
Richard Wing-Chi TSANG


2000 Oct Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 42nd Meeting of the American Society for Therapeutic Radiology and Oncology. Boston, Massachusetts, United States. Refresher course 404. (Continuing Education).


2000 Oct Invited Panelist. Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 42nd Meeting of the American Society for Therapeutic Radiology and Oncology. Boston, Massachusetts, United States. Refresher course 402. (Continuing Education).


1999 Oct Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 41st Meeting of the American Society for Therapeutic Radiology and Oncology. San Antonio, Texas, United States. Refresher course 402. (Continuing Education).


1998 Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 40th Meeting of the American Society for Therapeutic Radiology and Oncology. Phoenix, Arizona, United States. Refresher course 308. (Continuing Education).

1989 Proliferation after accelerated fractionation of X-rays in mouse skin. Gray Laboratory seminar, CRC Gray Laboratory. Northwood, United Kingdom.

Presented Abstracts


2003  Presenter. Outcome and patterns of failure in solitary plasmacytoma: A multicenter rare cancer network study on 258 patients. ECCO 12, the European Cancer Conference. Copenhagen, Denmark. Presenter(s): Tsang, R. Ozasahin, M., Poortmans, P., Belkacemi, Y., Bolla, M., Oner, F., Landmann, C., Castelain, B., Buijsen, J., Knobel, D.

2003 Localized mucosa-associated lymphoid tissue (MALT) lymphoma treated with radiation therapy has excellent outcome. ECCO 12, the European Cancer Conference. Copenhagen, Denmark. Presenter(s): Tsang, R. W., Gospodarowicz, M. K., Pintilie, M., Wells, W., Hodgson, D.C., Sun, A., Crump, M., and Patterson, B. J.

2003 Pretreatment proliferation parameters do not add to the predict power of clinical factors in cervix cancer treated with definitive radiation therapy. 45th Meeting of the American Society for Therapeutic Radiology and Oncology. Salt Lake City, Utah, United States. Presenter(s): Tsang, R. W., Juvet, S., Pintilie, M., Hill, R.P., Wong, S., Milosevic, M., Chapman, W., Fyles, A.W.

2002  Radiation therapy has curative potential in stage I and II MALT lymphomas. The 8th International Conference on malignant lymphoma. Lugano, Switzerland. Presenter(s): Tsang, R. W., Gospodarowicz, M. G., Pintilie, M., Wells, W., Hodgson, D., Sun, A., Patterson, B. and Crump, M.

2002 Localized extranodal marginal zone B-cell lymphoma: Clinical outcome with radiation therapy. 44th Meeting of the American Society for Therapeutic Radiology and Oncology. New Orleans, Louisiana, United States. Presenter(s): Tsang, R. W., Gospodarowicz, M. K., Pintilie, M., Wells, W., Hodgson, D., Sun, A., Patterson, B., and Crump, M.


Richard Wing-Chi TSANG

1999 Staging and management of localized Non-Hodgkin’s lymphomas: Variations among experts in Radiation Oncology. 41st Meeting of the American Society for Therapeutic Radiology and Oncology. San Antonio, Texas, United States. Presenter(s): Tsang, R. W., Gospodarowicz, O’Sullivan, B.


1997 Improved survival and reduced local relapse following external beam radiotherapy in papillary thyroid cancer with microscopic residuum following surgical excision. 39th Meeting of the American Society for Therapeutic Radiology and Oncology. Orlando, Florida, United States. Presenter(s): Brierley, J. D., Tsang, R. W., Panzarella, T., Gospodarowicz, M. K.


1995 The role of radiation therapy in differentiated thyroid cancer. The 11th International Thyroid Congress. Toronto, Ontario, Canada. Presenter(s): Tsang, R. W., Brierley, J. D., Simpson, W. J., Panzarella, T., Gospodarowicz, M. K., Sutcliffe, S. B.


1993 Radiation therapy for pituitary adenoma: Treatment outcome and prognostic factors. 35th Meeting of the American Society for Therapeutic Radiology and Oncology. New Orleans, Louisiana, United States. Presenter(s): Tsang, R. W., Brierley, J. D., Panzarella, T., Simpson, W. J.


2. NATIONAL

Invited Lectures and Presentations


2008 Sep Lymphoma update. Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO). Montreal, Quebec, Canada. Refresher Course. (Continuing Education).


2000 Jun Panelist. Current concepts in the management of thyroid nodular disease and cancer. CME course, Departments of Otolaryngology and Endocrinology, Mount Sinai Hospital, University of Toronto. Quebec City, Quebec, Canada. Organizer: Dr. Jeremy Freeman. (Continuing Education).

2000 May The role of radiation therapy in Hodgkin’s Disease. XXVth Convention of the Quebec Association of Hematologists and Oncologists. Quebec City, Quebec, Canada.


Presented Abstracts

2003 Tumour proliferation measurements do not predict clinical outcome in cervix cancer treated with radiation therapy. Annual meeting of the Canadian Association of Radiation Oncologists. Montreal, Quebec, Canada. Presenter(s): Tsang, R., Juvet, S., Pintille, M., Hill, R., Wong, S., Milosevic, M., Chapman, W., Fyles, A.
2002 Stage I/II mucosal-associated lymphoid tissue (MALT) lymphoma treated with radiation therapy has excellent local control and survival. Annual meeting of the Canadian Association of Radiation Oncologists. Toronto, Ontario, Canada. Presenter(s): Tsang, R. W., Gospodarowicz, M. K., Pintilie, M., Wells, W., Laperriere, N., Payne, D., Hodgson, D., Sun, A., and Patterson, B.

1999 Relationship of oxygen tension and proliferation rate in carcinoma of the cervix. 68th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Montreal, Quebec, Canada. Presenter(s): Tsang, R. W., Fyles, A. W., Pintilie, M., Milosevic, M., Levin, W., Manchul, L. A., Syed, A.

1999 Solitary plasmacytoma treated with radiotherapy: Impact of tumour size on outcome. 68th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Montreal, Quebec, Canada. Presenter(s): Tsang, R. W., Gospodarowicz, M. K., Wells, W., Bezjak, A., Pintilie, M.


1995 The role of radiation therapy in differentiated thyroid cancer. 64th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Montreal, Quebec, Canada. Presenter(s): Tsang, R. W., Brierley, J. D., Simpson, W. J., Panzarella, T., Gospodarowicz, M. K., Sutcliffe, S. B.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2011 Sep  **Invited Speaker.** Multidisciplinary cancer cancer: MALT lymphoma as an example. Oncology grand rounds, Southlake regional cancer centre. New Market, Ontario, Canada.


1997 Apr  **Invited Speaker.** Role of radioactive 131Iodine and external beam radiation therapy in thyroid cancer. Hamilton Regional Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

1997  **Visiting Professor.** Management of thyroid cancer. Hamilton Regional Cancer Centre, Department of Radiation Oncology. Hamilton, Ontario, Canada. (Continuing Education).

1997  Role of radioactive 131Iodine and external beam radiation therapy in thyroid cancer. Hamilton Regional Cancer Centre. Hamilton, Ontario, Canada. (Continuing Education).


1995  **Visiting Professor.** Kingston Regional Cancer Centre, Department of Radiation Oncology. Kingston, Ontario, Canada. (Continuing Education).


1990 **Visiting Professor.** Kingston Regional Cancer Centre, Department of Radiation Oncology. Kingston, Ontario, Canada. (Continuing Education).

### 4. LOCAL

**Invited Lectures and Presentations**

2012 Sep **Invited Speaker.** Management of extanodal aggressive lymphomas and rare types. Princess Margaret Hospital. Toronto, Ontario, Canada. Toronto Lymphoproliferative diseases Conference (TLC).


2007 Sep Skin Cancer Management with Radiation Therapy. Medical Radiation Sciences Program, Michener Institute and University of Toronto. Toronto, Ontario, Canada.


1998 May **Invited Panelist.** Current concepts in the management of thyroid nodular disease and cancer. CME course, University of Toronto. Toronto, Ontario, Canada. (Continuing Education).


Presented Abstracts


G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2003 - 2006  Item writing Group, American Board of Radiology. Writing examination questions for qualifying exam in Radiation Oncology, Lymphoma-Leukemia category.


H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD


Postgraduate MD


2004 - 2005  Primary Supervisor. Dr. Gregory Czarnota. Ultrasound biomicroscopy for monitoring apoptosis in lymphoma, melanoma, and basal cell carcinoma patients during chemotherapy or radiation therapy.

2004  Primary Supervisor. Clinical Fellow. Dr. Peter Petersen. Supervisee Position: Consultant Oncologist, Supervisee Institution: Dept. of Oncology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark. Long-term outcome for stage I/II Hodgkin's Disease.
2004 Primary Supervisor. Clinical Fellow. Dr. Peter Petersen. Supervisee Position: Consultant Oncologist, Supervisee Institution: Dept. of Oncology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark. Results of combined modality therapy for stage I/II diffuse large cell lymphoma.

2004 Primary Supervisor. Clinical Fellow. Dr. Peter Petersen. Supervisee Position: Consultant Oncologist, Supervisee Institution: Dept. of Oncology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark. Long-term outcome of treatment for stage I/II follicular lymphomas.


2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

Curriculum Vitae

May N. Tsao
MD, FRCP(C)

A. Date Curriculum Vitae is Prepared: 2016 August 8

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone (416) 480-4806
Fax (416) 480-6002
Email may.tsao@sunnybrook.ca

1. EDUCATION

Degrees
1989 - 1993 MD, Medicine, Medicine, Faculty of, University of Toronto, Canada

Postgraduate, Research and Specialty Training
2000 Jul 1 - 2002 Jun 30 Diploma, Clinical Epidemiology and Health Care Research, University of Toronto, Toronto, Ontario, Canada
1998 - 1999 Fellowship, CNS Radiation Oncology, Department of Radiation Oncology, University of California, San Francisco, United States
1993 - 1998 Residency, Radiation Oncology, Department of Radiation Oncology, University of Toronto, Canada

Qualifications, Certifications and Licenses
2009 DABR (recertification), United States
1999 DABR, United States
1998 FRCP(C), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1994 MCCQE Part II, Canada
1993 MCCQE Part I, Canada

2. EMPLOYMENT

Current Appointments
2014 Jul - present Associate Professor, Radiation Oncology, University of Toronto
1999 - present Staff, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

1998

ASTRO Basic Science Travel Award, American Society for Therapeutic Radiology and Oncology, United States. (Research Award)

NATIONAL

Received

1997

CARO Phillips Award, Canadian Association of Radiation Oncologists, Canada. (Research Award)

(Resident Award for best oral presentation).

LOCAL

Received

1997

Resident Research Award, Honorable Mention, University of Toronto, Canada. (Research Award)

1988

John Melady Award, Faculty of Medicine, University of Toronto, Canada. (Distinction)

1987 - 1991

Open Admission Scholarship, University of Toronto, Canada. (Distinction)

1987 - 1989

Faculty Scholar, Faculty of Arts and Science, University of Toronto, Canada. (Distinction)

Teaching and Education Awards

LOCAL

Received

2015

Postgraduate Medical Education Excellence in Research Supervision, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto

2012

Postgraduate Classroom Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

Radiation Oncology Residency Program.

2010

Excellence in clinical teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

Residency program.
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1999 - present member, American Society for Therapeutic Radiology and Oncology
1999 - present member, Canadian Association of Radiation Oncology
1999 - present member, Canadian Brain Tumour Consortium
1999 - present member, Ontario Medical Association

Administrative Activities

INTERNATIONAL

American Society for Therapeutic Radiation Oncology
2015 Jan Expert Reviewer: ASTRO Glioblastoma Guidelines

American Society for Therapeutic Radiology and Oncology
2009 - present Member, Guidelines Task Group, United States.
2004 - 2010 Member, Health Services Research Committee

Society for Palliative Radiation Oncology (SPRO)
2015 Jan - present Member, Research Committee
2015 Jan - present Member, Education Committee

NATIONAL

Brain Tumor Consortium of Canada
1999 - present Member
Associate member, Canadian Brain Tumour Network.

Canadian Association of Radiation Oncology
2000 - present Member, Symptom Control Task Force

PROVINCIAL / REGIONAL

Cancer Care Ontario
2003 - present Member, Neuro-Oncology Disease Site Group, Ontario, Canada.
2003 - present Member, Supportive Care Disease Site Group, Ontario, Canada.

LOCAL

Odette Cancer Centre
2005 Jul 1 - 2013 Jun 30 Leader, Radiation Oncology CNS Site Group Leader
2005 Jul 1 - 2013 Jun 30 Leader, CNS Site Group Leader

University of Toronto
2014 Apr - present Faculty of Medicine, Dept of Radiation Oncology, Graduate Education
2014 - present Member, Medical Radiation Sciences, Board of Examiners
2014 - present Coordinator, Applied Physics Course, Radiation Oncology Residency
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2008 Jul 1 - 2013 Jun 30  Director, Undergraduate Medical Education, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD

2005 May 1 - 2008 Jul 1  Member, Radiation Oncology Residency Curriculum and Objectives Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2005 May - 2008 Jan 1  Member, CD-ROM Imaging for Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2002 - 2013 Jun 30  Member, Undergraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer

2014 Cochrane Library
Can J of Neurol Sci
Cancer
Clinical Oncology
Crit Rev Oncol Hematol
Int J Radiat Oncol Biol Phys
J Palliat Care
Neuro-oncol
Radiother Oncol

OTHER

Editorial Member (Scientific Peer Reviewed Journal)

2015 Jan - present  Annals of Palliative Medicine - Palliative Radiotherapy Subcommittee

C. Academic Profile

1. RESEARCH STATEMENTS

2002 Aug - 2013 Jul 1  Research statement:
My research focuses on the development of professional practices under two themes:

1. Treatment guidelines and management of brain metastases
2. Treatment guidelines and management of malignant gliomas.

2. TEACHING PHILOSOPHY

My teaching philosophy has emerged from my experience with outstanding teachers I have had during my training. From their example, I have modeled an approach that captures the following principles:

1) incite interest
2) solidify basic principles
3) clarify difficult topics
4) improve retention of knowledge gained using relevance and repeated exposure to knowledge gained in different
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settings

From this foundation, I have had the honour of teaching trainees who have later become successful in their own careers.

The following are some specific examples of my significant contributions to undergraduate and postgraduate medical teaching.

Undergraduate Medicine: From July 2008 to June 2013, I served as Undergraduate Medical Education Director, University of Toronto, Department of Radiation Oncology. This involved overseeing all aspects of teaching Radiation Oncology to undergraduate medical students at the University of Toronto, Department of Radiation Oncology. I was responsible for medical student rotations in Radiation Oncology. Yearly annual reports summarizing activities in undergraduate medical education in the Department of Radiation Oncology were provided. I actively participated as the Peters-Boyd Academy Determinants of Community Health II Supervisor and Agency Research supervisor. I am the Transition to Residency supervisor for Radiation Oncology at Odette Cancer Centre. Other significant contributions include supervising and teaching numerous medical students as outlined in my teaching dossier.

Postgraduate Medicine: I have significantly contributed to teaching post graduate trainees as outlined in my teaching dossier. In 2012, I won the Postgraduate Classroom Teaching Award. In 2010, I won the Excellence in Clinical Teaching Award, Department of Radiation Oncology, Residency Program, University of Toronto.

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

My Creative Professional Activity (CPA) is based on contributions to the development of professional practices and is focused on two themes.

Theme 1: Treatment guidelines and management of brain metastases.

This theme also includes meta-analysis, namely critical evaluation and pooling of outcomes in randomized trials for the management of brain metastases to guide practice by evaluating whether a) radiation treatments are associated with beneficial effects and b) the magnitude of these effects.

My CPA has helped define standard evidence-based radiation practice nationally and internationally for patients with brain metastases. This effort has lead to promotion of good clinical practice as an extensive body of medical literature has been thoroughly reviewed, synthesized, combined and analyzed statistically. Recommendations based on levels of evidence have been formulated. The guidelines produced have been accepted nationally [eg. through Cancer Care Ontario (CCO)] and internationally [eg. through the American Society of Therapeutic Radiation Oncology (ASTRO)]. Rigorous external review and extensive practitioner feedback were obtained prior to finalizing these guideline documents. Furthermore, the ASTRO brain metastases guidelines have resulted in an ASTRO self assessment module for Radiation Oncologists and metrics for the ASTRO Radiation Oncology Practice Accreditation Program (ROPA).

Theme 2. Evidence based guidelines on the role of focused radiation (radiosurgery) in the management of malignant gliomas.

My work on the ASTRO evidence-based review on the role of radiosurgery for malignant gliomas is internationally recognized for demonstrating the lack of benefit to the addition of radiosurgery boost in patients with malignant gliomas.

My contribution to the radiation management for malignant gliomas includes our series of patients with primary malignant glioma (glioblastoma). We demonstrated the imaging follow-up phenomenon of “pseudo-progression” where the brain cancer appears larger with more swelling after radiotherapy due to radiation effect rather than true tumour progression. This phenomenon of “pseudo-progression” is now a recognized radiographic pattern. Our findings have altered practice in that maintenance chemotherapy is generally not abandoned on the basis of seemingly worse imaging features identified within the first three months of concurrent radiation and chemotherapy.

D. Research Funding
1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2015 Dec - 2016 Dec  Co-Investigator. A study of elderly glioblastoma patients managed at Odette Cancer Centre, evaluating post-diagnosis hospitalization and risk factors associated with hospitalizations. PBR Seed Grant Awards. Practice-Based Research and Innovation Seed Grant Program. PI: Moroney C. Collaborator(s): Bilodeau D, Tsao M. 10,000. [Grants]


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

Journal Articles


7. Chow R, **Tsao M**, Pulenzas N, Zhang L, Sahgal A, Cella D, Soliman H, Danjoux C, DeAngelis C, Vuong S, Chow E. Do patients with brain metastases selected for whole brain radiotherapy have worse baseline quality of life as compared to those for radiosurgery or neurosurgery (with or without whole brain radiotherapy)? Annals of Palliative Medicine. 2016 Jan 5;5(1):1-12. **Coauthor or Collaborator.**


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**Book Chapters**


**Letters to Editor**

3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Commentaries

1. Tsao MN. Motexafin gadolinium prolongs time to neurologic progression in lung cancer patients with brain metastases: Results of a randomized phase III trial. Oncology Exchange. 1(2); 21, 2002. Principal Author.

4. SUBMITTED PUBLICATIONS

Book Chapters


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2010 Nov 3 Invited Speaker. International perspectives on palliative care-updates from the third international conference on metastases. ASTRO 2010 Annual Meeting. San Diego, California, United States. Presenter(s): Tsao MN.

2010 Nov 1 Invited Speaker. Upcoming ASTRO guidelines: a focus on palliative care. ASTRO 2010 Annual Meeting. San Diego, California, United States. Presenter(s): Tsao MN.


2005 Apr 2 Invited Lecturer. Brain metastases. ASTRO Spring Refresher Course. Chicago, Illinois, United States. Presenter(s): Tsao MN.

2004 Oct 4 Invited Speaker. ASTRO Technology Assessment experience from 3-D conformal radiotherapy to stereotactic radiosurgery. ASTRO Annual Meeting. Atlanta, Georgia, United States. Presenter(s): Tsao MN.

Presented Abstracts


2014 Sep 1 Collaborator. Cone Beam CT (CBCT) Based Evaluation of a Noninvasive Stereotactic Head Frame Equipped with a Vacuum Fixation Bite-Block for Radiosurgery. American Society for Therapeutic


**Presented and Published Abstracts**


**Publication Details:**


**Publication Details:**


**Publication Details:**
2. NATIONAL

Invited Lectures and Presentations

2003 Oct 2  Invited Lecturer. Meta-analysis versus subsequent large randomized controlled trials. CARO Cochrane Workshop. Montreal, Quebec, Canada. Presenter(s): Tsao MN.


Presented Abstracts


2001 Sep 22  Invited Lecturer. Arteriovenous malformations (AVM's) treated at the Toronto-Sunnybrook Regional Cancer Centre. Canadian Association of Radiation Oncologists. Quebec City, Quebec, Canada. Presenter(s): Tsao MN, Schwartz M, TerBrugge K, Burststein A, Scora D, Young C, Szumacher E, Butany
Presented and Published Abstracts

2015 Sep


Publication Details:

2015 Sep


Publication Details:

2015 Sep


Publication Details:

2014


Publication Details:

2014

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McDonald R, Holden L, **Tsao M**, Barnes E, Szumacher E, Fenton G, Chow E.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2011 **Co-Author or Collaborator**. Dexamethasone Toxicity and Quality of Life in Patients with Brain Metastases Treated with Whole Brain Radiotherapy. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Caissie A, Nguyen J, Zhang L, Zeng L, **Tsao M**, Danjoux C, Barnes E, Sahgal A, Holden L, Jon F, Dennis K, Chow E.

**Publication Details:**


**Publication Details:**


**Publication Details:**

Publication Details:

Co-Author or Collaborator. Radiotherapy for the Prophylaxis of Heterotopic Ossification: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Canadian Association of Radiation Oncologists (CARO).

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2003 Mar 22 Invited Lecturer. CNS Radiation Oncology. OMART Central Section Education Day. Toronto, Ontario, Canada. Presenter(s): Tsao MN. (Continuing Education).

4. LOCAL

Invited Lectures and Presentations


2015 May 19 Presenter. Experimental Molecular Targeted Agents for Brain Metastases: The New Vocabulary of IBS and MABS. Odette Cancer Centre, RRRP Rounds.


2014 Dec 11 Invited Speaker. Fractionated Radiosurgery for Large Brain AVMs. Sunnybrook Health Sciences Centre, Brain Sciences Rounds. Toronto, Ontario, Canada. Presenter(s): Dr. May Tsao.


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Lectures and Other Presentations


2005 Apr 27  Invited Speaker. PET imaging in patients with glioblastoma multiforme. A study proposal. CNS site group Grand Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Tsao MN. (Continuing Education).


2003 Nov 25  Invited Lecturer. Issues in the management of patients with brain metastases: Case-based discussions. RRRP Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Tsao MN. (Continuing Education).


2000 Feb 22  Invited Lecturer. Intensity-modulated radiation therapy at TSRCC. Radiation Oncology Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Tsao MN. (Continuing Education).


5. OTHER

Presented and Published Abstracts

2014 Sep  Collaborator. Cone Beam CT (CBCT) - Based Evaluation of a NonInvasive Stereotactic Head Frame Equipped with a Vacuum Fixation Bite-Block for Radiosurgery. American Society for Therapeutic
Radiology and Oncology (ASTRO).

Publication Details:

2014 Sep Collaborator. Factors Affecting Postoperative Surgical Cavity Volume and Surface Area Dynamics Specific to Brain Metastases. American Society for Therapeutic Radiology and Oncology (ASTRO).

Publication Details:


Publication Details:


Publication Details:

Other Presentations
Invited Speaker. ESTRO Palliative Care Committee. Barcelona, Spain. Presenter(s): Dr. May Tsao. SIB technique combinations with EBRT, outcome of newer systemic therapies.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

Undergraduate MD

therapy.

Postgraduate MD

2013 Jul - 2014 Jun  
Co-Supervisor. Clinical Fellow. Luluel Khan. Meta-analysis: Radiation dose escalation in high grade glioma. Collaborator(s): Dr. Arjun Sahgal (co-supervisor), Dr. Hany Soliman, Dr. James Perry.

2007 Oct - 2008 Oct  

H. Creative Professional Activities

1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2002 Aug - 2013 Jul  
Theme 1: Treatment guidelines and management of brain metastases.

The first theme of this CPA is my leadership role in the development of treatment guidelines in the management of brain metastases. Having had formal training in clinical epidemiology as well as clinical expertise in the management of brain metastases, I was able to serve as national and international chair as well as lead author for several papers dealing with treatment guidelines in the management of brain metastases.

These brain metastases guidelines have also resulted in the critical evaluation and pooling of outcomes in randomized trials for the management of brain metastases to guide practice by evaluating whether a) interventions are associated with beneficial effect and b) the magnitude of effect. Whereas medical intervention guidelines aim to guide decisions regarding management, meta-analyses involve statistically combining and contrasting results from different studies generating overall effect sizes and confidence intervals.

Highlights of this work include being chair and/or first author for the following peer-reviewed publications:

1) Cancer Care Ontario guidelines on brain metastases
   I was invited to lead the practice guideline report, Management of Brain Metastases: Role of radiotherapy alone or in combination with other treatment modalities under the auspices of the Supportive Care Guidelines Group and the Neuro-Oncology Disease Site Group for Cancer Care Ontario’s Program in Evidence-based care. This led to recommendations for the use of radiotherapy and surgery for single brain metastasis, radiotherapy for multiple brain metastases, and supportive care in patients with brain metastases. Practitioner feedback was also obtained from this guideline document.

   In recognition for my work with Cancer Care Ontario guidelines in brain metastases and in my involvement with ASTRO’s Health Services Research Committee, I was invited to chair and first-author ASTRO’s radiotherapeutic and surgical management for brain metastasis/es in 2009. The Guidelines Subcommittee of the Clinical Affairs and Quality Committee recruited a Task Group composed of recognized experts in the fields of radiotherapy, surgery and radiosurgery for brain metastases to work on these guidelines, chaired by myself. We formulated novel and useful tables to guide medical practitioners in the management of single or multiple brain metastases depending on prognostic categories and based on the various grades of evidence available.

3) A meta-analysis evaluating stereotactic radiosurgery, whole brain radiotherapy or both for patients presenting with a limited number of newly diagnosed brain metastases. In this paper, aggregate data from published randomized controlled trials comparing the following interventions were studied:
- Whole brain radiotherapy and radiosurgery versus whole brain radiotherapy
- Radiosurgery alone versus whole brain radiotherapy and radiosurgery boost

This was the first published meta-analysis demonstrating no survival advantage among the interventions studied for patients with multiple brain metastases. The use of whole brain radiotherapy improved overall brain control. Radiosurgery alone (a focussed radiation technique used to treat small intracranial tumour targets) improved targeted lesion control when used with whole brain radiotherapy as compared to the strategy of using whole brain radiation alone. The possible advantage of radiosurgery alone was neurocognitive sparing as compared to whole brain radiotherapy.

This very comprehensive systematic review was undertaken to assess the effectiveness and adverse effects of whole brain radiotherapy in adult patients with multiple brain metastases. Randomized controlled trials in which adult patients with multiple metastases to the brain from any primary cancer treated with whole brain radiotherapy were included. Thirty-nine randomized controlled trials involving 10,835 participants were included in the last updated Cochrane review (2012). This publication clarified the benefits, side effects associated with the use of whole brain radiotherapy (alone or in combination with other therapies such as radiosensitizers, chemotherapy or radiosurgery) in the management of brain metastases.

My commitment as a Cochrane Collaboration contributor involved leading and first authoring the first Cochrane systematic review on the use of whole brain radiotherapy for the management of multiple brain metastases (initially published in 2007). This Cochrane Collaboration commitment continues indefinitely as regular updates to the systematic review will be published (last update published in 2012).

1) The Cancer Care Program in Evidence-Based Care provides evidence-based care information for health care providers and the public. This is an internationally recognized guideline development program. The aim is to provide clinicians and policy makers the best scientific evidence to support standard practice and policy decisions. The brain metastases guidelines have defined standard practice across Ontario.

2) The ASTRO evidence based brain metastases guidelines were also endorsed by the American Association of Neurological Surgeons/ Congress of Neurosurgeons. The ASTRO guidelines also resulted in an ASTRO self assessment module for Radiation Oncologists and metrics for the ASTRO Radiation Oncology Practice Accreditation Program (ROPA). This guideline is the under the “Most Read” category for the peer reviewed journal Practical Radiation Oncology and has been highlighted in an ASTRO endorsed webinar and podcast. Based on the Agency for Healthcare Research and Quality, United States Department of Health and Human Services, this ASTRO guideline has had 21,375 page views.

3) The meta-analysis evaluating stereotactic radiotherapy, whole brain radiotherapy or both for patients presenting with a limited number of metastases was recognized by the European Association of Neuro-Oncology as one of the best neuro-oncology papers in 2011 among a select group of papers by researchers around the world. This paper was published in Cancer (impact factor 4.771) in the year 2012.

4) The Cochrane Collaboration is an international network of more than 28 000 people from over 100 countries who work to develop internationally recognized high quality information about the effectiveness of health care. Cochrane Reviews are internationally acknowledged as the highest standard in evidence-based health care. In addition, the Cochrane Database of Systematic Reviews has an impact factor of 5.912 and is ranked in the top 10 out of the 153 journals in the Medicine, General and Internal category. The Cochrane review on whole brain radiotherapy for the treatment of multiple brain metastases provided independent high quality evidence for international health care decision making. Based on Google Scholar, the Cochrane meta-analysis (for which I am first author) has been cited 93 times.
My work in meta-analysis has led to invited collaborations with other peer-reviewed publications relating to lung cancer, bone metastases and psychosocial intervention.

This body of work has defined local, national and international standard of practice in the management of brain metastases. My scholarly activities in this area has led to several book chapters, invited presentations for colleagues and teaching sessions for medical students and residents.

2002 Aug - 2013 Jun 30

Theme 2: Treatment guidelines on the role of focussed radiation (radiosurgery) in the management of malignant gliomas.

The ASTRO evidence-based review on the role of radiosurgery for malignant glioma is internationally recognized for summarizing no benefit to the addition of radiosurgery boost after external beam radiotherapy as compared to external beam radiotherapy in patients with malignant gliomas. Outcomes of interest were overall survival, local control and quality of life.

This work in radiation management for malignant glioma includes our series of patients with primary malignant glioma (glioblastoma). Under my supervision, Dr. Paul Sanghera, a previous clinical fellow published our experience with glioblastoma patients treated with external beam radiotherapy and chemotherapy. We demonstrated the imaging follow-up phenomenon of “pseudo-progression” where the brain cancer appears larger with more swelling after radiotherapy due to radiation effect rather than true tumour progression. Dr. Sanghera is presently an oncology consultant at the Queen Elizabeth Hospital, Birmingham, UK.

ASTRO systematic review on the role of radiosurgery for malignant glioma has highlighted the lack of benefit for the use of radiosurgery boost as the initial management for patients with malignant gliomas. Based on Google Scholar, this publication has been cited 105 times.

The phenomenon of “pseudo-progression” is now a recognized radiographic entity and has also been reported by other independent brain tumour investigators. In our group of patients, a third of patients showed pseudo-progression within the first three months of concurrent radiation and chemotherapy. From these findings, maintenance chemotherapy is generally not discontinued on the basis of seemingly discouraging imaging features identified within the first three months of concurrent radiation and chemotherapy.
Curriculum Vitae

Yee Ung

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

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Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-4951
Fax 416-480-6002
Email yee.ung@sunnybrook.ca

1. EDUCATION

Degrees
1981 - 1985 MD, Faculty of Medicine, University of Alberta, Edmonton, Alberta
1978 - 1981 BSc, Faculty of Science, University of Alberta, Edmonton, Alberta

Postgraduate, Research and Specialty Training
1992 - 1993 Clinical and Research Fellow, Goldberg Fellowship, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
1991 - 1992 Clinical Research Fellow, McLaughlin Fellowship, Academic Unit, Radiotherapy and Oncology, Royal Marsden Hospital, Institute of Cancer Research, Sutton, Surrey, United Kingdom
1990 Clinical Fellow, Department of Radiation Oncology, Cross Cancer Institute, Edmonton, Alberta
1986 - 1990 Resident in Radiation Oncology, Department of Radiation Oncology, Cross Cancer Institute, Edmonton, Alberta
1985 - 1986 Rotating Internship, Pasqua Hospital, Regina, Saskatchewan

Qualifications, Certifications and Licenses
1992 FRCPC (Fellow), Royal College of Physicians and Surgeons of Canada
1986 LMCC (Licensure), Medical Council of Canada
2. EMPLOYMENT

Current Appointments

2009 - present  Associate Professor, Radiation Oncology, University of Toronto
2006 - present  Consultant Oncologist, Toronto East General Hospital
1993 - present  Staff, Radiation Oncologist, Odette Cancer Centre

Previous Appointments

HOSPITAL
1996 - 1998  Consultant Oncologist, Oshawa General Hospital

UNIVERSITY - RANK
2001 - 2009  Assistant Professor, Radiation Oncology, University of Toronto
1993 - 2001  Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2009  Best Abstract in Clinical and Population-based Oncology, Canadian Association of Radiation Oncology. (Distinction) Annual Scientific Meeting.

2009  People’s Choice Award, Canadian Association of Radiation Oncology. (Distinction) Annual Scientific Meeting.

PROVINCIAL / REGIONAL

Received


1981  Scholarship, Province of Alberta. (Distinction)
1979  Scholarship, Province of Alberta. (Distinction)
1978  Scholarship, Province of Alberta. (Distinction)

LOCAL

Received

2007 May  Award Nominee, Peters Boyd Academy. (Distinction)
1992  Goldberg Fellowship, Princess Margaret Hospital. (Distinction) Clinical and Laboratory Research.
1991  McLaughlin Fellowship in Medicine, Royal Marsden Hospital. (Distinction)
Clinical and Laboratory Research.

1988 Ada Wright Prize for Clinical Excellence, Cross Cancer Institute. (Distinction)
1988 Varian Travel Award, Cross Cancer Institute. (Distinction)
1980 Levi Straus Foundation Scholarship, University of Alberta. (Distinction)
1978 Alma Mater Bursary, University of Alberta. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2007 - present International Association for the Study of Lung Cancer (IASLC)
2002 - present American Society of Therapeutic Radiology and Oncology (ASTRO)
2001 - present American Society of Clinical Oncology (ASCO)
1992 - present European Society of Therapeutic Radiology and Oncology (ESTRO)
1992 - present Ontario Medical Association (OMA)
1988 - present Canadian Association of Radiation Oncologists

Administrative Activities

INTERNATIONAL
American Society of Clinical Oncology
2006 - 2007 Member, Expert Panel on Adjuvant Therapy for Early Stage Resected non-small Cell Lung Cancer

International Association for the Study of Lung Cancer (IASLC)
2008 - 2009 Member, Planning Committee for IASCL 2015 Annual Meeting Bid for Toronto, Ontario
2002 - 2003 Member, Scientific Committee, Annual Meeting of the IASLC, Vancouver, British Columbia.

Lung Cancer Intergroup
2008 - present Member, National Cancer Institute of Canada, Clinical Trials, Vancouver, British Columbia, Canada. Representing the National Cancer Institute of Canada, Clinical Trials Group.

NATIONAL
Canadian Association of Radiation Oncologists
2003 - 2010 Member, Translational Biology Advisory Group

Canadian Cancer Society
1999 - 2002 Member, Cancer Information Service Network of Expert Reviewers

Canadian Partnership Against Cancer
2013 Jan - present Diagnosis and Clinical Care Advisory Group, Canada.
2010 Jun - present Lung Cancer Screening Committee, Canada.
Yee UNG

2010 - present  Member, Guidelines Development Group

**Lung Cancer Canada**

2007 - present  Member, Medical Advisory Committee, Ontario, Canada.
2002 - 2013  Member, Nomination and Governance Committee
2002 - 2013  Member, Board of Directors

**National Cancer Institute of Canada/Clinical Trials Group**

2007 - present  Co-Chair, Lung Disease Site Group
2005 - present  Member, Small Cell Lung Cancer Subcommittee Working Group
2005 - present  Member, Mesothelioma and Thymoma Working Group
2005 - present  Co-Chair, Radiation Subcommittee Working Group
2000 - present  Member, Executive Committee, Lung Cancer Group
1998 - present  Member, Lung Disease Site, Representing Toronto-Sunnybrook Regional Cancer Centre/Odette Cancer Centre
2008 - 2009  Member, Planning Committee, Thymoma and Thymic Carcinoma Conference 2009

**PROVINCIAL / REGIONAL**

**Other Organizations**

2012 Oct - present  Provincial PET Steering Committee, Ontario, Canada.

**Cancer Care Ontario**

2004 - present  Co-Chair, Lung Cancer Disease Site Group
2004 - present  Co-Chair, Lung Disease Site Group, Program In Evidence Based Care
1998 - present  Member, Lung Disease Site Group, Program In Evidence Based Care

**McMaster University/University of Toronto**

2008 - present  Member, Planning Committee, Annual Thoracic Oncology Cancer Conference
2008  Chair, Planning Committee, 3rd Annual Thoracic Oncology Cancer Conference
2006  Member, Planning Committee, 1st Annual Thoracic Oncology Cancer Conference

**Ontario Thoracic Society**

2008 Apr  Co-Chair, Meeting Organizing Committee
2006 Apr 8  Co-Chair, Meeting Organizing Committee, Niagara-on-the-Lake.

**LOCAL**

**Odette Cancer Centre**

2005 Nov 11  Member, Organizing Committee, Expanding Horizons: Timely Diagnosis and Treatment of Lung Cancer

**Odette Cancer Centre, Sunnybrook Health Sciences Centre**

2003 - present  Member, PET CT Committee
1997 - present  Lung Site Group Leader
2008 - 2010  Department of Radiation Oncology Representative, Clinical Trials Review Committee
2003 - 2013  Radiation Lung Site Leader, Department of Radiation Oncology
Yee UNG

Toronto-Sunnybrook Regional Cancer Centre
2008 - 2009 Chair, Radiation Oncology Associates
2004 Apr 23 Member, Expanding Horizons: New Options in Lung Cancer Management
1996 - 1998 Site Director, Radiation Oncology Fellows Program, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1994 - 1995 Coordinator, Oncology Grand Rounds, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

University of Toronto
2008 - 2009 Member, Planning Committee, Target Insight Meeting 2009

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
Cancer Investigation
Clinical Oncology
Journal of Pain and Symptom Management
Journal of the National Cancer Institute (JNCI)
Medical Oncology
Radiotherapy and Oncology

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED
The overall goal of the NCTN Program is to “conduct definitive, randomized, late phase clinical treatment trials and advanced imaging trials across a broad range of diseases and diverse patient populations, as well as development efforts preliminary to those trials, as part of the NCIC’s overall clinical research program for adults and children with cancer.” The mission of the NCIC CTG is “to develop and conduct clinical trials aimed at improving the treatment and prevention of cancer with the ultimate goal of reducing
morbidity and mortality from this disease.” The overlaps of these goals create a rationale for a Canadian Collaborating Clinical Trials Network. This rationale is further supported by similar societal expectations by Canadians and Americans for improved health outcomes and similar respective strategic priorities of NCIC CTG and the NCTN that recognize that new understandings of the molecular basis of carcinogenesis have the potential to advance health care delivery, including through improved therapeutic targeting of the cancer cell and better identification of therapies for individual patients. The specific objectives of this grant are for NCIC CTG to collaborate with NCI/CTEP and US-based groups, through its newly-formed National Clinical Trials Network Program, to develop new Intergroup trials under NCIC CTG leadership and to ensure more rapid accrual to trials led by US-based groups, to enhance the scientific content of these trials through evaluation of additional endpoints and to contribute to new understandings of clinical trial methodology and analysis. This aim is facilitated by NCIC CTG’s unique information technology supports and understandings of the Canadian regulatory environment. The aims of this application are to facilitate Canadian leadership of NCTN trials that represent value from the perspective of expenditure of U.S. federal dollars and to conduct U.S.-led NCTN trials in Canada.

2010 Aug - 2015 Jul


The purpose of this grant is to provide core programmatic funding for the NCIC Clinical Trials Group to engage in a wide range of multicenter trials in Canada. It helps provide infrastructure support to the CTG to fund highly qualified faculty and other personnel through which trials are developed and conducted in Canada.

2010 Jul - 2015 Jun


Precis: The mission of the NCIC Clinical Trials Group (CTG) is to develop and conduct clinical trials aimed at improving the treatment and prevention of cancer with the ultimate goal of reducing morbidity and mortality from this disease. Trials addressing treatment strategies include testing hypotheses that may prevent, be curative, prolong survival, and/or improve quality of life.

2010 Jul - 2014 Jun

Co-Investigator. A phase III study comparing the proportion of lung cancer patients with symptomatic and quality of life improvements receiving external beam radiation with or

Precis: Non-small cell lung cancer (NSCLC) remains the single leading cause of cancer mortality in Canada. Most patients present with disease advanced beyond that amendable to surgery or other potentially curative interventions, and many patients are treated with external beam radiation (EBR) to improve their underlying symptoms of thoracic disease. But the success of EBR treatment and duration of benefit is limited. From uncontrolled studies, the addition of High Dose Rate Brachytherapy (HDRIB) appears to have the potential to improve the symptomatic benefit achieved by patients by delivering an additional dose of radiation to the epicenter of the luminal disease without significant additional toxicity.

We are proposing to conduct a multi-centered phase III randomized trial of EBR alone (20 Gy/5fractions) versus the same EBR followed by HDRIB (14Gy/2 fractions) in patient subjects with thoracic symptoms of advanced stage, or recurrent NSCLC, that have documented luminal disease and that would otherwise be candidates for EBR alone. Two hundred and fifty subjects will be accrued over a 3 year period.

The primary outcome of the study is the proportion of subject that demonstrate an improvement in the summary question of "lung cancer symptoms" (question 7) of the Lung Cancer Symptom Scale (LCSS) at six weeks following randomization as defined by a 10-point or more improvement on a 100-point scale. Secondary outcomes will include individual symptom scores, quality of life (QOL) as measured by the complete LCSS, symptom progression free survival, overall survival, cost effectiveness, and cost utility.

Our hypothesis is that HDRIB in addition to EBR will provide greater local tumour control compared to EBR alone and will result in improved symptom control and QOL for patients with advanced NSCLC that have luminal disease.

2008 Aug - 2014 Feb Co-Investigator. Canadian contribution to NCI Intergroup Program. National Institute of HealthNational Cancer Institute (NIH/N. PI: Eisenhauer, Elizabeth. 5,813,781 CAD. [Grants] The goal of this grant is to enable collaborative clinical trial conduct between Canada and the US by permitting Canadian contributions to recruitment to US Cooperative group clinical trials and to enable Canadian-led trials with US Cooperative Group involvement to be developed and conducted.


2006 - 2008 Steering Committee Member. Accelerated hypofractionated 3-dimensional conformal radiotherapy (3DCRT) for inoperable Stage I/II non-small cell lung cancer (NSCLC). National Cancer Institute of Canada (NCIC). [Clinical Trials] $3000 per case funding.


Precis: The goal of this award was to a clinicopathological correlation study of PET CT
images with the final resected pathological specimen in patients undergoing surgical resection as a companion clinical trial to the PET START trial. This study was to evaluate the accuracy of PET CT with the final pathological specimen with applications to targeting by radiation therapy.

Precis: The goal of this award was to develop an effective multi-disciplinary team approach for lung cancer patients that involved a structured multi-disciplinary clinic, satellite clinics in a community hospital and a multi-institutional and multi-disciplinary tumor board to facilitate timely referrals and reduce patient wait times for evaluation and treatment.

Precis: The goal of this award was to continue longterm followup for patients on the ELPET trial to determine whether PET standardized uptake values have any prognostic implications in early stage non-small cell lung cancer.

Precis: The goal of this award was to see if a system redesign for patient referrals with suspected lung cancer could reduce the time to referral, time to diagnostic tests and time to consultation with lung cancer specialists for lung cancer patients.


2004 Jul - 2008 Jun  Principal Investigator. The impact of Positron Emission Tomography (PET) imaging in staging potentially surgically resectable non-small cell lung cancers: A prospective, multicenter randomized clinical trial. Ontario Clinical Oncology Group (OCOG) and the Ontario Ministry of Health and Long-term Care. [Clinical Trials] $1250 per case funding; (ELPET Steering Committee Member).

2004 Jul - 2008 Jun  Principal Investigator. A Phase III trial of Cisplatin/Etoposide/Radiotherapy with consolidation Docetaxel followed by maintenance therapy with ZD 1839 or placebo in patients with inoperable locally advanced Stage III non-small cell lung cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials] $3000 per case funding; (NCIC CTG BR 15 Canadian Study Chair).

2003 - 2006  Principal Site Investigator. A Phase II study of ZD6474 or placebo in small cell lung cancer patients who have complete or partial response to induction chemotherapy ± radiation therapy. National Cancer Institute of Canada (NCIC). [Clinical Trials] $3000 per case funding; (Odette Cancer Centre PI).

2002 Jul - 2004 Jun  Collaborator. The appropriateness of colorectal cancer treatment in Ontario. Canadian

[Grants]

Precis: The goal of this award was to evaluate the appropriateness of colorectal cancer management in colorectal cancer patients in the province of Ontario. This was done by setting up appropriateness criteria and doing chart reviews.

2000 Jul - 2001 Jun


Precis: The goal of this award was to test the hypothesis that gamma camera coincidence imaging (i.e. positron emission tomography) coregistered with CT for radiation treatment planning in locally advanced non-small cell lung cancer would be superior to CT based planning alone using dose volume histogram analysis for target coverage and normal tissue constraints for lung, heart and spinal cord.

NON-PEER-REVIEWED GRANTS

FUNDED

2012 Jul - 2013 Jun

Principal Investigator. A randomized double blind phase 2 dose ranging study to evaluate the safety and efficacy of Veliparib and whole brain radiation therapy versus placebo and whole brain radiation therapy in subjects with brain metastases from non-small cell lung cancer. [Clinical Trials]

2012 Jul - 2013 Jun

Principal Investigator. Randomized double blind, multicenter phase 2 trial comparing Veliparib plus carboplatin and paclitaxel versus placebo plus carboplatin and paclitaxel in previously untreated metastatic or advanced non-small cell lung cancer (NSCLC). [Clinical Trials]

1999 Jul - 2000 Jun


Precis: The goal of this award was to evaluate the impact of integrating pet images with CT planning in lung cancer patients.

1998


Precis: The goal of this award was to evaluate the impact of combing pet imaging to radiation treatment planning in lung cancer.

1997 Jul - 1998 Jun


Precis: The goal of this award was to test the hypothesis that electron arc radiation therapy was superior to either a direct electron field or a photon field arrangement for treating the chest wall in postmastectomy breast cancer patients by using dose volume histogram analysis of normal tissue constraints for lung, heart and the clinical target volume.
D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   We showed that it was possible to enroll palliative lung patients on a placebo controlled randomized clinical trial that would involve having daily injections of saline (placebo) versus erythropoietin and to measure symptom control outcomes.


   This PET guideline was a thorough systematic review of the role of PET in lung cancer. It highlighted the best available data to guide practitioners in the clinical utility of PET and also showed areas where data is lacking or not of sufficient quality to make definitive conclusion regarding the role for PET.


   This guideline on HDR was a thorough evaluation of the role of HDR brachytherapy for symptom control. Randomized clinical trials are very difficult to do comparing different methods for palliation of symptomatic endobronchial disease and in fact, one attempted randomized trial closed due to lack of accrual. This guideline was an important summary of best available evidence to guide practitioners in the use of HDR brachytherapy.


   This guideline was thorough review of the role for radiation in malignant pleural mesothelioma. There is a paucity of randomized clinical trials involving the use of radiation therapy for mesothelioma and this guideline served as a useful guide for practitioners in this area.


   As the clinical principal investigator, this paper was the first to rigorously evaluate the impact of gamma camera coincidence imaging/PET on changing management intent from radical to palliative and its impact on radiation treatment planning with dose volume histogram analysis.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


44. Cheung PC, Sixel KE, Tirona R, Ung YC. Reproducibility of lung tumor position and reduction of lung mass within the planning target volume using active breathing control (ABC). Int J Rad Onc Biol Phys. 2003;57(5):1437-1442. **Co-Principal Author.**


Book Chapters

Editorials

Letters to Editor

Cited


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2002 **Visiting Professor.** FDG PET and CT coregistration: Essential for radiation treatment planning? Department of Radiation Oncology, Fox Chase Cancer Centre. Philadelphia, United States.

2002 **Visiting Professor.** FDG PET and CT Co-registration: Essential for radiation treatment planning. Fox Chase Cancer Centre. Philadelphia, Pennsylvania, United States. Presenter(s): Dr. Yee Ung, Department of Radiation Oncology.

Presented Abstracts


2013 Oct **Presenter.** A Practice Guidelines for Low Dose CT Screening for Lung Cancer: Evidence Based Recommendations Before Implementation. International Association for the Study of Lung Cancer


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009 Recurrence and survival patterns in Stage 3 non-small cell lung cancer (NSCLC) with the addition of positron emission tomography (PET) imaging to standard CT. World Conference on Lung Cancer
Recurrence and survival patterns in Stage 3 non-small cell lung cancer (NSCLC) with the addition of positron emission tomography (PET) imaging to standard CT. J Thor Oncol. 2009;4(9 Suppl 1):S731, P2.019.

Management change as a result of positron emission tomography (PET) in a prospective randomized clinical trial. World Conference on Lung Cancer (WCLC), International Association for the Study of Lung Cancer (IASLC). San Francisco, United States.

A randomized controlled trial (RCT) of 18 F- Fluorodeoxyglucose (FDG) positron emission tomography (PET) versus conventional imaging (CI) in staging potentially resectable non-small cell lung cancer (NSCLC). American Society of Clinical Oncology (ASCO) Annual Meeting. Chicago, United States.


Publication Details:


Publication Details:


Publication Details:

2007 Regional Cancer Centre (RCC) and Community Hospital (CH) Collaboration: A new paradigm for lung cancer (LC) service organization? World Conference on Lung Cancer (WCLC), International Association for the Study of Lung Cancer (IASLC) Annual Meeting. Seoul, Korea, Republic Of.

Publication Details:


Publication Details:


Publication Details:

2007 18Fluorodeoxyglucose positron emission tomography and co-registered computed tomography for radiation treatment planning in lung cancer: a systematic review. World Congress on Lung Cancer (WCLC), International Association for the Study of Lung Cancer (IASLC) Annual Meeting. Seoul, Korea, Republic Of.

Publication Details:

Publication Details:


Publication Details:


Publication Details:

2003 Accelerated fractionated radiotherapy for the palliation of dysphagia in esophageal cancer – a University of Toronto Study. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Salt Lake City, United States.

Publication Details:

2002 Immobilization of peripheral lung tumors and reduction of lung mass with the planning target volume using active breathing control (ABC). American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. New Orleans, United States.

Publication Details:

Publication Details:
Publication Details:

2001
FDG-Hybrid PET and CT coregistration improves target volume definition in treatment planning for carcinomas of the anal canal. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, United States.

Publication Details:

2001
Feasibility of using active breathing control (ABC) to reproducibly increase lung volume and reduce lung mass within the planning target volume. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, United States.

Publication Details:

2000
Feasibility of deep inspiration breath hold combined with Intensity Modulated Radiation Treatment delivery for left breast irradiation. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Antonio, United States.

Publication Details:

2000

Publication Details:

2000
Fusing Fluorodeoxyglucose (FDG)-Hybrid PET to CT images significantly alters treatment planning in the radical treatment of non-small cell carcinoma of the lung. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Antonio, United States.

Publication Details:

Scientific Meetings (Peer-Reviewed)

2011

2008
Defining the appropriate PET intensity threshold and CT threshold for target delineation in early stage

2007


2007

Regional Cancer Centre (RCC) and Community Hospital (CH) Collaboration: A new paradigm for lung cancer (LC) service Organization? World Conference on Lung Cancer. Seoul, Korea, Republic Of.

2007


2007


2005


2005


2003


2002


2000

Fusing Fluorodeoxyglucose (FDG)-Hybrid PET to CT images significantly alters treatment planning in the radical treatment of non-small cell carcinomas of the lung. American Society of Therapeutic Radiology and Oncology (ASTRO). Boston, United States.

1992


1992

The role of the p53 tumor suppressor gene and repetitive sequences in the process of cellular death in murine erythroleukemia. European Society of Therapeutic Radiology and Oncology (ESTRO). Granada, Spain.

2. NATIONAL

Invited Lectures and Presentations

2013 Feb


2009


2009

Visiting Professor. The role of PET in lung cancer. Department of Oncology, McGill University and Université de Montreal, Visiting Speakers Program. Montreal, Quebec.

2009

Visiting Professor. The role of PET in lung cancer. McGill University of Universite de Montreal. Montreal, Quebec, Canada. Presenter(s): Dr. Yee Ung, Department of Oncology.
Yee UNG


2006 Visiting Professor. Multimodality therapy for stage III non-small cell lung cancer: A changing paradigm? Department of Medical Oncology and Radiation Oncology, Winnipeg Regional Cancer Centre. Winnipeg, Manitoba.

2006 Visiting Professor. PET CT for RT planning in NSCLC: Is the target fuzzy or more clear? Department of Medical Oncology and Radiation Oncology, Winnipeg Regional Cancer Centre. Winnipeg, Manitoba.

2006 Visiting Professor. PET CT for radiation treatment planning in non-small cell lung cancer: Is the target clearer or more fuzzy? Winnipeg Regional Cancer Centre. Winnipeg, Manitoba, Canada. Presenter(s): Dr. Yee Ung. Department of Medical and Radiation Oncology.

2006 Visiting Professor. Multi-modality therapy for stage III non-small cell lung cancer: A changing paradigm? Winnipeg Regional Cancer Centre. Winnipeg, Manitoba, Canada. Presenter(s): Dr. Yee Ung. Department of Medical and Radiation Oncology.


Presented Abstracts


Presented and Published Abstracts

2015 Sep 9 Breaking down silos and building up robust systems: an interprofessional team at work! Canadian Association of Radiation Oncologists (CARO). Kelowna, British Columbia, Canada.

Publication Details:


Publication Details:

2009 PET START: The first randomized clinical trial evaluating the impact of positron emission tomography in Stage III non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting, Quebec City, Quebec.

Publication Details:

2009 Developing consensus among clinical experts and non-experts for the role of positron emission tomography in small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting, Quebec City, Quebec.

Publication Details:

2009 Radiation treatment planning for positron emission tomography (PET) coregistered with CT may alter recurrence patterns as compared with CT planning alone for patients with stage III non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting, Quebec City, Quebec.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2008 Dose escalated radiation in the treatment of locally advanced pancreatic or bile duct cancer using tomotherapy: initial experience at the Odette Cancer Centre. Canadian Association of Radiation
Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2008 PET CT thresholds for target definition in non-small cell lung cancer: How close are we to pathology? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:


Publication Details:

2007 Co-registered 18f-fluorodeoxyglucose positron emission tomography (PET) and computed tomography (CT) imaging for suspected recurrent papillary thyroid cancer: an institutional review. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

Publication Details:
Dahele M, Ung YC, Ehrlich L, Silverberg J, Balogh J, Wong S. Co-registered 18f-fluorodeoxyglucose positron emission tomography (PET) and computed tomography (CT) imaging for suspected recurrent papillary thyroid cancer: an institutional review. Radiother Oncol. 2007;84(Suppl 2):S64, 222.


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2006 Is imaging with co-registered positron emission tomography and computed tomography (PET-CT) superior to computed tomography (CT) alone for determining the gross tumor volume (GTV) and clinical target volume (CTV) in radical conformal radiotherapy for non-small cell lung cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2000


Publication Details:

2000

Fusing fluorodeoxyglucose (FDG)-Hybrid PET to CT Images significantly alters treatment planning in the radical treatment of non-small cell carcinoma of the lung. Canadian Society for Clinical Investigation (CSCI) Annual Meeting. Edmonton, Alberta.

Publication Details:

2000


Publication Details:

2000

Phase II study assessing effectiveness of biafine cream as a prophylactic agent for radiation induced acute skin toxicity to the breast in women undergoing radiotherapy with concomitant chemotherapy (CMF). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Edmonton, Alberta.

Publication Details:

2000


Publication Details:

1999

Congestive heart failure following combined radiation and cyclophosphamide, epirubicin, fluorouracil (CEF) adjuvant treatment for lymph node positive breast cancer: The TSRCC Experience. Canadian Association of Medical Oncologists (CAMO) Annual Meeting.

Publication Details:
Glenns V, Sawka CA, Slingerland J, Sutherland D, Ung YC, Rakovitch E, Ackerman I, Pritchard KI. Congestive heart failure following combined radiation and cyclophosphamide, epirubicin, fluorouracil...

1999


*Publication Details:*


1998


*Publication Details:*


1994


*Publication Details:*


1992


*Publication Details:*


**Media Appearances**

2006


2006


2005

Lung cancer: What’s it all about? Lung Cancer Canada. Toronto.

**Scientific Meetings (Peer-Reviewed)**

2009


2008


2007

Lung cancer guideline development in Ontario: Knowledge transference and practitioner feedback. NCIC 60th Anniversary Meeting. Toronto, Ontario.

2006


2004


2001 FDG-Hybrid PET and CT fusion improves target volume definition in treatment planning for carcinomas of the anal canal. Canadian Association of Radiation Oncology (CARO). Quebec City, Quebec.

2001 FDG-Hybrid PET Positron Emission Tomography (PET) and CT coregistration improves target volume definition in treatment planning for carcinomas of the anal canal. Canadian Association of Radiation Oncology (CARO). Quebec City, Quebec.


2000 Fusing Fluorodeoxyglucose (FDG)-Hybrid PET to CT images significantly alters treatment planning in the radical treatment of non-small cell carcinomas of the lung. Canadian Association of Radiation Oncology (CARO). Edmonton, Alberta.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

Media Appearances


Scientific Meetings (Peer-Reviewed)


2001 FDG-Hybrid PET and CT fusion improves target volume definition in treatment planning for carcinomas of the anal canal. CCO 18th Biennial Research Conference. Lake Couchiching, Orillia.
4. LOCAL

Invited Lectures and Presentations


2011 Feb 7   Neoadjuvant treatment for pancreatic cancer. PMH, Department of Surgical Oncology. (Continuing Education).

2011 So you want to be an oncologist. U of T Medical School 1st & 2nd year medical students. Toronto.

2009        FDG PET in radiation planning for lung cancer: are we on target? Target Insight Meeting. Toronto.


2005        Can PET and CT coregistration imaging adequately determine the gross tumor volume its microscopic extension in NSCLC patients for radical radiation therapy. UHN Thoracic Rounds. Toronto.


2004        Radiation Oncology Debate: “Be it resolved that all potentially respectable stage II and III rectal cancer patients receive pre-operative radiotherapy”. Ontario Gastrointestinal Multidisciplinary Oncology Conference. Toronto.

Media Appearances


Scientific Meetings (Peer-Reviewed)

2001        FDG-Hybrid PET and CT fusion improves target volume definition in treatment planning for carcinomas of the anal canal. Target Insight Meeting. Toronto, Ontario.
F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2000 - 2001  **Primary Supervisor.** B. Sc. A. Parradis, Radiation Sciences Program. *High dose rate brachytherapy for the treatment of symptomatic endobronchial lesions; early experience at Toronto Sunnybrook Regional Cancer Centre.*
A. Date Curriculum Vitae is Prepared: 2016 August 8

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-4806
Fax 416-480-6002
Email danny.vesprini@sunnybrook.ca

1. EDUCATION

Degrees
1998 Sep - 2002 Jun MD, University of Toronto
1994 Sep - 1997 Sep MSc, Immunology, University of Toronto
1990 Sep - 1994 May BSc, Molecular Biology and Biotechnology, McMaster University, Hamilton, Ontario

Postgraduate, Research and Specialty Training
2007 Jul - 2008 Jun Clinical Fellowship, Radiation Oncology, Dept of Radiation Oncology, Genitourinary Site Group, University of Toronto/Princess Margaret Hospital, Supervisor(s): Drs R. Bristow, C. Catton and P. Warde

Qualifications, Certifications and Licenses
2007 Fellow, Royal College of Physicians and Surgeons of Canada
2000 Licensure, Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2013 Jul - present Consultant Oncologist, Rouge Valley Health Systems, Ontario, Canada
2013 Jul 1 - present Deputy Chief, Odette Cancer Centre, Department of Radiation Oncology, Sunnybrook Health Sciences Centre
2012 Oct - present Affiliate Scientist, Biological Sciences, Sunnybrook Research Institute
2011 - present Consultant Oncologist, Scarborough General Hospital
2009 - present Consultant Oncologist, Toronto East General Hospital
2008 - present Staff, Radiation Oncologist, Odette Cancer Centre, Sunnybrook Health Sciences Centre
2008 - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
Previous Appointments

HOSPITAL
2009 - 2011 Consultant Oncologist, Royal Victoria Hospital, Barrie, Ontario

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received

2006  Annual Scientific Meeting – Best Medical Canada Award - Best Resident Oral Presentation, Canadian Association of Radiation Oncology. (Distinction)
2000  Summer Research Scholarship, Medical Research Council of Canada. (Distinction)

LOCAL
Received

2008  R.S. Bush Award for Academic Excellence in Research by a Fellow - Radiation Oncology Fellowship Program, University of Toronto. (Distinction)
2006  Department of Radiation Oncology Research Day – Best Poster Presentation, University of Toronto. (Distinction)
2000  Dr Jean Hogarth Scholarship, University of Toronto. (Distinction)
1999 - 2002 Honours Standing, Faculty of Medicine, University of Toronto. (Distinction)
1999  Summer Research Scholarship, University of Toronto. (Distinction)
1998  Alex G. Climans Scholarship, University of Toronto. (Distinction)
1995  Department of Immunology Connaught Life Sciences Scholarship, University of Toronto. (Distinction)
1994  Deans List (Summa Cum Laude), McMaster University. (Distinction)
1994  Open Fellowship (two-term studentship), University of Toronto. (Distinction)
1990  Dean’s List, Cardinal Newman High School. (Distinction)
1990  Letter Award, Cardinal Newman High School. (Distinction)

Teaching and Education Awards

LOCAL
Received

2013  Best Academic Half-Day Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society of Therapeutic Radiology and Oncology (ASTRO)
Canadian Association of Radiation Oncologists (CARO)
Ontario Medical Association (OMA)
Royal College of Physicians and Surgeons of Canada (FRCPC)

**Administrative Activities**

**NATIONAL**

**Canadian Association of Radiation Oncologist (CARO)**  
2008 Scientific Moderator - Biomarkers in Clinical Trials Session

**Canadian Association of Radiation Oncologists (CARO)**  
2012 26th Annual Scientific Meeting, Abstract Review Panel, Canada.

**Prostate Cancer Canada**  
2012 - 2014 Pilot Grant Panel Reviewer, Canada.  
**Science Officer**, Canada.

**Prostate Cancer Research Foundation of Canada**  
2008 - present  
**Member**, Clinical Research Fellowship Committee  
2007 - 2008  
**Science Officer**

**PROVINCIAL / REGIONAL**

**Cancer Care Ontario**  
2013 - present Radiation Oncology Professional Advisory Committee (ROPAC)  
2013 - present Provincial Radiation Treatment Program Committee

**Ontario Institute for Cancer Research**  

**LOCAL**

**Odette Cancer Centre**  
2013 - present Department of Radiation, Oncology, Deputy Head of Department, Chief of Clinical Operations  
2013 - present Medical Oncology and Radiation Oncology Occupancy Group  
2013 - present Radiation Therapy Program Clinical Operations Committee  
2013 - present Radiation Therapy Program Steering Committee

**Prostate Cancer Canada Network**  
2013 - present Medical Advisor, Ontario, Canada.

**Sunnybrook Health Sciences Centre**  
2012 - present **Chair**, Radiation Oncology Associates Executive Council, Odette Cancer Centre  
2008 - present **Member**, Prone Breast Board Committee, Department of Radiation Oncology, Odette Cancer Centre  
2011 - 2012 **Secretary/Member at Large**, Radiation Oncology Associates Executive Council, Odette Cancer Centre
Toronto Wide Data Warehouse Initiative
2011 - present  **Member**, Department of Radiation Oncology Strategic Plan Committee

**University of Toronto**
2009 - present  **Member**, Academic Communications Committee (ACC), Department of Radiation Oncology
2009 - present  **Member**, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2012  Research Day, Poster Discussion Session Chair, Ontario, Canada.
2009 - 2010  **Member**, Department of Radiation Oncology Executive Committee
2009  **Poster Discussant**, Department of Radiation Oncology Research Day 2009
2006 - 2007  **Member**, Internal Review Committee, Department of Radiation Oncology
2006 - 2007  **Member**, RCPSC, Department of Radiation Oncology, External Review Committee
2006 - 2007  **Chief Resident**, Department of Radiation Oncology
2006  **Member**, Search Committee for Chair of Department of Radiation Oncology
2006  **Member**, Curriculum & Objectives Committee, Faculty of Medicine, Dept of Radiation Oncology
2005 - 2007  **Member**, Postgraduate Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1995 - 1996  **Member**, Executive Council, Department of Immunology

**OTHER**
**University of Toronto**
2013 - present  Fellowship Selection Committee

**Peer Review Activities**

**ASSOCIATE OR SECTION EDITING**

**Editor**

**MANUSCRIPT REVIEWS**

**Invited Scientific Reviewer**
2014  Journal of Urology
2009  Clinical Oncology
2009  Journal of Clinical Oncology
2008  Current Oncology
2006  International Journal or Radiation Oncology, Biology, Physics

**Scientific Abstract Reviewer**
2009  University of Toronto, Department of Radiation Oncology Research Day
2007 - 2009  Canadian Association of Radiation Oncology (CARO), Annual Meeting
C. Academic Profile

1. RESEARCH STATEMENTS

2016 Research. Dr Vesprini is a radiation oncologist at the Sunnybrook Odette Cancer Centre and a member of the SBRT team. He is the site Lead for the multicentre phase II/III randomized PCS IX trial comparing ADT + enzalutamide +/- SBRT for oligometastatic disease. He is also the prostate site group lead for the Cancer Ablative Therapy (CAT) program at Sunnybrook and a member of the MR Linac Atlantic Consortium which is developing a SBRT protocol for prostate cancer. He is co-PI/co-Investigator on multiple biomarker studies focused on predicting radiation response and prognosis.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


*CBCF Ontario Chapter.*


*CBCF Ontario Chapter.*


**NON-PEER-REVIEWED GRANTS**

**FUNDED**

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters

Comment, Letters to Editor

Journal Articles, Review

2. NON-PEER-REVIEWED PUBLICATIONS

Commentaries


Multimedia

Magazine Entries

Newspaper Articles

Online Resources


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2015 Apr 27  Invited Speaker. Low Tech Solutions in a High Tech World - Position to Decrease Radiation Induced Breast Toxicity. European Society for Therapeutic Radiology and Oncology (ESTRO). Barcelona, Spain.


Presented Abstracts


**Presented and Published Abstracts**


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Oct Co-Author or Collaborator. Phase 1-2 Study of Stereotactic Ablative Radiation Therapy Including Regional Lymph Node Irradiation for Patients With High-Risk Prostate Cancer (SATURN). American Society for Therapeutic Radiology and Oncology (ASTRO). Presenter(s): Musunuru HB, Davidson MT,

Publication Details:

2006 Presenter. The Addition Of 18-fluorodeoxyglucose Positron Emission Tomography (fdg-pet) To CT Based Radiotherapy Planning Of Carcinoma Of The Esophagus Decreases Both The Intra- And Interobserver Variability Of GTV Delineation. American Society for Therapeutic Radiology and Oncology (ASTRO).

Publication Details:


Publication Details:

2. NATIONAL

Presented Abstracts


Presented and Published Abstracts


Publication Details:


Publication Details:

2015 Sep  **Co-Author or Collaborator.** To Prep or Not To Prep: That is the Question. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Russell S, DiProspero L, Hadizad F, DeAngelis C, **Vesprini D**, D’Alimonte L. Poster Presentation
Abstract 70.

*Publication Details:*
Russell S, DiProspero L, Hadizad F, DeAngelis C, **Vesprini D**, D’Alimonte L. To Prep or Not To Prep: That is the Question. Radiotherapy and Oncology. 2015 Sep;116(Supp 1):S25. **Coauthor or Collaborator.**

Abstract 140.

*Publication Details:*

2015 Sep  **Senior Responsible Author.** Sunnybrook Familial Prostate Cancer Clinic (FPCC) and Male Oncology and Research (MORE) Program. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Loblaw A, Elias E, Cheung P, Chu W, Chung H, Morton G, **Vesprini D**, Szumacher E, Liu S, Sethukavalan P, Jethava V. Poster Presentation
Abstract 147.

*Publication Details:*

2014  **Co-Author or Collaborator.** A retrospective Study Evaluating Patterns in Acute Skin Toxicity in Prone Patients Receiving Whole Breast Irradiation - The Canadian Experience. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Bosnic S, Tran W, Davidson M, McKeon P, **Vesprini D**, Pignol JP.

*Publication Details:*

2014  **Co-Author or Collaborator.** Long-Term Outcome of Dose Escalated Hypofractionated Intensity Modulated Radiation Therapy (IMRT) for Localized Prostate Cancer. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Huang R, **Vesprini D**, Bayley A, Bristow R, Chung P, Gospodarovicz M, Menard C, Milosevic M, Warde P, Catton C.

*Publication Details:*

*Publication Details:*  


*Publication Details:*  
Prospective Study on Stereotactic Body Radiotherapy For Low Intermediate Risk Prostate Cancer: Acute Toxicity and Quality of Life. Radiotherapy and Oncology. 100(Suppl 1):S48. **Coauthor or Collaborator.**


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  

2006 **Presenter.** The impact of fluorodeoxyglucose positron emission tomography (FDG-PET) on radiotherapy planning in carcinoma of the esophagus. Canadian Association of Radiation Oncologists (CARO).

*Publication Details:*  
2006  **Presenter.** Correlation between intrinsic sensitivity of normal tissues and tumour tissues in men undergoing high-dose external beam radiotherapy for prostate cancer: initial data pertaining to genetic factors of response. Canadian Association of Radiation Oncologists (CARO).

**Publication Details:**


**Publication Details:**

**Other Lectures and Presentations**


3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**


4. LOCAL

**Invited Lectures and Presentations**

2016 May 28  **Invited Speaker.** Prostate Cancer: Identifying Risk Factors and How to Be Proactive. Bramalea Christian Fellowship. Presenter(s): Vesprini D.

2016 May 27  **Invited Speaker.** Latest Updates in BRCA2 and BRCA2: A Biannual Conference on Hereditary Breast and Ovarian Cancer. Familial Breast Cancer Research Unit - Women's College Research Institute. Presenter(s): Vesprini D.

2015 Apr 15  **Invited Speaker.** Breast Positioning to Decrease Radiation Induced Toxicity. Stronach Regional Cancer Centre. Oncology Grand Rounds.

2014 Nov 12  **Invited Speaker.** Active Surveillance: Long Term Outcomes and Integration of MRI (why the past should not influence the future). Toronto East General Hospital and Odette Cancer Centre Partnership Meeting. Toronto, Ontario, Canada.

2014 May 9  **Invited Speaker.** BRCA Mutations and the Risk of Prostate Cancer: Latest Updates in BRCA1 and BRCA2. Ontario, Canada.

2014 Feb 22 **Invited Speaker.** Prostate Cancer: The Radiation Oncologist’s View: Local to Metastatic Disease. University of Toronto, 14 Annual Basic Science Course in Urology.


2013 Nov 27 **Invited Speaker.** Tackling Aggressive Prostate Cancer: From the Lab to the Clinic. Orillia Prostate Cancer Awareness Group. Orillia, Ontario, Canada.

2013 Oct 23 **Invited Speaker.** Familial Prostate Cancer Clinic and Male Oncology Research and Education (MORE) Program. Sunnybrook Health Sciences Centre, Family Practice Rounds. Toronto, Ontario, Canada.


2013 Sep 18 **Invited Speaker.** Prostate Cancer: Identifying Men at High Risk Before it is Too Late. Prostate Cancer Canada Network, Scotiabank Awareness Night. Toronto, Ontario, Canada.


2013 Feb 8 **Invited Speaker.** Familial Prostate Cancer Clinic and Male Hereditary Cancer Research Program. Odette Cancer Centre, GU Group Research in Progress Rounds.


2010 May 12 **Invited Speaker.** Active Surveillance. Man to Man by Side Prostate Cancer Awareness Night. Toronto, Ontario, Canada.


2009 Sep 1 **Invited Speaker.** A GU Rookies Take on Palliative Radiotherapy. Rapid Response Radiotherapy Program Rounds. Sunnybrook Health Sciences Centre, Odette Cancer Centre.

2009 Jul 3 **Invited Speaker.** Introduction to Radiation Oncology. Medical Oncology Training Program Orientation Week. Sunnybrook Health Sciences Centre (SHSC), University of Toronto.

2006 Oct **Speaker.** Imaging in Cancer Diagnosis and Radiotherapy Planning. Toronto Michener Institute, Radiation Therapy Program. Toronto, Ontario.

**Presented Abstracts**

2015 Jun 23 **Co-Author or Collaborator.** Development of Novel Patient Education Pamphlets: Lessons Learnt from a Collaborative Team Based Approach. 6th Annual IPE/IPC Showcase Planning and Selection Committees, Sunnybrook Health Sciences Centre. Authors: Turner A, Leahey A, Barbera L, Vesprini D.

2008 Apr **Presenter.** Clinical and Pre-Clinical Measures of Radiosensitivity in Male BRCA1/2 Carriers Receiving


1999 Feb Presenter. Cyp1A1 may explain the negative association with smoking and breast cancer risk in women with a germline BRCA1 or BRCA2 mutation. Toronto Clinical Genetics Rounds. Centre for Research in Women’s Health & Ontario Cancer Institute. Toronto, Ontario.


5. OTHER

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts


Publication Details:

Coauthor or Collaborator.

2015 Sep Co-Author or Collaborator. Testosterone Flare in Patients with High-Risk Localized Prostate Cancer

Publication Details:


Publication Details:


Publication Details:

Other Presentations


G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Clinical Research Fellow (MD)
Curriculum Vitae

John Nicholas Waldron

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Cancer Centre, University Health Network
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-6522
Fax 416-946-2111
Email John.Waldron@rmp.uhn.on.ca

1. EDUCATION

Degrees
1988 MD, Medicine, Dept of Medicine, Queen’s University at Kingston, Ontario, Canada
1986 MSc, Neurophysiology, Physiology, Queen’s University at Kingston, Ontario, Canada
1983 BSc, Life Sciences, Arts and Science, Faculty of, Queen’s University at Kingston, Ontario, Canada

Postgraduate, Research and Specialty Training
1993 - 1994 Fellow, Radiation Oncology, Princess Margaret Hospital, University of Toronto
1990 - 1993 Resident, Radiation Oncology, Princess Margaret Hospital, University of Toronto
1988 - 1990 Resident, Internal Medicine, Royal Victoria Hospital, McGill University, Montreal, Canada
1984 Jan - 1986 Jun Graduate Student, Neurophysiology, Physiology, Queen’s University at Kingston,
Supervisor(s): Peter Zarzecki
1983 - 1984 Student Researcher (seven months), Orthopedic Surgery, Laboratory for Experimental
Surgery, International Association for Exchange of Students for Technical Experience
(I.A.E.S.T.E.), Davos-Platz, Switzerland

Qualifications, Certifications and Licenses
2009 Aug University Health Network Principles of Clinical Research Practice, ESTRO PIC Meeting
Teaching Course, Toronto
2008 Nov - 2009 May Rotman Health Care Leadership Development Program, Rotman School of Management, University of Toronto
2002 Sep Technological Advances in Radiation Oncology, ESTRO PIC Meeting Teaching Course
1999 Aug Acusim (CT Simulator) Fellowship, University of Chicago
1999 Jun Future Directions in Radiation Oncology (CME course), University of Toronto
1997 Jan Integrating the Internet into Clinical Practice (CME course), University of Toronto
1996 Nov Translating Physics into Clinic Practice (CME course), University of Toronto
1996 May Radionics Stereotactic Radiotherapy Course, Boston
1996 Apr - 1996 May Cancer Pain Management Course, Princess Margaret Cancer Centre, Toronto
1994 Nov Medical Presentation Skills Workshop (CME course), University of Toronto
1994 Aug Teaching in Small Groups & One on One Teaching (CME course), University of Toronto
1994 May Clinical Aspects of Radiation Biology (CME course), University of Toronto
1993 Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1988 Licentiate (LMCC), Medical Council of Canada

2. EMPLOYMENT

Current Appointments

2005 - present Cross Appointment Staff, Surgery, Otolaryngology, Faculty of Medicine, Princess Margaret Hospital, University Health Network
2000 Jul - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto

Previous Appointments

HOSPITAL
1994 - 2000 Lecturer, Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, University Health Network

UNIVERSITY - RANK
1994 - 2000 Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

PROVINCIAL / REGIONAL
Received
1979 Ontario Scholarship. (Distinction)

LOCAL
Received
1993 - 1994 George Knudson Fellowship in Cancer Research, Ontario Cancer Institute/Princess Margaret Hospital, Toronto. (Research Award)
1985 Queen’s Graduate Scholarship, Queen’s University at Kingston. (Distinction)
1984 Queen’s Graduate Scholarship, Queen’s University at Kingston. (Distinction)

Nominated
2014 Jun - present Gerald Kirsh Humanitarian Award, Princess Margaret Cancer Foundation. (Distinction)
*For outstanding commitment to compassionate care.*
Teaching and Education Awards

LOCAL

Received

2009 May  Best Radiation Medicine Program Rounds, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Center. (Multilevel Education, Specialty: Radiation Oncology)

2003 Jul - 2004 Jun  Chief's Choice Best Rounds, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Center. (Specialty: Radiation Oncology)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1993 Jul - present  Member, Ontario Medical Association

1993 Jul - present  Fellow, Royal College of Physicians and Surgeons of Canada

1989 - present  Member, Canadian Association of Radiation Oncologists (CARO)

1989 - 1991  Member, American Society for Therapeutic Radiology and Oncology (ASTRO)

Administrative Activities

INTERNATIONAL

National Cancer Institute

2012 - present  Member, Head and Neck Steering Committee

2007 - 2012  Co-Chair, Head and Neck Tumor Biology and Imaging Task Force

NATIONAL

National Cancer Institute of Canada/Clinical Trials Group

2014 - present  Chair, Head and Neck Working Group, Canada.

2006 - 2014  Member, Head and Neck Working Group

PROVINCIAL / REGIONAL

Cancer Care Ontario

2011 - present  Member, Head and Neck Community of Practice

2007 - present  Member, Head and Neck Cancer Treatment Standards Group

Princess Margaret Cancer Center

Member, Wharton Day Organizing Committee

LOCAL

Other Organizations

1995  Member, Radiation Services Information Systems (RSIS) Committee

Princess Margaret Cancer Center
John Nicholas WALDRON

2014 Jun - present  Member, Radiation Medicine Program Capital Executive Committee
2014 Mar - present  Member, Radiation Medicine Program Space Transformation Committee
2013 - present  Member, Radiation Medicine Program Clinical Protocol Review Committee
2011 Jul - present  Executive, Head and Neck Translational Research Committee, Canada.
2011 Jul - present  Executive, Head and Neck Tissue Committee, Canada.
2008 Jan - 2009 Jan  Chair, Radiation Oncology Partnership
2007 Jul 11 - 2007 Sep 23  Member, Search Committee Head Dental Oncology
1997  Member, Radiation Medicine Program Accreditation Committee

Princess Margaret Cancer Centre
2006 - present  Site Group Leader, Radiation Medicine Program Head and Neck Site Group
2006 - 2010  Member, External Beam Process Committee, Radiation Medicine Program
2005 - 2006  Co-Chair, Radiation Medicine Program, Molecular Imaging Research Group
1997  Member, Medical Advisory Committee, In-Patient Services Committee
1996 - 2004  Director, Radiation Medicine Program Inpatient Services
1996 - 1997  Chair, Department of Radiation Oncology Digital Information Group (DIG)

University Health Network
2013 - 2014  President, (President) UHN Medical Staff Association, Toronto, Canada.
2013 - 2014  President, (President) UHN Medical Staff Association, Toronto, Canada.
2012 - 2013  Member, Research Committee UHN Board of Trustees, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Canada.
2011 - 2013  Member, UHN Medical Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2011 - 2013  Member, UHN Board of Trustees
2011 - 2013  Member, Finance and Audit Committee UHN Board of Trustees
2011 - 2012  Vice President, UHN Medical Staff Association, Toronto, Ontario, Canada.
2010  Treasurer, UHN Medical Staff Association
2004 - 2008  Member, Research Ethics Board
2004 - 2007  Member, Electronic Health Records Clinical Advisory Committee
Member, MSH UHN Academic MO

University of Toronto
1996 - 1997  Member, Department of Radiation Oncology Accreditation Committee

Peer Review Activities

GRANT REVIEWS

Internal Grant Reviewer
2009 Apr 2  Princess Margaret Cancer Center, Ideas Grant Reviewer
1997  National Cancer Institute of Canada/Clinical Trials Group, Operating grant reviewer

MANUSCRIPT REVIEWS

Reviewer
2001  Clinical Oncology
Other Research and Professional Activities

STRATEGIC RETREAT


*Break out session to address the question: How do we develop, evaluate and approve concepts and take these to a stage of trial activation?*

C. Academic Profile

1. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

My Creative Professional Activities have predominantly been within the sub specialty of head and neck cancer management.

1) Professional Innovation and Creative Excellence. In this discipline I have demonstrated professional innovation and creative excellence through clinical trials leadership, education and mentoring.

Examples of clinical trials leadership include the following:

- The National Cancer Institute of Canada Clinical Trials Group (NCIC CTG) HN6 study (Waldron co-PI) served to promote and facilitate the introduction of advanced radiotherapy techniques (IMRT) for the management of head and neck cancer in Canada. At time this study opened many Canadian centers were not routinely using IMRT to manage these patients and this study, by providing detailed radiation planning and treatment guidelines, served to stimulate the adoption of this technology now considered a clinical standard of care. In addition this study has served to consolidate the Canadian national Head and Neck Oncology community by stimulating participation of 17 cancer centers from across Canada to enroll 320 patients and as such has been the largest prospective clinical trial of head and neck cancer ever mounted in Canada.

- The Ontario Clinical Oncology Group (OCOG) study PET PREVENT (Waldron PI) prospectively enrolled over 400 head and neck cancer patients at four Ontario centers. The study which examined the role of PET scanning in treatment decision making was the largest prospective PET study ever mounted in head and neck cancer and led to an oral presentation of results at ASCO. My work in PET imaging resulted in an invitation to write an editorial for the Journal of Clinical Oncology.

- The National Research Group (NRG formerly RTOG) study HN002 (Waldron Canadian PI) will shortly open in North America. This is the first study to examine de-intensification of treatment in patients with favourable risk HPV related oropharyngeal cancer (OPC) and represents a significant paradigm shift in head and neck cancer management. The design of HN002 has been significantly influenced by data published by the PMH Head and Neck site group that was the first to describe a favourable prognosis for a large number of HPV positive OPC patients treated with radiotherapy only.

Examples of Education and Mentoring include:

- The leadership and development of numerous detailed and comprehensive multi-day head and neck IMRT and IGRT CME events delivered to national and international audiences.

- Mentoring in head and neck radiation oncology both on site and with site visits to other provincial and national head and neck cancer programs.

2) Contributions to the Development of Professional Practice

I have provided numerous contributions to the development of professional practice through local, national and
international leadership positions.
• Locally I have served as leader of the PMH Radiation Medicine Program Head and Neck Site Group (PMH HNSG) since 2006. In this capacity I have been responsible for overseeing the clinical, research and teaching activities of this group. The PMH HNSG consists of 8 Radiation Oncologists, 3 Clinical Physicists, 7 Treatment Planners and numerous Radiation Therapists. This group is the largest of its kind in North America and manages over 500 head and neck cancer patients annually. We have developed and delivered multiple CME courses on advanced radiotherapeutic management (IMRT, IGRT) of head and neck cancer to the national and international community. We have also achieved global impact through our head and neck radiation oncology fellowship program which has trained over 30 national and international fellows. We have developed comprehensive treatment guidelines which have been shared with members of the national and international community. The site group was the first at PMH to introduce an anthology of outcomes for our patient population by prospectively collecting patient data and outcomes at the point of care since 2003. This data set which now contains over 7500 patients has served to facilitate multiple research projects and quality assurance monitoring. Recent supplements to this have included the addition of prospectively collected head and neck patient reported outcomes (a National first) and links to biospecimen repositories.
I have had a number of leadership roles in the Provincial, National and International Head and Neck Oncology Community.

Provincially
• I have been a member of the CCO Evidenced Based Guidelines Committee and Head and Neck Community of Practice
• Principal author of the radiotherapy section of the CCO guidelines document for the management of head and neck cancer in Ontario.
• Led the development of provincial guidelines for the testing for HPV in OPC.

Nationally
• Present co-chair of the NCI (Canada) Clinical Trials Group Head and Neck Working Group. In charge of the development and implementation of head and neck clinical trials run through NCIC CTG.

Internationally
• I am on the ASTRO committee charged with the development of guidelines for the management of OPC.
• National Cancer Institute (US) Head and Neck Steering Committee. This committee consists of North American thought leaders in Head and Neck Cancer and is charged with reviewing and evaluating the major cooperative group clinical trial concepts. I am one of only three Canadian members.
• Co-authored a consensus document resulting from in an NCI clinical trials planning meeting to develop clinical trials for the investigation of trans-oral surgery for the management of OPC.
• Co-chaired the NCI Head and Neck Tumor Biology and Imaging Task Force which reviewed the biology and imaging components of trials prior to advancement to the Steering committee for final evaluation.

I have participated in leadership positions within the University Health Network. Specifically I was elected Vice President of the UHN Medical Staff Association advancing to President in my final year. In this capacity I represented the interests of over 800 fulltime dental and medical staff on the UHN Board of Trustees, the Medical Advisory Committee and the Finance and Audit and Research Committees of the Board.

3) Exemplary Professional Practice

I have demonstrated exemplary professional practice as indicated by the leadership positions I have held and the standards of practice I have helped develop and disseminate. I have been regarded by colleagues as a competent and fair leader. Colleagues have sought out my assistance in mentoring head and neck radiation oncology practice at centers within and beyond the province. I have been invited to be an external reviewer of the Head and Neck Oncology Program at the University of Alberta.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


Project Number: 3.

NON-PEER-REVIEWED GRANTS

Funded


A collaborative study involving radiation biology (Hill RP), radiation oncology (O’Sullivan B), surgical oncology (Bell R) and cellular transplantation therapy (A. Keating) at the Ontario Cancer Institute / Princess Margaret Hospital, University of Toronto.

Collaborators include experts in head and neck and limb surgery (Gullane P, Wunder J, Bell R, Neligan P), clinical and experimental radiation oncology (O’Sullivan B and Waldron J) and cellular transplantation techniques developed from bone marrow transplantation adapted to mesenchymal cell therapy (Keating A, medical and hematology oncology). Other collaborators on this Grant include expertise in interpretation of mesenchymal tissue and wound pathology (Kandel R), vascularity of healing tissue (Pang C), the use of viral transfection to provide markers for tracking transplanted cells (Sandhu K) and the development of valid instruments for measuring relevant clinical outcomes following surgery and radiotherapy (Davis A).
E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


John Nicholas WALDRON


John Nicholas WALDRON


Letters to Editor

Comment, Letters to Editor


Evaluation Studies, Journal Articles

Journal Articles, Multicenter Study

2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters
F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2004 Nov 19 Quality assurance rounds for head and neck cancer patients managed with radiation therapy are an important aspect of risk management. UICC Meeting of International Cancer Societies. Dublin, Ireland.


**Presented Abstracts**


2015 Feb 11  **Speaker.** ‘Cure’ is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis. 5 TH ICHNO International conference on innovative approaches in head and neck oncology. Nice, France. Presenter(s): S. Huang, **J. Waldron**, W. Xu, J. Ringash, A. Bayley, A. Hope, J. Kim, J. Cho, M. Giuliani, B. O’Sullivan.


2014 Jul  Changing mortality profile in long term follow-up of a randomized trial for locally advanced head and neck cancer. 5th World Congress of IFHNOS & Annual Meeting of the AHNS. New York.


2011 Jun  **Presenter.** Results of an Ontario Clinical Oncology Group (OCOG) prospective cohort study on the use of FDG PET/CT to predict the need for neck dissection following radiation therapy of head and neck cancer (HNC). ASCO. Chicago.
Identification of Metadherin as a Novel Target of MIR-375 in Nasopharyngeal and Head and Neck Squamous Cancers. 102nd Annual Association for Cancer Research. Orlando.


Comparative predictive value of E6 mRNA vs. HPV 16 ISH for human oropharyngeal carcinoma. 100th Annual American Association for Cancer Research Meeting. Denver, Colorado.


Carcinoma of the Tonsillar Region: The Influence of prognostic factors and technique in 335 T1 And T2 cases treated with external beam radiotherapy. 4th International Conference on Head and Neck Cancer.
John Nicholas WALDRON

Toronto.


**Presented and Published Abstracts**

2016 Apr 29  **Invited Speaker.** The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. Poster (PO-0631). 2016 European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Turin, Italy. Presenter(s): Huang SH.

**Publication Details:**


**Publication Details:**
Quality of life (QOL) in a phase III randomized trial of standard fractionation radiotherapy (SFX) with concurrent cisplatin (CIS) versus accelerated fractionation radiotherapy (AFX) with panitumumab (PMab) in patients (pts) with locoregionally advanced squamous cell carcinoma of the head and neck (LA-SCCHN): NCIC Clinical Trials Group HN.6 (NCT00820248). J Clin Oncol 33, 2015 (suppl; abstr 6053). [Coauthor or Collaborator.]


**Publication Details:**
Phase III randomized trial of standard fractionation radiotherapy (SFX) with concurrent cisplatin (CIS) versus accelerated fractionation radiotherapy (AFX) with panitumumab (PMab) in patients (pts) with locoregionally advanced squamous cell carcinoma of the head and neck (LA-SCCHN): NCIC Clinical Trials Group HN.6 trial. J Clin Oncol 33, 2015 (suppl; abstr 6000). [Coauthor or Collaborator.]

2015 May 29  **Speaker.** Cancer patients’ attitudes, knowledge, and preferences for smoking cessation (SC). 2015 ASCO Annual Meeting. Chicago, Illinois, United States. Presenter(s): Lawson Eng, Devon Alton, Tom Yoannidis, Qin Quinn Kong, Robin Milne, Samantha Sarabia, Zahra Merali, Liam Murphy, M Catherine Brown, **John N. Waldron**, Andrew Pierre, Andrea Bezjak, Andrew J. Hope, Doris Howell, Jennifer M. Jones, Peter Selby, Wei Xu, David Paul Goldstein, Meredith Elana Giuliani, Geoffrey Liu.

**Publication Details:**
Cancer patients’ attitudes, knowledge, and preferences for smoking cessation (SC). J Clin Oncol 33, 2015 (suppl; abstr 9581). **Coauthor or Collaborator.**


**Publication Details:**
Differential impact of cisplatin dose intensity on human papillomavirus (HPV)-related (+) and HPV-unrelated (−) locoregionally advanced head and neck squamous cell carcinoma (LAHNSCC). J Clin Oncol 33, 2015 (suppl; abstr 6020). **Coauthor or Collaborator.**

2014 Apr **Supervisor of Presenter.** Definitive radiation therapy for advanced stage oral cavity squamous cell carcinoma (OCSCC). 2014 European Society for Therapeutic Radiology and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria.

**Publication Details:**

2014 Apr Differential outcomes following radiotherapy by HPV status in N3 head and neck cancer. European Society for Therapeutic Radiology and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria.

**Publication Details:**

2014 Apr **Supervisor of Presenter.** High pre-radiotherapy neutrophils are associated with compromised outcomes in HPV-related oropharyngeal cancer. European Society for Therapeutic Radiology and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria.

**Publication Details:**


**Publication Details:**


**Publication Details:**

John Nicholas WALDRON

Publication Details:

2013 Apr
Altered fractionation radiotherapy for elderly patients with locally advanced head and neck cancer. 2nd ESTRO Forum. Geneva, Switzerland.

Publication Details:

2013 Feb
Supervisor of Presenter. Temporal regression and regional control following primary radiotherapy for HPV(+) vs. HPV(-) head & neck cancers. 4th International Conference on Innovative Approaches in Head & Neck Oncology (4th ICHNO). Barcelona, Spain.

Publication Details:

2013 Feb
De-intensification candidate subgroups in HPV-related oropharyngeal cancer according to minimal risk of distant metastasis. 4th International Conference on Innovative Approaches in Head & Neck Oncology (4th ICHNO). Barcelona, Spain.

Publication Details:

2012 Nov
The role of microRNAs in human nasopharyngeal carcinoma. ASTRO 54th Annual Meeting. Boston.

Publication Details:

2012 Nov

Publication Details:

2012 Nov

Publication Details:

2012 Nov
**Publication Details:**


**2012 May**

**Presenter.** A phase III study of standard fractionation radiotherapy with concurrent high-dose cisplatin versus accelerated fractionation radiotherapy (RT) with panitumumab in patients with locally advanced stage III and IV squamous cell carcinoma of the head and neck (SCCHN) (NCIC Clinical Trials Group HN.6). ASCO Annual Meeting. Chicago.

**Publication Details:**


**2012 Apr**


**Publication Details:**


**2012 Apr**

Identification of HPV/p16 Associated Micro-RNAs in Primary Oropharyngeal Carcinoma. 103rd Annual American Association for Cancer Research Meeting. Chicago.

**Publication Details:**


**2011 Oct**

**Supervisor of Presenter.** Outcomes for T2N0M0 Glottic Squamous Cell Carcinoma Treated with IMRT Compared with Conventional Parallel Opposed Fields. ASTRO Annual Meeting. Miami.

**Publication Details:**


**2011 Oct**


**Publication Details:**


**2011 Oct**

**Supervisor of Presenter.** Salivary Duct Carcinoma: Treatment, Outcomes and Clinico-Pathological Review. ASTRO Annual Meeting. Miami.

**Publication Details:**


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2011 Sep Supervisor of Presenter. Phase I Trial of Albumin-bound Paclitaxel (A), Cisplatin (P) and 5-Fluorouracil (F) as Induction Chemotherapy (IC) Followed by Concurrent Chemotherapy (CRT) with Carboplatin (Cb) in Patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN). ECCO Annual Meeting. Stockholm, Sweden.

Publication Details:
Diaz-Padilla I, Waldron J, Hope A, Chen EX, Chan K, Kim J, O’Sullivan B, Abdul Razak AR, Chin SF, Siu LL. Phase I Trial of Albumin-bound Paclitaxel (A), Cisplatin (P) and 5-Fluorouracil (F) as Induction Chemotherapy (IC) Followed by Concurrent Chemotherapy (CRT) with Carboplatin (Cb) in Patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN). European Journal of Cancer. 2011 Sep;47(Suppl 1):S547, A8511.


Publication Details:
2011 May

**Pattern of distant metastases for HPV-related oropharyngeal cancer treated with radiotherapy.** ESTRO Anniversary Conference.

*Publication Details:*

2011 Feb 24

**Supervisor of Presenter.** Excellent identical outcomes for radiation alone vs.chemoradiation in minimal smoking HPV(+) N0-N2c oropharynx cancer patients. 3rd International Conference on Innovative Approaches in Head & Neck Oncology (3rd ICHNO). Barcelona, Spain.

*Publication Details:*

2011 Feb 24

**Pattern of failure and histopathological features in patients with positive postradiation planned neck dissection.** 3rd International Conference on Innovative Approaches in Head & Neck Oncology (3rd ICHNO). Barcelona, Spain.

*Publication Details:*

2010 Nov

**Supervisor of Presenter.** Outcome of Radiotherapy Alone in HPV Associated Oropharyngeal Cancer. 52nd Annual Meeting of the American Society for Radiation Oncology. San Diego.

*Publication Details:*

2010 Nov

Radiation-induced Mandibular Toxicity (RIMT) following Intensity Modulated Radiation Therapy (IMRT) for Head and Neck Malignancy. 52nd Annual Meeting of the American Society for Radiation Oncology. San Diego.

*Publication Details:*

2010 Nov

Positive postradiotherapy planned neck dissection is strongly associated with increased distant metastasis rather than regional relapse. 52nd Annual Meeting of the American Society for Radiation Oncology. San Diego.

*Publication Details:*

2010 Nov

Patterns of Failure after Intensity Modulated Radiation Therapy (IMRT) for Nasopharyngeal Cancer. 52nd Annual Meeting of the American Society for Radiation Oncology. San Diego.
Publication Details:

2010 Sep

Publication Details:

2010 Jun
Cognitive functioning pre and post radiotherapy (RT), chemoradiotherapy (CRT) or bioradiotherapy (BRT) in patients with locally advanced squamous cell cancer of the head and neck (LA-SCCHN). ASCO Annual Meeting. Chicago.

Publication Details:

2010 May
Neuropsychological assessment in patients with head and neck cancer after radiotherapy or chemoradiotherapy. IPOS 12th World Congress of Psycho-Oncology. Quebec City.

Publication Details:

2009 Nov

Publication Details:


Publication Details:

2008 May
Correlation of deviation from intended cisplatin (CDDP) dose intensity with outcome in patients with locally advanced head and neck squamous cell carcinoma (LA-HNSCC) receiving concurrent chemoradiation (CRT). ASCO Meeting. Chicago, United States.

Publication Details:

2008 FACT-H&N and UW-QOL Show Validity and Responsiveness in Nasopharyngeal Carcinoma.
International Society for Quality of Life Research Meeting. Montevideo, Uruguay.

**Publication Details:**

2007 Oct
The Truths and Myths of Radiotherapy for Verrucous Carcinoma of Larynx. ASTRO Annual Meeting. Los Angeles, California.

**Publication Details:**

2007 Oct
Randomized Trial of Cone Beam CT Evaluating Inter- and Intra-fraction Setup Error of Head and Neck Cancer Patients Treated with a Skin-Sparing Mask Compared to a Standard S-frame Mask. ASTRO Annual Meeting. Los Angeles, California.

**Publication Details:**

2007 Oct
Supervisor of Presenter. Changes In Position And Size Of Parotid Glands Assessed With Daily Cone-beam CT During Image-guided IMRT For Head And Neck Cancer: Implications For Dose Received. ASTRO Annual Meeting. Los Angeles, California.

**Publication Details:**

2007 Oct
Frequency and Predictors of Parotid Sparing in a Cohort of Patients Managed with Bilateral Neck IMRT for Head and Neck Cancer. ASTRO Annual Meeting. Los Angeles, California.

**Publication Details:**

2007 Oct
A Standardized Nomenclature System for Head and Neck (H&N) IMRT Contouring, Planning and Quality Assurance. ASTRO Annual Meeting. Los Angeles, California.

**Publication Details:**

2007 Oct

**Publication Details:**

Publication Details:


Publication Details:


Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2015 Sep 8 **Presenter.** METASTATIC RISK GROUPS IN HUMAN PAPILLOMAVIRUS-RELATED OROPHARYNGEAL CANCER TREATED WITH DEFINITIVE RADIOTHERAPY WITH OR WITHOUT CHEMOTHERAPY. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Brian O’Sullivan, Shao Hui Huang, **John Waldron**, Susie Su, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Aaron Hansen, David Goldstein, Li Tong, Bayardo Perez-Ordonez, Ilan Weinreb, Wei Xu.

2015 Sep 8 **Presenter.** RISK OF RELAPSE PROFILE IN HUMAN PAPILLOMAVIRUS-UNRELATED
OROPHARYNGEAL CARCINOMA TREATED WITH DEFINITIVE RADIOTHERAPY WITH OR WITHOUT CHEMOTHERAPY. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Shao Hui Huang, John Waldron, Susie Su, Li Tong, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Aaron Hansen, David Goldstein, Bayardo Perez-Ordonez, Ilan Weinreb, Wei Xu, Brian O’Sullivan.


2011 Sep Results of an Ontario Clinical Oncology Group (OCOG) Prospective Cohort Study on the Use of FDG PET/CT to Predict the need for Neck Dissection Following Radiation Therapy of Head and Neck Cancer (HNC). CARO Annual Meeting. Winnipeg.


2007 Apr 29 A Phase 3 Trial Concept (Radiation Oncology Forum and Head and Neck Working Group). NCIC CTG Head and Neck Committee Meeting. Toronto.

2007 Apr 27 A Phase 3 Trial Concept (Radiation Oncology Forum and Head and Neck Working Group). NCIC CTG Head and Neck Committee Meeting. Toronto.

Presented Abstracts


2015 Sep 8 Speaker. CONCURRENT CHEMORADIOThERAPY FOR LOCALLY ADVANCED HEAD AND NECK
CANCER: IMPACT OF RADIATION TECHNIQUE, CISPLATIN DOSE, AND TUMOUR HPV STATUS.
CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Shao Hui Huang, Sprehico Anne, Wei Xu, Chen Liu, John Waldron, Eric Chen, Jolie Ringash, Andrew Bayley, Kelvin Chan, Andrew Hope, Albiruni Razak, Bayardo Perez-Ordonez, Ilan Weinreb, John Cho, Raymond Jang, Aaron Hansen, Yuyao Song, Brian O’Sullivan, Lillian Siu, John Kim;

2015 Sep 8 Presenter. NATURAL COURSE FOLLOWING FAILURE AFTER DEFINITIVE (CHEMO-) RADIOTHERAPY IN HPV-RELATED AND HPV-UNRELATED OROPHARYNGEAL CANCER. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Shrinivas Rathod, Shao Hui Huang, John Kim, Susie Su, Wei Wu, John Waldron, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, Jolie Ringash, Aaron Hansen, David Goldstein, Li Tong, Bayardo Perez-Ordonez, Ilan Weinreb, Brian O’Sullivan;

2015 Sep 8 Presenter. IMPACT OF SURGICAL MARGINS ON OUTCOMES IN ORAL CAVITY SQUAMOUS CELL CARCINOMA MANAGED WITH SURGERY AND POSTOPERATIVE RADIOTHERAPY. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Ali Hosni, Shao Hui Huang, Wei Xu, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, Jolie Ringash, John Waldron, David Goldstein, Eric Chen, Brian O’Sullivan;

2008 Sep Presenter. Differences in Feeding Tube Requirements for Patients Treated with IMRT Versus Two Dimensional Radiation Techniques for Advanced Head and Neck Cancer. CARO. Montreal, Quebec.


Presented and Published Abstracts


Publication Details:

**Publication Details:**


**Publication Details:**


**Publication Details:**

2014 Aug  Elderly patients with advanced head and neck cancer less likely to receive radiation therapy. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

**Publication Details:**

2014 Aug  Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

**Publication Details:**


**Publication Details:**


**Publication Details:**
John Nicholas WALDRON


Publication Details:


Publication Details:

2012 Sep Supervisor of Presenter. The characteristics of cervical lymph node resolution following primary radiotherapy +/- chemotherapy for N2-N3 head and neck cancer. CARO 26th Annual Meeting. Ottawa.

Publication Details:

2012 Sep Outcome of IMRT for hypopharyngeal cancer compared to conventional radiotherapy. CARO 26th Annual Meeting. Ottawa.

Publication Details:

2011 Sep Presenter. Results of an Ontario Clinical Oncology Group (OCOG) Prospective Cohort Study on the use of FDG PET/CT to Predict the Need for Neck Dissection following Radiation Therapy of Head and Neck Cancer (HNC). CARO Annual Meeting. Winnipeg.

Publication Details:


Publication Details:


Publication Details:
John Nicholas WALDRON


2011 Sep Supervisor of Presenter. Clinical Outcomes of Patients Treated with Conformal IMRT for T1N0M0 Glottic Squamous Cell Carcinoma. CARO Annual Meeting. Winnipeg.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009 Sep Patterns of Care in Elderly Head and Neck Cancer Patients: A Recent Single Institution Experience. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep Intensity modulated radiation therapy (IMRT) for skull base chordomas and chondrosarcomas: outcomes in the image guided era. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep The impact of contouring specialists on the process of head and neck IMRT treatment planning. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

John Nicholas WALDRON

Publication Details:


Publication Details:


Publication Details:


Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


2013 Apr  Head & Neck Cancer: Setting the Stage. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2013 Apr  Issues in Radical Radiotherapy for Head & Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2013 Apr  Vignette: Early-Stage Larynx Cancer IGRT Lessons Learned. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2013 Apr  Moving Mountains. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2013 Feb  **Presenter and Invited Speaker.** Head and Neck Site Group’s Perspective on Achieving Quality and Safety. RMP Quality Rounds, Princess Margaret Cancer Centre. Toronto.


2012 Mar  Head & Neck Cancer: Setting the Stage. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2012 Mar  General Principles of Head & Neck Cancer Management. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2012 Mar  Issues in Radical Radiotherapy for Head & Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2012 Mar  Vignette: Early-Stage Larynx Cancer IGRT Lessons Learned. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2012 Mar  Patient Reported Outcomes: Listening to Our Patients. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2011 Nov  **Panel Chair.** Listening to our Patients. Annual Wharton/Elia Day, Princess Margaret Hospital. Toronto.

2011 Apr  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2010 Oct  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. 
~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).


2010 Apr  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. 
~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2009 Nov  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. 
~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).


2009 Jun  Panel Member. EGFR and Beyond. Annual Wharton Day, Princess Margaret Hospital. Toronto.


2009 Apr  Group Exercise - IMRT Urban Legends. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).


2008 Oct  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. 
~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).


2008 Apr  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. 
~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2008 Jan  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. 
~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2007 Nov  New Information Reforming Clinical Practice. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2007 Nov  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. 
~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2007 Sep  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. 
~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from
PMH and around the world. (Continuing Education).

2007 Sep
New Information Reforming Clinical Practice. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2007 Jun 8
Molecular Targeted Agents in Radiotherapy Future Options. Wharton Day, Princess Margaret Hospital.

2007 Jun
IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2006 Jun 8
This House Believes that Molecular Therapies will substantially Improve the Therapeutic Index for Head and Neck Cancer Patients. Wharton Day "Improving Outcomes in Head and Neck Cancer". Toronto.

2005 Apr 2
The Science and Management of Radiation Late Effects. University of Toronto Department of Radiation Oncology - The Kingbridge Centre. King City, Ontario.

2002 Jun

2000 Jun
Clinical Experience with Stereotactic Radiation Therapy for Head and Neck Cancer at PMH. 2nd Annual Wharton Day, Princess Margaret Hospital.

1999 Jun
Conformal Therapy in CNS Cancer. University of Toronto CME Course. (Continuing Education).

1999 Jun
Conformal Therapy for Head and Neck Cancer: Workshop. University of Toronto CME Course. (Continuing Education).

1997 Oct 29
Studies of Radiation Sensitivity in Fibroblasts from Patients Receiving Radiation Therapy. Department of Otolaryngology Basic Science Research Meeting, University of Toronto.

1995 Nov 2
Invited Speaker. What’s New in Palliative Radiation Oncology? Scarborough Palliative Care Team Rounds Scarborough General Hospital. Scarborough.

1995 May 2

Presented Abstracts

2016 Feb 1

2010 May

2010

2007
5. OTHER

Presented and Published Abstracts

2015 Sep 8  Speaker. OUTCOME FOLLOWING DEFINITIVE RADIOThERAPY FOR SQUAMOUS CELL CARCINOMA OF THE NASAL VESTIBULE. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Ibrahim Atean, Shao Hui Huang, John Waldron, Yuyao Song, Wei Xu, Andrew Bayley, Scott Bratman, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Jonathan Irish, Brian O’Sullivan.

Publication Details:
OUTCOME FOLLOWING DEFINITIVE RADIOThERAPY FOR SQUAMOUS CELL CARCINOMA OF THE NASAL VESTIBULE. 2015 Sep 8. Coauthor or Collaborator.

2011 Jun Results of an Ontario Clinical Oncology Group (OCOG) prospective cohort study on the use of FDG PET/CT to predict the need for neck dissection following radiation therapy of head and neck cancer (HNC).

Publication Details:

2009 Jul The role of FDG PET/CT in clinical decision making for the management of oral cancer.

Publication Details:

2009 Feb Patterns of care in elderly head and neck cancer patients: the recent PMH experience.

Publication Details:

2008 Sep Quality of Life in Patients with Nasopharyngeal Carcinoma after Intensity-Modulated Radiation Therapy.

Publication Details:

2008 Sep Delivery of Less Than Intended Cisplatin (CDDP) Dose Intensity in Patients with Locally Advanced Head and Neck Squamous Cell Carcinoma (LA-HNSCC) Receiving Concurrent Chemoradiation (CRT) Correlates with Poorer Outcome.

Publication Details:

2008 Sep Feeding Tube Requirements for Advanced Head and Neck Cancer (HNC) Patients Treated with IMRT Versus Two Dimensional Radiation Techniques (2DRT).
John Nicholas WALDRON

**Publication Details:**


2008 Sep Feasibility of Reducing Radiation Dose to the Brachial Plexus (BP) for Nasopharyngeal Cancer (NPC) Patients Treated with IMRT.

**Publication Details:**


2008 Sep Intensity Modulated Radiation Therapy for Nasopharyngeal Carcinoma: Analysis of Quality of Life in a Prospective Phase II Study.

**Publication Details:**


2008 Sep Brachial Plexus Contouring Guideline Assessed with Inter Observer Variability during Image Guided IMRT for Head and Neck Cancer.

**Publication Details:**


2008 Sep Differences in Feeding Tube Requirements for Patients Treated with IMRT Versus Two Dimensional Radiation Techniques for Advanced Head and Neck Cancer.

**Publication Details:**


**Publication Details:**


**Teaching Rounds/Courses**


John Nicholas WALDRON

2011 Apr  

2010 Dec  

2010 Jun  

2010 Apr  
Head and Neck Cancers. Solid Tumor Education Day. Toronto.

2010 Apr  

2010 Feb  
Image Guided Radiation Therapy in Head and Neck Cancer. IGRT Education Course. Toronto.

2009 Oct  

2009 Apr  
Quality Assurance for IMRT. IGRT Education Course. Toronto.

2009 Feb  
Quality Assurance for IMRT. IGRT Education Course. Toronto.

2009 Feb  

2008 Oct  
Image Guided Radiation Therapy in Head and Neck Cancer. IGRT Education Course. Toronto.

2008 Jun  
Image Guided Radiation Therapy in Head and Neck Cancer. IGRT Education Course. Toronto.

2008 Jun  
Quality Assurance for IMRT. IGRT Education Course. Toronto.

2008 Apr  

2008 Jan  
Head and Neck Cancers. Oncology Course Lecture, the Michener Institute of Applied Health Sciences. Toronto.

2008 Jan  
Basics of Radiation Therapy. Otolaryngology Residents, University of Toronto. Toronto.

2007 Oct  
Prolonged Side Effects of Chemo/Rad Treatment. Speech Pathologists, Mount Sinai Hospital. Toronto.

2007 Sep  

2007 May  

2007 Jan  
Management of Cancers of the Salivary Glands and Paranasal Sinuses. Medical Radiation Sciences Program, the Michener Institute. Toronto.

2006 Oct  
Head and Neck Tumours. PMH Nursing Education Series. Toronto.

2006 May  
PET Prevent Study. Hamilton Cancer Centre, Head and Neck Site Group Doctors.

2006 Apr  
Head and Neck Cancers. Dental Residents, University of Toronto. Toronto.

2006 Jan  
Head and Neck Cancer Lecture. Princess Margaret Hospital. Toronto.

2005 Oct  
Head and Neck Cancer. Lunch and Learn Program, Princess Margaret Hospital. Toronto.

2005 Sep 29  

2005 May 13  
IMRT: From Hype to Reality. Princess Margaret Hospital Grand Rounds. Toronto.

2005 Apr  
Head and Neck Cancer Education Series. Princess Margaret Hospital, Epidemiology, Diagnosis and Staging of Head and Neck Cancer. Toronto. Two Lectures, April 1st and April 5th.
1999 Apr CNS Cancer Lecture. Princess Margaret Hospital School of Radiation Therapy. Toronto.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD

2000 Primary Supervisor. Core Program. Dr. M. ElMahlah.

Continuing Education

2006 - 2007 Primary Supervisor. Inna Kaminsky, PMH RMP.
2006 - 2007 Primary Supervisor. Lyndon Johnson, PMH RMP.

Clinical Research Fellow (MD)

2014 Primary Supervisor. Dr. Irene Karam.
2014 Primary Supervisor. Dr. Ali Hosni.
2014 Primary Supervisor. Dr. Vani Ramasamy.
2013 Primary Supervisor. Dr. Sallil Vengalil.
2013 Primary Supervisor. Dr. Mathew Mason.
2013 Primary Supervisor. Dr. Eric Tran.
2012 Primary Supervisor. Dr. Phillipe Rey.
2012 Primary Supervisor. Dr. Joel Yarney.
2011 Primary Supervisor. Dr. Meredith Johnston.
2011 Primary Supervisor. Dr. Isabelle Gauthier.
2011 Primary Supervisor. Dr. Jepp Friborg.
2010 Primary Supervisor. Dr. Pranshu Mohindra.
2010  Primary Supervisor. Dr. Fionnuala Houghton.
2010  Primary Supervisor. Dr. Albert Tiong.
2009  Primary Supervisor. Dr. Ashok Nikapota.
2009  Primary Supervisor. Dr. Seema Arif.
2008 - 2009  Primary Supervisor. Dr. Indranil Mallick. Awards: Best Poster Award - U of T Department Radiation Oncology Research Day.
2008  Primary Supervisor. Dr. Yongjin Wang.
2008  Primary Supervisor. Dr. Christian Stevens.
2006 - 2007  Primary Supervisor. Dr. David Hwang.
2004 - 2005  Primary Supervisor. Dr. Shiroma DeSilva. Awards: Best Oral Presentation - University of Toronto Department of Radiation Oncology Research Day.
1999  Primary Supervisor. Dr. M. Tin.
1998  Primary Supervisor. Dr. A. Curran.
1997  Primary Supervisor. Dr. A. Mis, Department of Ocular Oncology.

2. OTHER SUPERVISION

Undergraduate Education

2013  Radiation Science students, Michener Institute, Toronto.
1996 - 2013  Undergraduate dental student teaching, Faculty of Dentistry, University of Toronto.
1994 - 2009  Undergraduate medical student teaching, Faculty of Medicine, University of Toronto.
1985 - 1986  Medical, nursing, life sciences student physiology laboratory demonstrator, Department of Physiology, Queen’s University, Kingston.

Postgraduate MD

1997 - 2013  Dental resident, Radiation Oncology Clinic Rotations, Faculty of Dentistry, University of Toronto.
1994 - 2013  Radiation Oncology Residents-Fellows training, Princess Margaret Cancer Centre, University of Toronto.
**Contact Information**

- Name: Dr. Yongjin Wang
- Business address:
  Peel Regional Cancer Centre  
  Credit Valley Hospital  
  2200 Eglinton Avenue West  
  Mississauga, ON   L5M 2N1
- Business Telephone: (905) 813-1100  Ext 5147
- Business Fax: (905) 813-3962
- E-mail: ywang@cvh.on.ca
- Date Curriculum Vitae was Last Updated: June 4, 2012

**Education**

- University Education: MB, Beijing University, China, 1981-1987
- Post-Graduate and Medical Training
  - Residency in Urology, Shandong Provincial Hospital, China, 1990-1994
  - Research Fellow, Department of Urology, Prince Henry Hospital, University of New South Wales, Sydney, Australia, 1994 – 1995
  - Research Fellow, Department of Urology, Cleveland Clinic Foundation, Cleveland, USA, 1995 – 1997
  - Research Fellow, Division of Urology, Toronto Western Hospital, University of Toronto, Toronto, Ontario, 1997 – 2002
  - Ontario International Medical Graduate Program, University of Toronto, 2002 – 2003
  - Radiation Oncology Residency Program, University of Toronto, 2003-2008
  - Radiation Oncology Fellowship Program, University of Toronto, July – Dec 2008
- Continuing Education
  - MSc, Shandong University, China, 1987-1990
- Scholarships and Awards:
  - Second Prize, American Urological Association Essay Contest, American Urological Association, USA, 1999

**Biographical Information**

- Degrees
  - MB, Beijing University  1987
  - MSc, Shandong University  1990
  - FRCP, Radiation Oncology 2008
- Hospital/Staff Appointments
  - Staff Radiation Oncologist, Credit Valley Hospital and Trillium Health Centre, Mississauga, ON
- Academic Appointments
  - Lecturer Adjunct, Department of Radiation Oncology, University of Toronto
• Professional Affiliations and Activities e.g. Editor of journal, academic organizations

• Certifications and Licensures
  o Licentiate of the Medical Council of Canada (LMCC No. 89746), 2001
  o College of Physicians and Surgeons of Ontario (CPSO) Independent License, 2008-present
  o Royal College of Physicians and Surgeons of Canada, 2008-present

• Patents and Commercialization Activities

• Administration and Committee Appointments
  Local Committees
  National and Provincial Committees
  International Committees

• Journal and Grant Peer-Reviewed Responsibilities
  i. Provincial/National
  ii. International

• Editorial and Peer-Reviewed Responsibilities
  i. Editor
  ii. Manuscript Peer-Reviewer for:

Statement of Scholarly and Professional Activity

Research Grants
Currently Funded as Principal Investigator
Currently Funded as Co-Principal Investigator
Pending Grants
Previously Funded as Principal Investigator
Previously Funded as Co-Investigator

Clinical Trials

Publications
Refereed Publications

Non-Refereed Publications

Book Chapters

Books Edited

Published Abstracts and Other Abstracts e.g. Non-published (non peer-reviewed, peerreviewed & presented)


Presentations

Research Supervision

- Undergraduate
- Radiation Oncology Residents
- Radiation Oncology Research Fellows
- Graduate Students
- Post-Doctoral Fellows

Teaching and Design
Curriculum Vitae

Padraig Warde

A. Date Curriculum Vitae is Prepared: 2016 August 3

B. Biographical Information

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Princess Margaret Hospital
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2122
Fax 416-946-4586
Email padraig.warde@rmp.uhn.on.ca

1. EDUCATION

Degrees
1977 M.B., Ch.B, University of Dublin - Trinity College, Dublin, Ireland
1977 B. A.O. University of Dublin - Trinity College, Dublin, Ireland
1977 BA, University of Dublin - Trinity College, Dublin, Ireland

Postgraduate, Research and Specialty Training
2003 - 2004 Medical Administration, UHN-University of Toronto Rotman Leadership Development Program, University of Toronto, Toronto, Ontario, Canada
1985 - 1986 Chief Resident, Radiation Oncology, Radiation Oncology Training Program, University of Toronto, Toronto, Ontario, Canada
1983 - 1985 Resident, Radiation Oncology, Radiation Oncology Training Program, University of Toronto, Toronto, Ontario, Canada
1982 - 1983 Clinical Fellow, Department of Medical Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1981 - 1982 Medical Registrar, General Medicine/Medical Oncology, Department of Medical Oncology, University College, Dublin, Dublin, Ireland
1980 - 1981 Medical Registrar (Chief Resident), Internal Medicine, Mercer’s Hospital, Dublin, Ireland
1980 - 1981 Tutor, Internal Medicine, University of Dublin - Trinity College, Dublin, Ireland
1978 - 1980 Residency, Internal Medicine, University of Dublin - Trinity College, Dublin, Ireland
1977 - 1978 Internship, Internal Medicine/Medical Oncology, Dr. Steevens Hospital, Dublin, Ireland

Qualifications, Certifications and Licenses
1986 Fellow, Radiation Oncology, Royal College of Physicians of Canada
1986 Diplomate, Radiation Oncology, American Board of Radiology
1983 Licentiate, The Medical Council of Canada
1980 Member, Internal Medicine, Royal College of Physicians of Ireland
2. EMPLOYMENT

Current Appointments

2009 - present  Provincial Head, Radiation Treatment Program, Cancer Care Ontario, Toronto, Ontario, Canada
2003 - present  Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1987 - present  Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL

2013 - 2014 Apr  Interim Vice President, Clinical Programs and Quality Initiatives, Cancer Care Ontario, Toronto, Ontario, Canada
2013 - 2014 Apr  Member, Cancer Quality Council of Ontario, Toronto, Ontario, Canada
2008 - 2010  Interim Head, Radiation Medicine Program, Southlake Regional Cancer Centre, Ontario, Canada
2005 - 2012  Deputy Head, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada
2005 - 2009  Medical Director, Clinical Research Unit, Ontario Cancer Institute, Ontario, Canada
1999 - 2005  Associate Director, Medical Programs, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada
1995 - 2002  Site Group Leader, Multidisciplinary Genitourinary Site Group, University Health Network, Toronto, Ontario, Canada
1992 - 2001  Site Group Leader, Genitourinary Site Group, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1987 - 1996  Consultant, Medicine, Wellesley Hospital, Toronto, Ontario, Canada

UNIVERSITY - RANK

1997 - 2003  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1987 - 1996  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2012  Visiting Professor, Virginia Mason Medical Center, Seattle, Washington, United States. (Distinction)
2005  Visiting Professor, University of Pennsylvania, Department of Radiation Oncology, Philadelphia, Pennsylvania, United States. (Distinction)

NATIONAL

Received

2004  Visiting Professor, University of British Columbia, Department of Radiation Oncology, Vancouver, British Columbia, Canada. (Distinction)
2004  Visiting Professor, University of Dalhousie, Department of Oncology, Canada. (Distinction)
1995  Visiting Professor, University of British Columbia, Department of Surgery, Vancouver,
British Columbia, Canada. (Distinction)

1986 Research Fellowship Award, National Cancer Institute of Canada. (Research Award)
1985 Resident Award Session - 1st Prize, Canadian Association of Radiologists, Canada. (Distinction)

LOCAL
Received

2011 Sustained Excellence in Research, University of Toronto, Department of Radiation Oncology, Toronto, Ontario, Canada. (Distinction)
2005 Best Guest Speaker, University of Toronto, Department of Radiation Oncology, Toronto, Ontario, Canada. (Distinction)
2004 Best RMP Rounds for Fall 2004, Princess Margaret Hospital, Toronto, Ontario, Canada. (Distinction)
In recognition of presentation: “Radiation Therapy for Prostate Cancer Adjunctive Hormones for All?” Radiation Medicine Program.
2003 Sustained Excellence in Research, University of Toronto, Department of Radiation Oncology, Toronto, Ontario, Canada. (Distinction)
1977 G.B. McHutchson Final Medical Examination 1st place overall, Trinity College, Dublin, Ireland. (Distinction)
1977 Honours Degree in Medicine, University of Dublin - Trinity College, Dublin, Ireland. (Distinction)
1977 Professor’s Prize in Paediatrics – 1st Place. (Distinction)
1977 Reuben Harvey Memorial Prize, Royal College of Surgeon’s of Ireland, Dublin, Ireland. (Distinction)
1977 Sir Arthur Ball Memorial Prize for 1st Place in Surgery. (Distinction)

Teaching and Education Awards
LOCAL
Received

1999 Residents Award for Excellence in Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
1999 Wightman-Berris Academy Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University Health Network, Toronto, Ontario, Canada for excellence in Undergraduate and Postgraduate teaching, (Toronto General Hospital, Toronto Western Hospital and Princess Margaret Hospital).
1993 Residents Award for Excellence in Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

Student/Trainee Awards
INTERNATIONAL
Received

2013 GU Merit Award, Awardee Name: Dr. Swetha Sridharan (Fellow). ASCO
NATIONAL

Received

2010  Young Canadian Investigator Award, Awardee Name: Dr. Eric Leung (Radiation Oncology Resident). Novartis Oncology
2006  Young Canadian Investigator Award, Awardee Name: Dr. Jarad Martin (Radiation Oncology Fellow). Novartis Oncology
2001  Grant For Research Protocol, Awardee Name: Dr. Michael Lock (Radiation Oncology Resident). ACURA
  A phase III evaluation of gabapentin for the treatment of hot flushes in prostate cancer patients undergoing androgen deprivation therapy. Total Amount: 23,900

LOCAL

Received

2000  R S Bush Award. University of Toronto
  Best Fellow’s Presentation, Dr Andrew Bayley (Radiation Oncology Fellow).

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Society of Clinical Oncology
Member, American Society of Therapeutic Radiology and Oncology
Member, American Urological Association
Member, Canadian Association of Radiation Oncologists
Member, Canadian Urological Association
Member, Canadian Uro-Oncology Group
Member, European Society of Radiation Oncology
Member, Ontario Medical Association

Administrative Activities

INTERNATIONAL

International Board of UK
2004 - 2009  Member, Clinical Trials Awards and Advisory Committee (CTAAC), United Kingdom.

Movember Foundation
2013 - present  Chair, Global Testicular Cancer Research Advisory Committee
2013 - present  Member, Prostate Cancer Research Advisory Committee

NATIONAL

Canadian Prostate Cancer Research Initiative
2006 - 2008  Chair, Management Committee, Canada.
2004 - 2006  Board Member, Management Committee, Canada.
2003 - 2006  Member, Management Committee, Canada.
National Cancer Institute of Canada
1994 - present  **Member**, Clinical Trials Group, Genitourinary Committee, Canada.
1999 - 2003  **Member of Executive**, Clinical Trials Group, Genitourinary Committee, Canada.
1995 - 2001  **Representative**, Clinical Trials Group - Princess Margaret Hospital Centre, Canada.

Princess Margaret Hospital Centre

PROVINCIAL / REGIONAL
Cancer Care Ontario
2011 - present  **Chair**, Models of Care Committee, Ontario, Canada.
1996 - present  **Member**, GU Guidelines Committee, Ontario, Canada.
2006 - 2009  **Member**, IMRT Standards Committee, Ontario, Canada.

Ontario Medical Association
1994 - 2001  **Chair**, Tariff Committee, Section of Radiation Oncology, Ontario, Canada.
1991 - 1993  **Executive Member**, Section of Radiation Oncology, Ontario, Canada.
1989 - 1991  **Chair**, Section of Radiation Oncology, Ontario, Canada.

Princess Margaret Hospital
2008 - 2009  **Chair**, Radiation Oncology Provincial Advisory Committee
2005 - 2009  **Member**, Radiation Oncology Provincial Advisory Committee

LOCAL
Department of Radiation Oncology
1998 - 2001  **Chair**, Clinical Research Committee
1997 - 1998  **Chair**, Radiation Therapy Technical Review Committee
1994  **Chair**, Ad-hoc Committee on Radiation Therapy Review Clinics
1992  **Member**, Ad-hoc Committee on Inpatient Care

Princess Margaret Cancer Centre
1992 - 1994  **Chair**, Radiation Services Subcommittee Medical Advisory Committee
1989 - 1992  **Chair**, Clinical Trials Committee
1989 - 1992  **Secretary**, Medical Advisory Committee
1988 - 1989  **Department of Radiation Oncology Representative**, Resource Management Committee
1988 - 1989  **Member**, Ambulatory Care Subcommittee of Medical Advisory Committee
1988 - 1989  **Executive**, Medical Staff Association

University of Toronto
2006 - present  **Member**, Executive Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1999 - 2001  **Member**, Department of Radiation Oncology, Senior Advisory Committee, Toronto, Ontario,
Canada.

1998 Jan - 1999  **Chair**, Oncology Research Ethics Board II, Toronto, Ontario, Canada.

**Peer Review Activities**

**EDITORIAL BOARDS**

**Advisory Editor**

2005 - 2013 Our Voice

**GRANT REVIEWS**

**External Grant Reviewer**

Alberta Cancer Board
Canadian Prostate Cancer Research Initiative
Clinical Trials and Awards Committee of Cancer Research, UK
Conseil D’évaluation Des Technologies De La Santé, Québec
Institute of Cancer Research, UK
Irish Cancer Society
National Cancer Research Initiative UK
Prostate Cancer UK
Ministry of Health, Ontario, Health research personnel development program

**MANUSCRIPT REVIEWS**

**Reviewer**

Canadian Journal of Urology
Cancer
Cellular and Molecular Life Sciences
Clinical Oncology
European Urology
Expert Review of Anticancer Therapy
International Journal of Radiation Oncology, Biology, Physics
Journal of Canadian Association of Urology
Journal of Clinical Oncology
Journal of the National Cancer Institute
Journal of Urology
Lancet
Nature Clinical Practice Urology
Urologic Oncology
Urology
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


1995 - 2014  Senior Investigator. Phase III randomized trial comparing total androgen blockage versus total androgen blockage plus irradiation in clinical stage T3-T4, N0, M0 adenocarcinoma of the prostate. National Cancer Institute of Canada Clinical Trials Group / Eastern Co-operative Oncology Group / South Western Oncology Group / Medical Research Council. 2,400,000. [Grants]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


81. Sia M, Rosewall T, **Warde P**. Radiotherapy as primary treatment modality. Front Radiat Ther Oncol. 2008 Feb;41:15-25.


Padraig WARDE


**Journal Articles, Randomized Controlled Trial**


**Journal Articles, Review**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Book Chapters**


Editorials


Commentaries


Letters to Editor


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2013 Sep  
“Locally Advanced Prostate Cancer”. Presidential Symposium. American Society for Radiation Oncology (ASTRO. Atlanta, Georgia, United States.

2013 Mar  

2013 Feb  
“Management of Relapsed Stage I Seminoma”. ASCO GU. Orlando, Florida, United States.

2012 Feb  

2011 Feb  

2009 Feb  
“Image-Guided Radiotherapy for Cancer”. Highlights in Oncology. CRO. Aviano, Italy.

2008 May  

2008 May  
“TIN and Testis Preservation”. ESMO International Symposium (EIS) on Testicular Cancer. Munich, Germany.

2008 Feb  

2007 May  

2005 May  

2005 May  

2002  

Presented Abstracts

2016 Sep 25  

2016 Jun 27  
2. NATIONAL

Invited Lectures and Presentations

2012 Nov  "Radiation Therapy for Prostate Cancer in 2012 and Beyond". Man to Man, Prostate Cancer Canada. Toronto, Ontario, Canada.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2010 Apr  "What Research Do We/(I) Need?". Cancer Care Ontario Research Day. Toronto, Ontario, Canada.


2009 Oct  "Delayed Postoperative Radiotherapy is the Best Treatment for Prostate Cancer". Prostate Cancer Champions Workshop - Cancer Care Ontario. Toronto, Ontario, Canada.


2009 May  "Prostate Cancer – Role of Hormonal Therapy. GU Rounds,Sudbury Regional Cancer Centre. Sudbury, Ontario, Canada.


4. LOCAL

Invited Lectures and Presentations


2008 Oct  Seminoma: “From more to less”. Developments in Cancer Management: Conquering Cancer in our Lifetime. The 8th Princess Margaret Hospital Conference. Toronto, Ontario, Canada.


2007 Feb  Adjuvant Hormonal Therapy of Prostate Cancer with Reference to Current Trials. GU Tumour Board Rounds, Credit Valley Hospital. Toronto, Ontario, Canada.
A. Date Curriculum Vitae is Prepared: 2016 August 3

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre
Department of Radiation Oncology
2075 Bayview Avenue, T2
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-6100 ext 2625
Fax 416-480-6002
Email shun.wong@sunnybrook.ca

1. EDUCATION

Degrees
1980 MD, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1986 Research Fellow MD, Anderson Cancer Centre, Houston, Texas, United States,
Supervisor(s): Dr. K.K. Ang
1985 Clinical Assistant, Department of Radiation Oncology, Princess Margaret Hospital, Toronto,
Ontario, Canada
1982 - 1985 Resident, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1981 - 1982 Resident, Department of Internal Medicine, University of Toronto, Toronto, Ontario, Canada
1980 - 1981 Intern, Sunnybrook Medical Centre, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
1986 Therapeutic Radiology, American Board of Radiology, United States
1985 Royal College of Physicians and Surgeons of Canada (FRCPC), Ontario, Canada, License / Membership #: 33377
1985 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1980 LMCC, Medical Council of Canada, Canada
2. EMPLOYMENT

Current Appointments

2013 - present  Courtesy Staff, Department of Medicine, Rouge Valley Health System, Toronto, Ontario, Canada
2013 - present  Clinician Scientist, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2009 - present  Consultant, Department of Surgery, North York General Hospital, Toronto, Ontario, Canada
2009 - present  Courtesy Staff, Department of Medicine, The Scarborough Hospital, Toronto, Ontario, Canada
2004 - present  Vice-Chair, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2002 - present  Senior Scientist, Biology, Sunnybrook Health Sciences Centre, Ontario, Canada
2002 - present  Staff Radiation Oncologist, Odette Cancer Centre, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2000 - present  Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2000 - present  Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2002 - 2013  Chief, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Ontario, Canada
2002 - 2013  Head, Odette Cancer Centre, Radiation Treatment Program, Sunnybrook Health Sciences Centre, Ontario, Canada
1987 - 2002  Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario, Canada
1987  Staff Radiation Oncologist, Toronto Bayview Regional Cancer Centre, Toronto, Ontario, Canada

RESEARCH
1997 - 2001  Research Director, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada
1996 - 2002  Senior Scientist, Division of Experimental Therapeutics, Ontario Cancer Institute, Ontario, Canada
1996 - 2001  Research Director, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1992 - 1996  Associate Scientist, Division of Experimental Therapeutics, Ontario Cancer Institute, Ontario, Canada

UNIVERSITY - RANK
1994 - 2000  Associate Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1994 - 2000  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1988 - 1994  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1987 - 1988  Lecturer, Department of Radiology, University of Toronto, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

PROVINCIAL / REGIONAL
Received
2013 - 2018  **Clinician Scientist Award**, Ontario Association of Radiation Oncologists, Toronto, Ontario, Canada. (Clinician Scientist Award)
*Total Amount: 500,000 CAD*

LOCAL
Received
2003  **Sustained Excellence in Research Award**, Department of Radiation Oncology, Ontario, Canada. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2009 - present  **Member**, Canadian Association of Neuroscience
2005 - present  **Member**, Society for Neuroscience
1998 - present  **Member**, American Association for Cancer Research
1997 - present  **Member**, Journal Club Chinatown Physicians
1992 - present  **Member**, Canadian Medical Association
1992 - present  **Member**, Ontario Medical Association
1990 - present  **Member**, Radiation Research Society
1989 - present  **Member**, Canadian Association of Radiation Oncologists
1989 - present  **Member**, Chinese Canadian Medical Society
1988 - present  **Member**, Canadian Medical Protective Association

Administrative Activities

INTERNATIONAL
**The American Association of Physicists in Medicine**
2013 - present  **Member**, Working Group on Biological Effects of Hypofractionated Radiotherapy/SBRT, College Park, Maryland, United States.

NATIONAL
**Canadian Association of Radiation Oncologists**
1998  **Chair**, Resident Paper Session, Annual Meeting, Canada.

**Colorectal Cancer Association**
2008  **Member**, Advisory Board, Ontario, Canada.
Eloxatin
2008   Consultant, National Rectal Cancer Consultative Meeting, Ontario, Canada.

Royal College of Physicians and Surgeons of Canada,
2000   Member, Abstract Review Panel, 2000 meeting, Canada.

PROVINCIAL / REGIONAL
Cancer Care Ontario
2015 - present   Colorectal Cancer Working Group-Quality Indicators for pre-operative assessment in rectal patients, Ontario, Canada.
2012 - 2015   Member, Pre-treatment Assessment of Rectal Cancer, Program in Evidence Based Care, Ontario, Canada.
2009   Member, Search Committee, Quality Lead, Radiotherapy, Radiation Treatment Program, Ontario, Canada.
2009   Member, Search Committee, Quality Lead, Radiation Oncology, Radiation Treatment Program, Ontario, Canada.
2009   Member, Search Committee, Quality Lead, Medical Physics, Radiation Treatment Program, Ontario, Canada.
2008   Member, Search Committee, Provincial Head for Radiation Treatment Program, Ontario, Canada.
2006   Member, Toronto RCP Performance Monitoring & Improvement Group, Ontario, Canada.
2005 - 2013   Member, Provincial Radiation Treatment Program Committee, Ontario, Canada.
2003 - 2007   Member, Durham Evening Clinic at Sunnybrook Steering Committee, Ontario, Canada.
2002 - 2013   Member, Radiation Oncology Professional Advisory Committee, Ontario, Canada.
2002 - 2003   Member, Radiation Treatment Advisory Committee, Ontario, Canada.

Ontario Medical Association
1996 - 1997   Chair, Education and Programs Committee; Section, Radiation Oncology, Ontario, Canada.
1993 - 1994   Chair, Education and Programs Committee, Section on Radiation Oncology, Toronto, Ontario, Canada.

Royal Victoria Hospital
2007 - 2012   Chair, Search Committee, Radiation Oncologists, Ontario, Canada.

Royal Victoria Hospital/Odette Cancer Center
2008 - 2012   Member, Radiation Treatment Program, Steering Committee, Toronto, Ontario, Canada.

St. Paul L’Amoreaux Senior Centre
1999 - 2001   Board Member, Ontario, Canada.

LOCAL
Princess Margaret Cancer Center
2016 - present   Member, Review Committee for Campbell Chair in Breast Cancer Research, Toronto, Ontario, Canada.
Princess Margaret Hospital

1999 - 2001  Institute Representative, NCIC CTG Brain Site, Toronto, Ontario, Canada.
1998 - 2001  Member, Search Committee for Staff Radiation Oncologists, Toronto, Ontario, Canada.
1998 - 2001  Chair, Research Committee, Radiation Medicine Program, Toronto, Ontario, Canada.

1997  Chair, Research Sub-committee for Strategic Planning, Radiation Services, Toronto, Ontario, Canada.
1993  Member, Ad-Hoc Committee on Academic Programs, Department of Radiation Oncology, Toronto, Ontario, Canada.
1993  Member, Medical Staff Association Executive, Toronto, Ontario, Canada.
1993  Member, Radiation Oncologist Partnership Executive, Toronto, Ontario, Canada.
1993  Member, Symptom Control Subcommittee, Toronto, Ontario, Canada.
1993  Member, Incident Forms Task Group, Toronto, Ontario, Canada.
1992 - 1993  Member, Pharmacy Computerization Review Group, Toronto, Ontario, Canada.
1992  Member, Research Advisory Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1991 - 1999  Member, Pharmacy and Therapeutics Committee, Toronto, Ontario, Canada.
1991 - 1995  Member, Search Committee for Senior Scientist, Division of Experimental Therapeutics, Toronto, Ontario, Canada.
1990 - 1994  Chair, Radiographers Education Committee, Toronto, Ontario, Canada.
1988 - 1995  Member, Terry Fox Fellowship Committee, Toronto, Ontario, Canada.
1988 - 1994  Member, Medication Incidents Review Sub-Committee, Toronto, Ontario, Canada.

Sunnybrook Health Sciences Centre

2013 - present  Member, Search Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2013  Member, Cancer Committee, Toronto, Ontario, Canada.
2012 - 2013  Member, Search Committee, Head of Division of Medical Oncology/Hematology, Toronto, Ontario, Canada.
2011  Member, Search Committee, Chief of Odette Cancer Centre, Toronto, Ontario, Canada.
2008 - 2012  Chair, Search Committee for Head of Medical Physics, Toronto, Ontario, Canada.
2008  Member, 5-Year Review, Department of Dentistry, Toronto, Ontario, Canada.
2007 - 2013  Member, Medical Physics Research Operations Committee, Toronto, Ontario, Canada.
2007 - 2010  Member, Clinical Trials & Epidemiology Steering Committee, Toronto, Ontario, Canada.
2007  Member, External review, CNS Disease Site Group, Toronto, Ontario, Canada.
2007  Member, Integrated Management Committee, Toronto, Ontario, Canada.
2006  Member, 5-Year Review, Department of Anesthesia, Toronto, Ontario, Canada.
2005  Member, Search Committee for Regional VP, Cancer Program, Toronto, Ontario, Canada.
2005  Member, TSRCC ICP IM Strategy Committee, Toronto, Ontario, Canada.
2004 - 2013  Chair, Steering Committee, Radiation Treatment Program, Toronto, Ontario, Canada.
2004 - 2013  Member, Clinical Operations Committee, Radiation Treatment Program, Toronto, Ontario, Canada.
2004 - 2013  Member, Research Advisory Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2003 - 2013  Chair, PET/CT Committee, Toronto, Ontario, Canada.
C Shun WONG

2003 - 2013  Chair, PET/CT Research Committee, Toronto, Ontario, Canada.
2003 - 2005  Member, Prostate Cancer Steering Committee, Toronto, Ontario, Canada.
2003        Member, Toronto Cancer Research Partnership, Toronto, Ontario, Canada.
2002 - 2013  Member, Medical Advisory Committee, Toronto, Ontario, Canada.
2002 - 2013  Member, Senior Medical Council, Toronto, Ontario, Canada.
2002 - 2013  Member, Program Council, Cancer Program, Toronto, Ontario, Canada.
2002 - 2013  Chair, Radiation Oncology Manpower Committee, Toronto, Ontario, Canada.
2002 - 2013  Chair, Radiation Oncology Staff Committee, Toronto, Ontario, Canada.
2002 - 2013  Member, Editorial Board of Hot Spot Newsletter, Toronto, Ontario, Canada.
2002 - 2013  Member, Site Group Leaders Committee, Toronto, Ontario, Canada.
2002 - 2013  Member, Radiation Oncology Associates Executive, Ontario, Canada.
2002 - 2013  Chief, Department of Radiation Oncology, Toronto, Ontario, Canada.
2002 - 2011  Member, Discipline of Molecular and Cell Biology, Toronto, Ontario, Canada.
2002 - 2004  Member, Academic Medical Council, Toronto, Ontario, Canada.
2002 - 2004  Member, Search Committee for Cancer Research Director, Toronto, Ontario, Canada.
2002 - 2003  Member, Radiation Program Expanded Group, Toronto, Ontario, Canada.
2002 - 2003  Chair, Radiation Program Core Group, Toronto, Ontario, Canada.
2002 - 2003  Chair, Search Committee for Medical Physics Research Director, Toronto, Ontario, Canada.
2002 - 2003  Member, IMRT Committee, Toronto, Ontario, Canada.
2002 - 2003  Member, TSRCC/DRCC Evening Clinic Committee, Toronto, Ontario, Canada.
2002        Member, Search Committee for Chief of Dentistry, Toronto, Ontario, Canada.
2002        Member, Search Committee for Chief of Radiology, Toronto, Ontario, Canada.
2002        Member, Search Committee for Clinician Scientists, Cancer Program, Toronto, Ontario, Canada.
2001 - 2003  Member, TSRCC/CROS Steering Committee, Toronto, Ontario, Canada.

University of Toronto
2015 - present Member, Executive Committee, Faculty of Medicine, Institute of Medical Science, Multilevel Education, Toronto, Ontario, Canada.
2006 - present Member, Finance Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2005 - present Chair, Three-Year Review Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2005 - present Chair, Appointments Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2005 - present Member, Vice Chairs Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2005 - present Chair, Promotions Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2003 - present Member, EIRR 21st Grants Panel, Toronto, Ontario, Canada.
2001 - present Member, Executive Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2012 - 2015 Member, IMS, Appointments Committee, Toronto, Ontario, Canada.
2012        Judge, Laidlaw Manuscript Competition, Toronto, Ontario, Canada.
2011        Member, Search Committee for Campbell Chair in Breast Cancer Research, Toronto, Ontario, Canada.
2011        Member, Search Committee for Farghason Chair in Renal Cancer Research, Toronto, Ontario, Canada.
2009  **Acting Chair**, Department of Radiation Oncology, Toronto, Ontario, Canada.

2006  **Member**, Search Committee, Chief of Department of Radiation Oncology, Toronto, Ontario, Canada.

2006  **Member**, Five-year Review Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.

2002 - 2013  **Member**, Fellowship Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.

1997 - 2001  **Chair**, Resident Research Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.

1997 - 2001  **Member**, Resident Selection Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.

1997 - 2001  **Member**, Fellowship Selection Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.

1996 - 2001  **Director**, Research, Department of Radiation Oncology, Toronto, Ontario, Canada.

1996 - 2001  **Member**, Senior Advisory Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.

1996 - 2001  **Chair**, Research Advisory Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.

1996  **Member**, Committee on Graduate Education in Clinical Sciences, for Institutional Self-study for Accreditation, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education, Toronto, Ontario, Canada.

1992 - 2004  **Member**, Promotions Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.


**Medical School Applicants.**

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**Peer Review Activities**

ASSOCIATE OR SECTION EDITING

**Associate Editor**

Case Reports in Medicine

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**GRANT REVIEWS**

**Internal Grant Reviewer**

2015 - 2016  Department of Radiation Oncology, University of Toronto, Collaborative Seed Grants

2015  Sunnybrook Health Sciences Centre, Odette Cancer Centre, Tiffin Grants

**Reviewer**

Alberta Cancer Board

Cancer Studies, School of Medicine, University of Manchester

Henry Ford Health Sciences Center, Detroit Saskatchewan Cancer Agency

Medical Research Council

National Cancer Institute of Canada

North Carolina Biotechnology Center Science & Technology Development Program

Saskatchewan Cancer Agency

**Grant Panels**

2016  Canadian Institute for Health Research, Project Grant Competition

2011  Canadian Institute for Health Research, Cancer Biology & Therapeutics
C Shun WONG

2008 - 2009 National Institutes of Health, Special Emphasis Panel
2007 - 2013 Canadian Association of Radiation Oncologists, Rapid AstraZeneca Evaluation of Radiomodifiers (RAZCER) grants
2005 National Institutes of Health, Pharmacology and Diagnostics for Neuropsychiatric Disorders Canadian Breast Cancer Research Alliance, Idea Grant Panel
2003 - 2005 National Cancer Institute of Canada, Panel I: Clinical Trials and Clinical Studies
2003 - 2004 National Aeronautics and Space Administration (USA), Space Radiation Biology Research Panel
1993 - 1996 National Cancer Institute of Canada, Panel E: Photobiology, Physics, Radiobiology

MANUSCRIPT REVIEWS

Reviewer

Acta Oncologica
BioMed Research International
BMC Cancer
Brain Research
Canadian Journal of Neurological Science
Cancer Journal Scientific American
Cancer Research
Case Reports in Medicine
Case Reports in Neurologic Medicine
Clinical and Investigative Medicine
Clinical Cancer Research
Clinical Oncology
Digestive Surgery
Genomics, Proteomics & Bioinformatics
Gynecologic Oncology
International Journal of Radiation Biology
International Journal of Radiation Oncology Biology Physics
Journal of Clinical Oncology
Journal of Neuro-Oncology
Journal of Neuroscience Research
Journal of Surgical Oncology
Lancet Neuroscience
Molecular Cancer Therapeutics
Neurochemistry International
NeuroOncology
Neuroscience
Oncology
Oncology Letters
Oncotarget
Physica Medica: European Journal of Medical Physics
PLOS one
Proceedings of National Academy of Sciences
Radiation Research
Radiotherapy and Oncology
C Shun WONG

Regenerative Medicine
Spinal Cord
Stem Cells

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2009 - 2010 **Co-Investigator.** Ultrasound microbubble enhancement of bladder cancer responses to radiation. American Association for Cancer Research, Henry Sheppard Translational Research Grant. PI: Czarnota GJ. Collaborator(s): **Wong CS.** 125,000 USD. [Grants]


2007 - 2010 **Co-Investigator.** Ultrasound analyses of vascular effects of radiation. Canadian Breast Cancer Foundation (Ontario Chapter). PI: Czarnota GJ. Collaborator(s): **Wong CS,** Burns PN, Foster SF. 428,000 CAD. [Grants]


2005 - 2008 **Principal Investigator.** The neuroprotective role of erythropoietin in radiation-induced CNS injury. OCRN. 526,893 CAD. [Grants]


2002 - 2006 **Principal Investigator.** Role of endogenous and exogenous neural stem cells and progenitor cells in CNS radiation responses. National Cancer Institute of Canada (NCIC). 479,403 CAD. [Grants]

2002 - 2004 **Collaborator.** Equipment maintenance support for oncologic molecular micro-imaging.


1997 - 2000 Principal Investigator. The role of apoptosis in radiation damage to the central nervous system. National Cancer Institute of Canada (NCIC). 417,603 CAD. [Grants]


NON-PEER-REVIEWED GRANTS

FUNDED


2006 - 2008 **Principal Investigator.** Positron emission tomography (PET) evaluation study - Sunnybrook site. Ministry of Health and Long-Term Care Research Grant. 130,000 CAD. [Grants]


2004 **Principal Investigator.** Neuroprotection in a mouse model of behavioral and learning/memory impairment after cranial irradiation. Ortho Biotech. 64,407 CAD. [Grants]

2002 - 2007 **Principal Investigator.** Research Support. Sunnybrook Health Sciences Centre. 635,000 CAD. [Grants]


2002 **Principal Investigator.** Equipment Grant. Sunnybrook Health Sciences Centre. 145,238 CAD. [Grants]


1999 **Principal Investigator.** Travel Award. Radiation Research Society. 500 USD. [Grants]


1992 **Principal Investigator.** Continuing Education Day - Current Controversies in the Colorectal Cancer. Princess Margaret Hospital Foundation. Collaborator(s): Moore M. 19,400 CAD. [Grants]

1978 **Principal Investigator.** A study of the influence of dose fractionation on the radiation tolerance of the rat spinal cord. Princess Margaret Hospital Trust Fund. 2,940 CAD. [Grants]

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**2. SALARY SUPPORT AND OTHER FUNDING**

**Personal Salary Support**

D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   Neural progenitors in adult brain undergo p53-dependent apoptosis after irradiation. In contrast, radiation-induced apoptosis of microvascular endothelial cells is regulated by membrane acid sphingomyelinase. Using genetic, pharmacological and transplantation approaches, we provide evidence that endothelial cells may regulate p53-dependent apoptosis of neural progenitors after genotoxic stress.


   Microvascular permeability changes and loss of blood-brain barrier integrity are important features of central nervous system (CNS) radiation injury. Expression of vascular endothelial growth factor (VEGF) is an important determinant of microvascular permeability. Hypoxia mediates VEGF up-regulation through hypoxia-inducible factor-1 alpha (HIF1alpha). In rat spinal cord, we observed increase in astrocitic expression of HIF1-alpha and VEGF before the onset of radiation-induced white matter necrosis and forelimb paralysis. VEGF-low-expressing mice were found to be protected from radiation myelopathy compared to wild type or VEGF-high-expressing mice. Our study provided first evidence for a causative role of VEGF in CNS radiation injury.


   Ionizing radiation results in acute disruption of the blood-brain barrier. Following radiation, microvascular endothelial cells undergo apoptosis, a process mediated by membrane acid sphingomyelinase. We show that in acid sphingomyelinase-deficient mice, ionizing radiation does not result in endothelial cell apoptosis and there is no disruption of the blood-brain barrier after irradiation. Intravenous basic fibroblast growth factor which protects endothelial cell from apoptosis after irradiation also confers protection against disruption of the blood-brain barrier. Our study provides mechanistic insight that links endothelial cell apoptosis to acute blood-brain barrier disruption after irradiation.


   Dysfunction of the blood-brain barrier is associated with radiation-induced white matter lesions. Using the rat radiation myelopathy model, we showed a dose-dependent temporal and spatial association of hypoxia, vascular endothelial growth factor (VEGF) up-regulation, and radiation-induced blood-spinal cord barrier disruption. The results provide the first observation that tissue hypoxia and VEGF up-regulation play a role in blood-brain barrier permeability damage in the spinal cord after ionizing radiation, and add mechanistic insight to the underlying pathophysiology of late CNS effects after irradiation.


   We characterized acute apoptosis in rat spinal cord after irradiation and provided the first observation that apoptotic cells after ionizing radiation in the adult spinal cord are cells of the oligodendroglial lineage.
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


In Preparation


3. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Editorials


4. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2006  **Visiting Professor.** CNS Radiation Injury: Present and Future Directions for Neuroprotection. Department of Radiation Oncology, Henry Ford Health System. Detroit, Michigan, United States.


2003  **Invited Lecturer.** Molecular targets for disruption of blood-brain barrier following ionizing radiation. Semi-Annual Meeting, Radiation Therapy Oncology Group. Montreal, Quebec, Canada.

2003  **Invited Speaker.** Endothelial apoptosis initiates acute blood-brain barrier disruption following ionizing radiation. Gordon Research Conference. Ventura, California, United States.

2002  **Visiting Professor.** Radiation-induced CNS injury: Current concepts and future directions. Cancer Hospital/Cancer Institute, Fudan University. Shanghai, China.

2000  **Invited Speaker.** Hypoxia and VEGF in radiation-induced blood-brain barrier disruption. European Society of Radiation Biology. Warsaw, Poland.

2000  **Visiting Professor.** Mechanisms of radiation injury in the central nervous system. Department of Radiation Oncology, University Hospital Nijmegen. Netherlands.

1999  **Visiting Professor.** Mechanisms of radiation injury in the central nervous system. Medical Department, Brookhaven National Laboratory. New York, United States.


1994  **Visiting Professor.** Radiation myelopathy: Lessons from our patients. Department of Radiotherapy and Oncology, Queen Elizabeth Hospital. Hong Kong, China.


Presented Abstracts

2016  **Presenter.** Cranial irradiation induces cellular senescence in mouse hippocampus. 10th FENS. Copenhagen, Denmark.

2015  **Presenter.** p53 regulates inhibition of hippocampal neurogenesis after irradiation. AACR. Shanghai, China.


2014  **Presenter.** p53 mediates distinct DNA damage response in neural stem cells and neuroprogenitors in dentate gyrus. 9th FENS. Milan, Italy.

2013  **Presenter.** Radiation-induced neural progenitor dysfunction is p53 dependent. FENS Featured Regional Meeting. Prague, Czech Republic.

2010

2010

2008
Role of ICAM1 in CNS radiation injury. 31th Annual Meeting of the Japan Neuroscience Society. Tokyo, Japan.

2008

2007

2006

2006

2005
Systemically administered erythropoietin protects the irradiated brain through anti-inflammatory mechanisms. 96th Annual Meeting, American Association for Cancer Research. Anaheim, California, United States.

2005
Systemically administered erythropoietin protects the irradiated brain through anti-inflammatory mechanisms. 52nd Annual Meeting of the Radiation Research Society. Denver, Colorado, United States.

2005
Systemically administered erythropoietin protects the irradiated brain through anti-inflammatory mechanisms. ASTRO 47th Annual Meeting. Denver, Colorado, United States.

2004

2003

2002
Radiation induces acute endothelial cell loss and blood-brain barrier disruption in the CNS. 93rd Annual Meeting, American Association for Cancer Research. San Francisco, California, United States.

2002
Radiation-induced acute blood-brain barrier disruption is mediated by the acid sphingomyelinase pathway. 49th Annual Meeting, Radiation Research Society. Reno, Nevada, United States.

2001
Early radiation-induced endothelial cell loss and blood-spinal cord barrier breakdown in rat spinal cord. 48th Annual Meeting, Radiation Research Society. San Juan, Puerto Rico.

2000

2000

1999
Proliferation parameters in epidermoid carcinomas of the anal canal. 41st Annual Meeting, American
Society for Therapeutic Radiology and Oncology. San Antonio, Texas, United States.


1996  Oligodendrocytes are target cells of radiation-induced apoptosis in CNS. 15th Annual Meeting, European Society for Therapeutic Radiology and Oncology. Vienna, Austria.

1995  Failure of the LQ model to describe the fractionation effect in rat spinal cord. 43rd Annual Meeting, Radiation Research Society. San Jose, California, United States.

1995  Blood-spinal cord-barrier function and morphometry after single doses of X-rays in rat spinal cord. 43rd Annual Meeting, Radiation Research Society. San Jose, California, United States.

1995  Recovery kinetics of radiation damage in rat spinal cord. 10th International Congress of Radiation Research. Wurzburg, Germany.


1993  Re-irradiation tolerance of rat spinal cord to fractionated X-ray doses. 41st Annual Meeting, Radiation Research Society. Dallas, Texas, United States.

1992 Effect of small doses per fraction on the radiation tolerance of rat spinal cord: Influence of initial versus final top-up doses. 4th International Conference on Dose, Time and Fractionation in Radiation Oncology. Madison, United States.

1992 Local excision and post-operative radiation therapy for cancer of the distal rectum. Annual Meeting, American Society for Therapeutic Radiology and Oncology. San Diego, California, United States.

1991 Linear quadratic model underestimates sparing effect of small doses per fraction in rat spinal cord. 9th International Congress of Radiation Research. Toronto, Ontario, Canada.

1990 No loss of repair capacity in rat spinal cord up to 40 daily fractions. 38th Annual Meeting, Radiation Research Society. New Orleans, Louisiana, United States.

1990 Myelopathy following hyperfractionated accelerated radiotherapy for anaplastic thyroid carcinoma. 9th Annual Meeting, European Society for Therapeutic Radiology and Oncology. Montecatini, Italy.

1986 External irradiation for squamous cell carcinoma of the nasal vestibule. American Society for Therapeutic Radiology and Oncology. Los Angeles, California, United States.

2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


2010 Changes in neural stem cell and progenitor cell populations in mouse brain after ionizing radiation. Canadian Association or Radiation Oncologist, Annual Scientific Meeting. Vancouver, British Columbia, Canada.


1999 VEGF upregulation and hypoxia in radiation-induced white matter necrosis. 2nd Canadian Brain Tumor Network Meeting. Toronto, Ontario, Canada.

1996 Oligodendrocytes undergo radiation-induced apoptosis in rat spinal cord. 7th Canadian Neuro-Oncology Meeting. Montreal, Quebec, Canada.

1995 Recovery kinetics of radiation damage in rat spinal cord. 95th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Montreal, Quebec, Canada.

1994 Permanent myelopathy following re-irradiation of the spinal cord. 6th Canadian Neuro-Oncology Meeting. Lake Louise, Alberta, Canada.

1994 A phase I study of combined radiation therapy, 5-fluorouracil and low dose folinic acid in patients with locally advanced pancreatic or extrabiliary carcinoma. 94th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Toronto, Ontario, Canada.


1992 Influence of level of initial damage on the re-irradiation tolerance in rat spinal cord. 5th Canadian Neuro-Oncology Meeting. Huntsville, Ontario, Canada.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2010  

2006  

2004  
**Visiting Professor.** CNS radiation injury: new paradigms for neuroprotection. Department of Radiation Oncology, Ottawa Regional Cancer Centre. Ottawa, Ontario, Canada.

2003  
**Invited Speaker.** Endothelial apoptosis initiates acute blood-drain barrier disruption following ionizing radiation. Crolla Research Day. Toronto, Ontario, Canada.

1999  
**Visiting Professor.** Pathophysiology of CNS radiation injury. Department of Oncology, University of Western Ontario. London, Ontario, Canada.

4. LOCAL

Invited Lectures and Presentations

2013  
**Lecturer.** Radiation Therapy for Colorectal Cancer. Department of Surgery, University of Toronto. Toronto, Ontario, Canada.

2013  

2013  

2012  
Neoadjuvant chemoradiation for locally advanced colon cancer. York Central Hospital. Toronto, Ontario, Canada.

2011  
Radiation Treatment for colorectal cancer: controversies. TORSO 2011, University of Toronto. Toronto, Ontario, Canada.

2011  
Colon Cancer Care: Coordination Counts. Toronto Surgical Oncology Rounds. Toronto, Ontario, Canada.

2001  

1997  
**Invited Speaker.** Radiation-induced apoptosis in the CNS. Grand Rounds. Toronto Sunnybrook Regional Cancer Centre. Toronto, Ontario, Canada.

1995  

1994  
**Invited Speaker.** Permanent radiation myelopathy following single courses of radiation therapy and retreatment. Toronto Sunnybrook Regional Cancer Centre, Grand Rounds. Toronto, Ontario, Canada.

1994  
Presented Abstracts

1992  Sparing effect of small doses per fraction given once daily in rat spinal cord. University of Toronto, Department of Radiation Oncology Alumni Day. Toronto, Ontario, Canada.

CME Courses

2001  **Lecturer.** Surgical Oncology Network, Tele-Oncology Rounds - Rectal Cancer. Department of Surgery, University of Toronto. Toronto, Ontario, Canada. (Continuing Education).

2000  **Lecturer.** Radiation Oncology Nursing Program - CNS malignancies. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

1998  **Chair.** Resident Paper Session. Canadian Association of Radiation Oncologists. Toronto, Ontario, Canada. (Continuing Education).

1997  **Panelist.** Colon Cancer Update. Mount Sinai Hospital. Toronto, Ontario, Canada. (Continuing Education).

1994  **Course Co-ordinator.** Resource issues in the practice of radiation oncology in the 90’s. University of Toronto. Toronto, Ontario, Canada. Approved for 3.9 type II MOCOMP credits of the Royal College of Physicians and Surgeons of Canada. (Continuing Education).

1993  **Lecturer.** Introduction to Radiation Oncology, Pharmacy Preceptor Workshop. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

1993  **Lecturer.** Radiation Therapy Nursing Course, Radiobiologic effect on normal tissues. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

1992  **Lecturer.** Refresher Course in Radiation Oncology - GI Tumor. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

1992  **Lecturer.** Radiotherapy for Advanced and Locally Recurrent Colorectal Cancer. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

1992  **Lecturer.** Introduction to Radiation Oncology, Pharmacy Preceptor Workshop. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

1992  **Course Co-ordinator.** Concurrent controversies in colorectal cancer. University of Toronto. Toronto, Ontario, Canada. Approved for 8.25 type II MOCOMP credits of the Royal College of Physicians and Surgeons of Canada. (Continuing Education).

1991  **Lecturer.** Refresher Course in Radiation Oncology - GI Tumor. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

1994  Resource Issues in the practice of Radiation Oncology in the 90’s, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto.  
**Course Co-ordinator.** Approved for 3.9 type II MOCOMP credits of the Royal College of Physicians and Surgeons of Canada.

1993 - 1998  Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto.  
**Course Co-ordinator:** Applied Radiobiology.  
Eight 1h seminars, with formal written and oral examinations at end of course.

1992 - 1994  Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Graduate Education

2010 - present  Primary Supervisor. PhD. Kristopher Dennis, Medical Science. *Radiation-induced nausea and vomiting.*
2003 - 2006  Co-Supervisor. MSc. Alina Mihai, Medical Science. *Is the inner shell ionization model predictive for the radiosensitization induced by halogenated pyrimidines?*

Undergraduate MD

2000

1999

Postgraduate MD

1998 - 1999

1996 - 1998

1996

1995 - 1996

1995 - 1996

1995

1994 - 1996

1994

1992 - 1993

Faculty Development

2013 Aug - 2014 Aug
Primary Supervisor. Xinhong He, Medical Science. Supervisee Position: Assistant Professor, Supervisee Institution: Fudan University, China. MRI changes post neoadjuvant chemoradiation for rectal cancer, Non-thesis Project. Awards: Fudan University, Shanghai Cancer Center. Collaborator(s): Laurent Milot.

2007 - 2009

Postdoctoral Research Fellow (PhD)

2008 - 2009

2007

2005 - 2007

2002 - 2007

2002
Primary Supervisor. PhD. Peng-Sheng Zheng, Medical Biophysics. HPV and p53 in human
anal carcinoma., Completed 2002.


1997 - 1999 **Primary Supervisor.** PhD. Bao-Fu Sun, Medical Biophysics. *Influence of HPV-E6 on radiosensitivity.*

1995 - 1999 **Primary Supervisor.** PhD. Yu-Qing Li, Medical Biophysics. *Radiation-induced apoptosis in rat spinal cord.*

1995 - 1996 **Primary Supervisor.** PhD. Ya-Ping Guo, Medical Biophysics. *Time course of radiation-induced apoptosis in adult rat spinal cord.*

Clinical Research Fellow (MD)

2001 - 2002 **Primary Supervisor.** MD. Bronwyn Matheson. *MRS changes in brain tumors and normal brain after radiotherapy.*


2. OTHER SUPERVISION

Graduate Education

**Thesis Committee Member**

2015 Sep - present **MSc.** Jae Lee, Physics. Supervisee Institution: Ryerson University. Supervisor(s): Carl Kumaradas.

2014 Sep - present **MSc.** Christianne Hoey, Medical Biophysics. Supervisor(s): Stanley Liu.

2014 Sep - present **MSc.** Chris Morrone, Laboratory Medicine and Pathobiology. Supervisor(s): JoAnne McLaurin.

2012 - present **PhD.** Elizabeth de Guzman, Medical Biophysics. Supervisor(s): Brian Nieman.

2014 - 2015 Apr **PhD.** Priscilla Lai (withdrawn), Medical Biophysics. Supervisor(s): Greg Czarnota.

2012 - 2014 **MSc.** Tiffany Scarcelli, Laboratory Medicine and Pathobiology.


2010 - 2012 **MSc.** Christina Kim, Medical Biophysics.

2007 - 2010 **MSc.** Justin Lee, Medical Biophysics.

2007 - 2009 **MSc.** Clinton Hubble, Medical Biophysics.

2007 - 2009 **MSc.** James Bae, Laboratory Medicine and Pathobiology.

2004 - 2006 **MSc.** Nick Davies, Medical Biophysics.

2003 - 2006 **MSc.** Amy Wong, Laboratory Medicine and Pathobiology.

2001 - 2004 **MSc.** Lindsay Park, Medical Biophysics.

1998 - 1999 **MSc.** A. Molckovsky, Medical Biophysics.

1992 **MSc.** A. Speke, Medical Biophysics.

1990 - 1992 **MSc.** T. Haston, Medical Biophysics.

**Thesis Examiner**

2014 **MSc.** Tiffany Scarcelli, Laboratory Medicine and Pathobiology.

2012 **MSc.** Christina Kim, Medical Biophysics.

2010 **MSc.** Justin Lee, Medical Biophysics.
2009  MSc. Clinton Hubble, Medical Biophysics.
2009  MSc. James Bae, Laboratory Medicine and Pathobiology.
2009  PhD. Brian Keller, Medical Science.
2006  MSc. Alina Mihai, Medical Science.
2006  MSc. Amy Wong, Laboratory Medicine and Pathobiology.
2006  MSc. Nick Davies, Medical Biophysics.
2005  MSc. Ashraf Mahmoud-Ahmed, Medical Biophysics.
2004  MSc. Lindsay Park, Medical Biophysics.
2003  PhD. David Wu, Laboratory Medicine and Pathobiology.
2003  MSc. Robert Nordal, Medical Biophysics.
2003  MSc. Shelly Atkinson, Medical Biophysics.
1999  MSc. A. Molckovsky, Medical Biophysics.
1999  MSc. K. De Jaeger, Medical Biophysics.
1999  MSc. Brenda Chow, Medical Biophysics.
1999  MSc. V. Vukovic, Medical Biophysics.
1995  MSc. M-C. Kavanagh, Medical Biophysics.
1992  PhD. C. Newcombe, Medical Biophysics.
1992  MSc. T. Haston, Medical Biophysics.
1992  MSc. A. Speke, Medical Biophysics.

Qualifying/Reclass Examiner
2016 Jun  Chris Morrone, Laboratory Medicine and Pathobiology. Supervisor(s): JoAnne McLaurin.
2015 May  MSc. Xiao Zhao, Medical Science. Supervisor(s): Fei-Fei Liu.
2014      MSc. Priscilla Lai, Medical Biophysics.
2012      MSc. Kristopher Dennis, Medical Science.
2012      PhD. Wei-Chih Cheng, Medical Science, Neuroscience.
2011      MSc. S. Mashouf, Medical Science.

Thesis Committee Member, Foreign Advisor
CURRICULUM VITAE

Name: Jason Wong, MD FRCP(C)

Business Address: Radiation Medicine Program
Stronach Regional Cancer Centre at
Southlake Regional Health Centre
596 Davis Drive
Newmarket, Ontario
L3Y 2P9

Telephone: 905-895-4521 ext. 6595
Fax: 905-952-2818
E-Mail: j3wong@southlakeregional.org

EDUCATION

University Education:
1996 – 1999 Bachelor of Science
McMaster University, Hamilton, ON, Canada

Post Graduate and Medical Training:
1999 – 2003 Doctor of Medicine
Queen’s University School of Medicine, Kingston, ON, Canada
2003 – 2008 Residency: Radiation Oncology
Princess Margaret Hospital, University of Toronto, Toronto, ON, Canada
2008 – 2009 Fellowship: Prostate/Gyne Brachytherapy
Seattle Prostate Institute, Swedish Medical Center, Seattle WA

Qualifications & Certifications:
2003 Licentiate of the Medical Council of Canada (LMCC): PART I (PASS)
2003 United States Medical Licensing Examination (USMLE): STEP 1 (PASS)
2003 United States Medical Licensing Examination (USMLE): STEP 2 (PASS)
2004 Licentiate of the Medical Council of Canada (LMCC): PART II (PASS)
2005 United States Medical Licensing Examination (USMLE): STEP 3 (PASS)
2008 – present Fellow of the Royal College of Physicians and Surgeons of Canada
2010 – present American Board of Radiology, Radiation Oncology

Licenses:
2008 Washington
2009-present California
2003-2008 Ontario
2013-present
CURRENT APPOINTMENTS

05/2013 – present
Active Staff, Radiation Oncology
Stronach Regional Cancer Centre (SRCC)
Southlake Regional Health Centre, Newmarket, Ontario, Canada

Active Staff, Radiation Oncology
The Princess Margaret Cancer Centre, Toronto, Ontario, Canada

PREVIOUS APPOINTMENTS

5/2012-5/2013
Program Director, Radiation Oncology Residency Program
Assistant Clinical Professor
Department of Radiation Oncology
School of Medicine
University of California, Irvine

10/2009-5/2013
Assistant Clinical Professor
Department of Radiation Oncology
School of Medicine
University of California, Irvine

08/2008-07/2009
Fellow in Radiation Oncology
Swedish Medical Center/Prostate Cancer Institute, Seattle, WA

08/2008-07/2009
Staff Radiation Oncologist
Stevens Hospital, Edmunds, WA
Highline Medical Center, Burien, WA
Valley Medical Center, Renton WA
Northwest Hospital, Seattle, WA

07/2003-06/2008
Resident in Radiation Oncology
Princess Margaret Hospital, Toronto, ON

05/2001-09/2001
Research Assistant
Serial tumor blood flow measurements in shionogi tumors
Prostate Centre, Vancouver General Hospital, University of British Columbia, BC

05/1999-08/1999
Research Assistant
Ottawa Heart Institute, Ottawa, ON

05/1998-08/1998
Research Assistant
Implantation of encapsulated myoblasts expressing VEGF in non-muscle sites induces localized angiogenesis
Department Molecular Biology and Pathology, McMaster University, Hamilton, ON

05/1997-08/1997
Research Assistant
Gene Therapy: Microencapsulation Gene Therapy
Department of Pediatrics, Faculty of Health Sciences, McMaster University, Hamilton, ON
HONORS & AWARDS

2012 ASTRO-ARRO Teacher of the Year award (Association Residents in Radiation Oncology)
2011 “Heroes in Healthcare” nomination University of California, Irvine Medical Center/ Chao Family NCI Cancer Center.
2010 Short Listed for Radiation Oncology 2009-2010 Educator of the Year Award
2001 British Columbia Cancer Agency Summer Research Scholarship
2000 Rehabilitation Institute of Chicago Summer Research Scholarship
2000 Queen's University Summer Research Studentship
1999 McMaster University BSc.- Summa Cum laude
1999 McMaster University Merit Senate Scholarship 1999
1999, 1998, 1997 McMaster University's Dean's Honor List

PROFESSIONAL AFFILIATIONS:

2009 - 2010 American Brachytherapy Society
2008 - present Fellow of the Royal College of Physicians and Surgeons of Canada
2007 - present American Medical Association
2005 - present Canadian Association of Radiation Oncologists
2005 - present American Society for Therapeutic Radiology and Oncology (ASTRO)
2003 - 2008 Royal College of Physicians and Surgeons of Canada: Resident Member
2003 - 2008 College of Physicians and Surgeons of Ontario: Member
1999 - 2010 Ontario Medical Association: Member
1999 - 2010 Canadian Medical Association: Member

CURRENT CLINICAL STUDIES

2014-present A pilot project to assess the feasibility of introducing patient reported outcomes into the Standard of Care of patients undergoing radiation treatment for rectal carcinoma in the radical setting.
Principal Investigator: Kassam, Z
REB #0065-1314 (SRHC)

2014-present Prospective Evaluation and Data mining to predict and minimize Individual Clinical Toxicity in Breast cancer radiotherapy (PREDICT – Bre)
Principal Investigator: Ruschin M, Local Principal Investigator: Fenkell L
REB # 0012-1415 (SRHC)

2015 A Multicentre Randomized Controlled Clinical Trial for the Reduction of Acute Skin Reaction in Adjuvant Breast Radiation in Large Breasted Women using a Prone Technique
Principal Investigators: Fenkell, L and Comsa D
REB # 0005-1516 (SRHC)
PUBLICATIONS

Peer Reviewed Publications:


Abstracts and Posters


• **Wong J**, Sylvester JE. First Report On Seed Migration To The Lung With The Use Of A Thinner I125 Radioactive Seed Within 20 Gauge Needles For Permanent Seed Prostate Brachytherapy. *54th Annual Meeting of American Society for Radiation Oncology*, 2012, Boston MA


• Nguyen TH, Kwok S, **Wong JC**, Murgu SD, Krishnam M, Vajgrt D, Findeiss L, Goodwin S. Pulmonary Artery Stenting for Obstruction Due to Advanced Lung Tumor. Poster Presentation World Conference on Interventional Oncology (WCIO), 2011, New York, NY


- Kozlowski P, **Wong J**, Hochachka PW, and Goldenberg SL. Serial Tumour Blood Flow measurements in the Shionogi tumour model. 57th Meeting of Canadian Urological Association, 2002, St. John’s, NF.


**LANGUAGES**

English, Chinese
Curriculum Vitae

Rebecca Kwok Sum Wong

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Radiation Medicine Program
5th Floor, 610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-2126
Fax 416-946-6561
Email Rebecca.wong@rmp.uhn.on.ca

1. EDUCATION

Degrees
2001 MSc, Clinical Epidemiology, McMaster University, Canada
1984 MB ChB, Medical School, Sheffield University, United Kingdom

Postgraduate, Research and Specialty Training
2015 Mar Scholar, Health Professional Education, Harvard Macy Institute, Boston, United States

Qualifications, Certifications and Licenses
1989 FRCP, Radiation Oncology, Royal College of Physician and Surgeons of Canada, Canada

2. EMPLOYMENT

Current Appointments
2014 - present Vice Chair, Education, Radiation Oncology, University of Toronto, Canada
2010 - present Full Professor, Radiation Oncology, University of Toronto, Canada
2002 - present Associate member, Institute of Medical Science, University of Toronto, Canada
2002 - present Associate member, Health Policy, Management and Evaluation, University of Toronto, Canada
2001 - present Active staff, Radiation Medicine Program, Princess Margaret Hospital, University Health Network, Canada

Previous Appointments
HOSPITAL
2012 Committee Member, Search Committee for Chief of Radiation Medicine Program, Radiation Medicine Program, Princess Margaret Hospital
1990 - 2001 Active staff, Toronto-Sunnybrook Regional Cancer Centre, Canada
1990 - 2001  Active staff, Sunnybrook and Women’s College Health Sciences Centre, Canada

UNIVERSITY
2008 - 2012  Associate Program Director, Post Graduate Medical Education, Medicine, Faculty of, Radiation Oncology, University of Toronto
2002 - 2008  Director, Medicine, Faculty of, Radiation Oncology, University of Toronto

Resident Research

UNIVERSITY - RANK
2013 - 2014  Acting Vice Chair, Education, Radiation Oncology, University of Toronto, Canada
2012 - 2014  Chair, Social Responsibility, Professionalism and Equity, Radiation Oncology, University of Toronto, Canada
2004 - 2010  Associate Professor, University of Toronto, Canada
1997 - 2004  Assistant Professor, University of Toronto, Canada
1990 - 1997  Lecturer, University of Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2015  Most Influential Research Publication, Princess Margaret Hospital. (Distinction)
2011  Research Leadership Award, Radiation Medicine Program, Princess Margaret Hospital, Canada. (Distinction)
2009  Excellence in Research Leadership, Radiation Oncology, University of Toronto, Canada. (Distinction)
2009  Guest Lecture Award, Medical Radiation Science Program, University of Toronto, Canada. (Distinction)
2007  Most Influential Research Publication, Princess Margaret Hospital. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2013 - present  Member, Canadian Society for Epidemiology and Biostatistics
2009 - present  Member, American Society of Clinical Oncology, 56211
2000 - present  Member, American Society of Therapeutic Radiation Oncology, 35150684
1998 - present  Member, Multinational Association for Supportive Care in Cancer
1991 - present  Member, Canadian Association of Radiation Oncologists
1990 - present  member, Ontario Medical Association
1995 - 2000  Member, Canadian Palliative Care Association

Administrative Activities

INTERNATIONAL

AJCC Cancer Staging System
2014 - present  Member, Expert Panel - Neuroendocrine tumor
American Society Therapeutic Radiation Oncology
2013 - present  Annual Meeting Organizing Committee - Palliative Track, United States.
2012 - 2014  Annual Meeting Organizing Committee - Gastrointestinal Track, United States.

ASTRO
2014 - present  Member, Guidelines Sub-Committee
2014 - 2015  Member, Bone Metastases Guideline Working Group
2014 - 2015  Member, Combining Precision Radiotherapy with Precision Molecular Targeting White Paper Working Group
2014  Member, Guidelines and Best Practice Task Force
2013 - 2014  Member, Health Care Access and Training Subcommittee

Cochrane Collaboration
2001 - 2005  Chair, University of Toronto Committee

Intergroup Esophagogastric Working Group
2006 - present  Member

Multinational Association in Supportive Care
2005 - 2006  Member, Organizing Committee, 2006 Annual Meeting

NRG
2014 - present  Member, Cancer Care Delivery Research Committee
2014 - present  Member, CPC Scientific Committee

Radiation Therapy Oncology Group
2010 Jul - present  Member, Community Clinical Oncology Program Steering Committee, United States.

UICC
2011 - present  Member, Expert Panel - Upper GI TNM Watch

NATIONAL
Canadian Association of Radiation Oncologists
2006 - 2011  Member, Steering committee, Symptom Control Advisory Board
2004 - 2005  Chair, Symptom Control Advisory Board
2003 - 2004  Chair, Symptom Control Task Force

National Cancer Institute of Canada/Clinical Trials Group
2009 - present  Chair, Symptom Control Committee
2003 - present  Co-Chair, Esophageal Disease Working Group
2001 - 2009  Co-Chair, Symptom Control Committee
1999 - 2009  Member, Gastrointestinal Site Group
1996 - 1998  Member, Symptom Control Committee
**Palliative Radiation Oncology Group, Canada**

2002 - 2014  **Princess Margaret Hospital Site Chair**
2000 - 2014  **Founding Co-Chair**

**PROVINCIAL / REGIONAL**

**Cancer Care Ontario**

- **2011 - present**  **Member**, Colorectal Cancer Treatment Pathway Expert Panel, Colorectal Cancer Team Disease Management Pathway Initiative
- **2011 - present**  **Member**, Colorectal Cancer Diagnosis Pathway Expert Panel, Colorectal Cancer Team Disease Management Pathway Initiative
- **2008 - present**  **Member**, Colorectal Cancer Team Disease Management Pathway Initiative
- **2013 - 2014**  **Member**, NET Operating Council
- **2012 Jul 1**  **Member**, Radionuclide Therapy Operating Council & Executive Committee, Ontario, Canada.
- **2011 - 2014**  **Member**, Report Approval Panel, Practice Guideline Initiative
- **2008 - 2011**  **Co-Chair**, Gastrointestinal Site Group, Practice Guideline Initiative
- **2003 - 2004**  **Chair’s representative**, Guidelines Coordinating Committee, Practice Guideline Initiative
- **2001 - 2008**  **Co-Chair**, Supportive Care Guidelines Group, Practice Guideline Initiative
- **2001**  **Founding Co-chair**, Supportive Care Guidelines Group, Practice Guideline Initiative
- **1991 - 2009**  **Member**, Gastrointestinal Site Group, Practice Guideline Initiative
- **1991 - 1998**  **Member**, Sarcoma Site Group, Practice Guideline Initiative

**LOCAL**

**Other Organizations**

- **2015 Jul - present**  Executive Committee, Faculty of Medicine, Dept of Radiation Oncology, MHSc, Graduate Education, Canada.
- **2014 Jul 1 - present**  Admissions Committee, Faculty of Medicine, Institute of Medical Science, Graduate Education, Canada.
- **2014 Jul 1 - present**  Board of Examiners, Faculty of Medicine, Dept of Radiation Oncology, Medical Radiation Science, Ontario, Canada.

**Mitchener Institute**

- **2014 - present**  Joint Management Committee, Faculty of Medicine, Dept of Radiation Oncology, Canada.

**Mitchener Institute for Applied Health Sciences**

- **2001 - 2003**  **Faculty Advisor**, Diploma Program

**Toronto-Sunnybrook Regional Cancer Centre**

- **1999 - 2001**  **Research Director**, Rapid Response Radiotherapy Program
- **1993 - 2001**  **Member**, Sunnybrook Chinese Community Group
- **1993 - 2001**  **Member**, Patient Education Committee
- **1992 - 2001**  **Member**, Radiation Oncology Staff Selection Committee

**University Health Network, Princess Margaret Hospital**

- **2015 - present**  **Member**, Cancer Education Committee
- **2011 - present**  Cancer Clinical Research Unit Executive Committee, Canada.
- **2002 - present**  **Member**, Pharmacy & Therapeutics Oncology Subcommittee
2010 - 2011  **Chair**, Radiation Oncologists Partnership, Radiation Medicine Program
2009 - 2010  **Vice Chair**, Radiation Oncologists Partnership, Radiation Medicine Program
2008 - 2009  **Treasurer**, Radiation Oncologists Partnership, Radiation Medicine Program
2004 - 2010  **Coordinator**, QA rounds, GI site group, Radiation Medicine Program
2001 - 2003  **Member**, Research Ethics Board

**University Health Network, Princess Margaret Hospital, Radiation Medicine Program**
2004 - present  **Physician leader**, Super Team IV
2004 - present  **Coordinator**, Esophageal Cancer, GI site group
2004 - present  **Leader**, Palliative Radiation Oncology Program

**University Health Network, Princess Margaret Hospital, Radiation Medicine Program**
2014 - present  **Member**, Steering Committee, Canada.
2014 - present  **Chair**, Education Committee, Canada.
2014 - present  **Director**, Education, Canada.
2009 - present  **Director**, Clinical Research Program,

**University of Toronto**
2012 - present  **Member**, Decanal Promotions Committee, Faculty of Medicine
2003 - present  **Interviewer**, Medical School Admissions Committee, Faculty of Medicine

**University of Toronto - Dept Radiation Oncology**
2013 - present  **Member**, Executive Committee, Faculty of Medicine, Dept of Radiation Oncology
2013 - present  **Member**, Fellowship Training Program Committee, Faculty of Medicine, Dept of Radiation Oncology
2013 - present  **Member**, Appointments Committee, Faculty of Medicine, Dept of Radiation Oncology
2013 - present  **Member**, Promotions Committee, Faculty of Medicine, Dept of Radiation Oncology
2008 - present  **Associate Program Director**, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2012 Sep - 2013 May  **Member**, Target Insight VII organizing committee, Faculty of Medicine, Dept of Radiation Oncology, Ontario, Canada.
2002 - 2008  **Resident Research Director**, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1993 - 1998  **Member**, North York General Hospital Post-Graduate Education Committee, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1993 - 1997  **PGY 1-2 Co-ordinator**, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1991 - 1998  **Member**, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

**University of Toronto - IHPME**
2011 - present  **Member**, Co- Course Instructor Guidelines (HAD 5305), Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation
2004 - 2007  **Interviewer**, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation
Peert Review Activities

ASSOCIATE OR SECTION EDITING

Associate Editor
2011 Jul - present  Disease of Esophagus
2011 - 2012  Esophagus
2008 - 2009  Research Notes, Biomedcentral
1999 - 2004  HOT SPOT (a newsletter on palliative radiotherapy)

EDITORIAL BOARDS

Editor
2012 - present  World Journal of Meta-Analysis

GRANT REVIEWS

Reviewer
2014 - 2015  Canadian Institutes of Health Research, Quality of Life Panel
2011  Canadian Institutes of Health Research, Doctoral and Masters Research Award Panel
2011  Nova Scotia Health Research Foundation
2004 - 2006  National Cancer Institute of Canada, Grant review panel I (clinical trials)
2004  Canadian Institutes of Health Research
2003  Canadian Institutes of Health Research, Randomized Controlled Trial Panel
2003  Cancer Research UK, Clinical Trials Advisory Awards Committee
2001 - 2002  Saskatchewan Cancer Agency

MANUSCRIPT REVIEWS

Reviewer
2016  Clinical Epidemiology
2016  JAMA Oncology
      ACP Journal Club
      American Journal of Cancer
      Annals in Oncology
      Clinical Cancer Research (Journal for the American Association of Cancer Research)
      Clinical Oncology
      Cochrane Collaboration
      Critical Reviews in Oncology Hematology
      Current Oncology
      Esophagus
      Expert Review of Clinical Pharmacology
      International Journal of Radiation Oncology Biology & Physics
      JAMA
      Journal of Clinical Oncology
      Journal of Pain and Symptom Management
      Journal of Palliative medicine
      Lancet Oncology
      Lung Cancer
C. Academic Profile

1. RESEARCH STATEMENTS

Symptom Control in Radiation Oncology.
The use of palliative radiotherapy to relieve symptoms is well established in clinical practice. However, advances to improve on its therapeutic ratio is hampered by the methodological challenges inherent in conducting research in palliative populations.

Capacity building is an important component of research and development in this content area. I served as the research director for the palliative radiotherapy program at Toronto Sunnybrook Regional Cancer Centre between 1999-2001, and the leader for the Palliative Radiation Oncology Program at Princess Margaret Hospital since 2004. I was the founding chair for the Symptom Control Advisory Board for the Canadian Association of Radiation Oncologists, and serve as its chair between 2003-2005, and continue to serve as a member of its steering committee. Specific initiatives implemented during this time included theme symposium in symptom control research at our annual scientific meeting in 2005, symptom control research methods workshop 2005, establishing an annual symptom control research award, and co-founded the Canadian Palliative Radiation Oncology Group, a forum for monthly research discussions across Canada. In collaborating with its current chairs, educational objectives in symptom control for Canadian radiation oncology residents are closing completion. The research and educational environment created has expanded interest in symptom control research among radiation oncology trainees and attracted international postgraduate trainees, expanding the pool of collaborative talents. To facilitate research at the national level, I have been serving as the chair for the Symptom Control Committee at the National Cancer Institute of Canada Clinical Trials Group since 2001. During this time, palliative radiotherapy trials have been established as one of the four strategic directions for this group, with two national and one international Phase III radiotherapy focused symptom control trials within our portfolio.

At a policy level, I was the founding Chair for the Supportive Care Guidelines Group, Cancer Care Ontario Program in Evidence based Care and serve as its Chair until 2008. During this time, I have attracted talented junior faculty in taking on performing systematic reviews and guidelines development in bone metastases, brain metastases and skin care following radiotherapy. These guidelines have served as key resources and foundations for pattern of practice evaluation.

At a research level, since 2004, I have authored and or collaborated on 23 peer-reviewed articles in the area of symptom control. These research efforts have established the efficacy of dexamethasone in the prophylaxis of radiation induced emesis, described the impact of technology on palliative radiotherapy delivery, and most recently the development and implementation of a 1 step simulate to treatment process resulting in reduced waiting time and improved access and quality of patient care. A series of sequential projects led to the development of a combined story and fact based patient educational resource for patients and caregivers with brain metastases now in clinical use. My work also established the use of virtual consultation to facilitate multidisciplinary care opinion for patients with spinal cord compression, reducing the need for patient transfers while securing reliable multidisciplinary opinions to facilitate timely commencement of optimal patient care.
From Evidence to Guidelines Development.
To translate research results into clinical practice, enabling tools are needed. The methodology of systematic reviews and clinical guidelines provide transparency, while engaging community opinion leaders’ to adapt evidence into clinical practice. I have chosen to engage in this process through involvement with the Cochrane Collaboration and the Cancer Care Ontario Program in Evidence Based Medicine.

At the level of capacity building, I served as the Toronto Chair to the Canadian Cochrane Collaboration and Network between 2001-2005, seeking out potential learners and creating learning opportunities both local and nationally. Specifically, training workshop were tailored and successfully conducted for trainees in internal medicine, family medicine, radiation oncology residents and fellows, and radiation oncology faculty in addition to systematic reviewers from other disciplines. As the Chair to the Supportive Care guidelines Group between 2001-2008, I have led the effort to identify key topics important in supportive care, engage clinical experts across multiple disciplines, serve as a methodological resource, resulting in the development of clinical guidelines on 8 different clinical areas including bone, brain metastases, skin care following radiotherapy, lymphedema, depression, pain, and shortness of breath. These documents represent part of the key resources in the field.

I have authored three Cochrane reviews (bisphosphonates in bone pain, chemoradiotherapy in esophageal cancer, preoperative radiotherapy for rectal cancer). The bisphosphonates review served as the basis for a Health Technology Report on this topic, while both esophageal and rectal reviews served as the basis for clinical practice guidelines for Ontario.

Optimizing the Use of Radiotherapy in the Management of Esophageal Cancer. Radiotherapy has a key role to play in both the curative and palliative management of esophageal cancer although strategies to improve outcomes are still clearly needed. From a capacity building perspective, I serve as the Chair to the Esophageal Disease working group for the National Cancer Institute of Canada Clinical Trials Group since 2003, and has been a member of the Esophago-Gastric Task Force for the GI Intergroup US.

From a policy perspective, I have authored and co-authored the evidence and practice guidelines on the management of esophageal cancer, leading to improved consistency and quality of care in this area for our province. The availability of PET scan for the staging of esophageal cancer has until now been elusive to Ontarians. I led the review of the literature, co-authored and led the subsequent provincial discussions on PET and esophageal cancer. These efforts have translated into the approval of the use of PET for patients who are potential candidates for curative therapy. These practice changes have a direct effect on optimizing the choice and quality of therapy for esophageal cancer patients.

In terms of research, I have led a phase II study on the use of accelerated fractionation for the palliative management of dysphagia establishing its efficacy and favourable toxicity profile. As the Canadian Principal investigator, in collaboration with the Trans-Tasman Radiation Oncology Group, we are nearing completion of a study examining the effect of radiotherapy with or without chemotherapy for the relief of dysphagia (ES2). As the radiation oncology lead at our institution, we are currently conducting our second phase II study in tri-modality therapy for localized disease, where adjuvant sutent, is being tested. A strategy combining early brachytherapy and our experience in accelerated fractionation in esophageal cancer for the elderly is in development. My research has also contributed to establishing the role of PETCT in improving the quality of radiotherapy planning for esophageal cancer.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2009 - present  
*Amount: $2,405,000 (962x$2500 per case funding).*

2015 Aug - 2017 Jul  
**Co-Investigator.** Behavioural determinants of Canadian radiation oncologists’ use of single fraction palliative radiation therapy for uncomplicated bone metastases. Canadian Cancer Society Research Institute (CCSRI). Knowledge to Action. PI: Christopher Dennis, Squires, Janet. Collaborator(s): Michael Brundage, Edward Chow, Alysa Fairchild, Ian Graham, Jeremy Grimshaw, **Rebecca Wong**, Jackson Wu. 79,918 CAD. [Clinical Trials]

2015 Feb - 2018 Jan  
**Co-Investigator.** A phase III study of palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases. Canadian Cancer Society Research Institute. Quality of Life Research Grants. PI: Dawson, Laura. Collaborator(s): Chris O’Callaghan, Jolie Ringash, **Rebecca Kwok Sum Wong**, Derek Jonker, Camilla Zimmerman, Sarin Ekizian, Dongsheng Tu. 299,916 CAD. [Clinical Trials]  
*A phase III study of palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases*  
*Advanced liver cancer is often not treatable and causes pain that is hard to control. In a prior study, Dr Laura Dawson found that low-dose radiation therapy reduced cancer-related pain in liver cancer patients. In this new clinical trial, she will compare the effectiveness of radiation vs. standard supportive care alone in improving pain in patients with advanced liver cancer who are not candidates for standard therapy. By determining an improved pain management strategy, this study could have a huge impact on quality of life for cancer patients in palliative care.*

2015 Jan - 2016  

2012 Jul - 2017 Jun  
A randomised phase III trial of preoperative chemoradiotherapy vs preoperative chemotherapy for resectable gastric cancer. National Health and Medical Research Council (Australia). PI: Leong, Trevor. Collaborator(s): John Zalcberg, Carol Swallow, Florian Lordick, Bernard Smithers, Val Gebski, Alex Boussioutas, Karin Haustermans, **Rebecca Wong.** 2,025,187.7 AUD. [Clinical Trials]

2012 - 2019  

2011 - 2016  
**Co-Investigator.** On-PROST: Ontario Patient Reported Outcomes of Symptoms and

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Rebecca Kwok Sum WONG


2010 - 2017


2010 - 2011


Canadian Radiation Oncology Foundation/Sanofi – Aventis Research Innovation Award (CASARIA).

2009 - 2013


2007 - 2012


Amount: $689,229 (137,844 per year x 5 years).

2004 - 2013


Amount: $325,000 (Total sample size 650, anticipated Canadian accrual 20% 130 x $2500 per case).

2004 - 2009


Amount: $3,700,000 per year x 5 years.

2004 - 2009


2003 - 2012

Principal Investigator. A randomized phase III study in advanced oesophageal cancer to compare quality of life and palliation of dysphagia in patients with radiotherapy versus
chemo-radiotherapy. National Cancer Institute of Canada (NCIC). CTG/ TROG ES2. REB#:03-0839-C. 200,000 CAD. [Grants]
Principal Investigator: Penniment M (Australia).

2003 - 2005  

2002 - 2003  

2002 - 2003  

2001 - 2004  

1999 - 2004  

1994 - 2004  

NON-PEER-REVIEWED GRANTS

FUNDED
2010 - present  
(180 patients).

2009 - present  
(100 patients).

2015 - 2018  
Law, Sylvia Aza, Mary Gospodarowicz, Leonard Kaizer. 7,081,524 CAD


2005 - 2008 **Co-Principal Investigator.** A prospective study to evaluate cone-beam CT in the planning of patients for palliative radiotherapy. Elekta Oncology Systems. PI: Jaffray D. Collaborator(s): Wong R. 260,000 CAD. [Grants] (sample size 100).


2002 - 2008  

2001 - 2005  

1998 - 2004  

1998 - 2004  
**Principal Investigator.** Determination of the minimal clinically important effect size for pain relief. Toronto-Sunnybrook Regional Cancer Centre. Department of Radiotherapy Oncology Research Fund. Collaborator(s): Gafni A, Whelan T, Roberts R, Franssen E. 7,000 CAD. [Grants]

1987 - 2002  
**Principal Investigator.** A Phase III double blind randomised study to compare the effectiveness in pain control for bony metastasis using combined intravenous bolus Bisphosphonates (Pamidronate) and radiotherapy versus radiotherapy and placebo. Toronto-Sunnybrook Regional Cancer Centre. Department of Radiotherapy Oncology Research Fund. Collaborator(s): Bezjak A, Franssen E, Danjoux C, Szumacher E, Levin W, Mclean M. 61,000 CAD. [Grants]

### E. Publications

1. **MOST SIGNIFICANT PUBLICATIONS**


   *This is a review paper describing the current evidence supporting indications of radiotherapy in gastric cancer.*


   *This randomized trial was conceived and completed by the symptom control committee Canadian Cancer Clinical Trials Group, establishing the role of a single fraction as effective in providing pain control as pretreatment for bone metastases. It is significant both in its contribution to the practice of radiation oncology, as well as being testament of the impact of the symptom control committee which I am the chair.*

Palliative radiotherapy should be effective and delivered with the least delay. This work formed the basis of the clinical testing and implementation of an on-line planning process. The clinical results are to be published. This has been translated from research to clinical practice.


The first review was published in 2001. This is a substantial update incorporating new contemporary evidence and methodology. This has been a definitive resource in support of the use of combination chemoradiotherapy for the curative management of esophageal cancer. This review formed the foundation of the Ontario Practice Guideline on the same topic.


One of the strategic directions of the Symptom Control Committee at the National Cancer Institute of Canada is to examine strategies to improve the side effects of cancer treatments. Building on the results of SC12, this study established the effect of dexamethasone in the prophylaxis of radiation induced emesis. This work was awarded the most influential publication award in 2007 at Princess Margaret Hospital. Radiation Medicine Program.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


64. Rodin G, Katz M, Lloyd N, Green E, Mackay JA, Wong RKS and the Supportive Care Guidelines Group of Cancer Care Ontario’s Program in Evidence Based Care. Treatment of depression in cancer patients. Current Oncology. 2007;14(5):180-188. **Senior Responsible Author.**


68. Wong R, Malthaner R. Combined chemotherapy and radiotherapy (without surgery) compared with radiotherapy alone in localized carcinoma of the esophagus (review update). The Cochrane Database of Systematic Reviews. 2006(1). **Principal Author.**


72. Tsao M, Lloyd N, Wong KSR, Supportive Care Guidelines Group of Cancer Care Ontario’s Program in Evidence Based Care. Clinical practice guideline on the optimal radiotherapeutic management of brain metastases. BMC Cancer. 2005;5:34. **Senior Responsible Author.**


87. **Wong R**, Malthaner R. Combined Chemotherapy and radiotherapy (without surgery) compared with radiotherapy alone in localised carcinoma of the esophagus (Updated) (Cochrane Review). Cochrane Library. 2003(1). **Principal Author.**


91. Szumacher E, Franssen E, Hayter C, Danjoux C, Chow E, Andersson L, **Wong R**, Loblaw A. Multidisciplinary Radiation Oncology Palliative Care Rounds as a Continuing Educational Activity Implementing the Rapid Response Radiotherapy Program at the Toronto Sunnybrook Regional Cancer Centre. J Cancer Education. 2003;18:86-90. **Coauthor or Collaborator.**


Book Chapters


7. Bezjak A, **Wong R**, Kirkbride P. Chapter: Palliative radiotherapy. In: Principles and Practice of Palliative Care and Supportive Oncology. 3rd ed. 2007. **Co-Principal Author.**


**Editorials**

1. Haddad CR, **Wong RKS.** Is family history alone a sufficient indicator for screening colonoscopy? Colorectal Cancer. 2013 Dec;2(6):483-485. **Senior Responsible Author.**

**Commentaries**


**Monographs**


**Clinical Care Guidelines**


**Comment, Letters to Editor**


**Journal Articles, Meta-Analysis, Review**


**3. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**

1. Wong R, O’Callaghan C. TOPGEAR: the international trial on gastro-oesophageal cancer. International Innovation. 2014 Feb;130:31-33. **Principal Author.**


**Commentaries**

1. Wong, R. Regarding Pascal Buntin, “Results of a randomized trial by Pascal Burtin et al on locally advanced, operable oesophageal cancers responding to radiochemotherapy. Gastroenterology and Endoscopy News. 2004 May. Invited Editorial. **Principal Author.**

**Magazine Entries**

1. Radiotherapy-induced emesis (RIE) – Should dexamethasone be added to 5HT3 antagonist as prophylaxis? HOTSPOT. 2005 Feb;7(1). **Principal Author.**

2. Wong R. Research corner: Defining the research agenda in symptom control in radiation oncology. HOTSPOT. 2003 May;5(1). **Principal Author.**

3. Wong R. Research corner: What have we been up to? Five year update. HOTSPOT. 2003 Feb;5(1). **Principal Author.**


4. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2013 Nov 13 Distinguished Speaker. The role of definitive chemo radiotherapy - how to avoid the knife. Clinical Oncological Society of Australia. Adelaide, Australia. Presenter(s): Dr. Rebecca Wong.


2013 Feb 13 Speaker. Quality assurance for HDR intraluminal brachytherapy. Kuwait Cancer Control Center. Kuwait. Presenter(s): Dr. Rebecca Wong, Dr. Robert Heaton.


Psychosocial factors and Biological effects. Why is it important for radiation therapists? Annual Commissioned Training Program for Radiation Therapists, Institute of Advanced Allied Health Studies. Hong Kong.

Setting up a Palliative Radiotherapy Program. Annual Commissioned Training Program for Radiation Therapists, Institute of Advanced Allied Health Studies. Hong Kong.


Localized esophageal cancer – which treatment option? World Congress in Cancer. India.

Technology and Palliative Radiotherapy: Opportunities to Enhance Patient Care. World Congress in Cancer. India.

Metastases to Brain and Spinal Cord Compression. Hospital Sao Luiz-undade Analia Franco. Brazil.


Systematic review and meta-analysis. ASTRO Health Services and Outcomes Symposium. San Diego.


Contemporary indications and expectations from palliative radiotherapy. Second Princess Margaret Hospital Conference: New Developments in Cancer Management. Toronto. An international CME hosted by the Princess Margaret Hospital. (Continuing Education).

Esophageal cancer: update on results of adjuvant therapy. Second Princess Margaret Hospital Conference: New Developments in Cancer Management. Toronto. An international CME hosted by the Princess Margaret Hospital. (Continuing Education).

Complex pain management. Skill building in psychosocial oncology: a multidisciplinary course. Toronto. An international workshop hosted by the psychosocial supportive care groups at Princess Margaret Hospital & Mayo Clinic.

Presented Abstracts


2016 Sep 23 Invited Lecturer. Longer survival with concurrent high dose cisplatin and IMRT for patient with cervical


2012 Jul **Senior Responsible Author.** Real time workload database for clinical trials support unit – from cost recovery to enhancing operational efficiency. Society of Clinical Research Associates. United States. Presenter(s): Singh KP, Wong R.


2000 Oct  **Presenter.** The Use of Symptom “Progression” Instead of “Response” As A Potentially Stable Endpoint For Systematic Reviews Of Clinical Trials Using Subjective Endpoints. 8th Cochrane Colloquium. Cape Town, South Africa. Wong KSR, Chow E, Fung K, Franssen E, Szumacher E.

**Presented and Published Abstracts**


*Publication Details:*  

**2014 Sep**  Prospective Longitudinal Assessment of Quality of Life for Liver Cancer Patients Treated With Stereotactic Body Radiation Therapy. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

*Publication Details:*  

**2014 Sep**  Best Practice in Advanced Esophageal Cancer: A Report on Trans-Tasman Radiation Oncology Group TROG 03.01 and NCIC CTG ES.2Multinational Phase 3 Study in Advanced Esophageal Cancer (OC)ComparingQuality of Life (QOL) and Palliation of Dysphagia in PatientsTreatedWith Radiation Therapy (RT) or Chemoradiation Therapy (CRT). American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

*Publication Details:*  
Penniment MG, Harvey JA, **Wong R**, Stephens S, Au H, O’Callaghan CJ, Kneebone AB, Ngan S, Ward IG, Roy R, Sullivan T, Nijjar T, Biagi J, Mulroy LA. Best Practice in Advanced Esophageal Cancer: A Report on Trans-Tasman Radiation Oncology Group TROG 03.01 and NCIC CTG ES.2Multinational Phase 3 Study in Advanced Esophageal Cancer (OC)ComparingQuality of Life (QOL) and Palliation of
Dysphagia in Patients Treated With Radiation Therapy (RT) or Chemoradiation Therapy (CRT). Int J Rad Biol Phys. 2014 Sep;90(1S):S3, Abstr CT-03. Coauthor or Collaborator.

2013 May
A Phase III study of the impact of a physical activity program on disease-free survival in patients with high-risk stage II or stage III colon cancer: a randomized controlled trial (NCIC CTG CO21). American Society of Clinical Oncology Annual Scientific Meeting.

Publication Details:

2013 May
A randomized trial of single versus multiple fractions (Fx) for re-irradiation (Re-RT) of painful bone metastases (PBM): NCIC CTG SC20. American Society of Clinical Oncology Annual Scientific Meeting.

Publication Details:

2013 May
Promoter polymorphisms of the SWI/SNF chromatin Remodeling complex molecule, BRM, and esophageal adenocarcinoma outcome. American Society of Clinical Oncology Annual Scientific Meeting.

Publication Details:

2012 Nov
Tailoring Palliative Radiation Therapy (RT) Towards the End of Life - The Importance of ECOG Performance Status. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

Publication Details:

2012 Nov

Publication Details:

2012 Nov
Phase I Study of Sorafenib and SBRT for Advanced Hepatocellular Carcinoma. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

Publication Details:

2012 Nov
Publication Details:

2012 Nov
Phase I Study of Sorafenib and Whole-liver Radiation Therapy (WLRT) or Stereotactic Body Radiation Therapy (SBRT) for Liver Metastases. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

Publication Details:

2011

Publication Details:

2011

Publication Details:

2010

Publication Details:

2010
Evaluating the Dosimetric Impact of 3D vs. 2D Planning Techniques in Palliative Radiotherapy. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

Publication Details:

2009
Assessing compliance with practice treatment guidelines by treatment centers and the reasons for noncompliance. American Society of Clinical Oncology Annual Scientific Meeting. Chicago, United States.

Publication Details:

Publication Details:

2009 Supportive care needs in advanced cancer patients: experience in a hospital based palliative radiotherapy clinic. Multinational Association of Supportive Care in Cancer. Annual Scientific Meeting. Rome, Italy.

Publication Details:


Publication Details:

2009 Dosimetric comparison of two dimensional (2D) vs. three dimensional (3D) planning for bone metastases. American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Chicago, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:
2009 Supportive care needs in advanced cancer patients: experience in a hospital based palliative radiotherapy clinic. Multinational Association of Supportive Care in Cancer. Annual Scientific Meeting. Rome, Italy.

Publication Details:


Publication Details:


Publication Details:

2008 Online Palliative Radiotherapy Planning and Treatment using Cone-beam Computerized Tomography (CBCT). American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Chicago, United States.

Publication Details:


Publication Details:


Publication Details:

2007 A phase II prospective study of standardized steroid dosing for patients with brain metastases undergoing whole brain radiotherapy. 44th Annual Meeting ASCO.

Publication Details:

Publication Details:

2006  Pattern of Practice in Anti-emetic Use In Palliative Radiotherapy for Spinal Metastases. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Toronto, Canada.

Publication Details:

2006  Towards Reality - A Cone Beam Enabled One Step Scan-To-Treat Process For Palliative Radiotherapy. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Toronto, Canada.

Publication Details:

2006  Video/Phone-Conference As A Tool To Facilitate Research And Development In Palliative Radiotherapy- The Canadian Model. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Toronto, Canada.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

*Publication Details:*


*Publication Details:*

2005  Optimizing prophylaxis of radiation induced emesis (RIE): A Phase III double blind randomized study comparing ondansetron plus dexamethasone (OndDex) vs Ondansetron alone (OndPlac). 17th Multinational Association of Supportive Care in Cancer. Geneva.

*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*


2005
Toxicity, Survival and Predictors of Outcome in Patients Receiving Adjuvant Chemoradiation for Gastric Adenocarcinoma. American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Denver, United States.

Publication Details:

2005

Publication Details:

2005

Publication Details:

2004 Oct 24
A phase III double blind randomized trial comparing ondansetron (OND) plus dexamethasone (DEX) vs. ond alone in the prophylaxis against radiation-induced emesis. A National Cancer Institute of Canada Clinical Trials Group (NCIC CTG) study. ESTRO. Amsterdam.

Publication Details:

2004 Oct 16
A Phase II Study Of Preoperative Conformal Radiotherapy and Chemotherapy (CPTII/Cisplatin) for Esophageal Cancer. 47th Annual Meeting of the American Society for Therapeutic Radiology & Oncology. Colorado.

Publication Details:

2004 Oct 3
Radiation for painful bone metastases: Comparison of different measures of palliative response. 46th annual meeting for ASTRO. Atlanta, United States.

Publication Details:

2004 Oct 3
A prospective comparative study of computerized tomographic simulation versus clinical mark-up in
palliative radiotherapy. 46th annual meeting for ASTRO. Atlanta, United States.

*Publication Details:*

2004 Jun 24  
Caregivers and patients with brain metastases: Information needs and expectations. 16th International Symposium Multinational Association of Supportive Care in Cancer. Miami Beach, United States.

*Publication Details:*

2004 Jun 5  
A Phase II study to assess the efficacy of combined preoperative irinotecan (I)/cisplatin chemotherapy and conformal radiotherapy (RT) followed by surgery for potentially resectable esophageal cancer. American Society of Clinical Oncology. New Orleans.

*Publication Details:*
Knox JJ, Darling G, Guindi M, Keshavjee S, Chen EX, Hornby J, **Wong R**. A Phase II study to assess the efficacy of combined preoperative irinotecan (I)/cisplatin chemotherapy and conformal radiotherapy (RT) followed by surgery for potentially resectable esophageal cancer. JCO. 2004;22(14S, 4063):329S. **Senior Responsible Author.**

2004  

*Publication Details:*

2003 Oct  
Factors influencing the use of single versus multiple fractions of palliative radiotherapy for bone metastases: a 5-year review and comparison to a survey. American Society of Therapeutic Radiation Oncology. Salt Lake City.

*Publication Details:*

2003 Oct  

*Publication Details:*

2003 Oct  

*Publication Details:*

**Publication Details:**


**Publication Details:**


**Publication Details:**
Tsang C, Wong KSR, Shukla V, Wiffen P. Duplicate referencing: characteristics from an example in Oncology. 2003. **Principal Author.**

2003 Jun  A Systematic review on the management of lymphedema. Multinational Association In Supportive Care In Cancer Meeting. Berlin.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2003 A randomized double blind placebo controlled trial of radiotherapy (XRT) ± single dose pamidronate (PAM) for pain relief in patients with painful bone metastases. ASCO.

**Publication Details:**

2003
Evaluating remineralization in breast cancer patients with osteolytic bone metastases undergoing palliative radiotherapy using computerized tomography (CT) density measurements — a feasibility study. American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Salt Lake City, United States.

Publication Details:

2002 Oct 6

Publication Details:

2002 Jun 23
Bisphosphonates for pain relief in metastatic bone cancer? a systematic review for the cochrane collaboration. 14th International meeting of Multinational Association of Supportive Care in Cancer. Boston.

Publication Details:

2002 Jun 23
Patients with bone metastases – measuring the response to palliative radiation. 14th International meeting of Multinational Association of Supportive Care in Cancer. Boston.

Publication Details:

2002
Palliative radiation for bone metastases-does pain response reflect the full clinical benefit. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

Publication Details:

2001 Nov 4
Defining patient expressed minimal clinically important effect size (MCIES) for the relief of cancer pain. 43rd Annual ASTRO meeting. San Francisco.

Publication Details:

2001
Meta-analysis of single-fraction versus multi-fraction radiotherapy trials for palliation of painful bone
Rebecca Kwok Sum WONG

metastases. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

Publication Details:

2001
What relative important do patients place upon probability versus duration of pain relief? – treatment decision making in palliative therapies. 13th Multinational Association of Supportive Care.

Publication Details:

2001
Defining Patient Expressed minimal clinically important effect size (MCIES) between two palliative treatments for the relief of cancer pain. 13th Multinational Association of supportive Care. France.

Publication Details:

2000 Oct 22

Publication Details:

2000 Oct 22

Publication Details:

2000 Apr 12

Publication Details:

2000 Mar 23
Prospective Evaluation of the Effectiveness of Pain Relief from Radiotherapy for Bony Metastases within a Palliative Radiotherapy Program. 12th International Symposium of the Multinational Association of Supportive Care. Washington, District of Columbia.

Publication Details:
Wong KSR. Prospective Evaluation of the Effectiveness of Pain Relief from Radiotherapy for Bony Metastases within a Palliative Radiotherapy Program. Supportive Care in Cancer. 2000 May;8(3):244. abstr 16. Principal Author.

2000 Mar 23
Patients with advanced cancer: a survey of their understanding of own illness and expectations from

Publication Details:

2000

Prospective evaluation of the effectiveness of radiotherapy in providing pain relief for bony metastases and the impact of response criteria definition. American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Boston, United States.

Publication Details:

2000

Preoperative Chronomodulated Infusion of 5-FU and Leucovorin (LV) and Pelvic Radiotherapy in Patients (PTS) with Locally Advanced/Recurrent Rectal Cancer: A Phase I Study. xxth Annual Meeting American Society of Clinical Oncology.

Publication Details:

1999 Sep


Publication Details:

1999 Feb 18

Rapid Response Radiotherapy Program. Feasibility of Using Clinical Trials Nurse Telephone versus Patient Diary for Eliciting Pain and Analgesic Data in an Outpatient Based Supportive Care Clinical Trial. 11th MASCC International Symposium. Nice, France.

Publication Details:

1999 Feb 18


Publication Details:

1999 Feb 18


Publication Details:

1999
Phase I Study of 5-FU and Leucovorin by Continuous Infusion Chronotherapy and Pelvic Radiotherapy in Patients with Locally Advanced or Recurrent Rectal Cancer. ASCO.

Publication Details:

1999

Publication Details:

1998 Oct
A Phase III study of the efficacy of dexamethasone (DEX) in the prophylaxis of radiation induced emesis (RIE). European Society of Therapeutic Radiation Oncology, ESTRO. Edinburgh, Scotland.

Publication Details:

1998
How do patients want pain relief data to be presented? 10th MASCC International Symposium. San Antonio, Texas.

Publication Details:
Wong KSR, Fitch M. How do patients want pain relief data to be presented? Supportive Care in Cancer. 1998;6(2). Abstract 41. Principal Author.

Session Chair

2014 Sep 14 Chair. ASTRO Annual Scientific Meeting - Palliative Care. ASTRO. San Francisco, California, United States. Presenter(s): Dr. Rebecca Wong & Dirk Rades.


2012 Apr Chair. Esophageal Cancer. 3rd Kuwait International Conference in Gastro-Intestinal Cancer. Kuwait.

2. NATIONAL

Invited Lectures and Presentations


2009 1 step sim and treat workshop. Canadian Association of Radiation Oncologist Annual Scientific Meeting. Quebec.


2005 Is this a positive study? Symptom control methods workshop, Canadian Association of Radiation Oncologist. Victoria.


2002 Symptom control research – where are we going? Workshop on symptom control in radiation oncology, A national workshop hosted by the National Cancer Institute of Canada Clinical Trials Group & Canadian Association of Radiation Oncology. Toronto.


1999 Role of Palliative Radiotherapy. 6th Annual Palliative Pain and Symptom Management Conference, A National Multidisciplinary conference hosted by the Continuing Medical Education Office, University of Toronto. (Continuing Education).

1998 Research Activities at the Toronto-Sunnybrook Regional Cancer Centre. National Palliative meeting hosted by the Rapid Response Radiotherapy Program & Palliative Radiation Oncology Program, University of Toronto. This meeting hosted by the University of Toronto palliative radiotherapy programs were designed to bring together national experts to address methodological challenges in building a program in palliative radiotherapy oncology research.

1995 Apr 7 Effectiveness of radiotherapy in the management of pelvis recurrence from colorectal/rectal carcinoma. Controversies in Palliative Radiotherapy. Toronto. The first national meeting in Canada designed to bring together experts in palliative radiotherapy to define a Canadian research agenda. April 7-8, 1995.

**Presented Abstracts**


2012 Sep Palliative Radiotherapy (RT) in Patients with Poor Performance Status - Should We Tailor Our Treatment?
Presented and Published Abstracts

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Conference/Clinic</th>
<th>Presenters</th>
<th>Publication Details</th>
</tr>
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<tbody>
<tr>
<td>2014 Aug</td>
<td>Investigation the Use of Electronic Technologies (ECT) as a Means to Evaluate Treatment Outcome for Patients Completing Palliative Radiotherapy.</td>
<td>CARO 2014 Annual Scientific Meeting, St. John’s, Newfoundland and Labrador, Canada.</td>
<td>Lau M, Bezjak A, Levin W, Harnett N, <strong>Wong R</strong>. Investigation the Use of Electronic Technologies (ECT) as a Means to Evaluate Treatment Outcome for Patients Completing Palliative Radiotherapy. Radiother Oncol. 2014 Aug;112(Suppl 1):S69, A184. <strong>Coauthor or Collaborator.</strong></td>
<td></td>
</tr>
</tbody>
</table>
2011 Outcomes of stereotactic body radiotherapy (SBRT) prospective trials for hepatocellular carcinoma (HCC). CARO annual meeting. Winnipeg.

Publication Details:
Outcomes of stereotactic body radiotherapy (SBRT) prospective trials for hepatocellular carcinoma (HCC). Rad Oncol. 2011.

2010 Experience of An Advanced Practice Nurse - Led Bone Metastases Follow-up Clinic. Association of Supportive Care in Cancer Annual Scientific Meeting. Vancouver.

Publication Details:

2010 Do modern radiotherapy techniques impact on the effectiveness and toxicity of palliative radiotherapy? Association of Supportive Care in Cancer Annual Scientific Meeting. Vancouver.

Publication Details:

2010 Intensity-Modulated Radiotherapy (IMRT) and Concurrent Chemotherapy for Anal and Perianal Cancer: the Princess Margaret Hospital Experience. Canadian Association Radiation Oncology Annual Scientific Meeting. Vancouver.

Publication Details:


Publication Details:

2010 Assessing conformity Between the Clinical Specialist Radiation Therapist (CSRT) and Radiation Oncologists for Target Volume Delineation and Field Placement in Palliative Patients. Canadian Association Radiation Oncology Annual Scientific Meeting. Vancouver.

Publication Details:
Assessing conformity Between the Clinical Specialist Radiation Therapist (CSRT) and Radiation Oncologists for Target Volume Delineation and Field Placement in Palliative Patients. Rad Oncol. 2010;96(Suppl 2):S63. Abst 194.


Publication Details:

2009 Dosimetric comparison of different dose prescriptions and beam weightings for volumetric treatment plans for vertebral metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Development and implementation of a cone beam CT (CBCT) enabled one-step simulation and treatment process for bone metastases (BM). Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Implementation of a semi-automatic vertebra detection and segmentation algorithm for radiotherapy of spinous bone metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Dyspareunia after chemoradiotherapy for anal carcinoma – an under reported complication. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Development of a Canadian palliative radiation oncology curriculum. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Factors influencing dose fractionation choices for palliation of bone metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:
2009
Dosimetric comparison of different dose prescriptions and beam weightings for volumetric treatment plans for vertebral metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2007 Oct 9

Publication Details:

2007 Oct 9
Pain flare following radiotherapy for painful bone metastases: a joint effort of three cancer centers to determine the incidence. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists Joint Annual Scientific Meeting. Toronto.

Publication Details:

2007 Oct 9
Evaluating the use of fact versus story based educational resources for patients and caregivers with brain metastases. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists Joint Annual Scientific Meeting. Toronto.

Publication Details:

2007 Oct 9
What we should say and how: evaluating a combined story and fact-based educational booklet for patients with brain metastases and their caregivers. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists Joint Annual Scientific Meeting. Toronto.

Publication Details:

2007 Oct 9
Feasibiltity testing of a quality assurance process for a cone-beam CT enabled online planning and treatment model for palliative radiotherapy. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists Joint Annual Scientific Meeting. Toronto.

Publication Details:

2007 Oct 9
Publication Details:

2007

Publication Details:

2007
Evaluating the use of fact versus story based educational resources for patients and caregivers with brain metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Toronto, Ontario.

Publication Details:

2007
What we should say and how: evaluating a combined story and fact-based educational booklet for patients with brain metastases and their caregivers. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Toronto, Ontario.

Publication Details:

2007
Feasibility testing of a quality assurance process for a cone-beam CT enabled online planning and treatment model for palliative radiotherapy. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Toronto, Ontario.

Publication Details:

2007

Publication Details:

2006
What is the impact of 4D-CT on the planning of esophageal cancer? Canadian Association of Radiation Oncologist. Calgary.

Publication Details:

2006
Publication Details:

Coauthor or Collaborator.

2006


Publication Details:

2006

A Systematic Review Of Interventions Used To Relieve Pain And Anxiety During Radiation Therapy And Interventional Radiology Procedures. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Toronto, Canada.

Publication Details:

2006

The impact of fluorodeoxyglucose positron emission tomography (FDG-PET) on radiotherapy planning in carcinoma of the esophagus. Canadian Association of Radiation Oncologist. Calgary.

Publication Details:

2006

A prospective cohort study to describe the factors predictive of interruption during fluoroscopic simulation for palliative radiotherapy. Canadian Association of Radiation Oncologist. Calgary.

Publication Details:
Christensen E, Maddix K, Wong R. A prospective cohort study to describe the factors predictive of interruption during fluoroscopic simulation for palliative radiotherapy. 2006. Principal Investigator.

2006

A systematic review of interventions used to relieve pain and anxiety during radiation therapy and interventional radiology procedures. Canadian Association of Radiation Oncologist. Calgary.

Publication Details:
Christensen E, Wong R. A systematic review of interventions used to relieve pain and anxiety during radiation therapy and interventional radiology procedures. 2006. Principal Investigator.

2006


Publication Details:

2006

Methods to reduce intestinal morbidity from radiation therapy to unilateral pelvic bone metastases: An investigation to assess feasibility. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Calgary, Alberta.

Publication Details:
feasibility. Rad Oncol. 2006;80(Suppl 1):S62, A212. **Senior Responsible Author.**

**2005**


**Publication Details:**

**2005**


**Publication Details:**

**2005**


**Publication Details:**

**2005**


**Publication Details:**

**2004 Sep 9**

Comparison of different measures of palliative response to radiation for painful bone metastases. 18th Annual Scientific Meeting for CARO-ACRO. Halifax, Canada.

**Publication Details:**

**2004 Sep 9**

Telephone Follow-up for Palliative Patients Receiving Treatment - A Radiation Therapists Perspective. CARO-ACRO. Halifax, Canada.

**Publication Details:**
Goodridge C, Easton D, Williams D, Leon G, Macewko C, Bezjak A, **Wong R**. Telephone Follow-up for Palliative Patients Receiving Treatment - A Radiation Therapists Perspective. 2004. **Senior Responsible Author.**

**2004 Sep**

Computerized tomographic simulation compared to clinical mark-up in palliative radiotherapy: a prospective study. CARO Annual Meeting. Halifax.

**Publication Details:**

*Publication Details:* 

2004 Sep  The use and toxicity of steroids in the management of patients with brain metastases. CARO Annual Meeting. Halifax.

*Publication Details:* 


*Publication Details:* 


*Publication Details:* 
Wong R. Teaching Systematic Review and the Cochrane Collaboration to postgraduate trainees- a promising strategy? 2003. **Principal Author.**


*Publication Details:* 


*Publication Details:* 


*Publication Details:* 
Wong R, Franssen E, Gafni A, Whelan T, Fung K. What relative importance do patients place upon

2001 Defining a minimal clinically important effect size (MCIES) for two contrasting palliative radiotherapy regimen in patients with pelvic recurrence from rectal cancer. Annual Scientific Meeting Canadian Association of Radiation Oncologist. Quebec City.

Publication Details:


Publication Details:

2000 Sep Patients with advanced cancer – a survey of their understanding of their own illness and expectations from palliative radiotherapy for symptomatic metastases. Annual Meeting of the Royal College of Physicians and Surgeons of Canada and Participating Societies (Radiation Oncology). Edmonton, Alberta.

Publication Details:


Publication Details:

1999 Sep Is combination radiotherapy chemotherapy (RTCT) superior to radiotherapy (RT) alone in the non-surgical management of localized esophageal carcinoma? A systematic review. Annual Meeting of the Royal College of Physicians & Surgeons of Canada and participating Societies (Radiation Oncology). Montreal, Quebec.

Publication Details:

1999 Sep Is combination radiotherapy chemotherapy (RTCT) superior to radiotherapy (RT) alone in the non-surgical management of localized esophageal carcinoma? A systematic review. Annual Meeting of the Royal College of Physicians & Surgeons of Canada and participating Societies (Radiation Oncology). Montreal, Quebec.

Publication Details:

1999 Sep Survey of referring physicians’ satisfaction. Annual Meeting of the Royal College of Physicians &
Surgeons of Canada and participating Societies (Radiation Oncology). Montreal, Quebec.

**Publication Details:**

1999 Sep

**Publication Details:**

1999

**Publication Details:**

1998 Sep

**Publication Details:**

1998 Sep

**Publication Details:**

**Media Appearances**

2000

**3. PROVINCIAL / REGIONAL**

**Invited Lectures and Presentations**


2015 Apr 9 **Invited Speaker.** Locally advanced gastric cancer - to radiate or not to radiate. Kingston Grand Rounds. Kingston, Ontario, Canada. Presenter(s): **Rebecca Wong**.

2014 Feb 20  **Speaker.** Oligometastases and Stereotactic ablative radiotherapy - Who would benefit? City Wide Oncology Rounds (Toronto). Toronto, Ontario, Canada. Presenter(s): Dr. Rebecca Wong.

2013 Aug 11  **Speaker.** Symptom Control through the Radiotherapy Looking Glass. Journal Club of Chinatown Physicians. Markham, Ontario, Canada. Presenter(s): Dr. Rebecca Wong.


2012 Feb 10  **Speaker.** Gastrointestinal Cancer Update. COMET. Toronto, Ontario, Canada. Presenter(s): Wong R.


2009  Radiotherapy in rectal cancer. GI advisory Board. Toronto.


2000  Developing treatment guidelines in supportive care. Supportive Care Research Workshop. Toronto. A
workshop hosted by the Cancer Care Ontario Practice Guidelines Initiative to bring together leaders in Supportive Care across the province. This meeting formed part of the ground work towards the formation of a province wide guidelines initiative in supportive care, as part of the Cancer Care Ontario Guidelines Initiative.

1999  Supportive Care for Cancer, Public Education Series. Toronto Lutheran Lord Love Church. Toronto, Ontario. (Presentation to Patients/Public).

1999  Living with Cancer. Yee Hong Cancer and Palliative Care Centre. Toronto, Ontario. Presented as part of a Public Education Series. (Presentation to Patients/Public).

1999  Advances in Radiotherapy. Yee Hong Centre for Geriatric Care. Toronto, Ontario. Presented as part of a Public Education Series. (Presentation to Patients/Public).


Presented Abstracts


4. LOCAL

**Invited Lectures and Presentations**


2012 Feb 23 **Invited Speaker.** Beyond probability of symptom relief – The plight of palliative radiotherapy. University of Toronto Department of Radiation Oncology Rounds. Toronto, Ontario, Canada.


**Presented Abstracts**


5. OTHER

**Presented and Published Abstracts**

2012 Sep Developing the NCIC-CTG SC 24 Randomized Phase II Spine SBRT (Stereotactic Body Radiation Therapy) Study for Complex Spinal Metastases: What Should The Control Group Be?

*Publication Details:*

2012 Sep

**Palliative Radiotherapy (RT) in Patients with Poor Performance Status - Should We Tailor Our Treatment?**

*Publication Details:*

2012 Sep

**Subclinical Malignant Spinal Cord Compression - A More Favorable Entity?**

*Publication Details:*

2012 Jun

**Persistent fatigue in post-treatment survivors: are fatigue perceptions important.**

*Publication Details:*

2012 Jun

**Cancer-related fatigue in colorectal, breast and prostate cancer survivors.**

*Publication Details:*

2012 May 30

**Prevalence of cancer-related fatigue in a population-based sample of colorectal, breast, and prostate cancer survivors.**

*Publication Details:*

2012

**TOPGEAR: An international randomized phase III trial of preoperative chemoradiotherapy versus preoperative chemotherapy for resectable gastric cancer (AGITG/TROG/EORTC/NCIC CTG).**

*Publication Details:*

2011

**Adjuvant sunitini (Su) fro locally advanced esophageal cancer (LAEC) Results of a phase II trial.**

*Publication Details:*

2011

**Dawson Outcomes following sequential trial of stereotacta}
**Publication Details:**

2011
Degree of tumor shrinkage following neoadjuvant chemoradiotherapy; a potential predictor for complete pathological response in esophageal cancer?

**Publication Details:**

2011
Prospective evaluation of IMRT for anal and perianal cancer: early patterns of failure.

**Publication Details:**

2011
Outcomes of stereotactic body radiotherapy (SBRT) for hepatocellular carcinoma (HCC).

**Publication Details:**

2011
Evaluation of set-up reproducibility with and without customized vacuum immobilization device in rectal cancer patients treated with preoperative pelvic radiation therapy.

**Publication Details:**

2011
Accumulated delivered dose-response of stereotactic body radiotherapy (SBRT) for liver metastases.

**Publication Details:**

**G. Teaching and Design**

1. Program innovation to build research capacity among radiation oncology oncology trainees

My contribution to residency research can be traced back to 2002. During this time, while research is an expectation, the mechanism in which trainees would initiate their projects were not well defined, and more substantial projects were often deferred due to a delayed start in the planning stages. We hypothesized that the introduction of a defined process, including an instructional research methods course would improve the quality and quantity of research undertaken by our trainees, and contribute to a life time quest for research for improved patient care. With that in mind, I led the creation of the radiation oncology resident research program, putting in place specific goals, objectives, responsibilities and milestones. The framework allowed both residents and faculty to share a common expectation, encouraged dialogue during early months of the residency to secure a supervisor and a research topic. She also designed and implemented the PGY1 research methods course that was first offered in 2002. The program structure was further refined in 2012 with the introduction of the Biannual Resident Research Half Day. The objectives were to provide a forum for residents to present
their work in progress as well as prior to external dissemination of their findings. It was also expected to serve the dual objective of broadening faculty engagement.

We first compiled the annual Resident Research Report in 2002 summarizing academic deliverables (abstracts, publications, grants etc) to provide metrics and evidence for ongoing improvement of the program. Guidance to consider creative professional activities was introduced in 2011. Each of these process improvements has evolved from novel ideas at the time to become part of our standard curriculum. Metrics for impact can be observed from the research reports, evaluations of the events. Publications during residency provide a and as broad summary indicator.

2. Incorporating pedagogy into the clinical environment

Clinical, education and research excellence is an essential triad for continuously striving for the best outcomes for our patients. In contrast to the robust training in physician training for clinical and research excellence, knowledge based on how to become an excellence teacher receives minimal attention. Mechanisms to bring pedagogical principles to our faculty deserves deliberate and systematic action. It was hypothesized that faculty development that is embedded within our daily activities will enable the greatest uptake. With this in mind, in 2015 put in place the first of a series of efforts. RMP Education Rounds were introduced in Jan 2015, designed to provide a sustained forum to highlight novel education theories, education projects in development and accomplishments by our peers. The Radiation Medicine Summer Series entitled "New Age Education" was launched. Designed to appeal to radiation medicine practitioners and beyond, the series provided frameworks, tools and new ideas in education that would inspire. In 2016, the University of Toronto Department of Radiation Oncology Evening journal club were introduced. This education event goes beyond our organization walls and is designed to build a forum for learning among the radiation medicine community across greater GTA.

e. Teaching research skills to radiation medicine trainees in low and middle income country

Research capacity building is recognized to be critical skill that is required to enable innovation and change. From evidence to practice, knowledge translation requires deliberate intent, action and tools. The Radiation Medicine Program at Princess Margaret Cancer Center has as its vision to be “the radiation medicine education provider of choice” although efficient and careful deployment of resources are needed for sustainability and impact, especially when designing strategies to support colleagues in low and middle income countries. It is hypothesized that a joint mentorship strategy between the host institution and external faculty (e.g. PMH) as a source of methodological expertise and capacity, would be effective in enhancing clinical research capacity. In 2015, the inaugural PMH-Ghana research mentorship program was established. A collaborative project with the national radiation oncology facility in Ghana, this year long mentorship program accepted its first cohort of five radiation oncology trainees in Jan 2015. This successful program will expand her offerings to trainees in Nigeria and Zimbabwe in 2016.

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2016 Jan - present Evening Journal Club, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology

This education event is designed to build a forum for learning among the radiation medicine community across greater GTA. Speakers are invited to show case innovations and research accomplished or planned as a University Department.

2015 Jan - present PMH-Ghana research mentorship program, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Center

A collaborative project with the national radiation oncology facility in Ghana, this year long mentorship program is designed to teach radiation oncology residents in low and middle income countries critical appraisal and basic research methods. It is our vision that teaching and mentorship provided in this way would enable critical evaluation of new technologies and evidence - a life long skill that is the cornerstone for better patient care and outcomes.

2015 Jan - present RMP Education Rounds, Faculty Development, Faculty of Medicine, Dept of Radiation Oncology

Designed to provide a sustained forum to highlight novel education theories, education projects in development and accomplishments by our peers.
2010 - present  
Research Methods course - Radiation Oncology Residency Program, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Post-Graduate Medical Education Resident Training Program, Princess Margaret Hospital  
*This is an introductory research course designed for PGY1-2 (delivered during academic block). Topics ranged from Qualitative research to randomized trials.*

2015 Jul - 2015 Aug  
Summer Series - New Age Education, Faculty Development, Faculty of Medicine, Dept of Radiation Oncology, Radiation Medicine Program  
*Designed to appeal to radiation medicine practitioners and beyond, the series provided frameworks, tools and new ideas in education that is intended to inspire.*

2012 Jul 1 - 2013 Jun 30  
Biannual Research Half Day - Radiation Oncology Residency Program, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Post-Graduate Medical Education Resident Training Program, Princess Margaret Hospital  
*Research Half Day was designed to provide a forum for residents to*  
- present their work in progress  
- present their major research project for approval  
- provide feedback to your peers  
- Obtain feedback from your peers and faculty  
- nominate projects for CARO/ASTRO/UT research day submissions (Jan session)  
- practice presentation for CARO/ASTRO presentations (Aug session).

### H. Research Supervision

#### 1. PRIMARY OR CO-SUPERVISION

**Undergraduate Education**

<table>
<thead>
<tr>
<th>Year</th>
<th>Supervisor</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>Primary Supervisor</td>
<td>B. Sc. A Springer. <em>Strategies to increase clinical trial accrual.</em></td>
</tr>
<tr>
<td>2011</td>
<td>Primary Supervisor</td>
<td>B. Sc. A Ng. <em>Patient specific quality assurance in radiation oncology.</em></td>
</tr>
<tr>
<td>2002</td>
<td>Primary Supervisor</td>
<td>B. Sc. D Yung. <em>Validation of surface contour generated by 3D digital surface imaging system using CT generated surface contour.</em></td>
</tr>
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**Graduate Education**

<table>
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<tr>
<th>Year</th>
<th>Supervisor</th>
<th>Title</th>
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<tbody>
<tr>
<td>2010 - 2011</td>
<td>Primary Supervisor</td>
<td>MSc. K Davidge. <em>Function and Health Status outcomes following soft tissue reconstruction for Limb preservation in extremity soft tissue sarcoma.</em></td>
</tr>
<tr>
<td>2007</td>
<td>Primary Supervisor</td>
<td>MSc. J Wu. <em>Impact of specialized palliative radiotherapy clinics on radiotherapy utilization.</em></td>
</tr>
<tr>
<td>2005</td>
<td>Primary Supervisor</td>
<td>PhD. D Letourneau. <em>Cone Beam Enabled One Step sim and treat process for palliative radiotherapy.</em></td>
</tr>
<tr>
<td>2001</td>
<td>Primary Supervisor</td>
<td>MSc. M McQuestion. <em>A qualitative Descriptive study of patients’ experiences of receiving primary radiation Treatment for head and neck cancer.</em></td>
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</table>

**Undergraduate MD**

<table>
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<tr>
<th>Year</th>
<th>Supervisor</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Primary Supervisor</td>
<td>Katherine Wheeler.</td>
</tr>
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</table>


Postgraduate MD


2009  Primary Supervisor. Clinical Fellow. Amy Shorthouse. Retrospective Review of the Pattern of Practice of Esophageal Cancer At Princess Margaret Hospital.

2009  Primary Supervisor. Clinical Fellow. Kathy Pope. 2D vs 3D palliative radiotherapy planning.


Clinical Research Fellow (MD)


2. OTHER SUPERVISION

Thesis Examiner


Curriculum Vitae

Dr. Frederick Yoon
Radiation Oncologist

Note: Record level details are generally denoted only once for each section. If there are multiple subsections, please use the same format unless noted otherwise.

A. Date Curriculum Vitae is Prepared: 2016/August/27

B. Biographical Information

Primary Office: Simcoe Muskoka Regional Cancer Centre, Royal Victoria Regional Health Centre, 201 Georgian Drive, Barrie, Ontario, Canada. L4M 6M2
 Telephone: 705-728-9090 ext. 43352
Cellphone: 705-817-0781
Fax: 705-739-5619
Email: yoonf@rvh.on.ca

1. EDUCATION

[Presented in reverse chronological order]
[Start – End Dates] [Title/Position], [Subject/Discipline], [Department/Program], [Institution/Organization], [City], [Province/State], [Country], Supervisor(s): [Supervisor(s)]

July 2005 – June 2010 FRCPC, Fellow of the Royal College of Physicians of Canada, Radiation Oncology with residency training at the University of Toronto, Toronto, ON, Canada.

September 2001 – April 2005 M.D., Doctor of Medicine, Schulich School of Medicine and Dentistry, University of Western Ontario, London, ON, Canada.

September 1997 – April 2001 H.BSc. Honour’s Bachelor of Science, Human Biology, University of Toronto, Toronto, ON, Canada.

Postgraduate, Research and Specialty Training

[Presented in reverse chronological order]
Qualifications, Certifications and Licenses

[Presented in reverse chronological order]

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<tr>
<td>2006</td>
<td>LMCC, Licentiate of the Medical Council of Canada</td>
</tr>
<tr>
<td>2005</td>
<td>USMLE Step 1, United States Medical Licensing Examination</td>
</tr>
<tr>
<td>2005</td>
<td>USMLE Step 2, Clinical Knowledge</td>
</tr>
<tr>
<td>2006</td>
<td>USMLE Step 2, Clinical Skills</td>
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<tr>
<td>2006</td>
<td>USMLE Step 3</td>
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2. EMPLOYMENT

Current Appointments

[Presented in reverse chronological order]

<table>
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<tr>
<th>Start – End Dates</th>
<th>Title/Position, Division, Department/Program, Faculty/School, Institution/Organization, City, Province, Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 23, 2010 – present</td>
<td>Radiation oncologist, Department of Oncology, Simcoe Muskoka Regional Cancer Centre, Royal Victoria Regional Health Centre, 201 Georgian Drive, Barrie, Ontario, Canada.</td>
</tr>
<tr>
<td>2011 – present</td>
<td>Regional affiliate, Department of Medicine, Orillia Soldier’s Memorial Hospital, Orillia, ON, Canada.</td>
</tr>
<tr>
<td>2010 – present</td>
<td>Lecturer, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, ON, Canada.</td>
</tr>
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</table>

Previous Appointments

CLINICAL

[Presented in reverse chronological order]

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<tr>
<th>Start – End Dates</th>
<th>Title/Position, Division, Department, Faculty/School, Institution/Organization, City, Province, Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 23, 2010 – 2013</td>
<td>Courtesy staff, radiation oncologist, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, University of Toronto, 2075 Bayview Ave, Toronto, ON, Canada.</td>
</tr>
</tbody>
</table>

Part time staff as a radiation oncologist at Sunnybrook Health.
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received
[Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Role], [Institution/Organization], [City], [Province/State], [Country]. ([Award Type (i.e., Credential, Distinction, or Research Award), Specialty: [Specialty])
Description. Total Amount: [Total Amount] [Currency]

Nominated
[Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Role], [Institution/Organization], [City], [Province/State], [Country]. ([Award Type], (i.e., Credential, Distinction, or Research Award), Specialty: [Specialty])
Description. Total Amount: [Total Amount] [Currency]

NATIONAL

Received

Nominated
PROVINCIAL/ REGIONAL
Received
Nominated

LOCAL
Received
Nominated

Teaching Awards

INTERNATIONAL
Received
[Presented in reverse chronological order]

[Start – End Dates]  
[Name of Award], [Role], [Division], [University Department], [Faculty], [Institution/Organization], [City], [Province/ State], [Country]. (Primary Audience, Year/Stage, Specialty: [Specialty])

Description. Total Amount: [Total Amount] [Currency]

Nominated
[Presented in reverse chronological order]

[Start – End Dates]  
[Name of Award], [Role], [Division], [University Department], [Faculty], [Institution/Organization], [City], [Province/ State], [Country]. (Primary Audience, Year/Stage, Specialty: [Specialty])

Description. Total Amount: [Total Amount] [Currency]

NATIONAL
Received
Nominated

PROVINCIAL/ REGIONAL
Received
Nominated

LOCAL
Received
2016 Excellence in Community-Based Clinical Teaching Award (Hospital), Clinical Teaching, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, ON, Canada. Residents in Radiation Oncology.

Student/Trainee Awards

INTERNATIONAL
Received [Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Specialty], [Role], Awardee Name: [Student Name]. [Institution/ Organization], [City], [Province/ State], [Country].
Description. Total Amount: [Total Amount] [Currency]

Nominated [Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Specialty], [Role], Awardee Name: [Student Name]. [Institution/ Organization], [City], [Province/ State], [Country].
Description. Total Amount: [Total Amount] [Currency]

NATIONAL
Received

Nominated

PROVINCIAL/ REGIONAL
Received

Nominated

LOCAL
Received

Nominated
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

[Presented in reverse chronological order]
2010 – present Member, Ontario Medical Association, member number 0917955
2010 – present Member, Canadian Medical Association, member number 131647.

Administrative Activities

INTERNATIONAL
[Institution/Organization name]
[Presented in reverse chronological order]
[Start – End Dates] 
[Role], [Committee Name], [Faculty], [University Department], [Division], [Primary Audience], [City], [Province], [Canada].
Description.

NATIONAL

PROVINCIAL / REGIONAL

LOCAL

Peer Review Activities

ASSOCIATE OR SECTION EDITING
[Presented in reverse chronological order]
[Role]
[Start – End Dates] 
[Institution/Organization], [Journal/Section], Number of Reviews:
[Number of Reviews]

EDITORIAL BOARDS

GRANT REVIEWS

MANUSCRIPT REVIEWS

PRESENTATION REVIEWS

[OTHER ACTIVITY TYPE]

Other Research and Professional Activities

RESEARCH PROJECT
[Presented in reverse chronological order]
[Start – End Dates] [Role]. [Title]. [Institution/ Organization], [City], [Province], [Country]. Supervisor(s): [Supervisor(s) Name]. Collaborators: [Collaborators Name] [Description].

THESIS PROJECT

[OTHER ACTIVITY TYPE]

C. Academic Profile

1. RESEARCH STATEMENTS
[Presented in reverse chronological order]
[Start – End Dates] [Title/Subject]. [Description]. [Impact].

2. TEACHING PHILOSOPHY
[Free text field]

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT
[Introduction of CPA (free text field)]

D. Research Funding
1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED
[Presented in reverse chronological order]

[Start – End Dates] [Role]. [Name of Grant]. [Funding Source]. [Funding Program Name]. [Grant/Account Number]. Principal Investigator: [Last Name, First Name(s)]. Collaborators: [Name(s)]. [Amount] [Currency]. [Funding Type] Description.

AWARDED BUT DECLINED
[Presented in reverse chronological order]

[Start – End Dates] [Role]. [Name of Grant]. [Funding Source]. [Funding Program Name]. [Grant/Account Number]. Principal Investigator: [Last Name, First Name(s)]. Collaborators: [Name(s)]. [Amount] [Currency]. [Funding Type] Description.

NON-PEER-REVIEWED GRANTS

[Presented in reverse chronological order]

FUNDED

AWARDED BUT DECLINED

2. SALARY SUPPORT AND OTHER FUNDING

Personal Salary Support
[Presented in reverse chronological order]

[Start – End Dates] [Funding Title]. [Funding Source]. [Amount] [Currency]. [City], [Province], [Country]. (Specialty: [Specialty]).

Trainee Salary Support

[Start – End Dates] [Funding Title]. Trainee Name: [Trainee Name]. [Funding Source]. [Amount] [Currency]. [City], [Province], [Country]. (Specialty: [Specialty]).

Other Funding
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS

[Presented in reverse chronological order]

1. [Author(s) - CV holder’s name bolded]. [Article Title]. [Journal Name]. [Year] [Month] [Day]; [Volume][[Issue]]: [Page Range]. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Most significant publication details.


This article was chosen by the American Urological Association as a means of earning category 1 CME credits for urologists.


2. PEER-REVIEWED PUBLICATIONS

Journal Articles

[Presented in reverse chronological order]

[Author(s) - CV holder’s name bolded]. [Article Title]. [Journal Name]. [Year] [Month] [Day]; [Volume][[Issue]]: [Page Range]. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Case Reports

1. [Author(s) - CV holder’s name bolded], [Report Title]. [Edition]. [City] (Canada): [Publisher]; [Year] [Month] [Day]. [# of pages] p. [Report #]. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Books

1. [Author(s) - CV holder’s name bolded], [Book Title]. [Edition]. [Editors], editor(s). [Volume]. [City] [Country]: [Publisher]; [Year]. [# of pages] p. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Books Edited

[Same citation format as “Books”]

Book Chapters

1. [Author(s) - CV holder’s name bolded], [Chapter Title]. In: [Editors], editor(s). [Book Title]. [Edition]. [Volume]. [City] [Country]: [Publisher]; [Year]. p. [Page Range]. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Manuals

1. [Author(s) - CV holder’s name bolded], [Manual Title]. In: [Editors], editor(s). [Name of Journal, Book, etc. where it was published]. [Edition]. [Volume]. [City] [Country]: [Publisher]; [Year]. [# of pages] p. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Editorials

[Same citation format as “Journal Articles”]

Commentaries

[Same citation format as “Journal Articles”]

Letters to Editor

[Same citation format as “Journal Articles”]

Monographs

1. [Author(s) - CV holder’s name bolded], [Title]. [Journal Name]. [Year] [Month] [Day]. [Rest of Citation]. (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Multimedia

[Same citation format as “Monographs”]
In Preparation

1. [Author(s) - CV holder’s name bolded]. [Paper Title]. [Editors], editor(s). [Year], [# of pages] p. [Rest of Citation]. Available from: [URL]. (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Clinical Care Guidelines

1. [Contributors - CV holder’s name bolded]. [Title]. [City] (Canada): [Publisher]; [Year] [Month]. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Journal Issues

1. [Author(s) - CV holder’s name bolded]. [Issue Title]. [Journal Name]. [Year] [Month] [Day]; [Volume][(Issue)]. [# of pages] p. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Magazine Entries

1. [Author(s) - CV holder’s name bolded]. [Article Title]. [Magazine Name]. [Year] [Month] [Day]; [Volume][(Issue)]:[Page Range]. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Newspaper Articles

1. [Author(s) - CV holder’s name bolded]. [Article Title]. [Newspaper name] ([Edition]). [Year] [Month] [Day]; [Section]:[Page Range]. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Online Resources

1. [Author(s) - CV holder’s name bolded]. [Title]. [Editors], editor(s). [City] ([Country]): [Publisher]; [Year] [Month] [Day], [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Other Publications

[Same citation format as “Monographs”]

3. NON-PEER-REVIEWED PUBLICATIONS

[Same citation format as Peer-Reviewed Publications]

Journal Articles
Case Reports

Books

Books Edited

Book Chapters

Manuals

Editorials

Commentaries

Letters to Editor

Monographs

Multimedia

In Preparation

Clinical Care Guidelines

Journal Issues

Magazine Entries

Newspaper Articles
Online Resources

Other Publications

4. SUBMITTED PUBLICATIONS

[Same citation format as Peer-Reviewed Publications]

Journal Articles

Case Reports

Books

Books Edited

Book Chapters

Manuals

Editorials

Commentaries

Letters to Editor

Monographs

Multimedia

Clinical Care Guidelines
F. Intellectual Property

1. PATENTS

[Presented in reverse chronological order]

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. Patent #: [Patent #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].

2. COPYRIGHTS

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. Copyright #: [Copyright #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].

3. LICENSES

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. License #: [License #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].

4. DISCLOSURES

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. Disclosure #: [Disclosure #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].

5. TRADEMARKS

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. Trademark #: [Trademark #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].
6. OTHER

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. #: [#], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names]. [Brief Description].

G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

[Presented in reverse chronological order]

[Date] [Presentation Role]. [Title]. [Organizer]. [City], [State/Province], [Country]. Presenter(s): [Presenter(s)]. [Description/Contribution Value]. Available from: [URL]. (Trainee Presentation - only if it is a trainee presentation).

Presented Abstracts

[Same format as “Invited Lectures and Presentations”]

Presented and Published Abstracts

[Date] [Presentation Role]. [Title]. [Organizer]. [City], [State/Province], [Country]. Presenter(s): [Presenter(s)]. [Description/Contribution Value]. Available from: [URL]. (Trainee Presentation)

Publication Details:
[Author(s)]. [Title]. [Journal Name]. [Year] [Month] [Day];[Volume]([Issue]):[Page Range]. [Rest of Citation]. [Publication Role].


Media Appearances

[Date] [Presentation Role]. [Topic]. Interviewer: [Interviewer]. [Program], [Network]. [City], [State/Province], [Country]. Presenter(s): [Presenter(s)]. [Description/Contribution Value]. End date: [Year] [Month] [Day]. Available from: [URL]. (Trainee Presentation - only if it is a trainee presentation).
Other Presentations

[Same format as “Invited Lectures and Presentations”]

2. NATIONAL

Invited Lectures and Presentations

Presented Abstracts

Presented and Published Abstracts

presenter: Dr. Fred Yoon.

of Lymphatic Clinical Target Volume Coverage in Endometrial and
Cervical Cancers Using Magnetic Resonance Lymphography for External
Beam Radiotherapy Treatment Planning. Radiother Oncol 80(Suppl

Media Appearances

Other Presentations

3. PROVINCIAL/ REGIONAL

Invited Lectures and Presentations

Presented Abstracts

Presented and Published Abstracts

Media Appearances
Other Presentations

4. LOCAL

Invited Lectures and Presentations

Presented Abstracts

Presented and Published Abstracts

Media Appearances

Other Presentations

H. Teaching and Design

Please see the Teaching and Educational Report for full details.
[Introduction to Teaching and Education Report]

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

[Presented in reverse chronological order]
[Start – End Dates] [Title], [Primary Audience], [Faculty], [University Department],
[Division], [Institution/ Organization]
[Description].
[Impact].

I. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Multilevel Education
[Presented in reverse chronological order]
[Start – End Dates] [Role], [Year/Stage - if applicable]. [Supervisee Name], [Graduate Unit],
[Collaborative Program]. Supervisee Position: [Supervisee Position].
Supervisee Institution: [Supervisee Institution]. [Research Project Title]. Awards: [Supervisee’s Awards Attained]. Supervisor(s): [Supervisor(s)]. Collaborator(s): [Collaborators]. Completed [year student completed degree - if applicable]

Undergraduate Education

Graduate Education

Undergraduate MD

Postgraduate MD

Continuing Education

Faculty Development

Patient and Public Education

Postdoctoral Research Fellow (PhD)

Research Associate

Clinical Research Fellow (MD)

Other

1. OTHER SUPERVISION

Multilevel Education

Secondary Supervisor
[Presented in reverse chronological order]
[Start – End Dates] [Year/Stage], [Supervisee Name], [Graduate Unit], [Collaborative Program]. Supervisee Position: [Supervisee Position], Supervisee Institution: [Supervisee Institution]. [Research Project Title]. Awards: [Supervisee’s Awards Attained]. Supervisor(s): [Supervisor(s)].
Thesis Committee Member
Thesis Examiner
Qualifying/Reclass Examiner
Other

Undergraduate Education

Graduate Education

Undergraduate MD

Postgraduate MD

Continuing Education

Faculty Development

Patient and Public Education

Postdoctoral Research Fellow (PhD)

Research Associate

Clinical Research Fellow (MD)

Other

J. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE
2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

3. EXEMPLARY PROFESSIONAL PRACTICE

2008  Champions of Care, Sunnybrook Health Sciences Centre, February 2008.
Description (taken from http://sunnybrook.ca/foundation/content/?page=champions): If you or a loved one has received special care from a doctor, nurse, technician, volunteer or any staff member, you can recognize them as a Champion of Care by making a donation in their honour. Your Champion of Care will receive an acknowledgement card and a commemorative pin to wear in recognition of your generosity.
Jasper Yuen

**Peel Radiation Oncology, Peel Regional Cancer Centre, Credit Valley Hospital**
Staff Radiation Oncologist
- Aug 2009-present
- Head of Brachytherapy
- Physician Lead - Gynecology
- Physician Co-Lead - Thoracic
- Physician Champion - Smoking Cessation Program, Quality Assurance
- Site Groups: Gynecology, Thoracic, Prostate, Breast, Palliative, SBRT
- Hospital Privileges
  - Credit Valley Hospital
  - William Osler Health Centre - Brampton Civic Hospital

**Education**

**Fellowship in Radiation Oncology**
Memorial Sloan-Kettering Cancer Center New York, New York
- Brachytherapy Fellowship
- July 2008 – June 2009

**Residency in Radiation Oncology**
University of Western Ontario London, Ontario
- July 2004 – June 2008
- Chief Resident 2007
- PostGraduate Education Committee
- Residency Selection Committee

**First Year Internship in Radiation Oncology**
University of Alberta Edmonton, Alberta
- July 2003 – June 2004

**Doctor of Medicine**
University of Western Ontario London, Ontario
- September 1999 – June 2003
- Summer Research Training Program
- Class Secretary and Treasurer

**Bachelor of Science with Honours First Class (ssp)**
Queen’s University Kingston, Ontario
- Life Sciences – Subject of Specialization
- September 1995 – May 1999

**Awards received**
Alexander Rutherford Scholarship 1995
<table>
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<tr>
<th>Award/Membership</th>
<th>Year</th>
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<tr>
<td>Dean’s Special Award</td>
<td>1996</td>
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<td>Ivan H Smith Memorial Prize</td>
<td>2003</td>
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<tr>
<td>University of Western Ontario Resident/Fellow Travel Award</td>
<td>2006</td>
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<td><strong>American Brachytherapy Society Resident Travel Award</strong></td>
<td>2007</td>
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<td><strong>ABS/Oncura Resident Prostate Brachytherapy Fellowship</strong></td>
<td>2007</td>
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<td>ASTRO 2007 Spring Refresher Course Travel Grant</td>
<td>2007</td>
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<td>University of Western Ontario Resident/Fellow Travel Award</td>
<td>2008</td>
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<td><strong>Licensing Examinations</strong></td>
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<tr>
<td>Licentiate of the Medical Council of Canada Part I</td>
<td>2003</td>
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<td>Licentiate of the Medical Council of Canada Part II</td>
<td>2004</td>
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<td>United States Medical Licensing Examination Step 1</td>
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<td>United States Medical Licensing Examination Step 2</td>
<td>2005</td>
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<td>United States Medical Licensing Examination Step 3</td>
<td>2006</td>
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<td><strong>Professional Memberships</strong></td>
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<tr>
<td>Royal College of Physicians and Surgeons of Canada</td>
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<td>Canadian Medical Association</td>
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<td>College of Physicians and Surgeons of Ontario</td>
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<td>Professional Association of Interns and Residents of Ontario</td>
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<td>Ontario Medical Association</td>
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<td>Alberta Medical Association</td>
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<td>Canadian Association of Radiation Oncologists</td>
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<td>American Society of Therapeutic Radiology and Oncology</td>
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<td>American College of Radiology</td>
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<td>American Brachytherapy Society</td>
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<td>Radiological Society of North America</td>
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**Research**

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<tr>
<th>Research Title</th>
<th>Institution</th>
<th>Years</th>
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<tr>
<td><strong>MR Spectroscopy Based Treatment Planning in Prostate Cancer Brachytherapy</strong></td>
<td>Memorial Sloan Kettering Cancer Center</td>
<td>2008-2009</td>
</tr>
<tr>
<td>• Supervisor: Dr. Michael Zelefsky</td>
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<tr>
<td><strong>3D Image Based Treatment Planning in Cervix Cancer Brachytherapy</strong></td>
<td>University of Western Ontario</td>
<td>2005-2007</td>
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<td>• Supervisor: Dr. David D’Souza</td>
<td></td>
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<td><strong>Advanced Techniques in the Treatment of Early Stage Lung Cancer</strong></td>
<td>University of Western Ontario</td>
<td>2005-2006</td>
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<td>• Supervisor: Dr. Stewart Gaede</td>
<td></td>
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<td><strong>Using Helical Tomotherapy Hypofractionated Treatment of the Pelvis in High-Risk Prostate Cancer</strong></td>
<td>University of Western Ontario</td>
<td>2005-2006</td>
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<td>• Supervisor: Dr. George Rodrigues</td>
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<tr>
<td>• Abbott-CARO Uro-Oncologic Radiation Award</td>
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<tr>
<td><strong>Genetic Determinants of Cardiovascular Disease</strong></td>
<td>University of Western Ontario</td>
<td>2000-2001</td>
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- Supervisor: Dr. Robert Hegele
- University of Western Ontario Summer Research Training Program Awardee

Yeast Two-Hybrid Setup for Screening Insect Genes
Queen’s University in Kingston Ontario 1999
  - Supervisor: Dr. William Bendena

Protein Purification and Classification of Cytochrome c550
Queen’s University in Kingston Ontario 1998
  - Supervisor: Dr. Bruce Hill

Yeast Two-Hybrid Screen of Fus2
Queen’s University in Kingston Ontario 1998
  - Supervisor: Dr. Charlie Boone

Hormone Induced Regulation of Gene Expression
Queen’s University in Kingston Ontario 1998
  - Supervisor: Dr. Roger Deeley

Protein Profile Changes of CHF in the Swine Model
Queen’s University in Kingston Ontario 1997-1998
  - Supervisor: Dr. Jennifer Van-Eyk
  - BScH Thesis Project

Production and Purification of Taq Polymerase
University of Calgary, Alberta 1997
  - Supervisor: Dr. Norman Wong.

Current Research Interests
- Brachytherapy

Publications
- An early report on outcomes from computed tomographic-based high-dose-rate brachytherapy for locally advanced cervix cancer: A single institution experience

- Optimization of HDR cervix brachytherapy applicator placement: The benefits of intraoperative ultrasound guidance
  Davidson M, Yuen J, D’Souza D, Radwan J, Hammond J, Batchelar D.
  Brachytherapy. 2008 Jul-Sep;7(3):248-53

- Image-guided cervix HDR brachytherapy treatment planning: does custom CT-planning for each insertion provide better conformal avoidance of organs at risk?
  Davidson M, Yuen J, D’Souza D, Batchelar D.

- Comparing two strategies of dynamic intensity modulated radiation therapy (dIMRT) with 3-dimensional conformal radiation therapy (3DCRT) in the...
**hypofractionated treatment of high-risk prostate cancer**


Radiation oncology. 2008 Jan 7;3(1):1

**Single nucleotide polymorphisms of the fukutin gene**

Cao H, **Yuen J**, Hegele RA

Journal of Human Genetics 46(8), 487-9

**Single nucleotide polymorphisms of the nuclear lamina proteome**

Hegele RA, **Yuen J**, Cao H

Journal of Human Genetics 46(6), 451-4

---

**Abstracts**

**CT-based HDR cervix brachytherapy: Early toxicity and results using the Vienna fractionation**

- L. VanderSpek, M. Davidson, D. D'Souza, **J. Yuen**, J. Hammond, D. Batchelar
  - Awarded Poster Presentation at the 2008 World Congress of Brachytherapy in Boston

**The Use of CT Image Based Treatment Planning in Cervical Brachytherapy**

- **J. Yuen**, M. Davidson, D. D'Souza
  - Awarded Poster Presentation at the 2007 American Society of Therapeutic Radiology and Oncology Annual Meeting in Los Angeles

**Does Intraoperative ultrasound guidance benefit routine intracavitary cervical carcinoma therapy?**

- M. Davidson , D. D'Souza, **J. Yuen**, J. Radwan, J. Hammond, T. Murray, L. Derrah, D. Batchelar
  - Awarded Poster Presentation at the 2007 American Society of Therapeutic Radiology and Oncology Annual Meeting in Los Angeles

**Comparing Two Strategies of Dynamic Intensity Modulated Radiation Therapy Using Helical Tomotherapy Versus 3D Conformal Radiation Therapy in the Hypofractionated Treatment of the Pelvis in High-Risk Prostate Cancer**

  - Awarded Poster Presentation at the 2006 Canadian Association of Radiation Oncologists Annual Meeting in Calgary
  - Awarded Poster Presentation at the 2006 American Society of Therapeutic Radiology and Oncology Annual Meeting in Philadelphia

**Comparing Helical Tomotherapy, Step and Shoot Intensity Modulated Radiation Therapy, and Traditional Conformal Radiation Therapy Using 4-Dimensional Computed Tomography and Respiratory Gating to Treat Early Stage Non Small Cell Lung Cancer**

- **J. Yuen**, S. Gaede, S. Yartsev, E. Yu
  - Awarded Poster at the 2006 Canadian Association of Radiation Oncologists Annual Meeting in Calgary

---

**Oral Presentations**

**Image-Guided HDR Brachytherapy Treatment Planning: Does Custom CT Planning for Each Insertion Provide Better Conformal Avoidance of Organs at Risk?**

- **J. Yuen**, M. Davidson, D. D'Souza, D. Batchelar
  - Awarded Oral Presentation at the 2007 Canadian Association of Radiation Oncologists Annual Meeting in Toronto
### 3D Image Based Treatment Planning in Cervix Cancer Brachytherapy: The Use of CT Imaging in Assessing Dose Parameters

- **J. Yuen**, D. Batchelar, D. D'Souza, S. Karnas
- Awarded Oral Presentation at the 2006 Canadian Association of Radiation Oncologists Annual Meeting in Calgary
- Awarded Poster Discussion at the 2007 American Brachytherapy Society Annual Meeting in Chicago

### Comparing Two Strategies of Dynamic Intensity Modulated Radiation Therapy Using Helical Tomotherapy Versus 3D Conformal Radiation Therapy in the Hypofractionated Treatment of the Pelvis in High-Risk Prostate Cancer

- Awarded Oral Presentation at the 2006 University of Western Ontario Oncology Research and Education Day

### Other Presentations

#### Implementation of HDR Brachytherapy for Cervix Carcinoma: Multi-Modality Image-Guidance for Efficient Workflow

- D. Batchelar, M. Davidson, **J. Yuen**, JA. Hammond, J. Radwan, D. D'Souza,
- Awarded Oral Presentation at the 2007 Canadian Association of Radiation Oncologists Annual Meeting in Toronto
- Awarded People’s Choice Award for Best Oral Presentation

#### Gynaecologic HDR Interstitial Brachytherapy: The Role of Radiation Oncology Nursing in Multidisciplinary Care

- Awarded Poster at the 2006 Canadian Association of Radiation Oncologists Annual Meeting in Calgary

### Continuing Education

- Radiation Therapy Oncology Group (RTOG) 2005
- London Regional Cancer Program Multidisciplinary Breast Retreat 2005
- 11th Annual Canadian Preparatory Course in Radiation Oncology 2006
- National Cancer Institute of Canada Annual Meeting 2006
- London Regional Cancer Program Multidisciplinary Breast Retreat 2006
- MSKCC Symposium in Prostate Brachytherapy 2006
- Canadian Association of Radiation Oncology Annual Meeting 2006
- American Society of Therapeutic Radiology and Oncology Meeting 2006
- 12th Annual Canadian Preparatory Course in Radiation Oncology 2007
- ASTRO 2007 Spring Refresher Course 2007
- Resident’s Workshop – Seattle Prostate Institute 2007
- ABS/Oncura Resident Prostate Brachytherapy Fellowship - SPI 2007
- Radiation Therapy Oncology Group (RTOG) 2007
- Canadian Association of Radiation Oncology Annual Meeting 2007
- American Society of Therapeutic Radiology and Oncology Meeting 2007
- 13th Annual Canadian Preparatory Course in Radiation Oncology 2008
- American Society of Therapeutic Radiology and Oncology Meeting 2008
- American Brachytherapy Society Annual Meeting 2009
- Radiation Therapy Oncology Group (RTOG) 2009
- American Society of Therapeutic Radiology and Oncology Meeting 2009
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<td>PMH - IGRT Education Course</td>
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<tr>
<td>State of the Art Techniques: IMRT, IGRT, SBRT</td>
<td>2011</td>
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<tr>
<td>PMH - IMRT Insights</td>
<td>2011</td>
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<tr>
<td>Radiation Therapy Oncology Group (RTOG)</td>
<td>2011</td>
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<tr>
<td>American Brachytherapy Society Annual Meeting</td>
<td>2011</td>
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<tr>
<td>PMH - Target Insight</td>
<td>2012</td>
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## APPENDIX 9.1a – CVs: UTDRO Radiation Oncologists

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### APPENDIX 9.1a – CVs: UTDRO Radiation Oncologists

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APPENDIX 9.1a – CVs: UTDRO Radiation Oncologists

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<td>Yuen, Jasper</td>
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</table>
Curriculum Vitae

Ida Ackerman
MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-6165
Email ida.ackerman@sunnybrook.ca

1. EDUCATION

Degrees
1971 - 1975 MD, University of Toronto, Toronto, Ontario, Canada
1969 - 1970 BA, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1976 - 1978 Resident, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1975 - 1976 Internship, University of Toronto, Toronto, Ontario, Canada
1975 - 1976 Resident, General Internal Medicine, University of Toronto, Toronto, Ontario, Canada
1983 Fellow, Radiation Oncology, Hamilton Regional Cancer Centre, McMaster University, Hamilton, Ontario, Canada

Qualifications, Certifications and Licenses
1983 Fellowship in Radiation Oncology, Royal College of Physicians and Surgeons of Canada, United States
1982 Diploma, American College in Therapeutic Radiology, United States
1978 General License, Ontario College of Physicians and Surgeons, Canada
1975 License, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2005 - present Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1993 - present Assistant Professor, Obstetrics and Gynaecology, University of Toronto, Toronto, Ontario,
Ida ACKERMAN
Canada

1984 - present  Staff, Radiation Oncologist, Sunnybrook Health Sciences Centre, Odette Cancer Centre, Toronto, Ontario, Canada

Previous Appointments

CLINICAL
1978 - 1979  Clinical Associate, Princess Margaret Hospital, Toronto, Ontario, Canada

UNIVERSITY - RANK
1995 - 2005  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1984 - 1995  Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

OTHER
2014 Oct - 2015 Mar  Consulting staff, Department of Surgery, North York General Hospital, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
1984  Blair Fellowship, Canadian Cancer Society, Canada.

LOCAL
Received
1969  Ontario Scholar, Canada. (Distinction)

Teaching and Education Awards

LOCAL
Received
2008  Medical Radiation Sciences, Program, Guest Lecturer Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2005  Postgraduate Research Supervisor Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2004  Postgraduate Advocacy and Mentorship Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2002  Radiation Oncology Residents Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
1997  Radiation Oncology Residents Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
1992  Radiation Oncology Residents Award, Dept of Radiation Oncology, Faculty of Medicine,
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1991  Member, American Society of Clinical Oncology
1987  Member, International Gynecological Cancer Society
1986  Member, Canadian Association of Radiation Oncology (CARO)
1984  Member, American Society of Therapeutic Radiation Oncology
1982 - 1986 Member, Canadian Association of Radiologists

Administrative Activities

INTERNATIONAL

American Society of Therapeutic Radiation Oncology
1997 - 2004 Member, International Committee, United States.

International Gyne Cancer Society Biennial Meeting
2002 - 2004 Member, International Scientific committee

International Gynecologic Cancer Society

2006 Member, Education Committee, Postgraduate MD
2005 Coordinator, Tumor Board
2004 Member, Scientific Committee, 10th Biennial Meeting, Toronto, Ontario, Canada.
2004 Member, Nominating Committee
1999 - 2004 Council Member, Canada.
1999 - 2004 Member, Treatment Practice Guidelines Committee, Canada.

NATIONAL

Canadian Association of Radiation Oncology

2006 - 2012 Member, Foundation Board of Directors, Canada.
2006 - 2011 Ex-officio board member, Canada.
2005 - 2008 Member, Manpower Committee, Canada.
2002 - 2004 Member, Education Committee, Canada.
2001 Member, Committee for Annual Scientific Meeting. Toronto, Ontario, Canada.
2000 - 2002 Member, Annual Scientific Meeting Committee, Canada.
1999 - 2001 Past President, Canada.
1997 - 1999 President, Canada.
1995 - 1997 President Elect, Canada.
1994 - 1995 Ontario Director, Canada.

Canadian Association of Radiation Oncology Foundation
Ida ACKERMAN

2006 - 2007  **Member**, Board of Director

**Canadian Coalition on Cancer Surveillance**

1997 - 2000  **Member**, Canada.

**CARO-CROF**

2006 - 2011  **President**, Foundation Board of Director Member, Canada.

**Gynecology Oncology Society of Canada**

1998 - 2000  **Member**, Executive Committee Member, Canada.

**Health Canada - Cancer Control Strategy**

1999 - 2001  **Member**, Surveillance Working Group, Canada.

**Royal College of Physicians and Surgeons of Canada**

1992 - 2000  **Member**, Examination Board in Radiation Oncology, Canada.

**PROVINCIAL / REGIONAL**

**Cancer Care Ontario**

2008 - 2009  **Member**, Expert Panel

*Delivery of Brachytherapy for Cervical Cancer: Organizational and Technique advice.*

**Toronto Sunnybrook Regional Cancer Centre**

2005 - 2006  **Coordinator**, Postgrad Radiation Oncology Program, Postgraduate MD, Toronto, Ontario, Canada.

*Organization of Treatment Planning Exams for PGY4 &5: 60 hrs, Internal review of postgraduate program: 1 hr
  Internal review of department: 1 hr.*

2004 - 2005  **Coordinator**, Radiation Oncology Program, Postgraduate MD, Toronto, Ontario, Canada.


**LOCAL**

**Princess Margaret Hospital/University of Toronto**

2015 Dec 4  **Examiner**, CPEE, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

**University of Toronto**

1995 - present  **Member**, Gyne Oncology Fellowship Committee, Faculty of Medicine, Division of Gynecologic Oncology, Postgraduate MD, Toronto, Ontario, Canada.

2009 - 2014  **Member**, Postgrad Medical Oncology Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.


2009 - 2011  **Member**, Target Insight Organizing Committee, Postgraduate MD, Toronto, Ontario, Canada.

2008 - 2014 **Associate Director**, Postgraduate Medical Education Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

2008 - 2009 **Member**, Clinical Trials Award and Advisory Committee (CTAAC), Toronto, Ontario, Canada.

2008 - 2009 **Member**, Translational Research in Clinical Trials Committee (TRICC), Toronto, Ontario, Canada.

2008 - 2009 **Interim Director**, Department of Radiation Oncology, Toronto, Ontario, Canada.

2008 **Member**, Education Awards Review Committee, Postgraduate MD, Toronto, Ontario, Canada.

2007 - 2011 **Member**, UTDRO Education Awards Review Committee, Postgraduate MD, Toronto, Ontario, Canada.


2007 - 2009 **Member**, Teaching Effectiveness Committee, Toronto, Ontario, Canada.

2006 - 2012 **Board Examiners Member**, Medical Radiation Sciences Program, Toronto, Ontario, Canada.

2001 **Member**, Organizing Committee – Biennial, Toronto, Ontario, Canada.  
*Dept. of Radiation Oncology Refresher Course “Target Insight”.*

1999 - 2001 **Co-Chair**, Breast Site Group, Toronto, Ontario, Canada.

1996 - 2010 **Member**, CE Committee, Toronto, Ontario, Canada.


1995 - 2010 **Member**, Academic Promotions Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

1995 - 2012 **Member**, UTDRO Education Awards Review Committee, Postgraduate MD, Toronto, Ontario, Canada.

1994 **Member**, Organizing and Scientific Committee, Toronto, Ontario, Canada.  
*Department of Radiation Oncology Refresher Course on Clinical Aspects of Radiation Biology.*

1992 - 1993 **Member**, Undergraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

1991 - 2001 **Chair**, TSRCC Gynecology Group, Toronto, Ontario, Canada.

**OTHER**

**Other Organizations**

2008 - 2012 Target Insight Organizing Committee and Speaker, Ontario, Canada.

2008 - 2010 Research Day Organizing Committee, Ontario, Canada.

2006 - 2014 CARMS, Ontario, Canada.

1995 - 2014 Gyne Oncology Fellowship Committee, Canada.

**Peer Review Activities**

**EDITORIAL BOARDS**

**Other**

2001 - 2006 International Journal Gynecological Cancer

1995 - 2006 Gynecologic Oncology
GRANT REVIEWS

External Grant Reviewer


MANUSCRIPT REVIEWS

Reviewer

2011 - present European Journal Cancer
2009 - present International Journal Radiation Oncology, Biology, Physics
2001 - present International Journal of Gynecologic Cancer
2010 European Journal of Cancer
2010 Gynecologic Oncology
2001 - 2011 International Journal Gynecologic Cancer

OTHER

Reviewer


Other Research and Professional Activities

2005 International Gynecologic Cancer Society, Santa Monica, California, United States. 
Organized poster judging for over 800 poster abstracts, Biennial Scientific Meeting.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


Collaborator. QA of RT films. NCIC – OCOG Hypofractionated Breast Trial. National Cancer Institute of Canada (NCIC). [Clinical Trials]

QA - RT films - NCIC MA 20 Study. National Cancer Institute of Canada (NCIC). [Clinical Trials]
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Letters to Editor


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


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E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2014 Nov **Invited Speaker.** Serous Cancer Uterus - Does adjuvant therapy work? Liverpool Cancer Center, South Western Sydney, Local Health District. Sydney, Australian Capital Territory, Australia.


2005 International Gynecologic Cancer Tumor Board. 11th Biennial Scientific Meeting, International Gynecologic Cancer Society. Santa Monica, California, United States. (Continuing Education).

2004 Jul “Surgical Staging is Unnecessary in Endometrial Cancer”. Gynecologic Oncology Group Symposium. Irvine, California, United States. (Continuing Education).

2004 Surgical Staging is Unnecessary in Endometrial Cancer. Gynecologic Oncology Group Symposium. Irvine, California, United States.


1996 Treatment of Uterine Papillary Serous Carcinoma. 3rd Biennial Alon Dembo Workshop, International
Ida ACKERMAN

Gyne. Tumour Board. Bermuda. (Continuing Education).

1996

**Visiting Professor.** Visiting Professor. Henry Ford Hospital and Medical Centres. Detroit, Michigan, United States.

1991

**Lecturer.** A study to assess the dose and technique of postoperative radiation on pelvic control rates in endometrial cancer. International Gynecologic Cancer Society, 3rd Biennial Meeting. Cairns, Australia. Presenter(s): Ackerman I, Milosevic M, Thomas G, Dembo A, Balogh J.

1991


1985


**Workshops**


2. NATIONAL

**Invited Lectures and Presentations**

2006  Moving from LDR to HDR for Cervix Cancer, the Do’s and Don’ts. Canadian Association of Brachytherapy. Calgary, Alberta, Canada.


2004  **Lecturer.** Toxicity of Adjuvant Pelvic Radiotherapy following Radical Hysterectomy and Pelvic Lymph Node Dissection. Gyne Oncology Society of Canada. Edmonton, Alberta, Canada. Presenter(s): Steed H, Ackerman I.

2002  **Lecturer.** “Cosmetic Results of Radiation Therapy for Non-Melanoma Skin Cancer”. Canadian Association of Radiation Oncology. Toronto, Ontario, Canada. Presenter(s): Breen D, Ackerman I.


Ida ACKERMAN


Presentations at Scientific Meetings


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2005  Role of Radiation in gynecologic and breast cancer:. Royal Victoria Hospital of Barrie Cancer Care Program. Barrie, Ontario, Canada. (Continuing Education).


1987  Diagnosis and Management of difficult skin tumours. Postgraduate Dermatology Seminar. Toronto, Ontario, Canada. (Continuing Education).


4. LOCAL

Invited Lectures and Presentations


1992  Symposium on skin cancer; Specific Indications for Radiation Therapy as a Treatment of choice. Mount Sinai Hospital. Toronto, Ontario, Canada. (Continuing Education).


5. OTHER

Invited Lectures and Presentations


Presented Abstracts


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD


2003 - 2004  Primary Supervisor. Arjun Sahgal. Phase II study to evaluate the efficacy of iron infusion to improve hemoglobin levels prior to therapy in iron deficient cervix cancer patients.

2002 - 2003  Primary Supervisor. Jackie Spayne. Abstract - A Screen History of Patients with Cervix...
Curriculum Vitae

Judith Balogh

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

Primary Office  
Odette Cancer Centre  
Sunnybrook Health Sciences Centre  
Department of Radiation Oncology  
2075 Bayview Avenue  
Toronto, Ontario, Canada  
M4N 3M5  
Telephone  416-480-4974  
Fax  416-480-6002  
Email  judith.balogh@sunnybrook.ca

1. EDUCATION

Degrees

1981  MD, Medicine, University of Toronto, Toronto, Ontario, Canada  
1977  MSc, Biophysics, Western University, London, Ontario, Canada  
1975  BSc, Honours, Biology, McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training

1982 - 1985  Resident, Radiation Oncology, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada  
1981 - 1982  Intern, Straight Medicine, Wellesley Hospital, Toronto, Ontario, Canada  
1986  Clinical Fellow, Brachytherapy, Hôpital Henri Mondor, Créteil, France, Supervisor(s): B. Pierquin, J-J. Mazeron  
1986  Clinical Fellow, Brachytherapy, Institut Gustave Roussy, Paris, France, Supervisor(s): F. Eschwege, A. Gerbaulet  
1985  Clinical Fellow, Radiation Oncology, Toronto-Bayview Regional Cancer Centre, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

1985  Fellowship, Royal College of Physicians and Surgeons of Canada (RCPSC)  
1981  Licentiate (LMCC), Medical Council of Canada  
1981  Licensure, College of Physicians and Surgeons of Ontario (CPSO)
2. EMPLOYMENT

Current Appointments

1995 - present  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1985 - present  Staff, Radiation Oncologist, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada
1985 - present  Staff, Department of Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
1986 - 1993  Courtesy Staff, Department of Otolaryngology, Mount Sinai Hospital, Toronto, Ontario, Canada

UNIVERSITY - CROSS APPOINTMENT
1986 - 1991  Lecturer, Radiology, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK
1991 - 1994  Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

PROVINCIAL / REGIONAL

Received

1986  Gordon Richards Fellowship, OCTRF. (Credential)
1971  Ontario Scholar. (Distinction)

LOCAL

Received

2005  Department of Radiation Oncology, Educational Award, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
2003  Department of Radiation Oncology, Educational Award, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
1981  Sophie Harnick Memorial Award, University of Toronto. (Distinction)
1977  Travel Award, Radiation Research Society. (Research Award)
1976  Morris Kroll Memorial Scholarship, Western University. (Distinction)
1973  Deans List, McMaster University. (Distinction)

Teaching and Education Awards

LOCAL

Received
2006 \textbf{Radiation Oncology Residents Award for Excellence in Clinical Teaching}, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD, Core Program)

2000 \textbf{Radiation Oncology Residents Award for Excellence in Clinical Teaching}, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto

1998 \textbf{Radiation Oncology Residents Award for Excellence in Clinical Teaching}, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto

1994 \textbf{Radiation Oncology Residents Award for Excellence in Clinical Teaching}, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

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<td>1992 - present</td>
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<td>1988 - present</td>
<td>Member, Canadian Association of Radiation Oncologists</td>
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<td>1985 - present</td>
<td>Member, Royal College of Physicians and Surgeons</td>
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<td>1981 - present</td>
<td>Member, Ontario Medical Association</td>
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<td>1994 - 1996</td>
<td>Member, American Association for Cancer Education</td>
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<td>1992 - 2005</td>
<td>Member, American Society of Clinical Oncology</td>
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<td>1983 - 1989</td>
<td>Member, Canadian Association of Radiologists</td>
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Administrative Activities

NATIONAL

Canadian Association of Radiation Oncologists

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<td>1997 - 2003</td>
<td>Coordinator, Maintenance of Competence (MOCOMP), Canada.</td>
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<td>Member, Continuing Education Committee, Continuing Education</td>
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Canadian Medical Association

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<td>Member, PAC Committee, Canada.</td>
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<td>Canadian Medical Association.</td>
</tr>
<tr>
<td>1993 - 1999</td>
<td>Member, Conjoint Committee on Accreditation, Canada.</td>
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</tbody>
</table>

Dawson College

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
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<tbody>
<tr>
<td>2003 May</td>
<td>Accreditation Surveyor, Montreal, Quebec, Canada.</td>
</tr>
<tr>
<td></td>
<td>Canadian Medical Association.</td>
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</tbody>
</table>

Royal College of Physicians and Surgeons of Canada (RCPSC)

<table>
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<tr>
<th>Year</th>
<th>Role</th>
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<tbody>
<tr>
<td>1997 - 2003</td>
<td>Coordinator, Maintenance of Competence (MOCOMP), Canada.</td>
</tr>
</tbody>
</table>
PROVINCIAL / REGIONAL

Cancer Care Ontario
1997 - 2000 Member, Oncology Associates Council, Ontario, Canada.
1997 Chair, Subcommittee on Informed Consent, Ontario, Canada.
1990 Member, Oncology Associates Council, Ontario, Canada.

Ministry of Health and Long Term Care
1995 Member, Curriculum Development Committee, Schools of Radiation Therapy, Ontario, Canada.

Odette Cancer Centre
1994 - 2001 Coordinator, Undergraduate Education Program, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.
*Responsible for educational participation of Department of Radiation Oncology at TSRCC in U. of T. undergraduate program in new curriculum.*

Ontario Medical Association
1996 - 2004 Vice Chair, Radiation Oncology Division, Ontario, Canada.
1993 - 1996 Past Chair, Radiation Oncology Division, Ontario, Canada.
1993 - 1996 Member, Executive, Radiation Oncology Division, Ontario, Canada.
1992 - 1995 Member, Committee on Care of Dying, Radiation Oncology Division, Ontario, Canada.
1991 - 1993 Chair, Radiation Oncology Division, Ontario, Canada.
1989 - 1991 Secretary-Treasurer, Radiation Oncology Division, Ontario, Canada.

Toronto-Sunnybrook Regional Cancer Centre
2001 - 2002 Chair, Radiation Oncology Associates Group, Toronto, Ontario, Canada.
1997 - 2000 Chair, FTMS Associates Committee, Toronto, Ontario, Canada.
1997 Member, Ward Care Delivery Committee, Toronto, Ontario, Canada.
1996 - 2001 Member, EPR Committee, Toronto, Ontario, Canada.
1996 Member, Process Review/Coding Committee, Toronto, Ontario, Canada.
1995 Member, Accreditation/Information Services Committee, Toronto, Ontario, Canada.
1994 - 1996 Chair, Medical Staff Association, Toronto, Ontario, Canada.
1991 - 2001 Chair, School of Radiation Therapy (RTT) Educational Advisory Committee, Toronto, Ontario, Canada.
1991 - 2001 Member, Faculty Liaison Committee, School of Radiation Therapy, Toronto, Ontario, Canada.
1991 - 2000 Medical Director, School of Radiation Therapy, Toronto, Ontario, Canada.
1990 - 2002 Chair, Health Records Committee, Toronto, Ontario, Canada.
LOCAL

St. Joseph’s Hospital Health Center
Weeky meetings.
Weekly meetings.

Sunnybrook and Women’s College Hospital
2000 - 2004  Member, Continuing Medical Education Committee, Continuing Education, Toronto, Ontario, Canada.

University of Toronto
1996 - present  Course Co-ordinator, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
Applied Physics Course.
2009  Course Co-ordinator, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
Applied Physics Course-revised course.
2004  Course Co-ordinator, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
Applied Physics Course-revised course.
1996  Course Co-ordinator, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
Applied Physics Course.
1994 - 2003  Member, Undergraduate Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.
1994 - 2002  Member, Faculty Council, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
1994 - 2000  Member, Continuing Education Program Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Toronto, Ontario, Canada.
1994 - 2000  Member, Continuing Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Toronto, Ontario, Canada.
1994 - 1999  Member, Committee of Undergraduate Medical Education in Oncology (CUMEO), Department of Oncology, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD, Toronto, Ontario, Canada.
1993 - 1994  Member, Education and Staff Development Committee, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development, Toronto, Ontario, Canada.

University of Toronto/Michener Institute of Technology
1998 - 2000  Member, Curriculum Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

Peer Review Activities

MANUSCRIPT REVIEWS
External Reviewer
1988 - 1990  Journal of Otolaryngology
Other Research and Professional Activities

THESIS PROJECT


C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDDED


2006 - present Collaborator. “A Phase II Study of Accelerated Hypofractionated 3-Dimensional Conformal Radiotherapy (3DCRT) for Inoperable Stage I/II on-Small Cell Lung Cancer”. REB# 207-2006. PI: Cheung, Patrick. [Clinical Trials]


Judith BALOGH

Advanced Head and Neck Cancer”. REB#142-2005. [Clinical Trials]

2004 - 2007 **Collaborator.** “Imiquimod for Patients with Positive Surgical Margins Following Surgical Excision of Basal Cell Carcinoma or Squamous Cell carcinoma In-Situ of the Skin”. REB# 291-2004. [Clinical Trials]

2004 - 2005 **Collaborator.** “A Phase 2 Study Examining the Role of PET/CT Fusion Scan in the Management of Patients with Advanced Locoregional Head and Neck Cancer”. REB# 195-2004. [Clinical Trials]

2001 - 2002 **Collaborator.** “High Dose Rate Remote Afterloading Brachytherapy in the Treatment of Malignant Airways Obstruction”. REB# 025-2001. [Clinical Trials]


1993 - 1994 **Principal Investigator.** “Phase 111 Comparative Study Of The Safety & Efficacy Of Xrt Plus Photodynamic Therapy(Pdt) Utilizing Photofrin Vs Xrt For Obstructing Or Partially Obstructing Bronchogenic Carcinoma”. REB# 006-1993. [Clinical Trials]

1989 - 2008 **Collaborator.** Treatment of selected patients with stage 1B carcinoma of the cervix after radical hysterectomy and pelvic lymphanectomy: a randomized comparison of pelvic radiation therapy vs no further treatment. Gynecologic Oncology Group. REB# 001-1989. PI: Covens A, Thomas G. [Clinical Trials]

1989 - 1990 **Collaborator.** A randomized controlled trial to assess the effectiveness of medroxyprogesterone and wide field radiation adjuvant therapy in patients with high risk Stage I or Stage II or Stage III Endometrial Cancer (OCOG). The Ontario Clinical Oncology Group. PI: Dembo A. [Clinical Trials]

1988 - 1990 **Collaborator.** A randomized phase III study of radiation and 5-FU vs radiation alone in advanced carcinoma of the cervix. PI: Thomas G, Dembo A. [Clinical Trials]

1988 - 1990 **Collaborator.** A protocol of postoperative therapy of invasive epithelial carcinoma of ovary in patients with small or no residuum (Protocol 1). PI: Dembo A. [Clinical Trials]

1985 - 1988 **Collaborator.** A prospective randomized trial to define the benefit of surgical resection of residual disease following response of small cell lung cancer to combination chemotherapy (LCSG 832). The Lung Cancer Study Group (LCSG). PI: Taylor G. [Clinical Trials]
1985 - 1988  Collaborator. LCGS national history catalogue for T1 N0 M0. completely resected non-oat cell lung cancer patients (5 year follow up). The Lung Cancer Study Group (LCSG). PI: Feld R. [Clinical Trials]


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

**Journal Articles**


**Lung Cancer Canada Public Education Pamphlet**


**Lung Cancer Canada Publication Pamphlet 2005**


**E. Presentations and Special Lectures**

1. INTERNATIONAL

**Invited Lectures and Presentations**


**Presented Abstracts**

2009 Post-Radiotherapy neuromyotonia, bilateral hypoglossal nerve palsies and progressive dysphagia in

2008

2008
Hypofractionated radiotherapy offers effective palliation for non-melanoma skin cancer. Multinational Association of Supportive Care in Cancer (MASCC) 20th Annual Meeting. Houston, Texas, United States. Barnes E, Breen D, Balogh J, Kamra J.

2008

2008

2007

2005

2000

2000
Inter-Observer variation in contouring gross tumour volume in carcinoma of the lung associated with pneumonitis and atelectasis: the impact of 18FEG-Hybrid PET fusion. The 42nd Annual Meeting of the American Society for Therapeutic Radiology and Oncology (ASTRO). Boston, Massachusetts, United States. Mah K, Calwell CG, Balogh J, Ung YC, Danjoux CE, Ganguli SN, Ehrlich LE.

1998

1993 Sep

1993 Sep

1991 Sep

1991 Sep

1989 Feb
Presented and Published Abstracts


Publication Details:


Publication Details:

2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


2000 Inter-Observer variation in contouring gross tumour volume in carcinoma of the lung: The Impact of 18FDG-Hybrid PET Fusion. The 69th Annual Meeting of the Canadian Association of Radiation Oncology


Presented and Published Abstracts

2007 18F-FDG PET/CT imaging for suspected recurrent papillary thyroid cancer: early experience at Sunnybrook Health Sciences Centre. The Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario, Canada.

Publication Details:


Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2007 Management of Head and Neck Cancer. OAMRT Central Section Education Day, Odette Cancer Centre, Sunnybrook Hospital. Toronto, Ontario, Canada.


4. LOCAL

Invited Lectures and Presentations


1990 An Introduction to Brachytherapy. Sunnybrook Health Science Centre, Department of Dentistry. Toronto, Ontario, Canada.

5. OTHER

Presented and Published Abstracts

2009 A pilot study to assess intra-treatment FDG-PET parameters that predict for locoregional control in advanced head and neck cancer treated with chemoradiation.

Publication Details:

2008 Hypofractionated radiotherapy offers effective palliation for nonmelanoma skin cancer.

Publication Details:

2008 Treating Recurrent Cases of Squamous Cell Carcinoma with Radiotherapy.

Publication Details:

2008 Observer variability in radiotherapy targeting of head and neck tumors: can PET-CT reduce the variability?

Publication Details:

2007 Variability in identification of positive nodes for head and neck cancers: Comparison of CT Alone with PET/CT.

Publication Details:

2003 The effect of PET CT co-registration on observer variation in the 3D-intersection of radiation therapy treatment volumes.

Publication Details:

2002 Tumor size and necrosis on FDG PET potentially adverse features in non-small cell lung cancer.

Publication Details:

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

1995 - 1999 Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto Co-design and running of biennial oncology course.

1994 - 1995 Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto Workshop development.

1993 Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto Applied Physics Course, responsible for developing objectives and case scenarios for 5 weeks of a 5 month course.

1991 - 1999 Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto Oncology Management Course, responsible for development of approximately 1/3 of cases in 6 month course.

1988 - 1989 Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto Radiation Pathology Course, developed course on effects of radiation in: fetus/embryo, normal tissues, tumors.
Curriculum Vitae

Lisa Barbera

A. Date Curriculum Vitae is Prepared: 2016 August 8

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-4806
Fax 416-480-6002
Email lisa.barbera@sunnybrook.ca

1. EDUCATION

Degrees
2000 - 2002 MPA, School of Policy Studies, Queen’s University at Kingston, Kingston, Ontario, Canada
1991 - 1995 MD, University of Ottawa, Ottawa, Ontario, Canada
1988 - 1991 BSc, Major in Zoology, Minor in Philosophy, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1995 - 2000 Residency, Radiation Oncology, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada
1995 - 2000 Residency, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1995 - 2000 Residency, Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2000 Fellow, Royal College of Physicians, Canada
1999 - 2009 Certification, American Board of Radiology, United States
1996 MCCQE Part I, Medical Council of Canada, Canada
1996 MCCQE Part II, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2016 Feb 1 - present ARCC Program Co-Lead, Health Systems, Services, & Policy, Applied Research in Cancer Control (ARCC)
2015 - present Senior Adjunct Scientist, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada
Previous Appointments

HOSPITAL
2006 - 2011  Courtesy Staff, Radiation Oncologist, Toronto East General Hospital, Toronto, Ontario, Canada
2005 - 2014  Adjunct Scientist, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada
2004 - 2013  Scientist, Clinical Epidemiology, Sunnybrook Research Institute, Toronto, Ontario, Canada
2003 - 2004  Associate Scientist, Clinical Epidemiology, Sunnybrook & Women’s Research Institute, Toronto, Ontario, Canada

UNIVERSITY
2000 - 2002  Lecturer (Adjunct I), Oncology, Queen’s University at Kingston, Kingston, Ontario, Canada
2000 - 2002  Health Policy Research Fellow, Radiation Oncology Research Unit, Kingston Regional Cancer Centre, Kingston, Ontario, Canada

UNIVERSITY - CROSS APPOINTMENT
2007 - 2015  Cross Appointment, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK
2003 - 2011  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2002 - 2003  Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2015  Top 10 Society-Funded Research Stories of 2015, Canadian Cancer Society. (Distinction)
2001  Research Fellow, National Cancer Institute of Canada (NCIC). (Research Award)

Estimating the Need for Radiotherapy in Ontario: An Evidence Based Epidemiological Approach. Total Amount: 47,500

PROVINCIAL / REGIONAL
Received
2004 - 2009  Career Scientist Award, Ontario Ministry of Health and Long Term Care. (Research Award)
The Quality of Palliative and End of Life Care in Cancer Patients. Total Amount: 301,875
2000  Clinical Research Fellowship, Cancer Care Ontario. (Research Award)
Total Amount: 56,000

LOCAL
Received
2015 Academic Performance Award, Odette Cancer Centre. (Research Award)
2011 Best Annual Research Performance Award, University of Toronto, Toronto, Ontario, Canada. (Research Award)
2011 Outstanding Performance Award, Odette Cancer Centre, Toronto, Ontario, Canada. (Research Award)
2010 Academic Performance Award, Odette Cancer Centre, Toronto, Ontario, Canada. (Research Award)
2009 Academic Performance Award, Odette Cancer Centre, Toronto, Ontario, Canada. (Research Award)
2006 Outstanding Research Potential, University of Toronto, Toronto, Ontario, Canada. (Research Award)
2005 Academic Performance Award, Sunnybrook and Women's College Health Sciences Centre. (Research Award)
1999 W.J. Simpson Award, University of Toronto, Toronto, Ontario, Canada. (Research Award)
Residents’ Research Day.

Teaching and Education Awards
LOCAL
Received

2013 Postgraduate Advocacy and Mentorship Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Department of Radiation Oncology

Student/Trainee Awards
LOCAL
Received

2015 Chair's Award for Academic Excellence in Research, Awardee Name: Hamid-Reza Raziee. University of Toronto, Department of Radiation Oncology

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2012 - present Member, International Gynecologic Cancer Society
2011 - present Member, European Society of Gynecologic Oncology (ESGO)
2009 - present Member, American Society of Clinical Oncology (ASCO)
2004 - present Member, Canadian Association of Health Services and Policy Research (CAHSPR)
2003 - present Member, Academy Health
1998 - present Member, American Society of Therapeutic Radiation Oncology (ASTRO)
1997 - present Member, Canadian Association of Radiation Oncologists (CARO)
1993 - present Member, Canadian Medical Association
1993 - present Member, Canadian Medical Protective Association (CMPA)
1993 - present Member, Ontario Medical Association
Administrative Activities

INTERNATIONAL

American Society of Clinical Oncology
2016 Symposium Faculty, Quality of Care Symposium
2015 May - 2018 Apr Member, Quality of Care Committee, United States.
2015 May - 2018 Apr Member, Patient Reported Outcomes Sub-Committee, United States.

NATIONAL

Canadian Association of Radiation Oncology (CARO)
2000 - 2002 Observer, Manpower Committee, Canada.
1998 - 2000 Chair, Residents and Fellows Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Canada.

Canadian Partnership Against Cancer (CPAC)
2014 - present Member, Person Centred Perspective Measurement Steering Committee, Toronto, Ontario, Canada.
2016 Member, PEO LC Research Framework Working Group
2013 - 2014 Member, Measurement Methodology Working Group, Toronto, Ontario, Canada.

Canadian Partnership for Quality Radiotherapy (CPQR)
2013 Jan 31 Participant, Consensus Delphi meeting, Mont Tremblant, Quebec, Canada.

PROVINCIAL / REGIONAL

Cancer Care Ontario
2015 - present Chair, Patient Reported Outcomes Steering Committee, Toronto, Ontario, Canada.
2014 - present Chair, Gyne Community of Practice “Models of Care” Working Group, Toronto, Ontario, Canada.
2013 - present Member, Sexual Health in Cancer Community of Practice, Toronto, Ontario, Canada.
2012 - present Member, Gyne Community of Practice, Toronto, Ontario, Canada.
2014 - 2016 Chair, Program in Evidence Based Medicine (PEBC) “Sexual Health in Cancer Survivors” Working Group, Toronto, Ontario, Canada.
2014 - 2015 Member, Patient Reported Outcomes Steering Committee, Toronto, Ontario, Canada.
2011 - 2012 Member, Multidisciplinary Cancer Conference, Measurement Committee, Ontario, Canada.
2006 - 2008 Member, Provincial Palliative Care Integration, Performance Measurement and Evaluation Team, Ontario, Canada.
2006 - 2007 Member, Program in Evidence Based Care; Nursing, Palliative Care and Supportive Care Guideline Group Steering Committee, Ontario, Canada.

Cancer Quality Council of Ontario (CQCO)
2006 - present Contributor, Cancer System Quality Index, Toronto, Ontario, Canada.
2012 Jul 23 Panel Member, Programmatic Review of Palliative Care, Toronto, Ontario, Canada.
2006 Member, Signature Event on Palliative Care Steering Committee, Ontario, Canada.

Ministry of Health and Long Term Care (MOHLTC)
2013 - 2015 Member, Provincial Hospice Palliative Care Data and Performance Subcommittee, Toronto, Ontario, Canada.
Ontario Institute for Cancer Research
2009 - present  **Member**, Health Services Research Program Management Committee, Ontario, Canada.

LOCAL
Odette Cancer Centre
2011 - present  **Lead**, Gyne Radiation Site Group, Toronto, Ontario, Canada.
2002 - present  **Member**, Radiation Oncology Associates, Toronto, Ontario, Canada.
2014 - 2016  **Chair**, Radiation Oncology Associates, Toronto, Ontario, Canada.
2007 - 2015  **Director**, SHARE: Sexual Health Rehabilitation Clinic, Toronto, Ontario, Canada.
2004 - 2006  **Member at Large**, Radiation Oncology Associates, Executive Committee, Toronto, Ontario, Canada.

University of Ottawa
1991 - 1993  **Student Representative**, Student Advisory Group, Ottawa, Ontario, Canada.

University of Toronto
2012 - present  **Member**, Department of Radiation Oncology, Appointments Committee, Toronto, Ontario, Canada.
2015  **Member**, Department of Radiation Oncology, Target Insight Scientific Program Committee, Toronto, Ontario, Canada.
2006  **Member**, Preparation of University of Toronto, Faculty Statement for external departmental review, Toronto, Ontario, Canada.
2003 - 2005  **Member**, Department of Radiation Oncology, Ethics Review Committee, Toronto, Ontario, Canada.
1997 - 1998  **Junior Resident Representative**, Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

Peer Review Activities

**GRANT REVIEWS**

External Grant Reviewer
2012  Cancer Research, United Kingdom
2008  Alberta Heritage Foundation for Medical Research, Investigator Award Competition, declined due to conflict of interest
2007  Canadian Institutes of Health Research, ‘International Opportunities Program - Collaborative Research Project Grant’ RFA

Reviewer
2015  Canadian Cancer Society Research Institute (CCSRI), Knowledge to Action Grants - Review Panel
2013 May 8  Canadian Cancer Society Research Institute (CCSRI), Innovation 13-2 Panel I5, Prevention and Cancer Outcomes
2011 - 2012  Canadian Institutes of Health Research (CIHR), Doctoral Research Awards and Canada Graduate Scholarships Master’s Award
2009 - 2010  Ontario Institute for Cancer Research, Health Services Research
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2016 Aug - 2019 Jul  
Lisa BARBERA

[Grants]

2016 Jun - 2018 Jun  
**Co-Investigator.** Significance and Impact of a Health Services Research Program in Gynecologic Oncology. University of Toronto. Department of Obstetrics and Gynecology. Merit Award. PI: Gien L. Collaborator(s): Barbera L, Kupets R. 40,000 CAD. [Grants]

2016 Jan - 2016 Dec  

2015 Feb - 2020 Jan  

2014 Apr - 2018 Mar  

2012 - 2016  

2011 - 2016  

2011 - 2015  

2011 - 2014  

2011 - 2014  

2011 - 2012  
10,000 CAD. [Grants]


2007 **Co-Investigator.** Improving access to quality palliative care for cancer patients. Canadian Institute of Health Research (CIHR). Collaborator(s): Brazil K, Howell D, Williams A, Husain A, Sussman J, Barbera L. 10,000 CAD. [Grants]

2006 - 2009 **Principal Investigator.** Improving the delivery of palliative care in Ontario. Cancer Care

2006 - 2007  

2004 - 2006  
**Principal Investigator.** Palliative and end of life quality indicators in lung cancer. Canadian Institute of Health Research (CIHR). Collaborator(s): Barbera L, Paszat L. 98,360 CAD. [Grants]

2003 - 2004  

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2014 Jan  
**Principal Investigator.** Impact of ESAS Screening on emergency department visits in metastatic colorectal cancer patients receiving chemotherapy. Cancer Care Ontario (CCO). Collaborator(s): Krzyzanowska M, Sutradhar R. 15,000 CAD. [Grants]

2008  

**D. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


52. Seow H, **Barbera L**, Howell D, Dy S. Using more end-of-life home care services is associated with using fewer acute care services: a population based cohort study. Med Care. 2010;48(2):118-24. **Coauthor or Collaborator.**


### 2. NON-PEER-REVIEWED PUBLICATIONS

#### Journal Articles

1. **Barbera L**. Effects of pelvic radiation therapy on fertility. CME J Gynecol Oncol. 2003;8(2):101-106. **Principal Author**.

#### Book Chapters


#### Monographs

1. **Barbera L**. Explicit rationing of health care. A project submitted to the school of policy studies in partial fulfillment of the requirements for the degree of Master of Public Administration at Queen’s University. Radiation Oncology Research Unit, Kingston, Ontario. **Principal Author**.

#### Internet Publications


#### Reports


3. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts


2016 Feb 27  **Presenter**. Time trends in opioid use in cancer and noncancer patients: Observations from administrative data. ASCO - Quality Care Symposium. Presenter(s): **Barbera L**. Poster Presentation.


Lisa BARBERA


2010 The development and pilot testing of a web-based support group for women with sexual problems due to gynaecologic cancer. 12th World Congress of Psycho-Oncology (IPOS) Annual Scientific Meeting. Quebec City, Quebec, Canada. Classen CC, Ferguson S, Chivers M, Urowitz S, Barbera L, and Wiljer D. # 0340, 2010.


Presented and Published Abstracts


Publication Details:

2015 Mar 30 Co-Author. Use of sexual function measures in intervention studies with female cancer patients: Results from a systematic review. World Congress of Psycho-Oncology Meeting (IPOS).

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Krzyzanowska M. Does routine symptom screening with the Edmonton Symptom Assessment Symptom (ESAS) decrease emergency department visits in breast cancer patients undergoing adjuvant chemotherapy? J Clin Oncol. 2014;32(5s):(suppl;abstr 6514). **Principal Author.**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2012 **Co-Author.** Trajectory of performance status and symptom scores in the last six months of life in gynecologic cancer patients. International Gynecologic Cancer Society Meeting (IGCS).

**Publication Details:**
Spoozak L, Seow H, Wright JD, **Barbera L**. Trajectory of performance status and symptom scores in the last six months of life in gynecologic cancer patients. Int J Gynecol Cancer. 2012;22(8):Suppl 3. **Coauthor or Collaborator.**

2012 **Co-Author.** Risk of recurrence in stage III, high-grade endometrial cancer (HEC), by primary tumor factors (PFT) and treatment received. International Gynecologic Cancer Society Meeting (IGCS).

**Publication Details:**
Eiriksson LR, Kaur Kh, Ismiil N, Covens A, **Barbera L**. Risk of recurrence in stage III, high-grade endometrial cancer (HEC), by primary tumor factors (PFT) and treatment received. Int J Gynecol Cancer. 2012;22(8):Suppl 3. **Coauthor or Collaborator.**

Publication Details:

2011

Publication Details:

2010

Publication Details:

2010

Publication Details:

2010

Publication Details:

2009
Co-Author. Importance of stratification when measuring quality of care: Results from the project for an Ontario Women’s Health Evidence-Based Report Card (POWER) study. American Society of Clinical Oncology (ASCO) Scientific Meeting. Orlando, Florida, United States.

Publication Details:

2009

Publication Details:
6556. **Principal Author.**


*Publication Details:*

2008 **Co-Author.** Utilization of preoperative imaging among uterine cancer patients.

*Publication Details:*
Gien L, Barbera L, Kupets R. Utilization of preoperative imaging among uterine cancer patients. Int J Gynecol Cancer. 2008. # 106-0008-01618. **Coauthor or Collaborator.**

2007 **Co-Author.** Has the pattern of practice in the prescription of palliative thoracic radiotherapy changed between 1999 and 2006 at the Rapid Response Radiotherapy Program? Multinational Association of Supportive Care in Cancer (MASCC) Scientific Meeting. St. Gallen, Switzerland.

*Publication Details:*

2006 **Presenter.** Pain during admission to hospital at end of life in patients with lung cancer. Multinational Association of Supportive Care in Cancer (MASCC) Scientific Meeting. Toronto, Ontario, Canada.

*Publication Details:*
Barbera L, Paszat L, Qiu F. Pain during admission to hospital at end of life in patients with lung cancer. Supportive Care in Cancer. 2006;14(6):# 21-158. **Principal Author.**


*Publication Details:*

2006 **Co-Author or Collaborator.** Involvement of family physicians in the care of patients seen in the Rapid Response Radiotherapy Program. Multinational Association of Supportive Care in Cancer (MASCC) Scientific Meeting. Toronto, Ontario, Canada.

*Publication Details:*
Barnes E, Librach L, Chow E, Harris K, Fan G, Tsao M, Barbera L, Danjoux C. Involvement of family physicians in the care of patients seen in the Rapid Response Radiotherapy Program. Supportive Care in Cancer. 2006;14(6):S616, 08-059. **Coauthor or Collaborator.**


*Publication Details:*


### 2. NATIONAL

**Invited Lectures and Presentations**

2016 May 9 **Session Chair.** Concurrent Sessions B - Patient-Oriented Research in Cancer Care. Canadian Centre for Applied Research in Cancer Control (ARCC).

2015 Jan 15 **Visiting Professor.** Quality of End of Life Care in Cancer: Results of a Four Provincial Study. Tom Baker Cancer Centre.

2015 Jan 14 **Visiting Professor.** University of Calgary, Community Health Sciences Department, Clinician Investigators Program. Calgary, Alberta, Canada.

2011 "Gyne Gals: a web-based support group for women sexually distressed due to gynaecologic cancer". The Canadian Association of Psychosocial Oncology Symposium. Toronto, Ontario, Canada.


**Presented Abstracts**


2014 May 12 **Presenter.** Defining palliative care physicians using health administrative data. ARCC Canadian Centre for Applied Research in Cancer Control. Toronto, Ontario, Canada. Presenter(s): **Barbera L.** Poster.


2013 **Does more homecare nursing lower the risk of ED visits at end of life?: A population based study of Ontario cancer decedents.** The Canadian Centre for Applied Research in Cancer Control (ARCC).

2013


2013


2012


2012


2010


2009


2009

Co-Author. Health system characteristics associated with patterns of palliative care use in Ontario. Canadian Association or Radiation Oncologists (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada. Sussman J, Barbera L, Howell D, Husain A, Bainbridge D.

2008


2005


2002


Presented and Published Abstracts

2016 Sep


Publication Details:

2015 Sep

Publication Details:

Abstract 100.

Publication Details:

Abstract 114.

Publication Details:


Publication Details:


Publication Details:

2013 Mar The significance of primary tumor factors and treatment received in risk of recurrence in clinical stage I high-grade endometrial adenocarcinoma. Society of Obstetricians and Gynaecologists of Canada Meeting.

Publication Details:


Publication Details:

2009 **Co-Author.** Health system characteristics associated with patterns of palliative care use in Ontario. Canadian Association of Radiation Oncologists (CARO).

**Publication Details:**
Sussman J, **Barbera L**, Howell D, Husain A, Bainbridge D. Health system characteristics associated with patterns of palliative care use in Ontario. Radiother Oncol. 2009. **Coauthor or Collaborator.**

2007 **Co-Author.** Improving access to radiotherapy services in the Simcoe-Muskoka Region of Ontario: A needs assessment study. Canadian Association or Radiation Oncologists (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

**Publication Details:**
Szumacher E, **Barbera L**, Barnes T, Keighley-Clarke T, Pressnail B, Matyas Y, Danjoux C, Zhang L, Nyhof-Young J. Improving access to radiotherapy services in the Simcoe-Muskoka Region of Ontario: A needs assessment study. Radiother Oncol. 2007;84/2(Suppl 2):#43. **Coauthor or Collaborator.**

2007 **Co-Author.** Review of the Rapid Response Radiotherapy Program at an outpatient cancer centre. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

**Publication Details:**

2007 **Co-Author.** An Examination of changes in radiotherapy workload at a Canadian cancer centre between 2001 and 2007. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

**Publication Details:**
Kerba M, Schulze K, Tremblay C, Fuerstake N, Jackson L, **Barbera L**, Delaney G, Brundage M. An Examination of changes in radiotherapy workload at a Canadian cancer centre between 2001 and 2007. Radiother Oncol. 2007;84/2(Suppl 2):# 96. **Coauthor or Collaborator.**

2007 **Presenter.** Patterns of end of life cancer care: Health service use and predictors. Canadian Association of Radiation Oncologists (CARO), Annual Scientific Meeting. Toronto, Ontario, Canada.

**Publication Details:**

2004 **Presenter.** Lung cancer patient’s visits to the emergency room in the last two weeks of life. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Halifax, Nova Scotia, Canada.

**Publication Details:**
**Barbera L**, Paszat L, Chartier C. Lung cancer patient’s visits to the emergency room in the last two weeks of life. Radiother Oncol. 2004;72(Suppl 1):#141. **Principal Author.**

2004 **Co-Author.** Prospective comparison of clinical and CT assessment in selectron placement for LDR cervix brachytherapy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Halifax, Nova Scotia, Canada.

**Publication Details:**
Barnes E, Ackerman I, **Barbera L**, Lee D, Makhani N, Sankrecha R. Prospective comparison of clinical
and CT assessment in selectron placement for LDR cervix brachytherapy. Radiother Oncol. 2004;72(Suppl 1):#160. **Coauthor or Collaborator.**

**2003** **Presenter.** A population-based study of the processes of care in lung cancer in Ontario. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

**2003** **Co-Author.** Uterine perforation detection during selectron insertion with routine pelvic CT. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**
Barnes E, Ackerman I, **Barbera L,** Makhani N, Sankreacha R, Morton G. Uterine perforation detection during selectron insertion with routine pelvic CT. Radiother Oncol. 2003;69(Suppl 1):#95. **Coauthor or Collaborator.**


**Publication Details:**
**Barbera L,** Foroudi F, Walker H, Mackillop WJ. Estimating the cost and benefit of radiotherapy for lung cancer. Radiother Oncol. 2002;65(Suppl 1):#152. **Principal Author.**

**2002** **Presenter.** An evidence based estimate (EBEST) of the appropriate radiotherapy utilization rate for prostate cancer. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

**Publication Details:**
**Barbera L,** Foroudi G, Tyldesly S, Barbera L, Huang J, Mackillop W. An evidence based estimate (EBEST) of the appropriate radiotherapy utilization rate for prostate cancer. Radiother Oncol. 2002;65(Suppl 1):#20. **Principal Author.**

**2002** **CoAuthor.** A comparison of an evidence based prediction for breast cancer radiotherapy rates with benchmark and actual radiotherapy rates in Ontario. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

**Publication Details:**


**Publication Details:**
**Barbera L,** Jackson LD, Schulze K, Foroudi F, Groome PA, Mackillop WJ. Measuring linear accelerator workload: an Australian model in a Canadian context. Radiother Oncol. 2002;65(Suppl 1). **Principal Author.**


**Publication Details:**
versus predicted rates. Radiother Oncol. 2001:#49. Principal Author.

2001  
**Presenter.** An evidence based epidemiologic approach to estimating the resource requirements for radiotherapy in non-small cell lung cancer. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*  

2001  
**Presenter.** An evidence based epidemiologic needs assessment for radiotherapy for non-small cell lung cancer: a comparison of actual versus predicted rates. Canadian Association or Radiation Oncologists (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*  

2000  
**Presenter.** The role of CT in the assignment of T category in laryngeal cancer. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Edmonton, Alberta, Canada.

*Publication Details:*  

2000  
**Co-Author.** Two decades of waiting for radiotherapy in Ontario. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Edmonton, Alberta, Canada.

*Publication Details:*  

1999  
**Presenter.** Daily treatment time with four field breast radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*  

**Media Appearances**

2007  

**Other Presentations**

2015 Jul 29  
**Moderator - Webinar.** Healthcare Provider Perspectives on Symptom Management Guideline Use. The Canadian Centre of Excellence in Oncology Advanced Practice Nursing (OAPN).

**3. PROVINCIAL / REGIONAL**

**Invited Lectures and Presentations**

2016 Jun 2  
**Invited Speaker.** Patient Reported Outcomes in Cancer. Royal Victoria Hospital.

2016 Apr 7  
**Invited Speaker.** Quality of End of Life Care Results of Four Province Study. Juravinski Cancer Centre.


2013 Jun 18 Updates in Oncology 2013: Sex! Now that I have your attention...the importance in addressing sexuality in female cancer patients. Simcoe Muskoka Regional Cancer Program. Barrie, Ontario, Canada.


2013 May 3 Target Insight VII: Rethinking Radiation Therapy for Metastatic Cancer: Where are we with ESAS in Ontario? From screening to action. CEPD Faculty of Medicine, University of Toronto. Toronto, Canada.

2013 Presented Abstracts

2013 Apr Who doesn't receive homecare in the last months of life? Factors associated with use and earlier referral


Continuing Medical Education


4. LOCAL

Invited Lectures and Presentations


2016 Mar 30 Invited Speaker. Sexual Health Guideline KTE. Sexual Health in Cancer CoP.


2013 Patient reported symptom data and performance status at a provincial level updated results. University of Toronto, Department of Radiation Oncology Rounds. Toronto, Ontario, Canada.

2012 Cancer patients visiting the emergency department. The Odette Cancer Centre. Toronto, Ontario, Canada. Oncology Grand Rounds.


2007 “Patterns of End-of-Life Care in Elderly Cancer Patients in Ontario”. The University of Toronto, Institute for Life Course and Aging. Toronto, Ontario, Canada.


2006 “Improving Palliative and End of Life Care in Ontario”. Princess Margaret Hospital, Radiation Medicine Program Rounds and Video Conference. Toronto, Ontario, Canada.

2005 “Management of Side Effects from Chemotherapy and Radiation”. University of Toronto, Continuing


Presented Abstracts


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


Postgraduate MD

Clinical Research Fellow (MD)


2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2011 - 2013  PhD. A. Gill. Identifying factors that influence emergency room department use in home palliative care patients.

ICES Supervisor


Mentor

2013 - 2014  MSc. Kate Pulman.
2011 - 2012  MSc. L. Eiriksson. Patterns of treatment and failure for grade II endometrial cancer.

Postgraduate MD

External reviewer for internal PhD thesis defense

2014 Oct  PhD. Sarah Hales, Medical Science. The quality of dying and death in advanced cancer from the perspective of bereaved caregivers.
Curriculum Vitae

Elizabeth Antonia Barnes
Staff Radiation Oncologist

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
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Toronto, Ontario, Canada
M4N 3M5
Telephone (416) 480-4951
Cellphone (416) 471-8433
Fax (416) 480-6002
Email toni.barnes@sunnybrook.ca

1. EDUCATION

Degrees
1993 - 1996 MD, The University of Calgary, Calgary, Alberta
1989 - 1993 BSc, Biochemistry, Queen’s University, Kingston, Ontario

Postgraduate, Research and Specialty Training
2001 - 2002 Symptom Control and Palliative Care Fellowship, Radiation Oncology, MD Anderson Cancer Center, Houston, Texas, United States
1997 - 2001 Radiation Oncology Residency, Radiation Oncology, Cross Cancer Institute, Edmonton, Alberta, Canada
1996 - 1997 Internship, University of Alberta, Edmonton, Alberta

Qualifications, Certifications and Licenses
2003 American Board of Hospice and Palliative Medicine (ABHPM), License / Membership #: 2260
2002 Fellow FRCP(C), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, License / Membership #: 522948
1999 United States Medical Licensing Examination
1998 Licentiate (LMCC), Medical Council of Canada
2. EMPLOYMENT

Current Appointments

2002 Dec - present  Assistant Professor, Department of Radiation Oncology, Sunnybrook Health Sciences Centre
2002 - present  Medical Staff, Department of Radiation Oncology, Sunnybrook Health Sciences Centre

Previous Appointments

UNIVERSITY - RANK
2002 Sep - 2002 Dec  Lecturer, Department of Radiation Oncology, Sunnybrook Health Sciences Centre

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received

2000  MDS Nordion Award, Canadian Association of Radiation Oncologists, Edmonton, Alberta. (Distinction)
For resident podium presentation at Annual Scientific Meeting.

PROVINCIAL / REGIONAL
Received

1989 - 1993  Provincial Scholarship, Queen’s University. (Distinction)

LOCAL
Received

1993  Summer Electives Award, The University of Calgary. (Distinction)
1992  Dean’s Honor Roll, Queen’s University. (Distinction)

OTHER
Received

2013 Mar  A Sunnybrook Moment of Service Excellence, Sunnybrook Health Sciences Centre, Ontario, Canada. (Outstanding Service and Dedication to Patients)
In honour of outstanding service and dedication to patients - Office of The Patient Experience Certificate of Recognition.
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

INTERNATIONAL
ASTRO Health Services
2003 - 2005 Member, Research Committee, United States.

Evidence-based Practice Center at Brown University
Technical Expert, Treatments for Non-Melanoma Skin Cancers, Agency for Healthcare Research and Quality (AHRQ), Providence, Rhode Island, United States.

Society for Palliative Radiation Oncology
2014 - present

NATIONAL
National Cancer Institute of Canada/Clinical Trials Group
2008 - present Symptom Control Chair, NCIC Symptom Control Group, Ontario, Canada.
2003 - present Department Representative, NCIC Symptom Control Group, Ontario, Canada.

LOCAL
Odette Cancer Centre
2005 - present Chair, Skin Site Group, Ontario, Canada.
2005 - present Radiation Oncology Site Group Lead Skin Site Group, Ontario, Canada.

Sunnybrook Health Sciences Centre
2014 Feb - present Hand Hygiene - Physician Champion Committee, Toronto, Ontario, Canada.

University of Toronto
2015 Dec 4 Examiner, CPEE Planning Exams, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

OTHER
Michener Institute for Applied Health Sciences
2014 Oct 30 OSCE, Toronto, Ontario, Canada.

Peer Review Activities

EDITORIAL BOARDS
Member
2001 - present Odette Cancer Centre, Hotspot, Educational Newsletter for the community oncologists and palliative care physicians from Rapid Response Radiotherapy Program
MANUSCRIPT REVIEWS

Reviewer
2014 BJR
2014 International Journal of Radiation Oncology Biology Physics
2014 Supportive Care in Cancer
2013 BMJ
2013 Int J Rad Onc Biol Phys
2013 J Support Care Cancer
2012 Clinical Oncology
2012 Journal of Supportive Care in Cancer
2012 Palliative Medicine
2011 Clinical Oncology
2011 European Journal of Surgical Oncology
2011 International Journal of Radiation Oncology, Biology, Physics
2010 - 2011 Journal of Cutaneous Medicine & Surgery
2010 Radiation Oncology
2009 Current Oncology
2008 - 2009 International Journal of Radiation Oncology, Biology, Physics
2008 Expert Opinion on Pharmacotherapy
2008 Expert Review of Pharmacoconomics and Outcomes Research
2008 Journal of Supportive Care in Cancer
2006 Clinical Oncology
2006 International Journal of Radiation Oncology, Biology and Physics
2006 Journal of Pain and Symptom Management
2006 Radiotherapy and Oncology

Other Research and Professional Activities

RESEARCH PROJECT
2011 3 year review of outcomes following RT for NMSC.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

Collaborator(s): Chin, L; Babic S. 40,000 CAD. [Grants]


D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

\textbf{Journal Articles}


105. Barnes EA and Thomas G. Integrating radiation into the management of vulvar cancer. Semin Radiat Oncol. 2006;16(3):168-76. **Principal Author**.


Case Reports


Book Chapters


Letters to Editor


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


2. Ddungu H, Barnes EA. Chapter 9, Palliative care in low and middle income countries: a focus on sub-Saharan Africa. In: Lutz S, Chow E, Hoskin P, editor(s). Radiation Oncology in Palliative Cancer Care. (United Kingdom): John Wiley & Sons, Ltd; 2013. p. 95-104. **Co-Principal Author.**


Letters to Editor


Multimedia

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009

Publication Details:

2008
Referring physicians expectations of palliative radiotherapy for brain metastases. American Society for Therapeutic Radiology and Oncology (ASTRO), 50th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2008

Publication Details:

2006
Involvement of family physicians in the care of patients receiving palliative radiotherapy. Multinational Association of Supportive Care in Cancer (MASCC) 18th Annual Meeting. Toronto, Ontario.

Publication Details:

2004
Referring physician expectations of palliative whole brain radiotherapy. Multinational Association of Supportive Care in Cancer (MASCC) Annual Meeting. Miami Beach, Florida, United States.

Publication Details:

2003
Symptom control and palliative care. Canadian Association of Radiation Oncologists Annual Meetings. Meeting of the Association of Supportive Care in Cancer, 15th Annual Meeting. Berlin, Germany.

Publication Details:

2000
Dosimetric evaluation of lung tumor immobilization at deep inspiration breath hold. American Society for Therapeutic Radiology and Oncology (ASTRO), 42nd Annual Meeting. Boston, Massachusetts, United States.
**Publication Details:**


1999

Communication between primary care physicians and radiation oncologists regarding palliative care cancer patients. American Society for Therapeutic Radiology and Oncology (ASTRO), 41st Annual Meeting. San Antonio, Texas, United States.

**Publication Details:**


**2. NATIONAL**

**Invited Lectures and Presentations**

2012 Sep 12  **Invited Speaker.** Palliative RT for Merkel cell cancer. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada. Presenter(s): **Barnes, E.**


2007 Apr 22  Exploring Interprofessional and Collaborative Roles for Patient-Centered Care. 4th Annual Toronto Radiation Medicine Conference. King City, Ontario, Canada.

**Presented Abstracts**

2006  The role of family physicians in the care of patients receiving palliative radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta, Canada.

2004  Symptom control and palliative care. Canadian Association of Radiation Oncology (CARO) Annual Meeting.

2001  Palliative radiotherapy for patients with painful bone metastasis: Survey of PCPs regarding factors influencing patient referral. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec, Canada.

2000  Dosimetric evaluation of lung tumor immobilization at deep inspiration breath hold. Canadian Association of Radiation Oncology Annual Scientific Meeting. Edmonton, Alberta, Canada.

**Presented and Published Abstracts**


**Publication Details:**


Presenter(s): Barnes E.

Publication Details:

2014 Aug 27

Publication Details:

2014 Aug 25
Palliative radiotherapy for merkel cell carcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

2012
Clinical implementation of post-operative gynecologic IMRT with single CT simulation: Dosimetric advantages compared to 3D-conformal. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:
Wiebe E, Presutti J, Davidson M, Yip K, Ackerman I, Barnes T, Thomas G, Barbera L. Clinical implementation of post-operative gynecologic IMRT with single CT simulation: Dosimetric advantages compared to 3D-conformal. Radiother Oncol. 2012;104(Suppl 2):S12, 30. **Coauthor or Collaborator.**

2012
Predictors of radiotherapy failure in non melanoma skin cancer. Canadian Association of Radiation Oncology. Ottawa, Ontario, Canada.

Publication Details:

2011
Recommendations for CTV margins in radiotherapy planning for nonmelanoma skin cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011
Radiotherapy for nonmelanoma skin cancer of the nose. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011
Dexamethasone toxicity and quality of life in patients with brain metastases treated with whole brain radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba,
Elizabeth Antonia BARNES

Canada.

Publication Details:

2011
Prophylaxis of radiotherapy-induced nausea and vomiting (RINV) in the palliative treatment of bone metastases. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011

Publication Details:

2011
Functional interference due to pain following palliative radiotherapy for bone metastases among patients in their last three months of life. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba.

Publication Details:

2011
Palliative radiotherapy for bone metastases in the last three months of life: Worthwhile or futile? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2009
Symptom control and quality of life. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

2009
Five year review of the non melanoma skin cancer clinic at the Odette Cancer Centre. Canadian Association for Radiation Oncology (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada.

Publication Details:
**Publication Details:**

2009
Impact of RTT initiated booking guidelines on wait times for non melanoma skin cancer patients. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec, Canada.

**Publication Details:**

2008
Symptom cluster in patients with brain metastases treated with whole brain radiotherapy. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2008
Palliative radiation for nonmelanoma skin cancer. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2006
The role of family physicians in the care of patients receiving palliative radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta, Canada.

**Publication Details:**
Barnes EA, Librach L, Chow E, Harris K, Fan G, Tsao M, Barbera L, Danjoux C. The role of family physicians in the care of patients receiving palliative radiotherapy. Radiother Oncol. 2006;80(S1):S8, 25. **Senior Responsible Author.**

2004

**Publication Details:**

2003
Uterine perforation detection during selectron insertion with routine pelvic CT. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**
Barnes EA, Ackerman I, Barbera L et al. Uterine perforation detection during selectron insertion with routine pelvic CT. Radiother Oncol. 2003;69:S24, 97. **Senior Responsible Author.**

### 3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**

2007 Apr 24
4. LOCAL

Invited Lectures and Presentations


5. OTHER

Presented and Published Abstracts


_Publication Details:_


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


2008 Jul - 2009 Jun  Primary Supervisor. B. Sc. Nadia Salvo, University of Waterloo. Skin prophylaxis. Awards: 2008 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo


2007 Jul - 2009 Jun  Primary Supervisor. B. Sc. Candi Flynn, University of Waterloo. Testicular cancer module development. Awards: Scholarship for MSc degree in Clinical Epidemiology, U of Western Ontario


2006 Jul - 2008 Jun  

**Primary Supervisor.** B. Sc. Julie. Napolskikh, University of Waterloo. **Supervisee Position:** Medical School, Supervisee Institution: U of T. **Length of stay in hospice care.** *Demographic profile and utilization statistics of an inpatient palliative care unit within a tertiary care setting.* Awards: 2006 Laura Talbot-allan Award, Faculty of Applied Health Sciences, University of Waterloo.

2006 Jul - 2008 Jun  

**Primary Supervisor.** B. Sc. Grace Fan, University of Waterloo. *Symptom cluster.*

2006 Jul - 2007 Jul  

**Primary Supervisor.** B. Sc. Gabriella Mallia, University of Waterloo. **QOL in brain metastases.**

2005 Jul - 2006 Jun  

**Primary Supervisor.** B. Sc. Sukirtha Tharmalingam, University of Waterloo. **Bone metastases module.** *Patients and health care professionals perspectives on the most important quality of life issues in bone metastases.* Awards: Young Investigators Award. MASCC/ISOO 18th International Symposium Supportive Care in Cancer, Toronto, June 2006 Scholarship for MSc Degree in Epidemiology, U of T Ontario Graduate Scholarship.

2005 Jul - 2006 Jun  

**Primary Supervisor.** B. Sc. Nicole Bradley, University of Waterloo. **Symptom distress in patients attending an outpatient palliative radiotherapy clinic.** Has the pattern of practice in the prescription of palliative radiotherapy for the treatment of uncomplicated bone metastases changed between 1999 and 2005 at the Rapid Response Radiotherapy Program?.

2005 Jul - 2006 Jun  

**Primary Supervisor.** B. Sc. Hannah Chiu, University of Waterloo. **Gender difference in bone metastases.**

2005 Jul - 2006 Jun  

**Primary Supervisor.** B. Sc. Kristin Harris, University of Waterloo. **Supervisee Position:** Medical Student, Supervisee Institution: U of T. **Gender difference in brain metastases and bone metastases module development.**

2005 Jul  

**Primary Supervisor.** B. Sc. Carrie Bolduc, U of T. **Radiation Therapy Student Project:** *Defining flare pain after radiotherapy for bone metastases.*

2004 Jul - 2006 Jun  

**Primary Supervisor.** B. Sc. Megan Doyle, University of Waterloo. **Involvement of family physicians in the care of patients seen in the RRRP, referring physicians expectations of whole brain radiotherapy.** Symptom profile of patients treated with radiotherapy for gynecologic cancers. Awards: Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, U of Waterloo City of Thunder Bay Medical Student Award.

2004 Jul - 2005 Jun  

**Primary Supervisor.** 2nd year, BSc. Nicole Bradley, University of Waterloo. **Follow up on patients receiving palliative radiotherapy.** Symptom profile of patients treated with radiotherapy for gynecological cancers.

2004 Jul - 2005 Jun  

**Primary Supervisor.** 3rd year, BSc. Leila Makhani, McMaster University. **Hormone replacement therapy use after pelvic radiotherapy in premenopausal cervix cancer patients.**

2004 Jul - 2005 Jun  

**Primary Supervisor.** B. Sc. Nicole Bradley, U of Waterloo. **Symptom distress in patients attending an outpatient palliative radiotherapy clinic.** Awards: The Best Oral Presentation Award 15th Annual Ontario Provincial Conference on Palliative and End-of-Life Care, Toronto April 2005 2005 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences Ontario Graduate Scholarship.

2003 Jul - 2004 Jun  

**Primary Supervisor.** B. Sc. Megan Doyle, University of Waterloo. **Symptom profile of patients treated with radiotherapy for gynecologic cancers.** Involvement of family physicians in the care of patients seen in the RRRP, referring physicians expectations of whole brain radiotherapy.

**Graduate Education**

2006 Jul - 2007 Jun  

**Primary Supervisor.** Meera Patel. **Palliative care projects.**
Postdoctoral Research Fellow (PhD)

2006 Jul - 2008 Jun

**Primary Supervisor.** Dr. Alysa Fairchild. *International patterns of practice of painful bone metastases.* Awards: The Best Poster Award. 11th Annual International Symposium on Palliative Medicine, Florida, March 2007

Has the pattern of practice in the prescription of palliative thoracic radiotherapy for lung cancer changed between 1999 and 2006 at the RRRP? Young Investigator’s Award, MASCC 19th International Symposium Supportive Care In Cancer, St. Gallen, Switzerland, June 2007

Curriculum Vitae

Andrew John Bayley

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

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Princess Margaret Hospital  
610 University Avenue  
Toronto, Ontario, Canada

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416-946-2121

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416-946-4586

Email  
andrew.bayley@rmp.uhn.on.ca

1. EDUCATION

Degrees

1988 - 1992  
MD, Faculty of Medicine, Queen’s University, Kingston, Ontario

1984 - 1988  
BSc, Chemical Engineering, Department of Applied Science, Queen’s University, Kingston, Ontario

Postgraduate, Research and Specialty Training

1999 - 2000  
Clinical Fellow, Radiation Oncology, University of Toronto, Princess Margaret Hospital

1995 - 1999  
Resident, Radiation Oncology, University of Toronto, Princess Margaret Hospital & Toronto Sunnybrook Regional Cancer Centre

1992 - 1993  
Comprehensive Internship, Internal Medicine, University of Toronto

Qualifications, Certifications and Licenses

2000  
Board Certified, Therapeutic, American Board of Radiology

1999  
FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments

2004 - present  
Assistant Professor, Radiation Oncology, University of Toronto

2000 - present  
Staff Radiation Oncologist, Princess Margaret Hospital/ University Health Network

Previous Appointments

HOSPITAL

2008 - 2009  
Staff Radiation Oncologist Courtesy, Radiation Medicine Program, Southlake Regional Health Centre

1994 - 1995  
Assistant Physician, Cardiology, Sunnybrook Health Sciences Centre
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2014 2014 Best of ASTRO Award, American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, United States. (Distinction) Refining UICC TNM Stage and Prognostic Groups for HPV-Related Oropharyngeal Carcinomas.

2014 2014 Best of ASTRO Award, American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, United States. (Distinction) Potential Cure in Oropharyngeal Cancer with Oligo-Metastasis.

Nominated

2014 Apr Best Poster Award in Physics, Rosewall et al. ESTRO 33, Vienna, Austria. (Distinction) How many fractions are necessary for an accurate accumulation of bladder wall dose?

NATIONAL

Received

1987 Summer Research Award, Natural Sciences and Engineering Research Council of Canada (NSERC). (Distinction)

LOCAL

Received

1999 R.S. Bush Award, University of Toronto Department of Radiation Oncology. (Distinction)
1995 Patient Care Award, Sunnybrook Health Sciences Centre. (Distinction)
1988 Bronze Medallist Chemical Engineering, Queen’s University. (Distinction)
1987 Limited Scholarship, Dow Chemical of Canada. (Distinction)
1986 Dean’s Award, Queen’s University. (Distinction)
1985 - 1988 Dean’s Scholar, Queen’s University. (Distinction)

OTHER

Received

1984 Honour Matriculation Scholarship. (Distinction)

Teaching and Education Awards

PROVINCIAL / REGIONAL

Received
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

INTERNATIONAL
Elekta Medical Systems
2002 - 2004 Synergy Research Consortium, X-ray Volume Imaging - Online Image Guided Therapy

NATIONAL
Royal College of Physicians and Surgeons of Canada
2009 - 2010 Representative from Radiation Oncology, Specialty Committee in General Surgical Oncology
2008 - 2012 Committee Member, Examination Board for Radiation Oncology Specialty

LOCAL
Princess Margaret Hospital
2011 - present Member, Radiation Medicine Program Quality Committee
2011 - present Member, Radiation Medicine Program External Beam Process Committee
2002 - present Coordinator, Radiation Medicine Program Genitourinary Site Group Quality Assurance: Treatment Planning and Check Film Rounds
2003 - 2007 Member, Radiation Medicine Program External Beam Process Committee
2003 - 2006 Member, Radiation Medicine Program Pinnacle Radiation Treatment Planning Program Implementation and QA group
2003 Member, Radiation Medicine Program Magnetic Resonance Imaging Simulator Committee
2001 Member, Radiation Medicine Program CT Simulator Selection Committee
1999 - 2000 Chief Fellow, Department of Radiation Oncology

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
International Journal of Radiation Oncology Biology Physics
Radiotherapy and Oncology

C. Academic Profile

1. RESEARCH STATEMENTS

Clinical Trials in Prostate Cancer.
The main focus of my scholarly activity has been research into precision radiotherapy, specifically the use of intensity modulated radiation therapy in the management of high risk prostate cancer. Initial studies have resolved around the definition of CTV for high risk
prostate cancer, the use of MRI-CT co-registration, on line guidance and the acute and long term toxicity of dose escalated radiotherapy to the pelvic lymph nodes and prostate/seminal vesicles for high risk prostate cancer.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDING


NON-PEER-REVIEWED GRANTS

FUNDING

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Andrew John BAYLEY


Andrew John BAYLEY


64. **Bayley A**, Warde P, Milosevic M, Gospodarowicz M. Surveillance for stage I testicular seminoma – A review. Urol Oncol. 2001;6(4):139-143. **Principal Author.**

Andrew John BAYLEY


Letters to Editor


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Letters to Editor


Conference Publications


3. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts

2014 Sep Treatment Dilemmas for Synchronous and Metachronous Prostate and Rectal Cancers. 56th ASTRO Annual Meeting. San Francisco, California.

2014 Sep Refining UICC TNM Stage and Prognostic Groups for HPV-related Oropharyngeal Carcinomas. 56th ASTRO Annual Meeting. San Francisco, California.


2014 Apr How many fractions are necessary for an accurate accumulation of bladder wall dose? ESTRO 33. Vienna, Austria.


2013 Feb Temporal Regression and Regional Control Following Primary Radiotherapy for HPV(+) vs. HPV(-) Head & Neck Cancers. ICHNO Fourth Meeting. Barcelona, Spain.


2007 The Truths and Myths of Radiotherapy for verrucous Carcinoma of Larynx. ASTRO Annual Meeting. Los Angeles, California. (Poster presentation).


2007 A Randomized Trial of Cone Beam CT Evaluating Inter- and Intra-fraction Setup Error of Head and Neck Cancer Patients Treated with a Skin-Sparing Mask Compared to a Standard S-frame Mask. ASTRO Annual Meeting. Los Angeles, California.

2007 Changes In Position And Size Of Parotid Glands Assessed With Daily Cone-beam CT During Image-guided Imrt For Head And Neck Cancer: Implications For Dose Received. ASTRO Annual Meeting. Los Angeles, California.

Andrew John BAYLEY


2007 Changes In Position And Size Of Parotid Glands Assessed With Daily Cone-beam CT During Image-guided Imrt For Head And Neck Cancer: Implications For Dose Received. ASTRO Annual Meeting. Los Angeles, California.


2005 Patient-Assessed Late Toxicity Following High-Dose Image-Guided Radiation Therapy for Prostate Cancer and Correlation with Dose-Volume Histograms. ASTRO Annual Meeting. Denver, Colorado.


2002 Using Digitally Composited Radiographs As Reference Images During Conformal Prostate Treatment at the Princess Margaret Hospital, Toronto, Ontario. Association of Medical Radiation Therapist Meeting. Giovinazzo J, Swanson LA, Haycocks T, Kelly V, Alasti H, Bayley A, Catton C.


Other Lectures and Presentations


2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts

2013 Aug Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy Compared to Primary Laryngectomy. (CARO) COMP Annual Meeting. Montreal, Quebec.

2006 Sites of Neck Failure in Relation to Midline Cord Shielding in Nasopharyngeal Carcinoma: Analysis in IMRT Era. CARO.

2006 The Effect of Abdominal Compression on Prostate Inter and Intrafraction Motion During Conformal Radiotherapy of The Prostate. CARO Annual Scientific Meeting.


2002 A Dose Volume Histogram Analysis Of The Seminal Vesicles In Men Treated With Conformal Radiotherapy To The Prostate Alone. Canadian Association of Radiation Oncologist Annual Meeting.


Presented and Published Abstracts


Publication Details:


Publication Details:

2014 Aug Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.
Publication Details:

2014 Aug
Role of radiotherapy in management of nasal and sinonasal squamous cell carcinoma. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

Publication Details:

2014 Aug

Publication Details:

2014
The prognostic value of pre-treatment circulating neutrophils in oropharyngeal cancer by HPV status. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

Publication Details:

Other Lectures and Presentations

2004 Sep

2002 Sep

2001 Sep

1997 Sep
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2010  What is new in hormone therapy for prostate cancer. US TOO men’s support group. Brampton.


4. LOCAL

Invited Lectures and Presentations


2006  Radiation strategies to preserve salivary function. The 8th Annual Wharton Day at the Princess Margaret Hospital. Toronto.


2003  Prostate Cancer Radiation Therapy Treatment Selection. Princess Margaret Hospital, Radiation Therapy Continuing Education, Genitourinary Site Group Meeting. Toronto. (Continuing Education).

2002  Hormonal Therapy in Prostate Cancer. Princess Margaret Hospital, Radiation Therapy Continuing Education, Genitourinary Site Group Meeting. Toronto. (Continuing Education).

Presented Abstracts


5. OTHER

Presented and Published Abstracts

2015 Feb  Refining UICC TNM stage and prognostic groups for non-metastatic HPV-related oropharyngeal carcinomas.

Publication Details:

2015 Feb  Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status.

Publication Details:

2015 Feb  ‘Cure’ is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis.

Publication Details:


Publication Details:

2013 Aug  Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy Compared to Primary Laryngectomy.

Publication Details:

2013 Apr  Altered Fractionation Radiotherapy for Elderly Patients with Locally Advanced Head and Neck Cancer.

Publication Details:

2013 Feb  Temporal Regression and Regional Control Following Primary Radiotherapy for HPV(+) vs. HPV(-) Head & Neck Cancers.

Publication Details:
2012 Nov  
Neck-Specific Outcome of N2-N3 Head and Neck Cancer Treated with Radiation +/- Chemotherapy.

**Publication Details:**

2012 Sep  
Outcome of IMRT for hypopharyngeal cancer compared to conventional radiotherapy.

**Publication Details:**

2012 Sep  
The Characteristics of Cervical Lymph Node Resolution following Primary Radiotherapy +/- Chemotherapy for N2-N3 Head and Neck Cancer.

**Publication Details:**

2012 Sep  
Dose Conformality and Acute Toxicity in Patients with Prostate Adenocarcinoma Treated with Volumetric Modulated ARC therapy vs Conventional Intensity Modulated Radiation Therapy.

**Publication Details:**

2012 Sep  
Hyperfractionated and Conventionally Fractionated Radiotherapy Schedules for Localized Prostate Cancer.

**Publication Details:**

2012 Sep  
Delineation Variability on Planning CT and Cone-Beam CT when Contouring the Bladder as an Organ-at-Risk.

**Publication Details:**

2012 Sep  
A Randomized Phase III Study of Short Term Hormonal Therapy and Dose Escalated Radiation Therapy for Localized Prostate Cancer.

**Publication Details:**

2012 Jun  
Inverse Relationship between Biochemical Outcome and Acute Toxicity after Image-Guided Radiotherapy
Publication Details:

2012 Mar
Pathological Predications for Site of Local Recurrance After Radiotherapy for Prostate Cancer.

Publication Details:

2006
Dose Escalated Radiotherapy for Localized Prostate Cancer: An Initial Canadian Experience.

Publication Details:

2006
Prospectively Recording Outcome at Point-of-Care for Head and Neck Cancer: Integrating Quality Assurance and Clinical Practice.

Publication Details:

2006
The Effect of Abdominal Compression on Prostate Inter and Intrafraction Motion During Conformal Radiotherapy of The Prostate.

Publication Details:

2006
IMRT For Prostate Cancer – An Investigation into Dose Escalation and Therapeutic Ratio.

Publication Details:

2006
Correlation between radiation induced acute toxicity and biochemical failure free survival in men with prostate cancer treated with external beam radiotherapy.

Publication Details:

2006
Sites of Neck Failure in Relation to Midline Cord Shielding in Nasopharyngeal Carcinoma:Analysis in IMRT Era.
2005 A Prospective Study of Localised Prostate Cancer Treated to 75.6Gy Using 3D Conformal Therapy.

Publication Details:

2005 Patient-reported late toxicity following high dose radiation therapy for prostate cancer: The Princess Margaret Hospital Experience, Toronto, Ontario.

Publication Details:


Publication Details:

2005 Accurate and Non-invasive localization of the urethral anastomosis after radical prostatectomy using MRI.

Publication Details:

2005 Examining the dosimetric impact of systemic set-up uncertainty in patients treated with IMRT for nasopharyngeal carcinoma.

Publication Details:

2005 Dose escalated intensity modulated radiation therapy to pelvic lymph nodes and prostate/seminal vesicles for high risk prostate cancer.

Publication Details:

2005

A Randomised Study to Investigate the Role of Abdominal Compression in Prostate Intrafraction Motion.

Publication Details:

2005


Publication Details:

2002

Management of stage IIA, IIIB, and IIC testicular seminoma-results of radiation treatment.

Publication Details:

2002

Results of a phase II trial of escalated dose 3D-conformal radiotherapy (3D-CRT) for localized prostate cancer.

Publication Details:

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD


Curriculum Vitae

Alejandro Berlin
MD, MSc

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office 610 University Avenue
Department of Radiation Oncology
5th Floor
Toronto, Ontario, Canada
M5G 2M9
Telephone (416) 946 2126
Fax (416) 946 6561
Email alejandro.berlin@rmp.uhn.ca

1. EDUCATION

Degrees
2013 Jan - 2014 Dec MSc, Institute of Medical Science, University of Toronto, Toronto, Canada
2000 - 2007 MD, MD, graduated with high honors, GPA 6,7 (1-7 scale), Medical School, Pontificia Universidad Católica de Chile, Santiago, Chile

Postgraduate, Research and Specialty Training
2013 Jan - 2014 Dec Clinical Research Fellow (, GU Radiation Oncology, Department of Radiation Oncology, Princess Margaret Cancer Centre, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Robert Bristow
2009 Nov - 2011 May Resident, Radiation Oncology, Clinica Alemana de Santiago – Universidad del Desarrollo, Santiago, Región Metropolitana de Santiago, Chile, Supervisor(s): Dr. Andres Cordova
2008 Jun - 2009 Nov Clinical-Research Fellow, Radiation Oncology, Chaim Sheba Medical Centre, Ramat Gan, Israel, Supervisor(s): Drs. Zvi Symon, Raphael Pfeffer and Raphael Catane
2007 Jan - 2008 Jun Resident, Radiation Oncology, Clinica Alemana de Santiago – Universidad del Desarrollo, Santiago, Región Metropolitana de Santiago, Chile, Supervisor(s): Dr. Andres Cordova

Qualifications, Certifications and Licenses
2011 Nov - present ECFMG Certificate, Educational Commission for Foreign Medical Graduates, United States, License / Membership #: 0-815-071-6
2007 Nov - present Medical License, MD, Colegio Médico de Chile, Chile, License / Membership #: 26016-9
2015 Sep - 2018 Aug Academic Restricted License, Radiation Oncology, CPSO, Ontario, Canada, License / Membership #: 99728
2012 Dec - 2022 Dec Radiation Oncologist, Radiation Oncology, CONACEM, Chile, License / Membership #: 14400
2. EMPLOYMENT

Current Appointments

2015 Sep - present  Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2015 Sep - present  Radiation Oncologist (Staff), Radiation Medicine Program, Princess Margaret Cancer Centre - University Health Network, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2011 Jun - 2015 Aug  Radiation Oncologist (Staff), Clinica Alemana de Santiago, Santiago, Región Metropolitana de Santiago, Chile

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2014 Oct  21st Scientific Retreat attendee (invitation-only), Prostate Cancer Foundation. (Distinction)
  Travel, accommodation, and retreat attendance award. Invitation-only).

2014 Jun  Awardee attendant (peer-reviewed), 16th ECCO-AACR-EORTC-ESMO Workshop on Methods in Clinical Cancer Research (June 21st-27th), Flims, Switzerland. (Distinction)
  Travel, accommodation and course attendance award (Peer-reviewed).

2014 Apr  Young Scientists Poster Award, ESTRO 33 annual meeting, Vienna, Austria. (Distinction)

2014 Jan - 2014 Feb  Merit Award, The Conquer Cancer Foundation of ASCO, United States. (Distinction)
  Total Amount: 1,000 USD

2013 Jul  Awardee attendant (peer-reviewed), AACR Molecular Biology in Clinical Oncology Workshop (July 21st-28th), Snowmass, Colorado. (Distinction)
  Travel, accommodation, and course attendance award (peer-reviewed).

NATIONAL
Received

2007  Best National of all Medical School Graduates of Chile, National Council of Medicine, Chile. (Distinction)

2006 Dec  Best score of the country in the National Medical Exam, EUNACOM, Chile. (Distinction)

2004  Best scientific work, XXVII Chilean Congress of Urology, Pucón, Chile. (Research Award)
  Title: Allele typification in germ cell tumors. Authors: Velasco Alfredo, Riquelme Erick, Zúñiga Alvaro, Berlin Alejandro, Javier Pizarro.

2003  Best scientific work, XXVI Chilean Congress of Urology, Viña del Mar, Chile. (Research Award)
LOCAL

Received

2014  R.S. Bush award, University of Toronto. (Research Award)
      For academic excellence in research by a radiation oncology fellow, Department of Radiation Oncology.

2006 Mar - 2006 Dec  Honor Roll, Medical School, Pontificia Universidad Católica de Chile, Santiago, Chile. (Distinction)

2006  Valedictorian Prize, Medical School, Pontificia Universidad Católica de Chile, Chile. (Distinction)
      Prize for best class student.

2004 Mar - 2004 Dec  Honor Roll, Medical School, Pontificia Universidad Católica de Chile, Santiago, Chile. (Distinction)

2002 Mar - 2002 Dec  Honor Roll, Medical School, Pontificia Universidad Católica de Chile, Santiago, Chile. (Distinction)

2000 Mar - 2006 Dec  Ranked first place of Medical School class, Pontificia Universidad Católica de Chile, Santiago, Chile. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

LOCAL

Radiation Medicine Program

2016 Apr - present  Research Committee
2016 Jan - present  Data and Information Technology Committee

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer

2016 Jun - present  Cancer Nanotechnology, Number of Reviews: 1
2016 May 25 - present  International Journal of Radiation Oncology Biology Physics, Number of Reviews: 1
2016 May 15 - present  Radiotherapy and Oncology, Number of Reviews: 1
2016 May 11 - present  The Journal of Urology, Number of Reviews: 2
2016 Mar 1 - present  Frontiers in Oncology, Number of Reviews: 1
2015 Dec - present  The British Journal of Radiology, Number of Reviews: 1
2014 Dec - present  European Journal of Cancer, Number of Reviews: 2
2014 Feb 28 - present  Urologic Oncology: Seminars and Original Investigations, Number of Reviews: 4
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2013 Sep - 2014 Dec  
**Student/Trainee Awards.** Excellence in Radiation Research for the 21st Century (EIRR21) Scholarship Award. The Terry Fox Research Institutes and Canadian Institutes of Health Research. [Grants]

2013 Jul - 2014 Jun  
**Educational Grant.** Educational Grant. Clinica Alemana de Santiago. [Grants] Scholarship for pursuing MSc Degree University of Toronto.

2013 Jul - 2014 Jun  
**Research Award Fellow Grant.** Research Award Fellow Grant. Canadian Urological Oncology Group (CUOG). [Grants]

2002 Jan - 2005 Dec  
**Research Assistant.** Expression of mismatch repair genes in testicular cancer. FONDECYT/DIPUC. 1020695/3811-011. [Grants]

NON-PEER-REVIEWED GRANTS

FUNDED

2016 May - 2017 May  

2016 May - 2017 May  

2016 Apr - 2018 Apr  
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


5. Fraser M, **Berlin A**, Bristow RG, van der Kwast T. Genomic, pathological, and clinical heterogeneity as drivers of personalized medicine in prostate cancer. Urol Oncol. 2015 Feb 1;33(2):85-94. **Coauthor or Collaborator.**


Comment, Letters to Editor


Journal Articles, Review


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

1. Raziee H, Berlin A. Gaps between Evidence and Practice in Postoperative Radiotherapy for Prostate Cancer: Focus on Toxicities and the Effects on Health-Related Quality of Life. Front Oncol. 2016 Jan 1;6:70. Senior Responsible Author.

Book Chapters


In Preparation


E. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


2014 NBN Gain is Predictive for Adverse Outcome Following Image-Guided Radiotherapy (IGRT) for Localized Prostate Cancer. ESTRO 33. Vienna, Austria. **Alejandro Berlin**, Emilie Lalonde, Gaetano Zafarana, Jenna Sykes, Varune Rohan Ramnarine, Wan L. Lam, Alice Meng, Michael Milosevic, Theodorus van der Kwast, Paul C. Boutros, and Robert G. Bristow.


2014 Testosterone Replacement Therapy Following Androgen Deprivation Therapy Among Men with High Risk Prostate Cancer. 20th Annual Fall Scientific Meeting of SMSNA. Miami, United States. Krakowsky Y, Hollingsworth J, Bristow RG, **Berlin A**, Grober ED.


2007 Early Radiotherapy Salvage Following Post-prostatectomy PSA Rising Improves Biochemical Outcome. ASTRO. P. Besa, M. Bustos, Y. Borhguero, **A. Berlin**, L. Martinez, C. Trucco.

Presented and Published Abstracts


*Publication Details:*

*Coauthor or Collaborator.*


*Publication Details:*

Publication Details:

2. NATIONAL

Presented Abstracts

2011

2009

2006

2006

2006

2006

2006
Sensitivity of OCT for glaucoma diagnosis and correlation with campimetric defects. XX Chilean Congress of Ophthalmology. Eugenio Maul D., Pablo Altschwager, Alejandro Berlin, Eugenio Maul F.

2005

2005

2004

2004

2003
Molecular analysis of the mismatch repair genes in germ cell tumors. XXVI Chilean Congress of Urology.


3. OTHER

Invited Lectures and Presentations


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD


G. Creative Professional Activities

1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2014 Jul 1 - 2015 Jun 30  Co-Chair Target Insights Annual Meeting. Target Insight a world recognized multidisciplinary conference for the Radiation Medicine Community offered by the Department of Radiation Oncology at the University of Toronto. Target Insight’s mandate is to introduce and educate radiation oncology practitioners and trainees on current and evolving developments in practice, research, and technologies in our discipline. In recent past, topics have included the best practice use of advanced technologies such as IMRT, VMAT, IGRT and brachytherapy, and larger topics such as Big Data, Proton Therapy, and Palliative Care in Radiation Medicine. This is a tailored and targeted conference with the focus placed on providing participants every opportunity to take these developments back to their clinics. Main RMP-organized conference
A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Hospital/ University Health Network
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone (416) 946-2132
Fax (416) 946-6561
Email andrea.bezjak@rmp.uhn.on.ca

1. EDUCATION

Degrees
1991 - 1995 MSc, Clinical Epidemiology, Clinical Epidemiology and Biostatistics, McMaster University, Hamilton
1985 Medicinae Doctor Chirurgiae Magister, McGill University, Montreal
1982 Bachelor of Medical Sciences, Kuwait University, Kuwait

Postgraduate, Research and Specialty Training
1988 - 1991 Residency, Radiation Oncology, Princess Margaret Hospital/University of Toronto, Ontario
1985 - 1988 Residency, Internal Medicine, Royal Victoria Hospital, Montreal, Quebec

Qualifications, Certifications and Licenses
1993 Fellow (FACR), Radiation Oncology, American College of Radiology, United States
1991 Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1989 Fellow (FRCPC), Internal Medicine, Royal College of Physicians and Surgeons of Canada
1988 Diplomate, American Board of Internal Medicine, United States
1986 Certificate (NBME), National Board of Medical Examiners, United States
1985 Licenciate (LMCC), Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2009 - present Professor, Radiation Oncology, University of Toronto
2009 - present Professor, Clinical Epidemiology & Health Care Research Program, Health Policy, Management and Evaluation, University of Toronto
1998 - present Associate Member, Graduate Studies, University of Toronto
Andrea BEZJAK

1991 - present  Staff Radiation Oncologist, Department of Radiation Oncology, Radiation Medicine Program, Princess Margaret Hospital/ University Health Network, Toronto

2016 Sep 1  Program Director, Postgraduate Medical Education, Radiation Oncology, University of Toronto, Ontario, Canada

2016 Jun 1 - 2021 May 31  Associate Member, Institute of Medical Science, University of Toronto, Toronto, Ontario, Canada

**Previous Appointments**

**HOSPITAL**

1997 - 1998  Associate Staff, Division of Radiation Oncology, Department of Medical Imaging, The Toronto Hospital, Toronto

**UNIVERSITY - CROSS APPOINTMENT**

2002 - 2009  Associate Professor, Clinical Epidemiology & Health Care Research Program, Health Policy, Management and Evaluation, University of Toronto

1998 - 2001  Assistant Professor, Clinical Epidemiology & Health Care Research Program, Health Administration, University of Toronto

**UNIVERSITY - RANK**

2002 - 2009  Associate Professor, Radiation Oncology, University of Toronto

1995 - 2001  Assistant Professor, Radiation Oncology, University of Toronto

1991 - 1994  Lecturer, Radiation Oncology, University of Toronto

**3. HONOURS AND CAREER AWARDS**

**Distinctions and Research Awards**

**INTERNATIONAL**

**Received**

2006  Research Article of the Year, 12th International Society of Quality of Life, San Francisco, United States. (Research Award)  
(Brundage M et al. JCO 23(28) 2005 – AB co-author).

2005  Best Poster, 11th World Conference on Lung Cancer, Barcelona, Spain. (Research Award)

1978 - 1982  Honour's list, Kuwait University, Kuwait. (Distinction)

Semesters 2, 3, 4.

**NATIONAL**

**Received**

1985  University Scholar, McGill University, Montreal. (Distinction)

(top 10% for entire program duration).

1983 - 1985  Faculty Scholar, McGill University, Montreal. (Distinction)

(top 10% for the year).

1982  Joseph Morley Drake Prize for Pathology, McGill University, Montreal. (Distinction)

**LOCAL**

**Received**

2013 Oct  RMP Staff Recognition Award, Princess Margaret Hospital - Radiation Medicine Program, Toronto. (Distinction)
**Andrea BEZJAK**

Most Inspiring Team Member - Radiation Oncology.

<table>
<thead>
<tr>
<th>Year</th>
<th>Award Description</th>
<th>Institution</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Research Leadership Award, Radiation Medicine Program Research Awards</td>
<td>Princess Margaret Hospital, Toronto</td>
<td>(Research Award)</td>
</tr>
<tr>
<td>2010</td>
<td>Research Productivity Award, Radiation Medicine Program Research Awards</td>
<td>Princess Margaret Hospital, Toronto</td>
<td>(Research Award)</td>
</tr>
<tr>
<td>2006</td>
<td>Research Leadership Award, Department of Radiation Oncology</td>
<td>University of Toronto</td>
<td>(Research Award)</td>
</tr>
<tr>
<td>2006</td>
<td>Research Productivity Award, Radiation Medicine Program Research Awards</td>
<td>Princess Margaret Hospital, Toronto</td>
<td>(Research Award)</td>
</tr>
<tr>
<td>2004</td>
<td>The Addie MacNaughton Chair in Thoracic Radiation Oncology</td>
<td>Princess Margaret Hospital/University of Toronto, Toronto</td>
<td>(Distinction)</td>
</tr>
</tbody>
</table>

Nominated

<table>
<thead>
<tr>
<th>Year</th>
<th>Award Description</th>
<th>Institution</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Gerald Hirsh Humanitarian Award</td>
<td>Princess Margaret Hospital, Toronto</td>
<td>(Distinction)</td>
</tr>
</tbody>
</table>

**Teaching and Education Awards**

**LOCAL**

<table>
<thead>
<tr>
<th>Year</th>
<th>Award Description</th>
<th>Institution</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>UTDRO Residents Award for Excellence in Clinical Teaching</td>
<td>Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Best Clinical Teacher Award, Radiation Medicine Program</td>
<td>Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Award for Excellence in Research Supervision, Radiation Medicine Program</td>
<td>Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto</td>
<td></td>
</tr>
</tbody>
</table>

**Student/Trainee Awards**

**INTERNATIONAL**

<table>
<thead>
<tr>
<th>Year</th>
<th>Award Description</th>
<th>Supervisor, Awardee Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>2nd prize for Best Poster</td>
<td>Dr Max Dahele (Fellow, Department of Radiation Oncology)</td>
<td>Joint meeting of the 4th International Conference on Cancer Therapeutics and the 7th Princess Margaret Hospital conference: New Developments in Cancer Management, Toronto</td>
</tr>
<tr>
<td>2000</td>
<td>Young Investigator Award for Best Oral paper</td>
<td>Dr. George Rodrigues (Radiation Oncology Resident)</td>
<td>7th Annual Conference of the International Society for Quality of Life Research, Vancouver</td>
</tr>
<tr>
<td>1998</td>
<td>Travel Award</td>
<td>Dr. D. Andrew Loblaw (Graduate Student and Radiation Oncology Resident)</td>
<td>American Society of Clinical Oncology, United States</td>
</tr>
</tbody>
</table>

**NATIONAL**

<table>
<thead>
<tr>
<th>Year</th>
<th>Award Description</th>
<th>Supervisor, Awardee Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Strategic Training Fellowship in the Excellence in Radiation Research for the 21st Century Program</td>
<td>Dr. Kevin Franks (Fellow, Department of Radiation Oncology)</td>
<td>Canadian Institutes of Health Research, Toronto</td>
</tr>
</tbody>
</table>
| 1999 | K.J.R. Wightman Award for Research in Biomedical Ethics | Dr. David D’Souza (Radiation Oncology Resident) | Royal College of Physicians and
Andrea BEZJAK

Surgeons of Canada, Ottawa

for a paper.

PROVINCIAL / REGIONAL

Received

2008

Prize for Top 2 Best Abstracts by Trainees, Supervisor, Awardee Name: Dr Gerald Lim (Fellow, Department of Radiation Oncology). 3rd Annual Ontario Thoracic Cancer Conference, Niagara-on-the-Lake

LOCAL

Received

2007

Department of Radiation Oncology Award for Academic Excellence in Research by a Fellow, Co-Supervisor, Awardee Name: Dr. Kevin Franks (Fellow, Department of Radiation Oncology, Graduate student, MSc Program in the Institute of Medical Sciences). University of Toronto

2006

Department of Radiation Oncology University of Toronto Chair’s Award for Academic Excellence in Research by a Postgraduate Trainee, Co-Supervisor, Awardee Name: Dr. Kevin Franks (Fellow, Department of Radiation Oncology, Graduate student, MSc Program in IMS). University of Toronto

2002

First prize for best research presentation by a radiation oncology fellow, Supervisor, Awardee Name: Dr. Paula Wilson (Fellow, Department of Radiation Oncology). 2002 Department of Radiation Oncology Fellows and Residents Research Day, Toronto

2002

Thomas and Edna Naylor Memorial Award for the best MSc/PhD thesis in health services research, MSc Thesis Committee Member, Awardee Name: Dr. Louise Bordeleau (Graduate student, MSc Program in Clinical Epidemiology). 2002 Clinical Epidemiology Research Day, Toronto

2001

First prize for best research presentation by a radiation oncology resident, Supervisor, Awardee Name: Dr. Michael Lock (Radiation Oncology Resident). 2001 Department of Radiation Oncology Fellows and Residents Research Day, Toronto

2001

Second prize for best poster, MSc Thesis Committee Member, Awardee Name: Dr. Edward Chow (Graduate student, MSc Program in Clinical Epidemiology). 2001 Clinical Epidemiology Research Day, Toronto

2000

Open Fellowship, Supervisor, Awardee Name: Dr. Derek Wilke (Graduate student, MSc Program in Clinical Epidemiology). University of Toronto for top 5% academic record as graduate student in the Department of Health Administration. Total Amount: 3,600 CAD

1999

1st prize in Graduate Medical Research Day, Co-Supervisor, Awardee Name: Hillary Chen (Medical Student). University of Toronto

1998

2nd prize, Resident Research Day, Department of Radiation Oncology, Supervisor, Awardee Name: Dr. Lisa Barbera (Radiation Oncology Resident). University of Toronto

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Clinical Oncology (ASCO)
American Society of Therapeutic Radiation Oncology (ASTRO)
Canadian Association of Radiation Oncologists (CARO)
European Society of Therapeutic Radiation Oncology (ESTRO)
Administrative Activities

INTERNATIONAL

American Society of Therapeutic Radiation Oncology
2010 - present  Member, Lung Cancer Resource Panel of the Clinical Affairs and Quality Committee
2009 - present  Panel Member, Practice Guideline on Palliative Radiotherapy

European Organization for Research and Treatment of Cancer Quality of Life Study Group
1998 - 2000  Member, Executive
1996 - 2007  Member

International Association for Study of Lung Cancer
2009 - present  Member, Bylaws Committee

International Association for Study of Lung Cancer/Advanced Radiation Technology Committee
2013 Jul - present  IASLC/ART Committee, Texas, United States.

International Society for Quality of Life Research
2007  Member, Conference Organizing Committee
       Toronto.
2005  Member, Conference Organizing Committee
       San Francisco.
2003 - 2006  Member, Board of Directors
2001  Member, Conference Organizing Committee
       Prague, Czech Republic.
1997  Member, Conference Organizing Committee
       Orlando.

JCO Editorial Board

Multinational Association of Supportive Care in Cancer
2005  Member, Conference Organizing Committee, Toronto.
2003 - 2006  Vice Chair, Quality of Life Study Section
1999  Member, Conference Organizing Committee, Nice, France.
1997 - 2004  Member, Board of Directors
1996  Member, Conference Organizing Committee, Toronto.

National Cancer Institute
2004 - 2009  National Cancer Institute of Canada Clinical Trials Group Representative, Lung Cancer Intergroup Committee
2001 - 2007  Member, Health Related Quality of Life Intergroup Committee, United States.
National Lung Cancer Partnership (now known as “Free to Breathe”)
2009 - present Member, Scientific Executive Committee, United States.

Radiation Therapy Oncology Group
2006 - present Member, Lung Cancer Steering Committee

NATIONAL

Canadian Association of Radiation Oncology
2013 - present Past President
2011 - 2013 President

Canadian Institutes of Health Research
2003 - 2009 Member, Clinical Trials Panel

National Cancer Institute of Canada/Clinical Trials Group
1993 - present Member, Quality of Life Committee
2002 - 2004 Center Representative for Princess Margaret Hospital
1996 - 2006 Chair, Quality of Life Committee

Sociobehavioural Cancer Research Network
1999 - 2000 Member, Ad-hoc group on collaborative research
1998 - 2005 Member, Executive of the Clinical Group
1998 - 2005 Liaison of National Cancer Institute of Canada Clinical Trials Group

PROVINCIAL / REGIONAL

Cancer Care Ontario
2009 - 2010 Lead, Management and Surveillance working group, Lung Disease Pathway Management
2005 - 2013 Member, Lung Cancer Disease Site Group Committee, Program in Evidence-based Care
1999 - 2008 Member, Supportive Care Guidelines Committee, Program in Evidence-based Care

Gilda’s Club
1998 - present Member, Medical Advisory Board, Greater Toronto

Wellspring
2003 - 2010 Member, Evaluation and Research Committee

LOCAL

Princess Margaret Cancer Centre
2009 - present Lung Site Group Leader, Cancer Program
2004 - present Physician Leader, Radiation Medicine Program Team 2
1997 - present Member, Palliative Radiation Oncology Program, Department of Radiation Oncology
1994 - present Member, Organizing committee, Philippa Harris Annual Lecture on Bioethical Issues in Cancer
2011 - 2012 Chair, Cancer Committee
2005 - 2010  Member, Annual Princess Margeret Hospital Conference
2005 - 2010  Chair, Annual Princess Margeret Hospital Conference
2003 - 2012  Leader, Department of Radiation Oncology Lung Group
2002 - 2004  Member, Supportive Care Quality Team
2001 - 2002  Department of Radiation Oncology Representative, Palliative Care Unit Steering Committee and the Palliative Care Unit Clinical Advisory Committee
2001 - 2002  Member, Executive of the Radiation Oncology Partnership
1999 - 2003  Leader, Palliative Radiation Oncology Program, Department of Radiation Oncology
1998 - 2006  Member, Department of Radiation Oncology Clinical Research Committee
1998     Member, Department of Radiation Oncology Committee on Workload Issues
1993 - 1998  Department of Radiation Oncology Representative, Clinical Trials Subcommittee of the Medical Advisory Committee

University of Toronto
2009 - 2010  Member, Executive Committee
2008 - 2013  Member, Fellowship Selection Committee
2000 - 2002  Member, Fellowship Selection Committee
1999     Member, Workshop on Palliative Radiation Oncology Research Methods, Conference Organizing Committee, Toronto.
1996 - 1997  Member, Admissions Committee, Clinical Epidemiology & Health Care Research Program

Peer Review Activities

EDITORIAL BOARDS

Associate Editor
2011 - present  Journal of Thoracic Oncology
Member
2010 - 2015  Journal of Clinical Oncology

GRANT REVIEWS

External Grant Reviewer
2005 - present  Clinical Trial Concepts, Cancer Therapy Evaluation Program
2001     Radiation Therapy Oncology Group, 5 yr NCI Grant Application
2000     North Central Clinical Trials Group, 5 yr NCI Grant Application
1998     National Cancer Institute, Cancer and Leukemia Group B (CALGB) (declined due to time conflict)
1994  University of California San Francisco, NCI Program Project Grant
Ad Hoc Reviewer
Alberta Cancer Board
Ministry of Health, Ontario
National Cancer Institute of Canada, Health Research Personnel Development Program
Sociobehavioural Cancer Research Network
United Kingdom, Australian and New Zealand Granting agencies
Member
1997 - 1999  National Cancer Institute of Canada, Grant Review Panel I (Clinical Trials Panel)
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2009 - 2011

2009 - 2010

2008 - 2012

2008 - 2011

2008 - 2009

2008 - 2009

2006 - 2009

2005 - 2008

2004 - 2007

2003 - 2009
2003 - 2006  
**Co-Principal Investigator.** A clinical trial to reduce acute toxicity for breast radiation using intensity modulated radiation therapy (IMRT). Canadian Institutes of Health Research (CIHR). Collaborator(s): Pignol JP, Benk V, Rakovitch E, Paszat L, Bezjak A. 340,000 CAD. [Grants]

2003 - 2004  

2002 - 2003  

2001 - 2006  

2000 - 2002  

2000 - 2002  

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2005 - 2008  

2002 - 2003  
**Co-Principal Investigator.** Prevention of neurologic sequelae from malignant spinal cord compression. Aventis Pharma. Collaborator(s): Loblaw A, Bezjak A. 10,000 CAD. [Grants]

2000 - 2003  
**Principal Investigator.** Palliative Radiation Oncology Program (PROP). Princess Margaret Hospital Foundation (The). The Allan Kerbel Trust Fund. Collaborator(s): McLean M, Levin W, Wong R. 450,000 CAD. [Grants]
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Book Chapters**


**Letters to Editor**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**


Editorials


**Letters to Editor**


**E. Presentations and Special Lectures**

**1. INTERNATIONAL**

**Invited Lectures and Presentations**

2016 Jan 21  **Presenter.** Primary study endpoint analysis for NRG Oncology/RTOG 0813 trial of stereotactic body radiotherapy (SBRT) for centrally located non-small cell lung cancer (NSCLC). NRG Oncology Semi-Annual meeting. Atlanta, Georgia, United States.


2014 Oct  **Invited Speaker.** Chemoradiation for Stage III Lung Cancer - Progress & Promise. 9th International Jordan Oncology Society. Amman, Jordan.


2014 Apr  **Invited Speaker.** Central Lesions: Enough Knowledge for Safe Treatment. ESTRO. Vienna, Austria.


2013 Sep  **Invited Discussant of Poster session.** Discussant of RTOG 0617 QOL analysis: The rest of the story. ASTRO. Atlanta.

2013 Jun  **Invited Discussant of Poster session.** Burning Issues in Local Therapy of NSCLC. ASCO. Chicago.

2013 May  **Brain Metastases – Steroids and Other Best Supportive Care Strategies.** Target Insight Conference. Toronto.

2013 Apr  **SBRT For Lung Metastases – Patient Selection and Evidence Needed.** ESTRO. Geneva, Switzerland.

2013  **Invited Plenary Discussant.** The Rest of the Story. ASCO. Chicago.

2013  **Is SABR Safe for Central Disease?** World Conference on Lung Cancer. Sydney, Australia.

2013  **Highlights of the Day - Radiotherapy and Combined Modality.** World Conference on Lung Cancer.
Sydney, Australia.

2012  

2011  

2011  

2010  

2009  

2009  
Management of Oligometastases: Should Patients with Limited Sites of Metastases be Treated Aggressively? “Meet the Professor” session, International Association for the Study of Lung Cancer (IASLC) Annual Conference. San Francisco.

2008  
Princess Margaret Hospital Experience with Image Guidance in Conventional Lung Radiotherapy. Princess Margaret Hospital Experience with Image Guidance in Lung Stereotactic Body Radiotherapy (SBRT). Annual Elekta/Synergy meeting. Crawley, United Kingdom.

2008  

2007  

2007  
Case Study – Locally Advanced Lung Cancer. The Joint meeting of the 4th International Conference on Cancer Therapeutics and the Princess Margaret Hospital Annual Conference: New Developments in Cancer Management. Toronto.

2006  
The Princess Margaret Hospital Experience with Lung Stereotactic Body Radiotherapy and the Radiation Therapy Oncology Group study RTOG 0236. 10th Meeting of the Elekta Synergy Research Group. Miami.

2006  

2006  

**Presented Abstracts**

2016 Sep 25  

2016 Apr 29  

2015 Sep  
**Presenter.** Primary Study Endpoint Analysis for NRG Oncology/RTOG 0813 Trial of Stereotactic Body Radiotherapy for centrally located non-small cell lung cancer. American Society for Radiation Oncology (ASTRO) Annual Meeting. San Antonio, Texas, United States. Presenter(s): Dr. **Andrea Bezjak**.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2011
Clinical and dosimetric risk factors for radiotherapy induced bone injury (RIBI) following stereotactic body radiotherapy (SBRT). 14th World Conference on Lung Cancer. Amsterdam.

Publication Details:

2011
Is SBRT alone appropriate for early-stage non-small cell lung cancer with primary tumours larger than 4cm? 14th World Conference on Lung Cancer. Amsterdam.

Publication Details:

2011
Correlation of dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma. 14th World Conference on Lung Cancer. Amsterdam.

Publication Details:

2011

Publication Details:

2011
Impact of breathing motion and uncertainties on the accumulated dose in lung SBRT. American Society for Radiation Oncology (ASTRO) Annual Meeting. Miami Beach.

Publication Details:

2011

Publication Details:

2011

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2010 Experience of an advanced practice nurse - led bone metastases follow-up clinic. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Vancouver.

Publication Details:


Publication Details:


Publication Details:


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2009 Can positive health changes be considered part of posttraumatic growth in cancer patients? International Psycho Oncology Society (IPOS) World Congress Meeting. Vienna, Austria.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2009 Supportive care needs in advanced cancer patients: experience in a hospital-based palliative radiotherapy clinic. Multinational Association for Supportive Care in Cancer (MASCC) Annual Symposium. Rome, Italy.
**Publication Details:**

2009
Management of oligometasases: should patients with limited sites of metastases be treated aggressively? International Association for the Study of Lung Cancer (IASLC) World Conference on Lung Cancer. San Francisco.

**Publication Details:**

2009

**Publication Details:**

2009

**Publication Details:**

2009

**Publication Details:**

2009

**Publication Details:**

2009

**Publication Details:**
Lim G, **Bezjak A**, Higgins J, Moseley D, Hope A, Sun A, Cho J, Brade AM, Ma C. Towards adaptive radiotherapy – role of image guidance on the radiotherapy treatment unit in assessing tumor change

2009

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009
Dosimetric and clinical parameters contributing to esophagitis and radiation pneumonitis following treatment for small-cell lung carcinoma. American Society for Radiation Oncology (ASTRO) Annual Meeting. Chicago.

Publication Details:

2009

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2016 Feb 11 Speaker. Excellence in Care - How to be the Best Oncologist (and Oncology Team) One Can Be. CORE: Canadian Oncology Resident Education. Canadian Lung Cancer Conference 2016. Vancouver, British Columbia, Canada. Presenter(s): Speakers: Drs. Yom, Juergens, Bezjak, Palma, Shyr Chairs: Dr. D. Schellenberg, Dr. Randeep Sangha.


2009 Brain Metastases - from Fiction to Facts. 2009 Gordon Richards Lecturer, Canadian Association of Radiation Oncology (CARO) Meeting. Quebec City.


2008 Case Study – National Cancer Institute of Canada Clinical Trials Group MA.8 Quality of Life Educational Workshop on Value Added of Quality of Life Analysis in National Cancer Institute of Canada (NCIC) Clinical Trials Group (CTG) Clinical Trials. NCIC CTG Spring meeting. Toronto.


Presented Abstracts


2015 Sep Presenter. Outcomes in patients with Stage III non-small cell lung cancer treated with Neoadjuvant

2015 Sep


2013

2013

2013

2007
Moderators of the psychosocial impact of stigma in head and neck cancer. Canadian Association of Psychosocial Oncology Conference. Winnipeg. Lebel S, Irish J, Bezjak A, Devins GM.

**Presented and Published Abstracts**

2014 Sep 1

Long-term Results of RTOG 0236: A Phase II Trial of Stereotactic Body Radiation Therapy (SBRT) in the Treatment of Patients with Medically Inoperable Stage I Non-Small Cell Lung Cancer.

**Publication Details:**

2011
Correlation of dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg.

**Publication Details:**

2011
Is SBRT alone appropriate for early stage non-small cell lung cancer with primary tumours larger than 4cm? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg.

**Publication Details:**

2011

**Publication Details:**
Mitera G, Swaminath A, Rudoler D, Seereeram C, Giuliani M, Leight N, Warde P, Gutierrez E, Dobrow M,

2011

Consensus statement on palliative lung radiotherapy: third international consensus workshop on palliative radiotherapy and symptom control. Canadian Association of Radiation Oncology (CARO) Annual Meeting, Winnipeg.

**Publication Details:**

2011

The role of a mature dedicated palliative radiotherapy (RT) program. Canadian Association of Radiation Oncology (CARO) Annual Meeting, Winnipeg.

**Publication Details:**

2011

Clinical outcomes in stage I non-small cell lung cancer patients managed with accelerated hypofractionated radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting, Winnipeg.

**Publication Details:**

2011

Surgical salvage for local recurrences of early-stage non-small cell lung cancer following stereotactic body radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting, Winnipeg.

**Publication Details:**

2011

International practice survey on palliative lung radiotherapy: third international consensus workshop on palliative radiotherapy and symptom control. Canadian Association of Radiation Oncology (CARO) Annual Meeting, Winnipeg.

**Publication Details:**

2010

Four year outcomes of patients with stage I lung cancer treated with stereotactic body radiation therapy (SBRT). Canadian Association of Radiation Oncology (CARO) Annual Meeting, Vancouver.

**Publication Details:**

2010

A phase II study of concurrent pemetrexed (P)/ cisplatin (C)/ radiation (RT) for unresectable stage IIIA/B non-small cell lung cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) Annual Meeting, Vancouver.
Publication Details:

2010

Publication Details:

2010

Publication Details:

2010

Publication Details:

2010
Assessing conformity between the clinical specialist radiation therapist (CSRT) and radiation oncologists for target volume delineation and field placement in palliative patients. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Vancouver.

Publication Details:

2010
Does 3D versus 2D planning techniques make a difference in palliative radiotherapy? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Vancouver.

Publication Details:

2009

Publication Details:

2009
Princess Margaret Hospital experience with lung stereotactic body radiotherapy for early stage non-small cell lung cancer. Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Quebec City.

Publication Details:

2009  

**Publication Details:**  

2009  
Development and implementation of a cone beam CT (CBCT) enabled one-step simulation and treatment process for bone metastases (BM). Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Quebec City.

**Publication Details:**  

2009  

**Publication Details:**  

2009  

**Publication Details:**  

2009  
Pre-radiation treatment PET/CT scan can predict the localization of residual disease post-treatment in lung cancer. Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Quebec City.

**Publication Details:**  

2009  

**Publication Details:**  

2009  
Dosimetric comparison of different dose prescriptions and beam weightings for volumetric treatment plans for vertebral metastases. Canadian Association of Radiation Oncologists (CARO) Annual Meeting. Quebec City.

**Publication Details:**  

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2015 Feb 10 **Invited Speaker.** Current State of PROMs Use in the Lung Disease Site: Barriers and Enablers for Successful Uptake. CPAC, Rossy Cancer Network, Cancer Care Ontario. Toronto, Ontario, Canada.


2011 Advances in Lung Cancer. GP’s and MDs in Midland & Penetanguishene. Penetanguishene.


Presented Abstracts


Presented and Published Abstracts

Publication Details:

2009

Publication Details:

Lectures and Other Presentations

2011

4. LOCAL

Invited Lectures and Presentations


2013 Radiotherapy for Lung Cancer. General Internal Medicine Rounds, MSH/UHN. Presenter(s): Bezjak A, Liu FF, Tsang R.

2013 Lung Site Group Report to the Cancer Committee. Princess Margaret Cancer Centre.

2011 The PMH Lung SBRT Program – Progress and Challenges. Radiation Medicine Program Rounds, Princess Margaret Hospital.

2011 Lung Cancer 101 – Setting the Stage. The Lung Image-Guided Radiation Therapy Education Course, Princess Margaret Hospital.

2011 Issues in Radical Radiotherapy for Lung Cancer. The Lung Image-Guided Radiation Therapy Education Course, Princess Margaret Hospital.

2011 Application of IGRT to Palliative Lung RT. The Lung Image-Guided Radiation Therapy Education Course, Princess Margaret Hospital.


2009 The Princess Margaret Hospital Experience with Lung Stereotactic Body Radiation Therapy. Juravinski Cancer Center Research Rounds, Department of Radiation Oncology. Hamilton.


2008  Intensity-Modulated Radiotherapy in Lung Cancer. Continuing Medical Education course on Intensity-Modulated Radiotherapy, Princess Margaret Hospital. (Continuing Education).


2008  Improving the Cure Rate of Lung Cancer with Radiotherapy. Princess Margaret Hospital Annual Conference on Developments in Cancer Management.

2007  Palliative Radiation for Brain Metastases – What Have We Learnt From Our Patients. Palliative Care Rounds, Princess Margaret Hospital.


2007  Assessing Quality of Life – From Research to Applying the Findings in Clinical Practice. Radiation Oncology Palliative Care Rounds, Sunnybrook.


2006  Re-treatment with Palliative Radiation. Palliative Radiation Oncology Program Open House, Princess Margaret Hospital.

2006  Palliative Radiation Therapy. Medical Oncology Resident Lecture, Princess Margaret Hospital.

2006  Combined Modality Treatment of Lung Cancer. Medical Oncology Resident Lecture, Princess Margaret Hospital.


2006  Role of Post-Operative Radiation for Positive Margin in Lung Cancer. Thoracic Refresher Course, University of Toronto.


Presented Abstracts


2013  Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body


Lectures and Other Presentations


2005 High Precision Radiation for Lung Cancer. Princess Margaret Hospital Presentation to Foundation Donors, Princess Margaret Hospital. (Presentation to Patients/Public).

5. OTHER

Presented and Published Abstracts

2014 Sep 1 Predicting Esophagitis During Radical Lung Radiation Therapy Using 18-FDG-PET.

Publication Details:


Publication Details:

2014 Sep 1 Adaptive Dose-Escalation Using Serial 4D-PET/CT Scans During Radiation Therapy for Locally Advanced Non-Small Cell Lung Cancer.

Publication Details:

2014 Sep 1 Genetic Polymorphisms Associated with Toxicity are Associated with Overall Survival Following Curative Radiation for Non-Small Cell Lung Cancer.

Publication Details:

2014 Aug Predicting Esophagitis During Radical Lung Radiation Therapy Using 18-FDG-PET.

Publication Details:


Publication Details:


Publication Details:

2014 Aug A Risk-Adapted Approach to Post-Operative Radiotherapy for Thymoma: Long-Term Outcomes and Predictors of Recurrence.

Publication Details:


Publication Details:

2014 Aug Investigation the Use of Electronic Technologies (ECT) as a Means to Evaluate Treatment Outcome for Patients Completing Palliative Radiotherapy.

Publication Details:

*Publication Details:*


*Publication Details:*

2013 Nov  Incidental prophylactic nodal irradiation and patterns of nodal relapse in inoperable early stage NSCLC patients treated with SBRT: A case-matched analysis.

*Publication Details:*

2013 Nov  Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT).

*Publication Details:*


*Publication Details:*

2013 Nov  Late radiographic changes after lung stereotactic body radiotherapy: Piloting a recurrence scale and synoptic reporting scale.

*Publication Details:*

2013 Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT).

*Publication Details:*

2013 Late radiographic changes after lung stereotactic body radiotherapy: Piloting a synoptic reporting and recurrence predication scale.

*Publication Details:*


2013 Stereotactic lung radiotherapy in patients with previous pneumonectomy: Safety and efficacy.

Publication Details:

2012 Comparison of 3D conformal radiotherapy (3DCRT) and intensity modulated radiotherapy (IMRT) in stage III non small cell lung cancer (NSCLC).

Publication Details:

2012 Can FDG PET during the course of radiation therapy for lung cancer predict for esophagitis and pneumonitis.

Publication Details:

2012 Lung, liver and spine stereotactic body radiotherapy (SBRT): Canadian Association of Radiation Oncology (CARO) scope of practice guidelines.

Publication Details:

2012 Palliative Radiotherapy (RT) in patients with poor performance status – should we tailor our treatment?

Publication Details:

2012 The impact of Radiotherapy (RT) on Quality Of Life (QOL) when given in combination with Androgen Deprivation Therapy (ADT) for locally advanced prostate cancer: QOL results from NCIC CTG PR3 / Medical Research Council MRC PR07 randomized trial.

Publication Details:

2012 Outcome of stage 1 non-small cell lung cancer after stereotactic body radiation therapy, does growth rate matter?

Publication Details:
2012 Comparison of 3D conformal radiotherapy (3DCRT) and intensity modulated radiotherapy (IMRT) in stage III non small cell lung cancer (NSCLC).


2012 Subclinical malignant spinal cord compressions – A more favorable entity?


2012 Analysis of serial FDG 4DPET images acquired during radiation therapy in advanced lung cancer patients.


2012 No clinically significant changes in pulmonary function following stereotactic body radiation therapy (SBRT) among medically inoperable patients with early stage peripheral non-small cell lung cancer: An analysis of RTOG 0236.


2012 Comparison of 3D conformal radiotherapy (3DCRT) and intensity modulated radiotherapy (IMRT) in stage III non small cell lung cancer (NSCLC).


2012 Tailoring palliative radiation therapy (RT) towards the end of life – the importance of ECOG performance status.


2012 Outcome of stage 1 non-small cell lung cancer after stereotactic body radiation therapy, does growth rate matter?

Outcomes of salvage therapy in patients with limited-stage small cell lung carcinoma with isolated locoregional failure.

Publication Details:

Automated tools to facilitate lung cancer outcomes data-mining.

Publication Details:

Prophylactic cranial irradiation rates in limited-stage small cell lung cancer.

Publication Details:

The psychosocial impact of stigma in lung cancer patients.

Publication Details:

Interim toxicity analysis of RTOG 0236 using stereotactic body radiation therapy to treat medically inoperable early stage lung cancer patients.

Publication Details:

A Q-TwiST analysis of adjuvant chemotherapy in non-small cell lung cancer (NSCLC) in the NCIC CTG JBR.10 trial.

Publication Details:

Stereotactic body radiation therapy (SBRT) for early-stage non-small cell lung cancer (NSCLC).

Publication Details:

A phase I study of concurrent pemetrexed (P)/cisplatin (C)/radiation (RT) for unresectable stage IIIA/B non-small cell lung cancer (NSCLC).

Publication Details:

A pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during and after radiotherapy in lung cancer.
**Publication Details:**

2008 Malignant spinal cord compression: identifying patients suitable for surgery.

**Publication Details:**

2008 Construction and testing of a symptom checklist for patients with brain metastases.

**Publication Details:**

2008 A comprehensive team-based approach to lung SBRT treatment planning and delivery.

**Publication Details:**

2008 Pain and rib fracture after SBRT for peripheral non-small cell lung cancer.

**Publication Details:**

2008 Clinical impact of clinical specialist radiation therapist (CSRT) for patients requiring palliative radiotherapy.

**Publication Details:**

2008 Palliative radiotherapy – how to cope with multiple previous treatment volumes in the electronic age.

**Publication Details:**

2008 Frequency of setup errors based on daily cone-beam CT imaging for lung patients undergoing conventionally-fractionated radiotherapy.

**Publication Details:**

2008 Respiratory correlated cone beam CT in the assessment of volumetric and geometric tumour changes in non-small cell lung cancer during radiotherapy.

**Publication Details:**

2008

Dosimetric evaluation of IMRT technique for hemithoracic radiation therapy after extrapleural pneumonectomy for malignant pleural mesothelioma.

Publication Details:

2008

Pain and rib fracture after stereotactic radiotherapy for peripheral non-small cell lung cancer.

Publication Details:

2008

Online palliative radiotherapy planning and treatment using cone-beam computerized tomography (CBCT).

Publication Details:

2008

Respiratory correlated cone beam CT in the assessment of non-small cell lung cancer during radiotherapy.

Publication Details:

2008

Is daily cone-beam CT image guidance required to correct setup error in conventionally fractionated lung radiotherapy?

Publication Details:

2008

Quantifying the benefits of adaptive radiotherapy on lung sparing for thoracic tumors.

Publication Details:

2008

A pilot prospective study of metabolic and anatomic response using FDG PET CT before, during and after radiotherapy in lung cancer.

Publication Details:

2007

Early results of image-guided radiation therapy in lung stereotactic body radiotherapy (SBRT).
Publication Details:

2007
Early phase in the development of a bone metastases quality of life module.

Publication Details:

2007
Motexafin gadolinium (MGd) combined with whole brain radiation therapy prolongs time to neurologic progression in non-small cell lung cancer (NSCLC) patients with brain metastases: Pooled analysis of two randomized phase III trials.

Publication Details:

2007
Impact of induction chemotherapy and adjuvant radiation therapy on outcome after extrapleural pneumonectomy for malignant pleural mesothelioma.

Publication Details:

2007
Image-guided lung radiotherapy: Bringing technology into routine clinical practice.

Publication Details:

2007
18Fluorodeoxyglucose Positron Emission Tomography and co-registered computed tomography for radiation treatment planning in lung cancer: a systematic review.

Publication Details:

2007
The dosimetric effects of changes in thoracic cavity fluid levels during adjuvant hemithoracic intensity modulated radiotherapy following extrapleural pneumonectomy for mesotheliomas.

Publication Details:

2007
A phase I/II study of concurrent pemetrexed/cisplatin/radiation in stage IIIa/b non-small cell lung cancer.

Publication Details:
2007;2(8):S635, P2-165.

2007 An audit of elective mediastinal lymph node irradiation in stage III non-small cell lung cancer patients entered onto a prospective randomized phase III study.

**Publication Details:**


**Publication Details:**

2007 A retrospective comparison of carina and bone as registration landmarks for volumetric image-guided lung radiotherapy (RT).

**Publication Details:**


**Publication Details:**

2007 Can we standardize steroid dose in patients with brain metastases? A prospective study?

**Publication Details:**

2007 Expert opinion in treatment approaches for illustrative cases of thymomas.

**Publication Details:**

2007 Adjuvant hemithoracic radiotherapy following extra-pleural pneumonectomy for malignant pleural mesothelioma improves local control.

**Publication Details:**

2007 What we should say and how: evaluating a combined story and fact-based educational booklet for patients with brain metastases and their caregivers.

**Publication Details:**

2007 Patterns of reporting HRQL outcomes in randomized clinical trials of cancer therapies; implications for clinicians.

Publication Details:

2007 Added value of health-related quality of life (QoL) outcomes in NCIC CTG clinical trials: results from QoL committee workshop.

Publication Details:

2007 NCIC CTG experience in collecting quality of life data in phase I and phase II clinical trials.

Publication Details:

2007 Quantifying inter and intra-fraction tumor motion using respiration-correlated cone beam CT in lung stereotactic body radiotherapy (SBRT).

Publication Details:


Publication Details:

2007 Evaluation of lung IMRT plan using NTCP and gEUD based on internal target volume delineated from four-dimensional computed tomography.

Publication Details:

2007 Retrospective evaluation of setup reproducibility for thoracic and upper gastrointestinal radiotherapy through volumetric imaging: stability and dependence on immobilization.

Publication Details:
2007 Feasibility and reproducibility of cone-beam CT guided lung radiotherapy using registration to bone, carina, and tumor.

Publication Details:

2007 Inter and intra-fraction target localization using volumetric imaging in stereotactic body radiation therapy (SBRT) in the lung.

Publication Details:


Publication Details:

2007 Toxicity analysis of RTOG 0236 using stereotactic body radiation therapy to treat medically inoperable early stage lung cancer patients.

Publication Details:

2006 Stereotactic body radiotherapy (SBRT) and medical inoperability of early stage non-small cell lung cancer.

Publication Details:

2006 The prognostic effects of performance status (PS) and quality of life (QoL) scores on progression-free survival (PFS) and overall survival (OS) in advanced ovarian cancer.

Publication Details:
Carey MS, Bacon M, Tu D, Bezjak A, Stuart GC. The prognostic effects of performance status (PS) and quality of life (QoL) scores on progression-free survival (PFS) and overall survival (OS) in advanced ovarian cancer. J Clin Oncol. 2006;24(18S):A5066.

2006 Pattern of practice in anti-emetic use in palliative radiotherapy for spinal metastases.

Publication Details:

2006 Patients’ and health care professionals’ perspectives on the most important quality of life issues in bone metastases.

Publication Details:
2006 Video/phone-conference as a tool to facilitate research and development in palliative radiotherapy-the Canadian model.

**Publication Details:**


**Publication Details:**

2006 A pilot study on reducing radiation therapy planning timelines.

**Publication Details:**

2006 Yet another test?! Does repeat imaging help in the management of lung cancer?

**Publication Details:**

2006 Selection of patients for stereotactic lung radiotherapy (SBRT) for early stage non-small cell lung cancer (NSCLC).

**Publication Details:**

2006 Patients’ and health care professionals’ perspectives on the most important quality of life issues in bone metastases.

**Publication Details:**

2006 Research and professional development: video/phone conference as a format for advancements in palliative radiotherapy.

**Publication Details:**

2006 Methods to reduce intestinal morbidity from radiation therapy to unilateral pelvic bone metastases: an investigation to assess feasibility.

**Publication Details:**

2006 Patients’ judgments about the value of quality of life information when considering lung cancer (NSCLC) treatment options.

Publication Details:

2006 Tu-be or not tu-be? The QOL-EF tool for measuring the impact of enteral feeding on QOL.

Publication Details:

2006 Deformable registration of 4DCT in lung stereotactic radiotherapy planning.

Publication Details:

2006 Stigma and the psychosocial impact of head and neck cancer.

Publication Details:

Publication Details:
[Abstracts prior to 2006 not included].

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education
1999 - 2005 Co-Supervisor. MSc. Derek Wilke.

Postgraduate MD
2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office: Trillium Health Partners
Mississauga Halton Central West Regional Cancer Program
Department of Radiation Oncology
2200 Eglington Ave West
Mississauga, Ontario, Canada
L5M 2N1
Telephone: 905-813-1100 x4803
Fax: 905-813-3962
Email: anthony.brade@trilliumhealthpartners.ca

1. EDUCATION

Degrees
1998 - 2001 PhD, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1992 - 1996 M.D., C.M. McGill University, Montreal, Quebec, Canada
1990 - 1992 MSc, Biochemistry, McMaster University, Hamilton, Ontario, Canada
1986 - 1990 BSc, McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training
2005 - 2006 Research Fellow, Medical Oncology, Drug Development Fellowship Program, University of Toronto, Toronto, Ontario, Canada
2002 - 2005 Resident PGY1-5, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1996 - 1997 Resident PGY1-5, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2005 - present Fellow, Radiation Oncology, Royal College of Physicians
1996 - present Licensure, Ontario College of Physicians and Surgeons

2. EMPLOYMENT

Current Appointments
2016 May - present Division Head, Trillium Health Partners-Mississauga Halton Central West Regional Cancer Program, Mississauga, Ontario, Canada
2016 May - present Regional Lead, Trillium Health Partners-Mississauga Halton Central West Regional Cancer Program, Mississauga, Ontario, Canada
2013 Sep - present Chair- Board of Examiners, Medical Radiation Sciences, Faculty of Medicine, University of
Previous Appointments

HOSPITAL

2011 Sep - 2016 Apr  
Vice Chair, Research Ethics Board, Princess Margaret Cancer Centre, Toronto, Canada

2008 - 2011  
Courtesy Medical Staff, Southlake Hospital Regional Cancer Centre, Newmarket, Ontario, Canada

2008 - 2011 Sep  
Lung Site Group Leader, Southlake Hospital Regional Cancer Centre, Newmarket, Ontario, Canada

2008 - 2011 Sep  
Inpatient Consult Leader, Southlake Hospital Regional Cancer Centre, Newmarket, Ontario, Canada

2005 - 2016 Apr  
Clinician Scientist, Princess Margaret Cancer Centre, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2011  
Certificate of Appreciation, Lilly Oncology Clinical Trials, PROCLAIM. (Distinction) 
for achieving the highest enrolment for PROCLAIM study during the 3rd Quarter of 2011.

2006  
Hans Wyder Fellowship, European Society of Oncology Travel Award. (Credential)

2005  
Young Investigator award, American Society of Clinical Oncology. (Distinction) 
Total Amount: 35,000

2003  
Scholarship. (Distinction) 
To attend the American Society for Clinical Oncology/American Association for Cancer Research Clinical Trials Workshop in Vail, Colorado.

2003  
Scholarship. (Distinction) 
to attend the American Association for Cancer Research workshop for Molecular Biology in Clinical Oncology in Aspen, Colorado.

NATIONAL

Received

2001  
Elekta Award, Canadian Association of Radiation Oncology Annual Meeting. (Distinction) 
Best Basic Science Presentation by a Resident.

1998 - 2001  
Jesse Davidson Post-doctoral Fellowship, Joint MRC (Canada)/Foundation for Cell and Gene Therapy. (Credential)

1998  
Elekta Award, Canadian Association of Radiation Oncology Annual Meeting. (Distinction) 
Best Presentation by a Resident.

1993  
Summer Research Scholarship, Canadian Down’s Syndrome Association. (Distinction)
PROVINCIAL / REGIONAL

Received

2005 Fellowship, Canadian Cancer Society Ontario Division. (Credential, Specialty: Oncology)
Total Amount: 61,000

LOCAL

Received

2000 W.J. Simpson Award, Department of Radiation Oncology, University of Toronto. (Distinction)
1999 W.J. Simpson Award, Department of Radiation Oncology, University of Toronto. (Distinction)
1998 W.J. Simpson Award, Department of Radiation Oncology, University of Toronto. (Distinction)
1994 Carlo Bos Prize, McGill University. (Distinction)
1986 Dundas Scholarship, McMaster University, Hamilton, Ontario, Canada. (Distinction)

Teaching and Education Awards

LOCAL

Nominated

2014 Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre, Toronto, Ontario, Canada. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2014 - present Advisor, Centre for Education of Health Professionals Educated Abroad (CEHPEA) (recently re-branded as Touchstone Institute)
2008 - present Examiner, Centre for the Evaluation of Health Professionals Educated Abroad (CEHPEA) (recently re-branded as Touchstone Institute)
2007 Item Writer, Centre for the Evaluation of Health Professionals Educated Abroad (CEHPEA)
Associate Member, American Association for Cancer Research
Member, American Association for Cancer Research
Member, American Society for Clinical Oncology
Member, American Society for Therapeutic Radiology and Oncology
Member, Canadian Association of Radiation Oncologists
Member, Canadian Medical Association
European Society for Radiotherapy & Oncology
Member, International Association for the Study of Lung Cancer
Member, Ontario Medical Association

Administrative Activities

NATIONAL

Canadian Association of Radiation Oncologists
Anthony Matthew BRADE

2004 - 2014  
**Chair**, Website Committee, Canada.

Ontario Thoracic Oncology Conference

2013 - present  
**Member**, Steering Committee, Ontario, Canada.

Royal College of Physicians

2014 - present  
**Member**, Specialty Committee Executive Board, Ontario, Canada.
2012 - present  
**Examiner**, Specialty Committee, Ontario, Canada.

PROVINCIAL / REGIONAL

Trillium Health Partners-Mississauga Halton Central West Regional Cancer Program

2016 May - present  
**Member**, Radiation Oncology Provincial Advisory Committee (Cancer Care Ontario), Mississauga, Ontario, Canada.
2016 May - present  
**Member**, Provincial Radiation Treatment Program Committee (Cancer Care Ontario), Mississauga, Ontario, Canada.

LOCAL

McGill University

1992 - 1996  
**Member**, Admissions Committee, Montreal, Quebec, Canada.

Princess Margaret Hospital

2011  
**Chair**, Radiation Oncology Partnership Executive Committee, Toronto, Ontario, Canada.
2010  
**Vice Chair**, Radiation Oncology Partnership Executive Committee, Toronto, Ontario, Canada.
2009  
**Treasurer**, Radiation Oncology Partnership Executive Committee, Toronto, Ontario, Canada.
2007 - 2008  
**Member**, PMH Cancer Program Strategic Plan – Novel Therapeutics Working Group, Toronto, Ontario, Canada.
2006 - 2016 Apr  
**Member**, Research Ethics Board, Toronto, Ontario, Canada.
2001 - 2005  
**Reviewer**, Toronto, Ontario, Canada. 
*for the Oncology Interactive Educational CD-ROM Series, Jack digital Productions.*
1997  
**Member**, Library Task Force Committee, Toronto, Ontario, Canada.

Trillium Health Partners-Mississauga Halton Central West Regional Cancer Program

2016 May - present  
**Member**, Integrated Cancer Program Committee, Mississauga, Ontario, Canada.
2016 May - present  
**Member**, Oncology Scientific Review and Oversight Committee, Mississauga, Ontario, Canada.
2016 May - present  
**Member**, Radiation Safety Committee, Mississauga, Ontario, Canada.
2016 May - present  
**Member**, Radiation Clinical Operations Committee, Mississauga, Ontario, Canada.
2016 May - present  
**Member**, Treatment Delivery Review Committee, Mississauga, Ontario, Canada.
2016 May - present  
**Member**, Outpatient Oncology Clinic Redesign Team, Mississauga, Ontario, Canada.
2016 May - present  
**Member**, Grand Rounds Planning Committee, Mississauga, Ontario, Canada.

University Health Network

2007 - 2016 Apr  
**Member**, Electronic Health Record Advisory Committee, Toronto, Ontario, Canada.
1997  
**Member**, Library Task Force Committee, Toronto, Ontario, Canada.
Anthony Matthew BRADE

University of Toronto
2011 - present  
**Interviewer**, MD Admissions, Faculty of Medicine, Dept of Medicine, Graduate Education, Toronto, Ontario, Canada.

2011 - 2012  
**Chair**, UTDRO Strategic Plan Implementation, Operations: Alumni and Stakeholder Engagement, Toronto, Ontario, Canada.

2010 - 2014  
**Member**, Alumni Council, Faculty of Medicine, Toronto, Ontario, Canada.

2006 - 2014  
**Chair**, Department of Radiation Oncology Academic Communications Committee, Toronto, Ontario, Canada.

2004 - 2006  
**Member**, Ad Hoc Committee for Implementation of Content Management System, Toronto, Ontario, Canada.

**Radiation Medicine Program Web Site**.

2003 - 2006  
**Member**, Radiation Medicine Program, System Support Group, Toronto, Ontario, Canada.

2002 - 2004  
**CARMS/IMG Interviewer**, Toronto, Ontario, Canada.

*Department of Radiation Oncology*.

**Peer Review Activities**

**EDITORIAL BOARDS**

**Member**

2010 - present  
“ConneXions” the Princess Margaret Hospital, Radiation Medicine Program Newsletter.

2011  
Princess Margaret Cancer Program Website Editorial Board

**ADVISORY BOARD**

**Advisor**

2010 Jan  
YM Biosciences Advisory Board

2009 Jul  
Eli Lilly Advisory Meeting

2008 Jul  
Eli Lilly Advisory Meeting

2007 Nov 23  
AstraZeneca Canada Oncology Scientific Advisory Board

**C. Research Funding**

**1. GRANTS, CONTRACTS AND CLINICAL TRIALS**

**PEER-REVIEWED GRANTS**

**FUNDED**

2010 - present  

2010 - present  
**Site Principal Investigator**, A Phase 3 Study of Pemetrexed, Cisplatin and Radiotherapy Followed by Consolidation Pemetrexed versus Etoposide, Cisplatin and Radiotherapy Followed by Consolidation Cytotoxic Chemotherapy of Choice in Patients with Unresectable, Locally Advanced, Stage III Non-Small Cell Lung Cancer Other than Predominantly Squamous Cell Histology (H3E-MC-JMIG/PROCLAIM). Eli Lilly Canada Inc. REB #: 08-041 OCREB. Collaborator(s): Senan S, Vokes E. 110,000. [Clinical Trials]  
*Trial Steering committee member.*
2009 - present  **Co-Principal Investigator.** A Phase I Study of Stereotactic Radiosurgery Concurrent with Sunitinib in Patients with Brain Metastases. Pfizer Canada Inc. REB#: 09-0115-C. PI: Chung C, **Brade A.** Collaborator(s): Mason W, Zadeh G, Menard C (Co-Investigators). 140,250. [Clinical Trials]


2012 - 2014  **Site Principal Investigator.** A Randomized, Double-Blind, Phase 2, Dose-Ranging Study to Evaluate the Safety and Efficacy of Veliparib and Whole Brain Radiation Therapy Versus Placebo and Whole Brain Radiation Therapy in Subjects with Brain Metastases from Non-Small Cell Lung Cancer (M10-897). Abbott Laboratories. [Clinical Trials]

2009 - 2012  **Co-Investigator.** Radiation Therapy and Sorafenib for Primary and Metastatic Liver Cancer. Canadian Institutes of Health Research (CIHR). Collaborator(s): Dawson L, Yeung I, Ringash J, Coolens C, Knox J, Kim TY. 929,495. [Clinical Trials]

2009 - 2011  **Site Principal Investigator.** Phase I-II Clinical Study of Nimotuzumab (TheraCIM h-R3) in Combination with External Radiotherapy in Stage IIB, III and IV NSCLC. YM BioSciences Inc. REB #: 05-955-CA. [Clinical Trials] $18,671/patient for 10-20 patients.


2008 - 2016  **Co-Investigator.** A phase I/II study of sorafenib and radiation in patients with liver metastases. Bayer Canada Inc. REB 08-0598. PI: Dawson L. 255,000. [Clinical Trials]


2008 - 2013  **Site Principal Investigator.** A Phase 1 study evaluating the Safety, Tolerability and Pharmacokinetics of ABT-888 in combination with whole brain radiation therapy in subjects with brain metastasis (M10-128). Abbott Laboratories. REB#: 09-0348-C. [Clinical Trials]


2008 - 2011  **Co-Principal Investigator.** A Phase I/II Study of Sorafenib and Palliative Radiotherapy in
Patients with Advanced Renal Cell Carcinoma and Symptomatic bony Metastases. Bayer Canada Inc. REB#: 07-0357-C. Collaborator(s): Milosevic M, Oza A (Co-Principal Investigators). [Clinical Trials]

2008 - 2010  
**Co-Investigator.** Identification of Lung Cancer Mutations that Contribute to Treatment Response: A Pilot Study. Princess Margaret Hospital Foundation (The). Invest in Research Program. Collaborator(s): Wouters B. 100,000. [Clinical Trials]

2008 - 2010  
**Co-Investigator.** A phase II study of AZD0530 as first line treatment in patients with metastatic or locally advanced gastric carcinoma. National Cancer Institute of Canada (NCIC). Cancer Therapy Evaluation Program. PI: McKay H. Collaborator(s): Au HJ. 175,000. [Clinical Trials]

2008 - 2009  

2007 - 2012  
**Principal Investigator.** A Phase I Dose Escalation Study of Concurrent Low Dose Radiation with Sorafenib in Three Anatomically-based, Independent Cohorts (Thorax, Abdomen, Pelvis) the TAP Study. Bayer Canada Inc. REB#: 07-0097. [Clinical Trials]

2007 - 2012  
**Principal Investigator.** A phase I dose escalation study of concurrent low dose radiation with sorafenib in three anatomically based, independent cohorts (thorax, abdomen, pelvis) – the TAP study. Bayer Canada Inc. REB#: 07-0097. Collaborator(s): Oza A, Siu L, Chen E, Milosevic M. 225,000. [Clinical Trials]

2007 - 2009  

2006 - 2012  
**Co-Investigator.** A Randomized, Phase III, Open-Label Study of Oral Topotecan plus Whole-Brain Radiation Therapy (WBRT) Compared with WBRT Alone in Patients with Metastases from Non-small Cell Lung Cancer (Protocol #HYT105962). GlaxoSmithKline. REB#: 06-0739-C. PI: Bezjak A. [Clinical Trials]

2006 - 2009  
**Principal Investigator.** A Phase II Study of Concurrent Premetrexed/Cisplatin/Radiation in Stage IIIA/B Non-Small Cell Lung Cancer. Eli Lily Canada Inc. REB#: 05-021-OCREB. Collaborator(s): Shepherd F, Bezjak A. 263,500. [Clinical Trials]

2006 - 2007  
**Co-Investigator.** A phase II study of neoadjuvant radiation followed by concomitant bevacizumab/paclitaxel/carboplatin is a stage IV NSCLC patient at high risk of hemoptysis. National Cancer Institute of Canada (NCIC). Cancer Therapy Evaluation Program. Collaborator(s): Goldberg Z, Leighl N. 360,000. [Clinical Trials]

### 2. SALARY SUPPORT AND OTHER FUNDING

#### Personal Salary Support

2012 - 2015  
Clinician Scientist Award. Ontario Association of Radiation Oncologists (OARO). 85,000 CAD. Ontario, Canada.
D. Publications

1. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


4. Brade AM, Dawson LA. To RCT or Not to RCT: How to Change Practice for Rare Cancers? J Clin Oncol. 2016 Jan 20;34(3):203-4. **Principal Author.**


Anthony Matthew BRADE


42. Wan J, Milosevic M, **Brade AM**. Use of Palliative Radiotherapy Trials for Clinical Biomarker Development, Cancer and Metastasis. Cancer Metastasis Rev. 2008 Sep;27(3):435-43. **Principal Author.**


45. **Brade AM**, Quirt I, O'Sullivan B, Cummings BJ. Spontaneous expectoration of sarcomatous metastasis. CMAJ. 2005 Jun;173(1206). **Principal Author.**


55. Aitchison JD, Nuttley WM, Szilard RK, **Brade AM**, Glover JR, Rachubinski RA. Peroxisome biogenesis in yeast. Molec Microbio. 1992;6(23):3455-60. **Coauthor or Collaborator.**

2. **NON-PEER-REVIEWED PUBLICATIONS**

**Book Chapters**


In Preparation


Comment, Editorials


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2015 Sep
Chair. Pro vs Con: Prophylactic Cranial Irradiation (PCI) Post Chemotherapy Response / Pro vs Con: Is There a Role for Radiation in Oligometastatic Disease? IASLC: 16th World Conference on Lung Cancer. Denver, Colorado, United States.

2013 Oct

2013 Oct

2013 Oct

2011 Jul

2010 Jun

2010 Apr

2010 Apr

2010 Apr

2010 Apr

2009 Apr

2009 Mar

2008 Sep
Anthony Matthew BRADE

Presentation.

2008 Sep  
**Presenter.** A Phase I Clinical Trial of 111In-Human Epidermal Growth Factor in Patients with Metastatic EGFR-Positive Breast Cancer. ASTRO 50th Annual Meeting. Boston, Massachusetts, United States. Poster Presentation.

2008  

2001  

1999  

1998  

**Presented Abstracts**

2016 Sep 25  

2016 Jan  
**Invited Speaker.** PROCCLAIM - Résultats finaux de survie globale de l’essai de phase III: Pemetrexed cisplatin ou étoposide cisplatine, plus radiothérapie thoracique suivie d’une chimiothérapie de consolidation dans le CBNPC non-épidermoïde localement avancé. Congres de Pneumologie de Langue Francaise (CPLF) 2016 Congress. Lille, France. Poster Presentation.

2013 Sep  
Phase I safety and pharmacokinetic (PK) study of veliparib in combination with whole brain radiation therapy (WBRT) in patients (pts) with brain metastases. European Society for Medical Oncology. Vienna, Austria. Poster presentation.

2012 Sep  
Phase I safety and pharmacokinetic (PK) study of veliparib in combination with whole brain radiation therapy (WBRT) in patients (pts) with brain metastases. European Society for Medical Oncology. Vienna, Austria. Poster presentation.

2012 Jul  
Phase I safety and pharmacokinetic (PK) study of veliparib in combination with whole brain radiation therapy (WBRT) in patients (pts) with brain metastases. 5th Latin America Conference.

2012 Jun  

2010 Jun  

2009 Aug  

2008 Sep  
**Presenter.** A Phase I Study of Palliative Thoracic Radiation with Concurrent and Adjuvant Nimotuzumab for Patients with Stage IIB/III/IV Non-small Cell Lung Cancer. ASTRO 50th Annual Meeting. Boston, Massachusetts, United States. Poster Presentation.

2008 Sep  
**Presenter.** A Phase I Study of Palliative Thoracic Radiation with Concurrent and Adjuvant Nimotuzumab for Patients with Stage IIB/III/IV Non-small Cell Lung Cancer. European Society for Therapeutic Radiotherapy and Oncology (ESTRO) annual meeting. Gothenburg, Sweden. Poster Presentation.
Presented and Published Abstracts

2016 Jan 21 **Invited Lecturer.** Intention to treat analysis of neoadjuvant chemoradiation and liver transplantation for perihilar cholangiocarcinoma. Gastrointestinal Cancers Symposium (GI ASCO). San Francisco, California, United States.

*Publication Details:*
Benjamin Loveday, Jennifer J. Knox, Laura A. Dawson, Gary May, Ur Metser, Anthony M. Brade, Anne M. Horgan, Bernard Cummings, David Grant, Steven Gallinger, Paul David Greig, Carol-anne Moulton. Intention to treat analysis of neoadjuvant chemoradiation and liver transplantation for perihilar cholangiocarcinoma. J Clin Oncol. 2016 Jan 21;34. suppl 4S; abstr 394. Coauthor or Collaborator.


*Publication Details:*


*Publication Details:*


*Publication Details:*
2015 Aug

**Invited Speaker.** Final overall survival (OS) results of the phase III PROCLAIM trial: Pemetrexed (Pem), cisplatin (Cis) or etoposide (Eto), Cis plus thoracic radiation therapy (TRT) followed by consolidation cytotoxic chemotherapy (CTX) in locally advanced nonsquamous non-small cell lung cancer (nsNSCLC). ASCO 2015 Annual Meeting. Chicago, Illinois, United States. Oral Abstract Session, Lung Cancer—Non-Small Cell Local-Regional/Small Cell/Other Thoracic Cancers.

**Publication Details:**

2014 Sep

**Genetic Polymorphisms Associated with Radiation-Related Esophagitis and Pneumonitis Following Definitive Treatment for Non-small Cell Lung Cancer (NSCLC).** ASTRO 56th Annual Meeting. San Francisco, California, United States.

**Publication Details:**

2014 Sep

**Treatment Dilemmas for Synchronous and Metachronous Prostate and Rectal Cancers.** ASTRO 56th Annual Meeting. San Francisco, California, United States.

**Publication Details:**

2014 Jun


**Publication Details:**
dose fractionated whole abdominal radiation therapy (LDFWAR) in patients with advanced solid malignancies and peritoneal carcinomatosis. J Clin Oncol. 2014;32(5s):abstr 4139. **Coauthor or Collaborator.**


**2013 Oct**  Inter-rater Reliability of the Categorization of Late Radiographic Changes After Lung Stereotactic Body Radiation Therapy (SBRT). IASLC: 15th World Conference on Lung Cancer. Sydney, Australia. (Trainee Presentation)


**2013 Oct**  Late Radiographic Changes After Lung Stereotactic Body Radiotherapy: Piloting a Recurrence Scale and a Synoptic Reporting Scale. IASLC: 15th World Conference on Lung Cancer. Sydney, Australia.


**2013 Oct**  Preliminary Safety and Treatment Delivery Data During Concurrent Phase of Chemoradiation Therapy of the Proclaim Trial: A Phase 3 Trial of Pemetrexed, Cisplatin, and Radiotherapy Followed by Consolidation

Publication Details:

2013 Oct
Outcomes and Predictors of Recurrence in Patients Treated with Risk-Adapted, Post-Operative Radiotherapy (RT) for Thymoma- A Single Institution, 30 Year Retrospective Study. IASLC: 15th World Conference on Lung Cancer. Sydney, Australia.

Publication Details:

2013 Oct
Impact of Medical Co-Morbidities on Survival in Patients Treated with Stereotactic Body Radiotherapy for Early Stage Non-Small Cell Lung Cancer. IASLC: 15th World Conference on Lung Cancer. Sydney, Australia.

Publication Details:

2013 Sep
A Randomized Controlled Trial of Lorazepam to Reduce Liver Motion in Patients Receiving Upper Abdominal Radiation Therapy. ASTRO 55th Annual Meeting. Atlanta, Georgia, United States.

Publication Details:

2013 Jan

Publication Details:

2012 Nov
Comparison of 3D Conformal Radiation Therapy (3DCRT) and Intensity Modulated Radiation Therapy (IMRT) in Stage III Non-small Cell Lung Cancer (NSCLC). ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov
Outcome of Stage I Non-Small Cell Lung Cancer After Stereotactic Body Radiation Therapy, Does Growth
Rate Matter? ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov Phase I Study of Sorafenib and SBRT for Advanced Hepatocellular Carcinoma. ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov Phase I Study of Sorafenib and Whole-liver Radiation Therapy (WLRT) or Stereotactic Body Radiation Therapy (SBRT) for Liver Metastases. ASTRO 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:

2010 Nov Patterns of Failure in Patients with Limited-Stage Small Cell Lung Carcinoma. ASTRO 52nd Annual Meeting. San Diego, California, United States.

Publication Details:

2010 Nov Stereotactic Body Radiotherapy (SBRT) for Non-small Cell Lung Cancer (NSCLC) -is FDG-PET a Predictor of Outcome? ASTRO 52nd Annual Meeting. San Diego, California, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009 Nov

**Publication Details:**

2009 Nov

**Publication Details:**

2009 Nov

**Publication Details:**

2009 Nov
Dosimetric and Clinical Parameters Contributing to Esophagitis and Radiation Pneumonitis following Treatment for Small-cell Lung Carcinoma. ASTRO 51st Annual Meeting. Chicago, Illinois, United States.

**Publication Details:**

2009 Aug
Image-guided stereotactic body radiotherapy for early stage non-small cell lung cancer – the importance of dose. IASLC: 13th World Conference on Lung Cancer. San Francisco, California, United States.

**Publication Details:**

2009 Aug
Comparison of tumor coverage in radical lung radiotherapy: impact of cone-beam CT image guidance using spine or carina matching. IASLC: 13th World Conference on Lung Cancer. San Francisco, California, United States.

**Publication Details:**

2009 Aug

**Publication Details:**
Anthony Matthew BRADE


Publication Details:


Publication Details:


Publication Details:

2008 Sep Quantifying the benefits of adaptive radiotherapy on lung sparing for thoracic tumors. ASTRO 50th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:


Publication Details:


Publication Details:

Anthony Matthew BRADE

**Publication Details:**

2008 Jun  

**Publication Details:**

2008 Jun  

**Publication Details:**

2007 Oct  
**Presenter.** A Phase I Study of Concurrent Pemetrexed/ Cisplatin/ Radiation for Unresectable Stage IIIA/B Non-Small Cell Lung Cancer. ASTRO 49th Annual Meeting. Los Angeles, California, United States.

**Publication Details:**

2007 Oct  
Concurrent and Adjuvant Nimotuzumab Combined with Palliative Thoracic Radiation for Patients with Stage II/III/IV Non-small Cell Lung Cancer: A Phase I Study. ASTRO 49th Annual Meeting. Los Angeles, California, United States.

**Publication Details:**

2007 Oct  

**Publication Details:**

2007 Sep  
The dosimetric effects of changes in thoracic cavity fluid levels during adjuvant hemithoracic intensity modulated radiotherapy following extrapleural pneumonectomy for mesotheliomas. IASLC: 12th World Conference on Lung Cancer. Seoul, Korea, Republic Of.

**Publication Details:**

Publication Details:

2007 Sep Preliminary Results of an escalating dose phase I/II clinical trial of the anti EGFR monoclonal antibody nimotuzumab in combination with external radiotherapy in patients diagnosed with stage IIB, III, or IV NSCLC unsuitable for radical therapy. IASLC: 12th World Conference on Lung Cancer. Seoul, Korea, Republic Of.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2006 Jun A phase I study of the humanized anti-epidermal growth factor receptor (EGFR) monoclonal antibody (mAb) TheraCIM-h-R3 (Nimotuzumab) in patients with advanced solid tumors. ASCO 2006 Annual
Anthony Matthew BRADE

Meeting. Atlanta, Georgia, United States.

Publication Details:

2006 Jun
Long term results of concurrent gemcitabine and radiotherapy (GRT) for locally advanced (LA) or resected (R) pancreatic cancer. ASCO 2006 Annual Meeting. Atlanta, Georgia, United States.

Publication Details:

2001 Nov

Publication Details:

1993
PAY2, a Yarrowia lipolytica gene encoding a protein essential for import into peroxisomes.

Publication Details:

1993
Peroxisomal protein targeting and peroxisome biogenesis.

Publication Details:

1992
Peroxisomal assembly mutants in the yeast Yarrowia lipolyticaA.

Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2013 Sep

2013 Sep
Phase I/II Study of Palliative Radiation and Sorafenib for Patients With Metastatic Renal Cell Carcinoma and Painful Bone Metastases. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada. Poster Presentation.

2013 Sep
Presenter. Finding the Target — Molecular Testing and Personalized Medicine within NSCLC. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada.
Anthony Matthew BRADE

2013 Sep  
Late Radiographic Changes after Lung Stereotactic Body Radiotherapy: Piloting a Synoptic Reporting and Recurrence Prediction Scale. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada. Poster Presentation.

2013 Sep  
Stereotactic Lung Radiotherapy in Patients with Previous Pneumonectomy: Safety and Efficacy. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada. Poster Presentation.

2013 Feb  

2011 Jan  

2011 Jan  

2010 May  
Invited Lecturer. YMB1000-010 Phase 1 Results. Clinical Trials Workshop. Vancouver, British Columbia, Canada.

2009  

2008  

2008  
Invited Speaker. A phase I study of the Anti-EGFR antibody nimotuzumab combined with palliative thoracic radiation for patients with advanced non-small cell lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

2003 Sep  
Invited Speaker. Palm Power: Using Your Handheld to Enhance Your Practice. CARO COMP Joint Scientific Meeting. Montreal, Quebec, Canada.

2003  
Invited Speaker. A Phase I trial of Radical Chemoradiation + ZD6126 in Inoperable Stage III NSCLC. National Cancer Institute of Canada Clinical Trials Group semi-annual meeting: Lung Section.

2001 Sep  
Invited Speaker. Assessing potential therapeutic applications of heat-targeted cancer gene therapy. CARO COMP Joint Scientific Meeting. Quebec City, Quebec, Canada.

1998  

Presented Abstracts

2010  

2010  

2010  

2010  

2010  
Patterns of failure in patients with limited stage small cell lung carcinoma. CARO COMP Scientific


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2012 Sep Outcome of stage I non-small cell lung cancer after stereotactic body radiotherapy, does growth rate matter? CARO COMP Scientific Meeting. Ottawa, Ontario, Canada.

Publication Details:

2012 Sep Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. CARO COMP Scientific Meeting. Ottawa, Ontario, Canada.

Publication Details:

2012 Sep Comparison of 3D Conformal Radiation Therapy (3DCRT) and Intensity Modulated Radiation Therapy (IMRT) in Stage III Non-small Cell Lung Cancer (NSCLC). CARO COMP Scientific Meeting. Ottawa, Ontario, Canada.
**Publication Details:**

2012 Jul  

**Publication Details:**

2011 Sep  
Correlation of Dosimetric Factors In The Development Of Esophagitis And Radiation Pneumonitis In Patients With Limited Stage Small Cell Lung Carcinoma. CARO COMP Scientific Meeting. Winnipeg, Manitoba, Canada.

**Publication Details:**
Giuliani, ME, Lindsay, P, Sun A, Bezjak A, Le, L, **Brade A**, Cho J, Leighl N, Shepherd F, Hope A. Correlation of Dosimetric Factors In The Development Of Esophagitis And Radiation Pneumonitis In Patients With Limited Stage Small Cell Lung Carcinoma. Radiother Oncol. 2011 Sep;100(1):S11. **Coauthor or Collaborator.**

2011 Sep  
Is SBRT Alone Appropriate For Early Stage Non-Small-Cell Lung Cancer With Primary Tumours Larger Than 4cm? CARO COMP Scientific Meeting. Winnipeg, Manitoba, Canada.

**Publication Details:**
Allibhai Z, Cho J, Atallah S, **Brade A**, Hope A, Sun A, Taremi M, Bezjak A. Is SBRT Alone Appropriate For Early Stage Non-Small-Cell Lung Cancer With Primary Tumours Larger Than 4cm? Radiother Oncol. 2011 Sep;100(1):S22, 57. **Coauthor or Collaborator.**

2011 Sep  
Clinical Outcomes In Stage I Non-Small Cell Lung Cancer Patients managed With Accelerated Hypofractionated Radiotherapy. CARO COMP Scientific Meeting. Winnipeg, Manitoba, Canada.

**Publication Details:**
Yung T, Giuliani ME, Le L, Sun A, Cho J, Bezjak A, **Brade A**, Hope AJ. Clinical Outcomes In Stage I Non-Small Cell Lung Cancer Patients managed With Accelerated Hypofractionated Radiotherapy. Radiother Oncol. 2011 Sep;100(1):S60, 162. **Coauthor or Collaborator.**

2011 Sep  
A Completed Phase I Study Of Sorafenib And Palliative Radiation In Patients With Malignancy In The Thorax, Abdomen Or Pelvis. CARO COMP Scientific Meeting. Winnipeg, Manitoba, Canada.

**Publication Details:**

2009 Sep  
**Invited Lecturer.** Assessment of Intra-fraction Target Position Accuracy for Lung Stereotactic Body Radiotherapy (SBRT) using Cone-beam CT (CBCT). CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**
2009 Sep Factors Influencing Prophylactic Cranial Irradiation Utilization in Limited Stage Small Cell Lung Cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2009 Sep Improvement of Target Coverage in Radical Lung Radiotherapy Using Image Guidance Cone-Beam (CBCT). CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2009 Sep Impact of Daily Volumetric Imaging in Reducing Set-Up Margins for Lung Cancer Patients Treated with Conventionally Fractionated Radiotherapy. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2009 Sep Princess Margaret Hospital experience with Lung Stereotactic Body Radiotherapy for early stage non-small cell lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2009 Sep Pre-Radiation Treatment PET/CT Scan can Predict the Localization of Residual Disease Post-Treatment in Lung Cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2009 Sep The TAP study: A Phase I study design to screen for unexpected and/or severe interaction between radiation and systemic agents. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**
**Brade A**, Wan J, Chung C, Southwood B, Jarvi A, Wang L, Milosevic M, Oza A. The TAP study: A Phase I study design to screen for unexpected and/or severe interaction between radiation and systemic agents. Radiother Oncol. 2009;92(Suppl 2):S8, 23. **Principal Author.**

2008 Sep A phase I study of the Anti-EGFR antibody nimotuzumab combined with palliative thoracic radiation for patients with advanced non-small cell lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

**Publication Details:**
**Brade A**, Bebb G, Smith C, Rorke S, Sherman I. A phase I study of the Anti-EGFR antibody nimotuzumab...

**2008 Sep**
Respiratory correlated cone beam CT in the assessment of volumetric and geometric tumour changes in non-small cell lung cancer during radiotherapy. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

**2008 Sep**
Dosimetric evaluation of IMRT technique for hemithoracic radiation therapy after extrapleural pneumonectomy for malignant pleural mesothelioma. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

**2008 Sep**
A comprehensive team-based approach to lung SBRT treatment planning and delivery. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

**2008 Sep**
Stereotactic body radiation therapy (SBRT) for non-small cell lung cancer (NSCLC): patient characteristics and acute toxicity. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

**2008 Sep**
A Pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during, and after radiotherapy in lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

**2008 Sep**
Pain and rib fracture after SBRT for peripheral non small cell lung cancer. CARO COMP Scientific Meeting. Montreal, Quebec, Canada.

*Publication Details:*

**2007 Oct**
Publication Details: 

2007 Oct  

Publication Details:  

2007 Oct  
Preliminary Results of an Escalating Dose Phase I/II Clinical Trial of the Anti-EGFR Monoclonal Antibody Nimotuzumab in Combination with External Radiotherapy in Patients Diagnosed with Stage IIB, III or IV NSCLC Unsuitable For Radical Therapy. CARO COMP Scientific Meeting. Toronto, Ontario, Canada.

Publication Details:  
**Brade A**, Smith C, Sherman I, Bebb G. Preliminary Results of an Escalating Dose Phase I/II Clinical Trial of the Anti-EGFR Monoclonal Antibody Nimotuzumab in Combination with External Radiotherapy in Patients Diagnosed with Stage IIB, III or IV NSCLC Unsuitable For Radical Therapy. Radiother Oncol. 2007;84(Suppl 2):S61. **Principal Author.**

2004 Sep  

Publication Details:  

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2015  

2014 Jun  
**Invited Speaker.** GI Cases. Canadian Conference On Community Oncology. Collingwood, Ontario, Canada.

2014 Jun  

2014 Apr 27  
**Chair.** Stage III NSCLC. 9th Ontario Thoracic Cancer Conference. Niagara-on-the-Lake, Ontario, Canada.

2014  
**Invited Speaker.** Combined Modality Therapy for Stage 3 NSCLC. Ontario Thoracic Oncology
Conference. Niagara-on-the-Lake, Ontario, Canada.

2013 Jan **Invited Lecturer.** Grand Rounds in Oncology on hepatic SABR – Liver SBRT. Kingston Regional Cancer Centre. Kingston, Ontario, Canada.

2011 Apr **Invited Lecturer.** What is the future of personalized medicine: what do we know and where are we going? 6th Ontario Thoracic Cancer Conference, McMaster University. Niagara-on-the-Lake, Ontario, Canada.


**Presented Abstracts**


**4. LOCAL**

**Invited Lectures and Presentations**


2016 Apr 14 **Presenter.** Combined radiotherapy and chemotherapy. Radiobiology Course. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): **Brade A**.

2016 Apr 9 **Presenter.** Trials and Case Examples. Liver Case-based Discussion. Liver RT Education Course. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): **Brade A**.

2015 Jun **Invited Speaker.** Radiation Oncology – PRCOCLAIM Study and SRS vs WBRT for 1-3 Brain Metastases. 4th Annual Best of ASCO Meeting. Toronto, Ontario, Canada.

2015 May **Invited Speaker.** Randomized Study in locally advanced NSCLC. NCIC clinical trials group - Lung Section. Toronto, Ontario, Canada.

2015 May **Invited Lecturer.** The Role of Radiotherapy in Hepatobiliary Cancer. COMET Meeting. Toronto, Ontario, Canada.


2015 Apr **Invited Lecturer.** Biological response modifiers in tumors--clinical implementation. University of Toronto.
2015 Apr  

2015  
**Invited Lecturer.** Radiotherapy for Hepatocellular Carcinoma. Liver SBRT IGRT Education Course. Toronto, Ontario, Canada.

2015  
**Invited Lecturer.** Interactions of Biological Agents and Radiotherapy. COMRADS. Toronto, Ontario, Canada.

2014 Oct  
**Invited Lecturer.** Taming the Hydra with a blunt instrument: Radiotherapy in the era of targeted therapies. Joint UT DRO Rounds. Toronto, Ontario, Canada.

2014 Apr  

2014 Apr  

2014  

2013 Oct  
**Invited Lecturer.** Combining Sorafenib and Stereotactic Liver Radiotherapy. Joint UT DRO Rounds. Toronto, Ontario, Canada.

2013 Apr  
**Invited Lecturer.** Combined radiotherapy and chemotherapy. University of Toronto. Toronto, Ontario, Canada. Radiobiology Course.

2013 Apr  
**Invited Lecturer.** Biological Response Modifiers in Tumors – Clinical. University of Toronto. Toronto, Ontario, Canada. Radiobiology Course.

2013 Apr  
**Invited Lecturer.** Stereotactic Radiotherapy for Primary and Metastatic Liver Tumours. COMET, Hepatobiliary Tumor Board Meeting. Toronto, Ontario, Canada.

2012 Oct  
**Invited Lecturer.** Combining Sorafenib and Stereotactic Liver Radiotherapy. Joint UT DRO Rounds. Toronto, Ontario, Canada.

2012 Jun  

2012 Feb  
**Invited Lecturer.** Modified Fractionation Schedules. University of Toronto. Toronto, Ontario, Canada. Radiobiology Course.

2012 Feb  

2012 Feb  
**Invited Lecturer.** Biological Response Modifiers in Tumors – Clinical. University of Toronto. Toronto, Ontario, Canada. Radiobiology Course.

2011 Mar  
**Invited Lecturer.** IMRT coaching-CCO sponsored education and presentation. Cancer Care Ontario. Ontario, Canada. Grand River Cancer Centre (on site – 8 hours); Sudbury Regional Cancer Centre.

2011 Feb  
**Invited Lecturer.** Tumor Growth and Response Combining Radiation with drugs. University of Toronto. Toronto, Ontario, Canada. Radiobiology Course.

2011 Feb  
**Invited Lecturer.** Biological Response Modifiers in Tumors – Clinical. University of Toronto. Toronto, Ontario, Canada. Radiobiology Course.


2007  **Invited Lecturer.** Challenges in the design of early phase clinical trials evaluating combinations of radiotherapy and molecularly targeted therapies. Princess Margaret Hospital Conference New Developments in Cancer Management. Toronto, Ontario, Canada.

2007  **Invited Lecturer.** Getting on target: A programmatic approach to developing targeted therapies with DRO. Joint UT DRO Rounds. Toronto, Ontario, Canada.

2007  **Invited Lecturer.** Basics of Radiation Oncology. Drug Development Program (DDP), Princess Margaret Hospital. Toronto, Ontario, Canada.

2006  **Invited Lecturer.** A Phase I Dose Escalation Study of Concurrent Low Dose Radiation with KU-0059436in Four Anatomically-based, Independent Cohorts (Brain, Thorax, Abdomen, Pelvis). NSCLC. National Cancer Institute of Canada Clinical Trials Group fall meeting: IND Section. Toronto, Ontario, Canada.

2006  **Invited Lecturer.** Research Proposal: A Phase I Dose Escalation Study of Concurrent Low Dose Radiation with Sorafenib in Three Anatomically-based, Independent Cohorts (Thorax, Abdomen, Pelvis) the TAP Study. Drug Development Program (DDP), Retreat, Princess Margaret Hospital. Toronto, Ontario, Canada.

2006  **Invited Lecturer.** Getting on target: A programmatic approach to developing targeted therapies with DRO. Joint UT DRO Rounds. Toronto, Ontario, Canada.


**Presented Abstracts**


**Workshop**

2009 Jun  **Visiting Professor.** Workshop on legal and jurisdictional matters for BOEs, Appeals Committee and the BMA. University of Toronto. Toronto, Ontario, Canada.

**F. Teaching and Design**

1. **INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION**

2014 - present  Enriching Educational Experience Program, Undergraduate MD, Faculty of Medicine,
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


**Postdoctoral Research Fellow (PhD)**

2008 - 2010  **Primary Supervisor.** C. Chung. Supervisee Institution: University of Toronto, Department of Radiation Oncology. *MRI and measuring response to radiotherapy and angiogenesis inhibitors for brain tumors.* Awards: UBC Award and RAZCER Grant Award.


**H. Creative Professional Activities**

1. **CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES**

Curriculum Vitae

Scott V. Bratman
M.D., Ph.D.

A. Date Curriculum Vitae is Prepared: 2016 August 8

B. Biographical Information

Primary Office
Princess Margaret Cancer Center
610 University Ave
Toronto, Ontario, Canada
M5G 2M9

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Email scott.bratman@rmp.uhn.ca

1. EDUCATION

Degrees

2002 - 2009 MD/PhD Medical Scientist Training Program, College of Physicians and Surgeons, Columbia University, New York, New York, United States
1998 - 2002 A.B. Magna cum laude, Molecular Biology, Princeton University, Princeton, New Jersey, United States

Postgraduate, Research and Specialty Training

2011 Jul 1 - 2014 Jun 30 Postdoctoral Fellow, Radiation Oncology, Stanford Cancer Institute, Stanford, California, United States
2011 Jul 1 - 2014 Jun 30 Holman Research Pathway, American Board of Radiology
2010 Jul 1 - 2014 Jun 30 Resident (PGY II-V), Radiation Oncology, Stanford Cancer Institute, Stanford, California, United States
2009 Jun 24 - 2010 Jun 23 Intern (PGY I), Internal Medicine, California Pacific Medical Center, San Francisco, California, United States

Qualifications, Certifications and Licenses

2015 Jun - present Board Qualified (Radiation Oncology), Radiation Oncology, American Board of Radiology
2015 Jun - present Board Qualified (Radiation Oncology), Royal College of Physicians and Surgeons of Canada
2014 - present Licentiate, College of Physicians and Surgeons of Ontario, License / Membership #: 104768
2010 - present Board Certified Diplomate, National Board of Medical Examiners
2010 - 2016 Licentiate, Medical Board of California, License / Membership #: A113507
2010 - 2016 Registration, U.S. Department of Justice Drug Enforcement Administration, License / Membership #: FB2164616
2. EMPLOYMENT

Current Appointments

2014 - present  Assistant Professor, Radiation Oncology, University of Toronto
2014 - present  Staff Radiation Oncologist – Clinician Scientist, Princess Margaret Cancer Centre University Health Network.
2014 - present  Scientist, Princess Margaret Cancer Centre Research Institute University Health Network.
2014 - present  Assistant Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada

Previous Appointments

UNIVERSITY

2013 Jul 1 - 2014 Jun 30  Chief Resident, Department of Radiation Oncology, Stanford University

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2013  Annual Meeting Scientific Abstract Award, American Society for Radiation Oncology (ASTRO). (Research Award)

NATIONAL

Received

2014  Top Reviewer, Annals of Internal Medicine, United States.
2012 - 2013  Translational Cancer Research Fellowship, Association of American Cancer Institutes (AACI), United States. (Research Award)
Total Amount: 50,000 USD

LOCAL

Received

2014  Henry S. Kaplan Research Award, Stanford University. (Research Award)
2014  Malcolm A. Bagshaw Award, Stanford University. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 - present  Moderator of Oral Session 2- Head and Neck, Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting, 2015
2015 - present  Attended, National Cancer Institute Workshop
2014 - present  American Association for Cancer Research (AACR)
2014 - present  Canadian Medical Association
2014 - present  Ontario Medical Association
2010 - present  American College of Radiology (ACR)
2010 - present  American Society for Therapeutic Radiation Oncology (ASTRO)
2010 - present  American Society of Clinical Oncology (ASCO)
2010 - present  Radiological Society of North America (RSNA)
2015  Attended, NCIC Clinical Trials Group, Spring Meeting 2015

**Administrative Activities**

**National**

**Other Organizations**

- **2016 - present**  **Member**, Canadian Cancer Trials Network (CCTG) Investigational New Drugs (IND) Executive Committee
- **2016 - present**  **Member**, Canadian Cancer Trials Network (CCTG) Correlative Sciences/Tumour Biology (SCTB) Executive Committee

**Local**

**Princess Margaret Cancer Centre / University of Toronto**

- **2015 - present**  **Co-Chair**, Head and Neck Oncology Program Future Directions Committee, Toronto, Ontario, Canada.
- **2014 - present**  **Member**, Head and Neck Cancer Executive Committee
- **2014 - present**  **Member**, Head and Neck Cancer Translational Research Tissue Committee
- **2014 - present**  **Member**, Circulating Tumour Biomarker Technology Subcommittee, Cancer Genomics Program
- **2014 - present**  **Member**, Advisory Board, Princess Margaret Genomics Centre
- **2014 - present**  **Member**, Protocol Review Committee, RMP Clinical Research Program
- **2015 Dec 5**  **Organizer and Co-Chair**, Joe Finley Head and Neck Cancer Research Center Retreat, Ontario, Canada.

**Stanford University**

- **2012 - 2013**  **Member**, Search Committee, Radiation Oncology Statistician, Department of Radiation Oncology
- **2010 - 2011**  **Member**, Committee on CyberKnife Clinical Service Workflow, Department of Radiation Oncology

**Peer Review Activities**

**Grant Reviews**

**Reviewer**

- **2016**  Strategic Training in Transdisciplinary Radiation Science for the 21st Century (STARS21)

**Manuscript Reviews**

**Ad Hoc Reviewer**

- **2016 - present**  Journal of Clinical Oncology
- **2015 - present**  Head & Neck
- **2015 - present**  JAMA Oncology
- **2015 - present**  Oncotarget
Scott V. BRATMAN

2014 - present  Annals of Internal Medicine
2014 - present  Clinical Cancer Research
2014 - present  International Journal of Radiation Oncology Biology Physics
2014 - present  Journal of the National Cancer Institute
2014 - present  PLOS ONE

Expert Reviewer

2015 - present  Canadian Cancer Society, Canadian Cancer Encyclopedia

Member

2015 - present  Ontario Cancer Research Ethics Board (OCREB)

PRESENTATION REVIEWS

Reviewer

2016  Regenerative Medicine Seed Grant, Princess Margaret Cancer Center- Radiation Medicine Program.
2015 Jun 10  The Terry Fox Foundation Strategic Initiative for Excellence in Radiation Research for the 21st Century (EIRR21) Annual Research Day

NATIONAL CONFERENCE ABSTRACT PEER REVIEW COMMITTEES

Reviewer

2016  Canadian Association of Radiation Oncology (CARO), Annual Scientific Meeting

PEER REVIEW

Reviewer

2015  Princess Margaret RMP Summer Studentship

Other Research and Professional Activities

RESEARCH PROJECT


THESIS PROJECT


C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2016 Aug - 2018 Jul  

The objective of this project is to evaluate the prognostic significance of detectable ctDNA at mid-treatment in OPC patients treated with definitive RT/CRT. We hypothesize that detectable ctDNA at mid-treatment of RT/CRT provides equivalent prognostic information to post-treatment detectable ctDNA. We expect that this ctDNA test can be utilized in future studies to identify patients who could be treated with reduced doses (or escalated doses) of RT/CRT.

2016 Aug - 2018 Jul  

The objective of this project is to demonstrate the feasibility of detecting ctDNA spikes within the 1st week of initiating RT. We hypothesize that a spike in ctDNA levels occurs in a subset of OPC patients within the 1st week of initiating RT as a result of rapid tumour cell death, signifying radiosensitivity.

2016 Jul - 2017 Jun  
**Co-Investigator.** Epigenomics of liquid biopsies-a tool for detecting minimal residual disease. Princess Margaret Cancer Foundation. PI: De Carvalho, Daniel. 250,000 CAD. [Grants]

2015 Nov - 2016 Oct  
**Principal Applicant.** Impact of distinct HPV subtypes on survival in oropharyngeal cancer. Princess Margaret Cancer Foundation. Invest in Research. 100,000 CAD. [Grants]

2015 Nov - 2016 Oct  
**Principal Investigator.** Invest in Research Grant- Impact of distinct HPV subtypes on survival in oropharyngeal cancer. Princess Margaret Cancer Foundation. 100,000 CAD. [Grants]

The purpose of this study is to demonstrate the importance of determining HPV subtype to facilitate personalized treatment of oropharynx cancer. We furthermore aim to evaluate the performance of a novel test that, compared with the standard HPV subtyping test, has the distinct advantages of reduced cost and tissue requirements. Altogether, this proposal will lead to more precise treatments for oropharynx cancer that are tailored to each individual, leading to high cure rates with fewer side effects.
Co-Investigator. MYELSTONE: Replacing Bone Marrow Aspirates with Circulating Tumour DNA Analysis of Multiple Myeloma. Princess Margaret Cancer Centre. Collaborator(s): Trudel, Tracy; Pugh Trevor and Bratman, Scott. 300,000 CAD. [Grants]
The purpose of this project is to develop and deploy a clinical laboratory platform for non-invasive monitoring of ctDNA in multiple myeloma patients. The aims of the project include: (1) extending the sensitivity of ctDNA sequencing protocols; (2) translating ctDNA sequencing protocols from research labs to a clinical setting; (3) comparing the sensitivity and specificity of clinical testing of ctDNA and matched bone marrow biopsies; (4) evaluation of clinical impact, including turnaround time, increased frequency of myeloma patients undergoing monitoring, increased recruitment to clinical trials, and cost of ctDNA versus bone marrow profiling.

Principal Investigator. Selection Pressure and Evolution Induced by Immune Checkpoint Inhibitors and other Immunologic Therapies (SPECIAL). Princess Margaret Hospital Foundation (The). Collaborative Personalized Cancer Medicine Team Grant. Collaborator(s): Siu, Lillian. 300,000 CAD. [Clinical Trials]
This proposal is a prospective study with dedicated blood and fresh tumor tissue acquired for the purpose of identifying circulating biomarkers of response to immune checkpoint inhibitors (ICIs) in head/neck cancer and metastatic melanoma. We will be assessing the utility of ctDNA quantification and enumeration of circulating myeloid-derived suppressor cells and regulatory T-cells for the purpose of predicting response to ICIs.

Co-Principal Investigator. Circulating HPV DNA in Patients withLocally Advanced Cervical Cancer Treated with Definitive Chemoradiation. University of Toronto. Collaborative Seed Grant. Collaborator(s): Han, Kathy and Leung, Eric. 50,000 CAD. [Grants]
This project aims to investigate the clinical utility of plasma HPV DNA detection and FDG-PET/CT scanning for determining response to treatment in locally advanced cervical cancer.

The objective of this project was to apply methods for detecting circulating tumor DNA to breast and colorectal adenocarcinomas and to non-Hodgkin lymphoma.

The objective of this project was to develop methods for detecting cancer-specific mutations in plasma before and after radiotherapy.

This project explored how the tumor microenvironment impacts cancer stem cell function and treatment resistance.

NON-PEER-REVIEWED GRANTS

FUNDED

Principal Investigator. Circulating nucleic acid biomarkers for head/neck and related cancers. Princess Margaret Cancer Centre. Lab Start-up Funds. 1,250,000 CAD. [Grants]
These unrestricted funds are intended to provide continuous lab research funding for 5 years. My lab is investigating novel analysis approaches and applications of circulating tumour-derived DNA (ctDNA) and other circulating nucleic acid biomarkers. Analysis of ctDNA has
the potential to revolutionize the management of head/neck cancer and other cancer types. Through innovative clinical trials, the use of model systems, and in vitro studies, my lab is working to turn ctDNA and other biomarkers into clinically useful tools in order to improve outcomes and limit side effects from invasive procedures or unnecessary treatment.

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Journal Articles, Review


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Letters to Editor


E. Intellectual Property

1. PATENTS


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Feb 28 Presenter. Circulating biomarkers for personalized treatment of lung and head and neck cancers. 4th

2013 Sep 24 **Presenter.** Noninvasive and ultrasensitive quantitation of circulating tumor DNA by hybrid capture and deep sequencing. American Society for Radiation Oncology (ASTRO), 55th Annual Meeting. Atlanta, Georgia. (Annual Meeting Scientific Abstract Travel Award).


**Presented Abstracts**


**Presented and Published Abstracts**


**Publication Details:**
Clinical relevance of lymph node ratio in resected oral cavity squamous cell carcinoma in patients with N2 disease. Coauthor or Collaborator.


**Publication Details:**
The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. Poster (PO-0631). Radiother Oncol. 119(S1):S295.


**Publication Details:**


**Publication Details:**

2015 Oct Impact of Surgical Margins on Outcomes in Oral Cavity Squamous Cell Carcinoma Following Postoperative Intensity Modulated Radiation Therapy. American Society for Therapeutic Radiation
Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Abstract # 2777.

Publication Details:

2015 Oct


Publication Details:

2015 Oct


Publication Details:

2015 Oct


Publication Details:

2015 Oct


Publication Details:

2015 Oct


Publication Details:
Coauthor or Collaborator.

2015 Oct

Publication Details:


Publication Details:

2014 Noninvasive and ultrasensitive quantitation of circulating tumor DNA by hybrid capture and deep sequencing. American Society of Clinical Oncology (ASCO) 50th Annual Meeting.

Publication Details:

2014 Non-invasive monitoring of cellular vs. acellular tumor DNA from immunoglobulin genes for DLBCL. American Society of Clinical Oncology (ASCO) 50th Annual Meeting.

Publication Details:

2014 Circulating tumor DNA concentrations reflect metabolic tumor volume in NSCLC. American Society for Therapeutic Radiation Oncology (ASTRO) 56th Annual Meeting.

Publication Details:


Publication Details:


Publication Details:

2013
Noninvasive and ultrasensitive quantitation of circulating tumor DNA by hybrid capture and deep sequencing. American Society for Therapeutic Radiation Oncology (ASTRO) 55th Annual Meeting.

Publication Details:

2013
Stromal contributions to radiation resistance of breast cancer stem cells. American Society for Therapeutic Radiation Oncology (ASTRO) 55th Annual Meeting.

Publication Details:

2013

Publication Details:

2012
Cell-free DNA as a biomarker of residual Disease following Radiotherapy for Non-Small Cell Lung Cancer. American Society for Therapeutic Radiation Oncology (ASTRO) 54th Annual Meeting.

Publication Details:

2011
Local radiotherapy for early stage low grade follicular lymphoma in the post-PET era. American Society for Therapeutic Radiation Oncology (ASTRO) 53rd Annual Meeting. Presenter(s): Bratman, S.V., and Hoppe, R.T.

Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2015 May 3 Presenter. Correlative sciences for symptom control trials. NCIC Clinical Trials Group, Spring Meeting.
2015 Sep  
**Presenter.** Post-Radiotherapy Cervical Lymph Node Calcification on its Own is Not Predictive for Neck Recurrence in Oropharyngeal Carcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: Claims that post-radiotherapy (Post-RT) lymph node calcification (calLN+) is a putative adverse feature for residual neck disease in head and neck cancer are not readily supported with evidence. This study evaluates the frequency and prognostic significance of post-RT calLN+ in lymph node-positive (LN+) oropharyngeal cancer (OPC) following definitive radiotherapy ± chemotherapy (RT/CRT).

**Materials and Methods:** A retrospective review of a prospectively assembled cohort of LN+ OPC treated with RT/CRT from 2003 to 2012 was conducted. Tumour HPV status was ascertained by p16 staining. calLN+ was identified by review of all patients with contrast enhanced CT undertaken within six months following RT. Radiological details of calLN+ and "adverse radiologic features" [defined as extra capsular extension (ECE), necrosis, or conglomerate nodal mass(es)] were recorded. Each calLN+ patient was matched to two controls without lymph node calcification (calLN–) treated during the same study period (1:2 matched for T-, N-category, and p16 status). Regional control (RC) was calculated using Kaplan-Meier method and log-rank test for comparison between study (calLN+) and control (calLN–) cohorts. Multivariable analysis (MVA) identified predictors for RC.

**Results:** calLN+ were present in 52 (5%) of 966 consecutive LN+ OPC patients, of whom 31 (60%), 10 (19%), three (6%) and eight (15%) had 1, 2, 3 or ≥4 calLN+, respectively. Median calLN+ size was 1.3 cm (range: 0.5-4.1 cm). The frequency of calLN+ did not differ between p16-positive [p16(+)] and p16-negative [p16(–)] patients [37/615 (6%) versus 12/192 (6%), p=0.90]. The matched control cohort of 104 calLN– patients had similar demographic and clinical features compared to the study population. Post-RT neck dissection was performed in 9/52 (17%) calLN+ versus 13/104 (13%) calLN– patients (p=0.41). "Adverse radiological features" were present in 8/52 (15%) calLN+ versus 12/104 (12%) calLN–, respectively (p=0.49). Regional failure manifested in 7/52 (13%) calLN+ patients, five with residual nodal disease (all had "adverse radiological features") while two failed subsequently. The remaining 42 calLN+ cases without "adverse radiological features" did not experience regional failure. At the median follow-up of four years, RC at three years was similar for calLN+ versus calLN– (86% versus 91%; p=0.26). MVA confirmed that "adverse radiological features" was the only prognostic factor for regional failure [HR=5.7, p=0.002], while calLN+ (p=0.34) and p16 status (p=0.49) were not predictive.

**Conclusions:** Presence of calLN+ in the post-RT setting is not associated with inferior regional control. Our study confirms that nodes with "adverse radiological features" (ECE, necrosis, or conglomerate nodal mass(es)) had poorer outcomes. calLN+ alone in the absence of "adverse radiological features" should not be considered an indicator for post-RT neck dissection.

**Publication Details:**
Shrinivas Rathod, Shao Hui Huang, John Waldron, John Kim, Eugene Yu, Li Tong, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, Jolie Ringash, Brian O’Sullivan. Post-Radiotherapy Cervical Lymph Node Calcification on its Own is Not Predictive for Neck Recurrence in Oropharyngeal Carcinoma. Radiother Oncol. Coauthor or Collaborator.
Materials and Methods: All p16-confirmed newly diagnosed HPV(+) OPC treated with RT +/- CTx between 2000 to 2012 were included. Overall survival (OS), locoregional control (LRC), distant control (DC), and Grade 3-4 late toxicity (LT) were estimated. Multivariable analysis (MVA) identified predictors for DC and OS. Recursive partitioning analysis (RPA) derived low- and high-DM risk groups. Within the low- and high-DM risk subgroup identified by RPA, we compared DC between RT with or without CTx to identify potential candidates for omission of CTx.

Results: A total of 757 HPV(+) (Stage I/II/III/IV: 8, 34, 93, 622) patients were identified, including 605 (80%) males and 389 (51%) >10 pack-year (PY) smokers. Median age was 58 years. Tonsil or tongue base primary tumours were detected in 718 (95%) patients. Concurrent CTx (cisplatin 100mg/m2 every three weeks) with RT was given in 382 (50%) cases. Median follow-up was 5.1 years. A total of 40 local, 35 regional, and 98 DM were identified. Five-year OS, LRC, DC and LT were 76%, 92%, 87%, and 20%, respectively. MVA identified T4 [Hazard ratio (HR) 1.95, p<0.01] or N2c-3 (HR 3.5, p<0.01], and absence of CTx (1.7, p=0.03) as DM predictors; neither smoking PYs (HR 0.99, p=0.41) nor age (HR 1.01, p=0.43) were predictive for DM, but predictive for OS (age: HR 1.02; smoking: 1.01, both p<0.01). RPA divided entire cohort into low-risk (T1-3N0-2b, n=441) and high-risk (T4 or N2c-3, n=316) subgroups with five-year DC of 94 versus 76% and OS of 84 versus 66%, respectively (both p<0.01). In the low-risk subgroup, DC was similar between RT (n=247) versus RT+CTx (n=194) (95% versus 93%, p=0.67). Five-year DC rates by smoking <=10 (n=47) versus >10 (n=52) pack-years were also similar in T1-3N2b (93% versus 90%, p=0.53) subset. In the high-risk subgroup, DC was lower in the RT (n=128) versus CRT (n=188) (65% versus 83%, p<0.01).

Conclusions: This expanded cohort study (sample size doubled from 382 to 757) confirms that DM is the main form of treatment failure for HPV(+) OPC patients. T1-T3N0-N2b subgroup has low-DM risk, which is not influenced by smoking PY although smoking adversely affects survival for all groups. While these findings should be confirmed prospectively, the low-DM risk subgroup represents a candidate for deintensification approaches.

Publication Details:
Brian O’Sullivan, Shao Hui Huang, John Waldron, Susie Su, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Aaron Hansen, David Goldstein, Li Tong, Bayardo Perez-Ordonez, Ilan Weinreb, Wei Xu. Metastatic Risk Groups in Human Papillomavirus-related Oropharyngeal Cancer Treated with Definitive Radiotherapy with or without Chemotherapy. Radiother Oncol. Coauthor or Collaborator.

2015 Sep

Risk of Relapse Profile in Human Papillomavirus-unrelated Oropharyngeal Carcinoma Treated with Definitive Radiotherapy with or without Chemotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: To determine the risk of disease relapse profile following definitive radiotherapy/chemotherapy (RT/CRT) in Human papillomavirus-unrelated [HPV(-)] oropharyngeal cancer (OPC) patients.

Materials and Methods: All newly diagnosed p16-confirmed HPV(-) OPC patients treated with RT/CRT from 2000 to 2012 were included. Overall survival (OS), recurrence-free survival (RFS), locoregional control (LRC), distant control (DC), and grade 3-4 late toxicity (LT) were estimated using Kaplan-Meier method. Multivariable analysis (MVA) identified predictors for RFS. Recursive partitioning analysis (RPA) derived low- and high-RFS risk groups.

Results: A total of 314 HPV(-) (Stage I/II/III/IV: 13, 39, 51, 211) patients were identified, including 231 (74%) males with median age of 65 years (range 33-89). Primary tumours originated from tonsil or tongue base in 230 (73%) cases. Two hundred and ten (67%) cases were treated with RT alone, 87 (28%) with concurrent cisplatin (100 mg/m2 x 3 on days 1, 22, and 43) and 17 (5%) with cetuximab. Median follow-up was 3.9 years. Relapse occurred in 112 cases (79 locoregional, 55 distant failures). At five years, OS, RFS, LRC, DC, and LT were 45%, 64%, 74%, 83%, and 25%, respectively. MVA identified N2b-3 category as a predictor for disease relapse [Hazard Ratio (HR) 2.6 (95% CI: 1.7-4.1), p<0.01]; age (HR 1.03, p=0.06) and T3-4 (HR 1.4, p=0.09) were marginally predictive; smoking pack-years (p=0.94) and concurrent chemotherapy (p=0.29) were non-predictive. RPA stratified the entire cohort into low- (T1-2N0-
2a, n=77) and high- (T3-4 or N2b-3, n=237) relapse risk subgroups with five-year RFS of 86% and 56%, respectively. In the low-risk group, 74/77 (96%) patients received RT alone and their five-year RFS was 86% (95% CI 74-92). For the high-risk group, RT alone (n=136) subgroup had a lower RFS compared to CRT (n=84) or RT with cetuximab (n=17) (51% versus 63%, p=0.03).

Conclusions: Locoregional failure is the main form of treatment failure for the HPV(-) OPC population. A low-relapse risk subgroup, defined as T1-T2N0-N2a, may be appropriately treated with RT alone. High-relapse risk HPV(-) OPC patients have a poor prognosis, even with intensified treatment schedules (i.e. high dose cisplatin) and warrants further research on novel treatment strategies.

Publication Details:
Shao Hui Huang, John Waldron, Susie Su, Li Tong, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Aaron Hansen, David Goldstein, Bayardo Perez-Ordonez, Ilan Weinreb, Wei Xu, Brian O’Sullivan. Risk of Relapse Profile in Human Papillomavirus-unrelated Oropharyngeal Carcinoma Treated with Definitive Radiotherapy with or without Chemotherapy. Radiother Oncol. Coauthor or Collaborator.

2015 Sep Natural Course Following Failure After Definitive (Chemo-) Radiotherapy in HPV-Related and HPV-Unrelated Oropharyngeal Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: To report patterns of first site of failure, outcomes after failure and to identify predictors of survival following failure in HPV-related [HPV(+)] and HPV-unrelated [HPV(-)] oropharyngeal cancer treated with definitive radiotherapy or chemoradiotherapy (RT/CRT).

Materials and Methods: A prospectively assembled cohort of p16-confirmed OPC patients with documented disease relapse at local, regional or distant sites following RT/CRT (RT dose ≥50 Gy) from 2000 to 2012 were included. Tempo and pattern of site of first failure and outcome following failure were compared between HPV(+) and HPV(-) cohorts. Overall survival (OS) after failure was estimated by Kaplan-Meier method and multivariate analysis (MVA) was performed to identify survival predictors.

Results: A total of 249 OPC patients [136 HPV(+) and 113 HPV(-)] with disease relapse following primary RT/CRT were identified. The most common site of first failure was locoregional (LRF) in the HPV(-) patients [70 (62%)], while distant metastases (DM) was most common in the HPV(+) patients [84 (62%)]. The interval from RT/CRT to DM was longer in HPV(+) versus HPV(-) [16.7 versus 8.9 months, p<0.01] but interval to LRF was similar (8.4 versus 6.8 months, p=0.80). First failure occurred within the first two years following RT/CRT in 90% HPV(-) versus 78% HPV(+) cases. Median follow-up was 1.8 years. HPV(+) patients had longer OS compared to the HPV(-) (OS at two years: 32% versus 15%, p<0.01). For the LRF alone subset, more HPV(+) patients underwent salvage surgery (Sx) [30/52 (58%) versus 22/70 (31%), p=<0.01]. Salvage Sx recipients had higher OS (two years rates: 43% versus 19%; p<0.001) compared to those without salvage Sx. HPV(+) patients had higher OS at two years compared to the HPV(-) patients (26% versus 11%, p=0.01) for those without salvage Sx and marginally higher in those with salvage Sx (52% versus 30%, p=0.08). For the DM subset, HPV(+) also had higher two-year OS compared to the HPV(-) (31% versus 19%, p<0.01). On MVA, HPV(+) status [Hazard ratio (HR) 0.7, p=0.03], >20 smoking pack-years (HR 1.9, p<0.01) and salvage Sx intervention (HR 0.4, p<0.01) were the survival predictors.

Conclusions: This study confirms a differing natural course following disease failure in HPV(+) and HPV(-) OPC. A longer survival in HPV(+) patients is observed in almost all subsets compared to their HPV(-) counterparts. In HPV(+) patients, delayed distant failures are a feature with 22% DM presenting after two years of follow-up. This study has implication on surveillance strategies and highlights the importance of long-term surveillance in HPV(+) patients. HPV status, smoking pack-years and surgical salvage intervention are independent predictors of survival after progression.

Publication Details:
Shrinivas Rathod, Shao Hui Huang, John Kim, Susie Su, Wei Wu, John Waldron, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, Jolie Ringash, Aaron Hansen, David Goldstein, Li Tong, Bayardo Perez-Ordonez, Ilan Weinreb, Brian O’Sullivan. Natural Course Following Failure After Definitive (Chemo-) Radiotherapy in HPV-Related and HPV-Unrelated Oropharyngeal Cancer. Radiother
Outcome Following Definitive Radiotherapy for Squamous Cell Carcinoma of the Nasal Vestibule. 

Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: Nasal vestibule squamous cell carcinoma (NV-SCC) is a rare disease entity. No staging system exists within the UICC/AJCC classification for this tumour, although the Wang staging system is often applied. Radiotherapy (RT) is known to be effective at early presentation but its role in more advanced disease is controversial. We report our experience of managing this disease with definitive RT.

Materials and Methods: A retrospective review of all patients diagnosed with NV-SCC treated in our institution from 1980 to 2013 was performed. Staging was based on Wang classification (T1, superficial and localized to the vestibule, T2, extends beyond the vestibule and T3, with fixation to underlying structure). Overall survival (OS), cause specific survival (CSS), local control (LC), regional control (RC) and distant control (DC) were estimated using Kaplan-Meier method. Multivariable analysis (MVA) with Cox regression was performed to identify factors associated with LC. Long-term sequelae, including function and cosmesis, were assessed.

Results: A total of 108 eligible patients were included. Primary tumour size was <2 cm in 53 patients (49%), 2-4 cm in 45 patients (42%) and >4 cm in 10 patients (9%). According to Wang Classification, T1: 42 (39%), T2: 36 (33%) and T3: 30 (28%) patients. Bone involvement occurred in 19 (18%) patients. Sixteen patients (15%) had clinical nodal involvement at presentation. All patients were treated with curative RT (BED2: 50-70Gy). Median follow-up was 6.6 years. Twenty-eight patients (25.9%) had local failure (initial tumour size: ≤4 cm: 22 patients; >4 cm: 6); of whom 21 (75%) were successfully salvaged by surgery; including 5/6 of >4 cm initial tumour size. Seven patients (6%) had isolated regional failure (five of whom were salvaged successfully) and seven patients (6.4%) had distant failure. Grade 3-4 toxicity was only present in two cases (one deformity of nose and one hard palate perforation). The five-year LC, RC and DC rates were 74%, 90%, and 93% respectively. The five-year OS and CSS rates were 66% and 89%, respectively. Tumours >4 cm in size had worse LC compared to <4 cm tumours (40% versus 77%, respectively, p=0.01). Presence of bone involvement also trended to a lower LC (58% versus 77%, p=0.07). Non-significant reduction in LC was observed with higher Wang stage (78% for T1/T2 versus 63% for T3, p=0.1). MVA confirmed that tumour size >4 cm was adversely affecting the LC (Hazard Ratio 2.7, p=0.036), while T classification (p=0.96) and bone invasion (p=0.43) were not predictive.

Conclusions: This single institution series shows that definitive RT is an effective treatment for nasal vestibule SCC with high local control and excellent cosmetic outcome. Tumours size >4 cm have poor LC, but RT can still be offered since it can potentially preserve the organ and if not, salvage surgery is highly successful. Nodal failure is uncommon and elective regional nodal irradiation is not recommended.

Publication Details:
Ibrahim Atean, Shao Hui Huang, John Waldron, Yuyao Song, Wei Xu, Andrew Bayley, Scott Bratman, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Jonathan Irish, Brian O'Sullivan. Outcome Following Definitive Radiotherapy for Squamous Cell Carcinoma of the Nasal Vestibule. Radiother Oncol. Coauthor or Collaborator.

Impact of Surgical Margins on Outcomes in Oral Cavity Squamous Cell Carcinoma Managed with Surgery and Post-Operative Radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: To report the outcome of post-operative radiotherapy (PORT) for oral cavity squamous cell carcinoma (OCSCC) and identify predictors of treatment failure.

Materials and Methods: A retrospective review was conducted using a prospectively collected database from a comprehensive cancer centre. Patients with OCSCC treated between 2005 and 2012 with curative intent surgical resection followed by PORT were identified. Surgical procedure, histopathology, post-operative treatment, outcomes and late toxicity data was extracted. Local (LC), regional (RC), distant control (DC); and overall survival (OS) were analyzed. Multivariate analysis (MVA) was used to evaluate predictors for local (LF), regional failure (RF), distant metastasis (DM).

Results: A total of 300 patients were identified: median age - 61 years (21-87); median follow-up - 41
months (4–115); T3/4 category - 121 (41%); N2/3 category - 141 (47%); and G2/3 - 285 (96%). The most common primary site was tongue (n=135; 45%). Margin status was: involved (n=64, 21%); ≤1 mm (n=75, 25%); <5mm (n=99, 33%); and ≥5 mm (n=62, 21%). Neck dissection (ND) was performed in 281 (94%) patients (104 bilateral and 177 unilateral), with nodal extracapsular extension (ECE) present in 89 ND (32%). Concomitant chemotherapy was used in 73 patients (24%). The median time between surgery and PORT (S-RT interval) was six weeks (range 4-10). All patients were treated with IMRT: median dose of 66 Gy; 130 (43%) received 60 Gy; and 128 (43%) received 66 Gy. The five-year LC, RC, DC and OS were 85%, 82%, 86% and 69%; respectively. Of 39 pts with LF, only 8 (21%) had positive invasive margin(s). RF was the most frequent treatment failure (n=49). DM occurred in 39 patients, mainly in lung (n=28, 72%). On MVA, no factors correlated with LF. N2/3 (p<0.001) and longer S-RT interval (p=0.004) correlated with RF; while N2/3 and G2/3 (p<0.001, for both) correlated with DM. Of 90 deaths, 58 were cancer-related. No grade 4 or 5 RTOG late toxicity was reported; 27 patients had grade 3, including osteoradionecrosis (n=16), neck fibrosis (n=6), trismus (n=3) and dysphagia (n=2).

Conclusions: Surgery and PORT achieved excellent outcomes and low rates of late toxicity in OCSCC. Local failures were infrequent and not correlated with margin status. Longer S-RT interval, N2/3 and G2/3 disease were all correlated with worse outcomes.

Publication Details:

2015 Sep

Major Salivary Gland Carcinoma: Independent Prognostic Factors for Distant Metastasis and Survival. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: To report the outcome of post-operative radiotherapy (PORT) for salivary gland carcinoma (SGC) and identify patients at high risk of distant metastases (DM) who might benefit from systemic therapy.

Materials and Methods: Patients with major SGC treated between 2000-2012 were reviewed retrospectively. All patients underwent initial primary maximal resection with preservation of major nerves unless encased by tumour. Neck dissection (ND) was performed therapeutically in N+ or electively (N0, if high grade and/or T3/4). PORT was delivered using 3D-CRT or IMRT for risk features: T3/4, N+, positive/close margin, high-risk pathology, nerve involvement. Local (LC), regional (RC), distant control (DC); cause-specific (CSS) and overall survival (OS) were analyzed. Multivariate analysis (MVA) assessed predictors for DM, CSS and OS.

Results: A total of 304 patients were identified: 48% were Stage III/IV and 22% had lymphovascular invasion (LVI). The most common primary site was parotid gland (n=237; 78%). High-risk pathology was found in 190 patients (62.5%) as follows: salivary duct carcinoma (n=40), SCC (n=11), G2/3 adenocarcinoma (n=15), G2/3 mucoepidermoid (n=35), G2/3 carcinoma ex-pleomorphic adenoma (n=22), G3 adenoid cystic carcinoma (n=55) and rare histologies (n=12). Margin status was as follows: involved (n=152, 50%), very close ≤1 mm (n=98, 32%) and close <5mm (n=22, 7%). ND was performed in 154 patients (51%), with nodal extracapsular extension (ECE) in 32. Adjuvant chemotherapy was used in 10 patients (3%), all of them with positive/close margin and/or nodal ECE. IMRT (median dose 66 Gy) was used in 171 patients (56%), and 3D-CRT in 133 (44%; median dose 60 Gy). The five- and (ten-) year LC, RC, DC, CSS, OS were 96% (96%), 95% (94%), 80% (77%), 83% (82%), 78% (75%); respectively. Of 13 patients with local failure, 11 (85%) had positive margin (p=0.02). Regional failure occurred in 16 patients, four treated with IMRT and 12 with 3D-CRT (p=0.02). DM was the most frequent treatment failure (n=62), mainly in lung (n=38). On MVA, Stage III/IV, positive margin and high-risk pathology significantly correlated with DM. Of 62 deaths, 49 were cancer-related. MVA identified Stage III/IV and LVI as poor predictors for CSS and OS, while positive margin predicted CSS only. No grade 4 or 5 RTOG late toxicity was reported; 10 patients had grade 3, including neck fibrosis (n=4), osteoradionecrosis (n=4), trismus (n=1) and dysphagia (n=1).

Conclusions: Surgery and PORT achieved excellent long-term outcomes and low rates of toxicity in SGC.
Further research is required for patients with Stage III/IV, positive margin and high-risk pathology to determine incremental benefit of concurrent chemotherapy with PORT to reduce DM.

Publication Details:

2015 Sep Clinical Outcomes Following Re-Irradiation in Head and Neck Cancers. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Purpose: To evaluate the clinical outcomes following re-irradiation (rRT) in non-nasopharynx head and neck cancers.

Materials and Methods: Retrospective review of a prospectively collected database of all patients who had rRT with curative intent to the head and neck area, for either locoregional recurrences (LRR) or second new primaries (SNP), between 2002 and 2012. Overall survival (OS), local control (LC), regional control (RC) and distal control (DC) was calculated from time of rRT. Multivariate modeling was used to identify predictors of outcomes. Toxicity was graded per Common Terminology Criteria for Adverse Events v3.0 (CTCAE).

Results: Eighty-five patients were included in this study with a median follow-up of 47 months (4-117). Twenty-eight (33%) had rRT for SNP and 57 (67%) for LRR with a median interval from initial RT to rRT of 3.6 years (0.3-56.7). Histology was SCC in 65 (76%) patients and non-SCC in 20 (24%) patients. There were 63 (74%) males and the median age at rRT was 67.4 years. The TNM distribution was: T0-T1 (n=38), T2-T4 (n=47), N0 (n=42), N1 (n=12), N2 (n=31). Fifty-one (60%) patients had rRT adjuvantly post-surgery and 21 (25%) had concurrent chemotherapy. Seventy (82%) patients were treated with hyperfractionated regimes with 1-1.5 Gy/fraction, twice daily to a dose of 44-66 Gy, seven (8%) patients received conventional fractionation with 1.8-2 Gy/fraction to a dose of 40-70 Gy and seven (8%) received hypofractionated regimes with >2 Gy/fraction to a dose of 35-66Gy. The mean rRT BED10 was 58.1 and the mean cumulative BED10 was 84.7. 75 (88%) patients had rRT using IMRT technique, nine (11%) non-IMRT techniques and one patient had brachytherapy. The OS, LC, RC and DC at two years were 52% (42-64), 88% (78-93), 93% (84-97) and 89% (80-94) respectively. The two-year cancer-specific survival was 64% (52-73). Multivariate analysis showed that SCC histology was associated with worse OS {HR 3.91(1.6-9.3), p=0.0026} and SNP with better OS {HR0.4 (0.21-0.77)}. The rate of grade ≥3 late toxicity was five (2-13) at one year and 7% (3-16) at three years.

Conclusions: This large series shows that rRT using IMRT technique in head and neck cancers can be used safely to salvage selected patients.

Publication Details:
Satiavani Ramasamy, Shao Hui Huang, Susie Su, Wei Xu, John Waldron, John Cho, Andrew Hope, Andrew Bayley, John Kim, Jolie Ringash, Scott Bratman, Raymond Jang, David Goldstein, Brian O'Sullivan, Meredith Giuliani. Clinical Outcomes Following Re-Irradiation in Head and Neck Cancers. Radiother Oncol. Coauthor or Collaborator.

3. LOCAL

Invited Lectures and Presentations


2016 May 27 Invited Speaker. HPV genotype impacts survival in HNSCC. 18th Annual Wharton/Elia Day. Princess Margaret Cancer Center. Toronto, Ontario, Canada.

2016 May 20 Presenter. Genomic approaches to risk stratification in head and neck cancer. 7th Annual Princess
Margaret Cancer Center Faculty Retreat. Toronto, Ontario, Canada.


2016 Feb 25  **Presenter.** Basic and translational science.  AZ/Medimmune Head and Neck Cancer Preceptorship. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): **Bratman S.**

2016 Feb 1  **Invited Speaker.** Looking for Home Runs. Disease Site Breakout Session Presentation: Head and Neck. Personalizing Cancer Medicine Conference. Toronto, Ontario, Canada. Presenter(s): **Bratman, S.**


2015 Nov 17  **Presenter.** Biomarkers for oligometastases and SBRT. Ablative Radiotherapy for Metastases, Radiation Medicine Program IGRT Accelerated Education Program. Toronto, Ontario, Canada.


2015 Jun 10  **Presenter.** Opportunities for advancing personalized treatment strategies through circulating tumour DNA detection. Radiation Medicine Program (RMP) Research Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada.

2015 May 15  **Presenter.** Detecting circulating viral DNA for personalized cancer medicine. 17th Annual Wharton/Elia Day. Ontario, Canada.

2015 Apr 17  **Presenter.** Novel markers of therapy response. Clinical and Experimental Radiobiology, University of Toronto Department of Radiation Oncology (UT-DRO). Toronto, Ontario, Canada.

2015 Mar 24  **Presenter.** Study design for biomarker research. Resident Academic Block Lecture, University of Toronto Department of Radiation Oncology (UT-DRO). Toronto, Ontario, Canada.

2015 Mar 16  **Co-Presenter.** From protocol to program of excellence in oligometastases. Radiation Medicine Program (RMP) Research Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Dr. **S. Bratman;** Dr. R. Wong and Dr. K. Han.

2015 Feb 25  **Invited Speaker.** Basic and translational science.  AZ/Medimmune Head and Neck Cancer Preceptorship. Princess Margaret Cancer Center. Ontario, Canada. Presenter(s): **Bratman, S.**

2014 Oct 3  **Presenter.** Circulating DNA and its potential clinical utility. Applied Cancer Genomics Symposium, Princess Margaret Cancer Centre.

2014 Sep 25  **Presenter.** Clinical utility of circulating tumour DNA. Head and Neck Cancer Translational Research Meeting, Princess Margaret Cancer Centre.

2014 Jun 5  **Presenter.** Journal Club, Stanford Department of Radiation Oncology.


2013 May 9  **Presenter.** Bladder and testicular cancers. Resident Lecture, Stanford Cancer Institute.

2013 May 9  **Presenter.** SBRT/SABR for early stage lung cancer. Resident Lecture, Stanford Cancer Institute.

2013 May 2  **Presenter.** Journal Club, Stanford Department of Radiation Oncology.


Presented Abstracts


G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2013  Statistics Course for Medical Staff and Residents, Multilevel Education, Stanford University Department of Radiation Oncology.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Graduate Education

2015 - present  Primary Supervisor. Meghan Lambie, MSc. Supervisee Position: MSc. Genomic-based
prediction of inherent radiosensitivity and optimal chemoradiotherapy combinations.


Undergraduate MD


Postdoctoral Research Fellow (PhD)


Clinical Research Fellow (MD)

2015 - present  Co-Supervisor. Yaser Hasan, MD. Supervisee Position: MD PhD. Selection pressure and evolution induced by Immune checkpoint inhibitors and other immunologic therapies (SPECIAL).


2014 - present  Co-Supervisor. Kyaw Aung, MD. Supervisee Position: MD PhD. Selection pressure and evolution induced by Immune checkpoint inhibitors and other immunologic therapies (SPECIAL).


2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

Curriculum Vitae

James Brierley

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Hospital/University Health Network
610 University Avenue
Toronto, Ontario, Canada
M5G 2M
Telephone (416) 946-2124
Email james.brierley@rmp.uhn.on.ca

1. EDUCATION

Degrees
1977 - 1980 MB, BS, Westminster Medical School, University of London, United Kingdom
1974 - 1977 BSc, Pharmacology, University of London - King's College, United Kingdom

Postgraduate, Research and Specialty Training
1991 - 1993 Clinical Fellow, Radiation Oncology, Princess Margaret Hospital, Toronto
1986 - 1990 Registrar, Clinical Oncology, St. Luke’s Hospital, Guilford, United Kingdom
1984 - 1986 Rotating Registrar, Internal Medicine, King’s College Hospital, London, United Kingdom
1984 Senior House Officer, Cardiology, Brompton Hospital, London, United Kingdom
1983 Senior House Officer, Oncology, Royal Marsden Hospital, London, United Kingdom
1981 - 1983 Senior House Physician, Internal Medicine, Stoke Mandeville Hospital, Ayelsbury, United Kingdom
1981 House Surgeon, Westminster Hospital, London, United Kingdom
1980 House Physician, Westminster Hospital, London, United Kingdom

Qualifications, Certifications and Licenses
2007 - present FRCP, Fellow, Royal College of Physicians, United Kingdom
1993 - present FRCPC, Fellow, Radiation Oncology, Royal College of Physicians of Canada, United Kingdom
1990 - present FRCR, Fellow, Royal College of Radiologists, United Kingdom
1985 - 2007 MRCP, Member, Royal College of Medicine, United Kingdom
2. EMPLOYMENT

Current Appointments

2008 - present  Professor, Radiation Oncology, University of Toronto
1993 - present  Staff Physician, Department of Radiation Oncology, Princess Margaret Hospital, University Health Network

Previous Appointments

HOSPITAL
1993 - 1995  Consultant Physician, Wellesley Hospital, Toronto

UNIVERSITY - RANK
1999 - 2008  Associate Professor, Radiation Oncology, University of Toronto
1993 - 1999  Assistant Professor, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2005  Gold Medal, Royal College of Radiologists, United Kingdom. (Distinction)

Teaching and Education Awards

LOCAL
Received
2015  RMP Distinction in Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto
2007  Postgraduate Advocacy and Mentorship Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
2007  Postgraduate Classroom Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Therapeutic Radiology and Oncology
American Thyroid Association
Canadian Association of Radiation Oncologist
Canadian Medical Association
Ontario Medical Association
Administrative Activities

INTERNATIONAL

American College of Surgeons Oncology Group (ACOSOG)
1998 - 2004  Member, Endocrine Organ Site Committee

American Joint Committee on Cancer (AJCC)
2010 - present  Chair, Education and Promotions Task Force
2007 - 2010  Member, Education and Promotions Task Force
2002 - 2013  Canadian Representative

American Thyroid Association
2015 - present  Member, Awards Committee
2004 - 2007  Member, Membership Committee

International Thyroid Cancer Research Group
2015 - present  Member, Prospective Multicenter Registry of Metastatic Thyroid Carcinoma, Steering Committee
2013 - 2014  Member, By-laws Committee
2010 - 2013  Member, Membership Committee
2006 - 2010  Member, Executive Steering Committee

Princess Margaret Cancer Centre
1998 - 2001  Principal Investigator, Radiation Therapy Oncology Group

Union for International Cancer Control (UICC)
2012 - present  Co-Chair, TNM Prognostic Factors Project Committee
2002 - present  Canadian Representative, TNM Prognostic Factors Project Committee
2002 - 2012  Rapporteur, TNM Prognostic Factors Project Committee

World Health Organization
2012 - present  Member, ICD-11 Neoplasm Topic Advisory Group

NATIONAL

Canadian Association of Radiation Oncologists (CARO)
2003 - 2005  Ontario Representative, Executive Committee
2002 - 2007  Member, History and Archives Committee

Canadian Partnership Against Cancer
2013 - present  Surveillance Lead
2009 - present  Chair, National Staging Advisory Committee
2011 - 2013  Chair, Surveillance Action Group
2007 - 2013  Member, Surveillance Action Group

National Cancer Institute of Canada (NCIC)
2001 - 2008  **Chair**, Canadian Committee on Cancer Staging

**National Cancer Institute of Canada/Clinical Trials Group**

2004 - 2008  **Co-Chair**, Rectal Cancer Orientated Group

**Royal College of Physicians and Surgeons of Canada**

2006 - 2010  **Chair**, Radiation Oncology Examining Board, Canada.

**PROVINCIAL / REGIONAL**

**Cancer Care Ontario**

2015 - present  **Chair**, Thyroid Pathway Map Working Group

2012 - present  **Clinical Lead**, Staging

2008 - 2012  **Clinical Lead**, Stage Capture Project

2007 - 2008  **Senior Clinical Consultant**, Stage Capture Project

2007 - 2008  **Chair**, Stage Capture Project - Technical Working Group

2006 - 2007  **Member**, Stage Capture Project - Data Quality Management Program Working Group

2005 - 2008  **Member**, Stage Capture Project - Provincial Leadership Team

**Thanet and Canterbury Hospitals**

1984 - 1985  **Member**, Drugs and Therapeutics Committee, Kent, United Kingdom.

**Thanet Regional Health Authority**

1984 - 1985  **Member**, Thanet Division of Medicine Committee, Kent, United Kingdom.

**LOCAL**

**Princess Margaret Cancer Centre**

2015 Jul - present  **Lead**, Princess Margaret Cancer Centre Endocrine Site group Leader, Ontario, Canada.

2004 - present  **Medical Director**, Cancer Registry & Data Access Committee

2004 - present  **Member**, Cancer Clinical Research Unit (Formally Clinical Trials Support Unit), Toronto, Ontario, Canada.

2002 - present  **Leader**, Department of Radiation Oncology: Endocrine Site Group

1999 - present  **Member**, Cancer Registry Committee

2002 - 2010  **Member**, Cancer Committee

2002 - 2010  **Leader**, Gastrointestinal Site Group

2002 - 2007  **Member**, Phase II Consortium, Data Safety Monitoring Board

1999 - 2002  **Chair**, Staging and Education Committee

1998  **Member**, Cancer Committee

1997 - 1998  **Secretary**, Medical Staff Association

1997 - 1998  **Member**, Medical Advisory Committee

1996 - 2004  **Leader**, Department of Radiation Oncology: Gastrointestinal Site Group

**Stoke Mandeville Hospital**

1982 - 1983  **President**, Junior Doctors’ Mess

1982 - 1983  **Treasurer**, Junior Doctors’ Mess
C. Academic Profile

1. RESEARCH STATEMENTS

To evaluate the prognostic factors in thyroid malignancy and evaluate the role of radioactive iodine and external beam radiotherapy in the management of thyroid malignancy.

To determine the role of radiation in the definitive and adjuvant treatment of gastrointestinal malignancy.

Evaluation of staging systems and audit of staging procedures.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2004 Jul - 2007 Jun  Principal Investigator. A Study to Assess the Utility of a Canadian Web-Based Research
E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


25. McLeod DS, Cooper DS, Ladenson PW, Ain KB, Brierley JD, Fein HG, Haugen BR, Jonklaas J, Magnner J, Ross DS, Skarulis MC, Steward DL, Maxon HR, Sherman S. For The National Thyroid Cancer Treatment Cooperative Study Group SI. Prognosis of differentiated thyroid cancer in relation to serum thyrotropin and thyroglobulin antibody status at time of diagnosis. Thyroid. 2014 Jan;24(1):35-42. Coauthor or Collaborator.


48. Jonklaas J, Cooper DS, Ain KB, Bigos T, Brierley JD, Haugen BR, Ladenson PW, Magner J, Ross DS, Skarulis MC, Steward DL, Maxon HR, Sherman SL. National Thyroid Cancer Treatment Cooperative Study Group. Radiation safety in patients with stage I differentiated thyroid cancer. Thyroid. 2010 Dec;20(12):1423-4. Coauthor or Collaborator.


71. Jonklaas J, Sarlis NJ, Litofsky D, Ain KB, Bigos ST, **Brierley JD**, Cooper DS, Haugen BR, Ladenson PW, Magner J, Robbins J, Ross DS, Skarulis M, Maxon HR, Sherman SI. Outcomes of patients with differentiated thyroid carcinoma following initial therapy. Thyroid. 2006 Dec;16(12):1229-42. Coauthor or Collaborator.


85. Tsang RW, Brierley J, Asa SL, Sturgeon JF. Malignant teratoma of the thyroid: aggressive chemoradiation therapy is required after surgery. Thyroid. 2003 Apr;13(4):401-4. **Coauthor or Collaborator.**


91. Wong CS, Tsang RW, Cummings BJ, Fyles AW, Couture J, **Brierley JD**, Pintilie M. Proliferation parameters in epidermoid carcinomas of the anal canal. Radiother Oncol. 2000 Sep;56(3):349-53. **Coauthor or Collaborator.**


93. Sherman SI, **Brierley JD**, Sperling M, Ain KB, Bigos ST, Cooper DS, Haugen BR, Ho M, Klein I, Ladenson PW, Robbins J, Ross DS, Specker B, Taylor T, Maxon HR 3rd. Prospective multicenter study of thyroiscarcinoma treatment: initial analysis of staging and outcome. National Thyroid Cancer Treatment Cooperative Study Registry Group. Cancer. 1998 Sep;1;83(5):1012-21. **Co-Principal Author.**

94. Cooper DS, Specker B, Ho M, Sperling M, Ladenson PW, Ross DS, Ain KB, Bigos ST, **Brierley JD**, Haugen BR, Klein I, Robbins J, Sherman SI, Taylor T, Maxon HR 3rd. Thyrotropin suppression and disease progression in patients with differentiated thyroid cancer: results from the National Thyroid Cancer Treatment Cooperative Registry. Thyroid. 1998 Sep;8(9):737-44. **Coauthor or Collaborator.**

95. Chow E, Tsang RW, **Brierley JD**, Filице S. Parathyroid carcinoma--the Princess Margaret Hospital experience. Int J Radiat Oncol Biol Phys. 1998 Jun 1;41(3):569-72. **Coauthor or Collaborator.**

96. Hodgson DC, **Brierley JD**, Tsang RW, Panzarella T. Prescribing 131Iodine based on neck uptake produces effective thyroid ablation and reduced hospital stay. Radiother Oncol. 1998 Jun;47(3):325-30. **Senior Responsible Author.**


98. Tsang RW, **Brierley JD**, Simpson WJ, Panzarella T, Gospodarowicz MK, Sutcliffe SB. The effects of surgery, radiiodine, and external radiation therapy on the clinical outcome of patients with differentiated thyroid carcinoma. Cancer. 1998 Jan 15;82(2):375-88. **Co-Principal Author.**


**Journal Articles, Randomized Controlled Trial**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Book Chapters


Multimedia


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2014 Nov 2 Invited Speaker. Thyroid Cancer Tumor Board Session. American Thyroid Association. San Diego, California, United States.


2013 Panelist. Nodal disease management. 2nd World Congress on Thyroid Cancer. Toronto.

2013 Panelist. Anaplastic Thyroid Cancer. 2nd World Congress on Thyroid Cancer. Toronto.

2013 Chair. Instructional Course - External beam radiation therapy in the management of aggressive thyroid cancer. 2nd World Congress on Thyroid Cancer. Toronto.


2010 Chair. “New UICC Staging System for Cancer (TNM-7) and Japanese Staging System: Problems and
2010
2009
External Beam Radiation Therapy in the Management of Aggressive Thyroid Cancer. World Congress on Thyroid Cancer. Toronto.
2009
Future Directions in Advanced Thyroid Cancer Therapies Radiation for Locally Advanced Thyroid Cancer. 80th Annual Meeting of the American Thyroid Association. Palm Beach, Florida.
2007
Treatment planning for Rectal and Anal Cancers. Addenbrookes Hospital. Cambridge, United Kingdom.
2006
External Beam Radiation Therapy in Thyroid Cancer. The Endocrine Society. 88th Annual Scientific Meeting. Boston.
2006
2006
Meet the Professors Workshop Radioactive Iodine and External Beam Radiotherapy: when to use. American Thyroid Association 74th Annual Scientific Meeting. Phoenix.
2005
2005
Evans Memorial Lecture Oesophageal Chemoradiation: Target Volume Definition. Royal College of Radiologist, Annual Scientific Meeting. London, United Kingdom.
2005
Rectal Cancer: Is there a dose response with CRT. Royal College of Radiologist, Annual Scientific Meeting. London, United Kingdom.
2003
Differentiated Thyroid Cancer: is there a role for external beam radiotherapy. Surgery of the Thyroid and Parathyroid Glands. Harvard University Continuing Medical Education. Boston. (Continuing Education).
2002
External Radiotherapy in Thyroid Cancer Radiotherapy in Thyroid Cancer. American Thyroid Association. 74th Annual Scientific Meeting. Los Angeles.
2000
Adjuvant Therapy in Differentiated Thyroid Cancer. Thyroid Cancer Symposium. University of Cincinnati. Ohio, United States.
1999
Radiation in Rectal Cancer. St Luke's Hospital, Department of Clinical Oncology. Guilford, United Kingdom.
1998
Accelerated External Beam Radiotherapy Alone for Sphincter Preservation. The Fourth International Conference on Gastrointestinal Oncology. Pentagon City, Virginia, United States.
1998
Radiotherapy and High Dose Infusional 5FU with and without Mitomycin C for Anal Cancer. The Fourth International Conference on Gastrointestinal Oncology. Pentagon City, Virginia, United States.
1997
The National Thyroid Cancer Treatment Cooperative Study Registry Experience. Meet The Professors Lunch. The American Thyroid Association Conference. San Diego.
1997
1996
The Role of Radiation in Rectal Cancer. Addenbrookes Hospital. Cambridge, United Kingdom.

Presented Abstracts

Presented and Published Abstracts

2014 Oct Long-Term Moderate Thyroid Hormone Suppression Therapy is Associated with Improved Outcomes in Differentiated Thyroid Carcinoma: National Thyroid Cancer Treatment Cooperative Study Group Registry Analysis 1987-2012. 84th Annual Meeting of the American Thyroid Association. Colorado, California, United States.

Publication Details:


Publication Details:

2012 Sep Thyroid cancer survivors’ supportive care needs: A cross-sectional survey. 82nd Annual Meeting of the American Thyroid Association. Quebec, Quebec, Canada.

Publication Details:
James BRIERLEY


2011
Accumulated Delivered Dose-response of Stereotactic Body Radiotherapy (SBRT) for Liver Metastases. 53rd Annual ASTRO Meeting. Miami Beach, Florida.

Publication Details:

2011

Publication Details:

2011
Evaluation of Set-up Reproducibility with and without Customized Vacuum Immobilization Device in Rectal Cancer patients Treated with Preoperative Pelvic Radiation Therapy. 53rd Annual ASTRO Meeting. Miami Beach, Florida.

Publication Details:

2011

Publication Details:

2011
Patterns of Practice, Outcomes and Selection of Treatment Modalities for Patients with Localized Esophageal (E) and Gastroesophageal (GE) Cancer. 53rd Annual ASTRO Meeting. Miami Beach, Florida.

Publication Details:

2011
Prospective Evaluation of IMRT for Anal and Perianal Cancer: Early Patterns of Failure. 53rd Annual ASTRO Meeting. Miami Beach, Florida.

Publication Details:

2008 Oct
2008

Effect of Gender on Differentiated Thyroid Cancer Survival in the National Thyroid Cancer Treatment Cooperative Study Group Registry. 79th Annual Meeting of the American Thyroid Association and Registry. Chicago, Illinois.

Publication Details:
Jonklaas J, Litofsky D, Munsell M, Nogueras-Gonzales, Ain KB, Bigos T, Brierely JD, Cooper DS, Haugen BR, Ladenson W, Magner JA, Maxon HR, Robbins J, Ross D, Skarulis M, Stewart DL, Sherman S. Effect of Gender on Differentiated Thyroid Cancer Survival in the National Thyroid Cancer Treatment Cooperative Study Group Registry. Thyroid. 2008 Oct;18(Suppl 1):S21, A37. Coauthor or Collaborator.

2008

The Risk of Second Primary Malignancy in Thyroid Cancer Survivors Treated with Radioactive Iodine: A Systematic Review and Meta-Analysis. 79th Annual Meeting of the American Thyroid Association and Registry. Chicago, Illinois.

Publication Details:

2008

Hurtle Cell Carcinoma of the Thyroid: Prognostic Factors in the National Thyroid Cancer Treatment Cooperative Study (NTCTCS). 79th Annual Meeting of the American Thyroid Association and Registry. Chicago, United States.

Publication Details:

2007

Endocrinologists’ Self-Reported Utilization of Recombinant Thyrotropin in the Follow-up of Well-Differentiated Thyroid Carcinoma: Secondary Analysis of the CAM-ThyrCa Survey.

Publication Details:

2007

Secondary Primary Malignancy Risk in Thyroid Cancer Survivors: A Systematic Review and Meta-Analysis.

Publication Details:

2006

Bortezomib in Patients with Metastatic Differentiated Thyroid Cancer: Preliminary Results of a Multicenter Phase II Study.

Publication Details:
Brierley JD, Tsang RW, Glisson BS, Kies MS, Kane MA, Haugen BR, Litofsky DR, Sherman SI. Bortezomib in Patients with Metastatic Differentiated Thyroid Cancer: Preliminary Results of a Multicenter
Phase II Study. Thyroid. 2006;16(9):857. **Principal Author.**

2006 Differentiated Thyroid Cancer Presenting with Metastatic Disease: Clinical Management and Outcome.

*Publication Details:*  
Tsang RW, Sampson E, Le LW, Rotstein L, **Brierley JD**. Differentiated Thyroid Cancer Presenting with Metastatic Disease: Clinical Management and Outcome. Thyroid. 2006;16(9):900. **Co-Principal Author.**

2006 Correlation Between Liver and Kidney dose Volume Histograms (DVHs) and late Toxicity after Adjuvant Radiochemotherapy for Gastric Adenocarcinoma. American Society for Therapeutic Radiology and Oncology (ASTRO).

*Publication Details:*  

2003 Differentiated Thyroid Cancer: Analysis of Prognostic Factors and Effect of Treatment from a Single Institution on Patients Treated Over Forty Years.

*Publication Details:*  
**Brierley J**, Tsang R, Panzarella T, Bana N. Differentiated Thyroid Cancer: Analysis of Prognostic Factors and Effect of Treatment from a Single Institution on Patients Treated Over Forty Years. Thyroid. 2003;13(S1). **Principal Author.**

2001 Near-total/total Thyroidectomy and Thyroid Suppression H Therapy Improves Survival of Patients with Differentiated Thyroid Cancer.

*Publication Details:*  
Jonklaas J, Sarlis N, Litofsky D, Cooper D, Ain K, Bigos S, **Brierley J**, Haugen B, Kim P, Ladenson P, Marks P, Robbins J, Ross D, Skarulis M, Maxon H, Sherman S. Near-total/total Thyroidectomy and Thyroid Suppression H Therapy Improves Survival of Patients with Differentiated Thyroid Cancer. Thyroid. 2001;11(S1). **Coauthor or Collaborator.**

1996 The Impact of External Beam Radiation in Patients with Locally Advanced Thyroid Cancer.

*Publication Details:*  
**Brierley J**, Klein I, Ho M for the National Thyroid Cancer Treatment Cooperative Study Registry. The Impact of External Beam Radiation in Patients with Locally Advanced Thyroid Cancer. Thyroid. 1996;6(S1). **Principal Author.**

1995 Medullary Thyroid Cancer - Prognostic Factors and the Role of External Radiation Therapy.

*Publication Details:*  

1995 The Role of Radiation Therapy in Differentiated Thyroid Cancer.

*Publication Details:*  
Tsang R, **Brierley J**, Simpson W J, Panzarella A, Gospodarowicz M, Sutcliffe S. The Role of Radiation Therapy in Differentiated Thyroid Cancer. Thyroid. 1995;5:S217. **Co-Principal Author.**


*Publication Details:*

Other Lectures and Presentations

2007  Organ motion during preoperative chemoradiation for rectal cancer. World Congress on Gastrointestinal Cancer.

2006  Bortezomib in Patients with Metastatic Differentiated Thyroid Cancer: Preliminary Results of a Multicenter Phase II Study. American Thyroid Association. Plenary Presentation.

2004  The Internet Facilitates Cancer Staging. UICC World Conference for Cancer Organizations. Dublin, Ireland.


2001  Phase I/II Study of combined modality therapy in Pancreatic Cancer with Gemcitabine (Gem) and Escalating Dose Radiation Therapy (RT). American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco.

2000  Acute morbidity of preoperative concurrent radiotherapy and 5FU infusion in rectal cancer. European Society for Therapeutic Radiology and Oncology (ESTRO). Istanbul.


1999  How accurately is the TNM Stage recorded in a tertiary cancer center. American Society for Therapeutic Radiology and Oncology (ASTRO). San Antonio.

1997  Improved survival and local control following XRT in Differentiated Thyroid Cancer. American Society for Therapeutic Radiology and Oncology (ASTRO). Orlando.

1996 Jun  Early Stage Hodgkins Disease - The Late Effects of Treatment. The International Conference on Malignant Lymphoma.


1995  Medullary Thyroid Cancer - Prognostic Factors and the Role of External Radiation Therapy. The International Thyroid Congress. Toronto.

2. NATIONAL

Invited Lectures and Presentations


2012  Mercury rising: Who can avoid neoadjuvant RT. Toronto Cancer Conference. Toronto.


2010  Cancer Staging 101. Canadian Partnership Against Cancer.


2008  Thyroid Cancer a Radiation Oncologists Perspective. Canadian Society of Nuclear Medicine Annual Scientific Meeting 2008.

2004  Do we over treat or under treat Differentiated Thyroid Cancer? Vancouver Cancer Centre. Vancouver.

2002  The Management of Differentiated Thyroid Cancer. The experience from a single Institution (Princess Margaret Hospital) and a Multinational Registry. Montreal Thyroid Club. Montreal.


2002  High Dose Iodine Therapy in Thyroglobulin Positive Scan Negative Thyroid Cancer. Canadian Diabetes Association and Canadian Society of Endocrinology and Metabolism. 6th Annual Meeting. Vancouver.

Presented and Published Abstracts


Publication Details:


Publication Details:

2011  Patterns of Practice and its Effect on Outcomes for Patients with Localized Esophageal (E) and Gastroesophageal (GE) Cancer - a Decade of Practice. Canadian Association of Radiation Oncology
James BRIERLEY

Annual Meeting (CARO). Winnipeg, Manitoba.

Publication Details:

2009
Management of Pituitary Adenoma with Stereotactic Radiotherapy at Princess Margaret Hospital. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009
Intensity Modulated Radiotherapy (IMRT) and Concurrent Chemotherapy (CHT) for Anal and Perianal Cancer: Preliminary Report of Acute Toxicity. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

Other Lectures and Presentations

2001

1999
The accuracy of recorded TNM Stage in a tertiary cancer center. Canadian Association of Radiation Oncologists (CARO). Montreal.

1999

1997
Designing a Curriculum for Quality Improvement in a Postgraduate Education Program. Canadian Association for Medical Education (CAME). Halifax.

1996
A review of Staging Classifications in Thyroid Cancer. The Royal College of Physicians and Surgeons. Halifax.

1995
Late Mortality and Morbidity following treatment for early stage Hodgkin’s Disease. The Royal College of Physicians and Surgeons. Montreal.

1994
Failure to Demonstrate an Effect of Interruption of Radiation Therapy on Local Control of Rectal Cancer. The Royal College of Physicians and Surgeons of Canada. Toronto.

1993
Involved field radiation in clinical stage I & II low grade lymphoma. The Royal College of Physicians and Surgeons of Canada. Vancouver.

1992

1992
External Beam Radiotherapy as Primary Treatment for Rectal Adenocarcinoma. The Royal College of Physicians and Surgeons of Canada. Ottawa.
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2013  All stage II and III rectal cancer should have adjuvant therapy. Do they? Or should they? Grand Rounds. Kingston.

2012  Visiting Professor. Should we give adjuvant therapy to all stage II and III rectal cancers? South Lake Hospital. Newmarket.

2011  Cancer Stage: How are we using Stage Data In Ontario? Does TNM have a future? Kingston Regional Cancer Centre; Grand Rounds Kingston. (Continuing Education).


2010  IMRT in Anal Cancer. The University of Toronto, Department of Radiation Oncology IMRT Insights: Transforming Practice Through Collaboration.


2007  How to Stage. McLaughlin Durham Regional Cancer Centre. Oshawa.


1999  Adjuvant Therapy in Thyroid Cancer. Queen’s University, Kingston Continuing Medical Education. (Continuing Education).


4. LOCAL

Invited Lectures and Presentations


2007  Panelist. Colorectal Cancer Symposium. Update on General Surgery, University of Toronto. (Continuing Education).

2006  External Beam Radiotherapy. Current Concepts in the Management of Thyroid Nodular Disease,
University of Toronto. (Continuing Education).

2005
Adjuvant Chemoradiation in Rectal Cancer. New Developments in Cancer Management, Princess Margaret Hospital Conference.

2004
External Radiation Therapy in Differentiated Thyroid Cancer. Current Concepts in the Management of Thyroid Nodular Disease, University of Toronto. (Continuing Education).

2002
The Role for External Radiation Therapy in Differentiated Thyroid Cancer. Current Concepts in the Management of Thyroid Nodular Disease, University of Toronto. (Continuing Education).

2001
Adjuvant Therapy in Gastric Cancer. COMET.

2000
Chemotherapy and Radiation therapy in Pancreatic Cancer. Focus on Gastrointestinal Oncology, University of Toronto, Continuing Medical Education. (Continuing Education).

1999
Chemoradiation. Indications and Applications. Future Directions in Radiation Oncology University of Toronto, Continuing Medical Education. (Continuing Education).

1999
The Role for Adjuvant Therapy in Thyroid Cancer. Current Concepts in the Management of Thyroid Nodular Disease. University of Toronto, Continuing Medical Education. (Continuing Education).

1998
Cancer of the Esophagus: Radiation and/or Chemotherapy. Course on Gastroenterology and Digestive Endoscopy. Wellesley Hospital. Toronto.

1998
Role of External Beam Radiation in the Multidisciplinary Management of Pancreatic Cancer. HPB Mini Symposium for the Visiting Professor, Department of Surgery, Faculty of Medicine, University of Toronto.

1997
The Role of Radiation Therapy in Locally Advanced Disease. Update in Pancreatic Cancer Research and Treatment. University of Toronto, Continuing Medical Education. (Continuing Education).

1997

1997
Is there a role for surgery in the management of Esophageal Cancer? Combined Annual Thoracic Refresher Course.

1996
The Role of Adjuvant Chemotherapy and Radiotherapy in Colorectal Cancer, Update in General Surgery. University of Toronto, Continuing Medical Education. (Continuing Education).

1996
The Adjuvant Management of Differentiated Thyroid Cancer, Current Concepts in the Management of Thyroid. University of Toronto, Continuing Medical Education. (Continuing Education).

1996
Esophageal Cancer, Update on Digestive Diseases. University of Toronto, Continuing Medical Education. (Continuing Education).

1995
The Role of Combination Therapy in Oesophageal Cancer. Toronto Thoracic Surgery Refresher Course, University of Toronto, Continuing Medical Education. (Continuing Education).

1993
The Role of Primary Radiotherapy in Rectal Cancer: Controversies in Colorectal Cancer. University of Toronto, Continuing Medical Education 1993. (Continuing Education).

5. OTHER

Presented and Published Abstracts

2014 Oct
Satisfaction with decisions on radioactive iodine use in low risk papillary thyroid cancer survivors. 84th Annual Meeting of the American Thyroid Association. Coronado, California, United States.

Publication Details:
decisions on radioactive iodine use in low risk papillary thyroid cancer survivors. Thyroid Cancer. 2014 Oct. Coauthor or Collaborator.

2013 Oct 1 A randomized controlled trial of lorazepam to reduce organ motion in patients receiving upper abdominal radiation therapy. ASTRO’s 55th Annual Meeting. Atlanta, Georgia, United States.

_Publication Details:_

2012 Sep Pituitary adenomas treated with fractionated stereotactic radiotherapy: Clinical outcome and toxicity. 26th CARO Annual Scientific Meeting. Quebec, Quebec, Canada.

_Publication Details:_

2012 Sep Making smartphone programming accessible to all: Creating a cancer staging app using app inventor for Android smartphones. 26th CARO Annual Scientific Meeting. Quebec, Quebec, Canada.

_Publication Details:_

2010 Nov IMRT and concurrent chemotherapy for anal and perianal cancer: The Princess Margaret Hospital experience. 52nd ASTRO Annual Meeting. San Diego, California, United States.

_Publication Details:_

2010 Nov Changes in Liver Volume During Radiotherapy Delivered Concurrently with Sorafenib. 52nd ASTRO Annual Meeting. San Diego, California, United States.

_Publication Details:_


_Publication Details:_
James BRIERLEY


2007

Organ Motion During Preoperative Chemoradiation for Rectal Cancer.

Publication Details:

2006

Clinical Outcome of Patients with Differentiated Thyroid Cancer Presenting with Metastatic Disease at Diagnosis.

Publication Details:

2006

Late Toxicity After Adjuvant Radiochemotherapy for Gastric Adenocarcinoma.

Publication Details:

2006

Upper Abdominal Organ Motion During Conformal Radiotherapy for Gastric Carcinoma.

Publication Details:

2006

Primary and Adjuvant Chemoradiotherapy for Locally Advanced Pancreatic Cancer: A Phase I/II Study with Long Term Outcome.

Publication Details:

2006

What is the Impact of 4D CT on the Planning of Esophageal Cancer?

Publication Details:

2006

Predictors of Outcome in Cervical Esophageal Cancer.

Publication Details:

2005

A Phase II Study of Preoperative Conformal Radiotherapy and Chemotherapy (CPTII/Cisplatin) for Esophageal Cancer.
Publication Details:
**Coauthor or Collaborator.**

2005
Toxicity, Survival and Predictors of Outcome in Patients Receiving Adjuvant Chemoradiation for Gastric Adenocarcinoma.

Publication Details:
**Coauthor or Collaborator.**

2005
Abdominal Organ Motion During Conformal Radiation.

Publication Details:

2005
Differentiated Thyroid Carcinoma: Analysis of Extra-thyroidal Extension and Residual Disease.

Publication Details:

2005
Clinical Outcome of Anaplastic Thyroid Carcinoma Treated with Once Daily and BID Fractionation Regimens.

Publication Details:
Wang Y, **Brierley J**, Tsang R, Yi Q-L. Clinical Outcome of Anaplastic Thyroid Carcinoma Treated with Once Daily and BID Fractionation Regimens. Radiother Oncol. 2005;76(Suppl 1):S55, A187. **Senior Responsible Author.**

2004

Publication Details:

2004
Preoperative Radiation with Concurrent Chemotherapy for Resectable Rectal Cancer: Does Dose Escalation Improve Local Recurrence Free Survival and Disease Free Survival?

Publication Details:

2004
Primary Radical External Beam Radiotherapy of Rectal Adenocarcinoma: Long Term Outcome of 271 Patients.

Publication Details:


Publication Details:

2002 Reasons for No Post-Operative Therapy in Stage II/III Rectal Cancer.

Publication Details:


Publication Details:

2002 A Population-Based Assessment of Rectal Cancer: Quality Improvement Opportunities in Pathology Reporting.

Publication Details:

2001 A Phase II Study of Preoperative Concurrent Chemotherapy and Escalating Dose of Radiotherapy in Patients with Adenocarcinoma of the Rectum.

Publication Details:


Publication Details:

2001 Phase I/II Study of Combined Modality Therapy in Pancreatic Cancer with Gemcitabine (Gem) and Escalating Dose Radiation Therapy (RT).

Publication Details:
2001  Self-Directed Multidisciplinary Continuing Education: Designing a CD ROM module on Colorectal Cancer.

*Publication Details:* 

2000  Princess Margaret Hospital, University of Toronto. Acute Morbidity of Preoperative Concurrent Radiotherapy and 5FU Infusion in Rectal Cancer.

*Publication Details:* 
Brierley J, Swallow C, Oza A, Catton P, Wong CS, McLean M, Cummings B, Siu L, Moore M. Princess Margaret Hospital, University of Toronto. Acute Morbidity of Preoperative Concurrent Radiotherapy and 5FU Infusion in Rectal Cancer. Radiother Oncol. 2000;56(S1):S33. **Principal Author.**

2000  The accuracy of Recorded TNM Stage.

*Publication Details:* 

1999  A phase 1 study of radiation therapy and gemcitabine in patients with locally advanced pancreatic cancer.

*Publication Details:* 

1999  The accuracy of recorded TNM Stage in a tertiary cancer center.

*Publication Details:* 

1999  Princess Margaret Hospital, University of Toronto. Limited toxicity from combined preoperative radiation and continuous infusion chemotherapy in rectal cancer.

*Publication Details:* 

1999  How accurately is the TNM Stage recorded in a tertiary cancer center.

*Publication Details:* 

1997  The Use of Postoperative Thyroid Scans to Guide 131-Iodine Dosing for Thyroid Ablation.

*Publication Details:* 

1997  Improved Survival and Reduced local Relapse following External Beam Radiation in Papillary Thyroid Cancer with Microscopic Residuum following Surgical Excision.

*Publication Details:* 
Brierley J, Tsang R, Panzarella T, Gospodarowicz M. Improved Survival and Reduced local Relapse...

1996

Early Stage Hodgkins Disease - The Late Effects of Treatment.

Publication Details:

1996

Prognostic Factor Based Management of Clinical Staged I and II Hodgkin’s Disease.

Publication Details:

1996

Does Combined Modality Therapy (CMT) of lymphomas increase Acute Toxicity of Radiation Therapy? Results of a Two Year Prospective Audit.

Publication Details:

1996

Non-Hodgkins Lymphoma of the Waldeyer’s Ring.

Publication Details:

1996

Treatment Results in Clinical Staged I and II Large Cell Lymphoma.

Publication Details:

1996

A review of Staging Classifications in Thyroid Cancer.

Publication Details:

1996

The Treatment Planning Drill at the University of Toronto- a Recipe for Success.

Publication Details:

1995

Late Mortality and Mordidity following treatment for early stage Hodgkin’s Disease.

Publication Details:

1995

The Role of Radiation Therapy in Differentiated Thyroid Cancer.
Publication Details:

1994 Failure to Demonstrate an Effect of Treatment Time and Interruption of Radiation Therapy on Local Control of Rectal Cancer.

Publication Details:

1994 The Role of Radiation therapy in Hormonally - Active Pituitary Adenomas.

Publication Details:

1994 Radiation Therapy, Mitomycin C, and 5 Fluorouracil Infusion compared to Radiation Therapy and 5FU Infusion in the Non-surgical Management of Esophageal Squamous Carcinoma.

Publication Details:


Publication Details:

1993 A Morbidity and Mortality of Radiation Therapy for Pituitary Adenoma.

Publication Details:

1993 Involved Field Radiation in Clinical Stage I & II Low Grade Lymphoma.

Publication Details:

1993 Radiotherapy for Non-Functioning Pituitary Adenomas: Treatment Results and Prognostic Factors.

Publication Details:

1992 A Prospective Study of the Volume of Small Bowel in the Pelvis Before and During Radiotherapy.

Publication Details:
James BRIERLEY

1992  External Beam Radiotherapy as Primary Treatment for Rectal Adenocarcinoma.

  Publication Details:

1989  Pagets Disease of the Nipple Treated with Radiotherapy.

  Publication Details:

1988  The Influence of Breast Size on Late Radiation Reaction.

  Publication Details:
Curriculum Vitae

Robert Glen Bristow

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Radiation Medicine Program
Princess Margaret Hospital
610 University Ave., Rm 5-964
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-2936
Fax 416-946-2227
Email Rob.Bristow@rmp.uhn.on.ca

1. EDUCATION

Degrees
1995 - 1997 PhD, Medical Biophysics, University of Toronto, Canada
1988 - 1992 MD, Graduated with Honors, Medicine, Faculty of, University of Toronto, Canada
1986 - 1988 MSc, Medical Biophysics, University of Toronto, Canada
1982 - 1986 BSc, Graduated with Honors, Zoology, University of Toronto, Canada

Postgraduate, Research and Specialty Training
1997 - 1998 Visiting Scholar-Post MD Fellowship, Department of Cell Biology and Genetics, Erasmus University, Rotterdam, Netherlands
1993 - 1996 Resident, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada
1992 - 1993 Internship, Comprehensive Internal Medicine, Toronto General Hospital, Department of Medicine, University of Toronto, Canada
1990 Summer Research Fellowship, Department of Radiation Medicine, Massachusetts General Hospital, Harvard University, Boston, United States
1989 Visiting Scientist, MD Anderson Cancer Center, Department of Experimental Radiotherapy, University of Texas, Houston, United States

Qualifications, Certifications and Licenses
2013 Aug - 2014 Aug Primary Human Prostate Cancer Xenografts for the Study of Radiosponse and DNA Repair in Stem Cells, University Health Network, Toronto, Ontario, Canada, License / Membership #: AUP 2269.5
2013 Aug - 2013 Nov Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and Radiotherapy on the Basis of Increased Tumour Growth Delay and Decreased Gut Toxicity, Toronto, Ontario, Canada, License / Membership #: AUP 833.22
2013 May - 2013 Aug Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and
Radiotherapy on the Basis of Increased Tumour Growth Delay and Decreased Gut Toxicity, Toronto, Ontario, Canada, License / Membership #: AUP# 833.21

2013 Jan - 2013 Jul Primary Human Prostate Cancer Xenografts for the Study of Radiosponse and DNA Repair in Stem Cells, University Health Network, Toronto, Ontario, Canada, License / Membership #: AUP# 2269.4

2013 Jan - 2013 Jun Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and Radiotherapy on the Basis of Increased Tumour Growth Delay and Decreased Gut Toxicity. University Health Network, Toronto, Ontario, Canada, License / Membership #: AUP# 833.2

2011 Biosafety certificate. DNA Repair and Cell Cycle Checkpoints in Human Cancer, University Health Network, Canada, License / Membership #: # 25116

2011 Primary Human Prostate Cancer Xenografts for the Study of Radiosponse and DNA Repair in Stem Cells. University Health Network Animal Care Committee, Canada, License / Membership #: #AUP 2269.0

2010 - 2011 Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and Radiotherapy on the Basis of Increased Tumour Growth Delay and Decreased Gut Toxicity, University Health Network Animal Care Committee, Canada, License / Membership #: #AUP 833.14

2009 - 2011 Biosafety certificate, STTARR/PMH Research, Canada, License / Membership #: #13376

2009 - 2011 Biosafety certificate. DNA Repair and Cell Cycle Checkpoints in Human Cancer, University Health Network, Canada, License / Membership #: # 13376

2008 - 2010 Biosafety Certificate. Characterization of New Drugs Which Sensitize Human Xenografts to Chemotherapy and Radiotherapy and Improved radiation induced lung toxicity prediction with linked pre-clinical/clinical models and biomarkers. University Health Network, Canada, License / Membership #: #:12456

2006 - 2008 Biosafety Certificate. DNA Repair and Cell Cycle Checkpoints in Human Cancer, University Health Network, Canada, License / Membership #: #7398

2001 - 2007 Studies in Molecular Carcinogenesis and Molecular Radiobiology in Genitourinary Oncology. University Health Network Animal Care Committee, Canada, License / Membership #: #AUP 833

1996 Fellowship, FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada

1993 General Practice Licence, College of Physicians and Surgeons of Ontario, Canada

1992 Licence, L.M.C.C; Canadian General Medical Examinations, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments

2009 - present Professor, Radiation Oncology, University of Toronto, Canada

2009 - present Professor, Medical Biophysics, University of Toronto, Canada

2006 - present Senior Scientist, Ontario Cancer Institute and Campbell Family Cancer Research Institute, Canada

2005 - present Full Member, Institute of Medical Science, University of Toronto, Canada

1999 - present Clinician-Scientist, Radiation Medicine Program, Princess Margaret Hospital, Canada

Previous Appointments

UNIVERSITY - CROSS APPOINTMENT

2005 - 2009 Associate Professor, Medical Biophysics, University of Toronto, Canada

2003 - 2005 Associate Member, Institute of Medical Science, University of Toronto, Canada

1998 - 2005 Assistant Professor, Medical Biophysics, University of Toronto, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2011  ESTRO Honorary Fellow, European Society for Therapeutic Radiology and Oncology (ESTRO), Stockholm, Sweden. (Research Award)

2008  Virginia Logan Award Lecturer, Kimmel Cancer Center, Thomas Jefferson University, United States. (Distinction)

2003  Young Investigator Travel Award, Gordon Research Conference on Radiation Oncology, Ventura, California, United States. (Distinction)

1995  Junior Scientist Award, International Congress of Radiation Research - Radiation Research Society, Wurzburg, Germany. (Research Award)

1995  Outstanding Poster Award, Annual Meeting of the American Association for Cancer Research, Toronto, Canada. (Research Award)

NATIONAL

Received

2012 Apr  John Ferguson Hero Award, PCC Research Strategy, Prostate Cancer Canada, Toronto, Ontario, Canada. (Distinction)

2012 Mar  Picchione Visiting Scholar Award, Dalhousie Medical Research Foundation, Halifax, Nova Scotia, Canada. (Distinction)

2004 - 2010  Career Research Scientist, Canadian Cancer Society & National Cancer Institute of Canada, Canada. (Distinction)

1996  Resident Research Award, Canadian Society for Clinical Investigation and Medical Research Council of Canada, Canada. (Research Award)

1995  Phillips Award for Resident Research, Annual Meeting of the Canadian Association of Radiation Oncologists (CARO) - Royal College of Physicians and Surgeons of Canada, Montreal, Quebec, Canada. (Research Award)

1994  Phillips Award for Resident Research, Annual Meeting of the Canadian Association of Radiation Oncologists (CARO) - Royal College of Physicians and Surgeons, Toronto, Ontario, Canada. (Research Award)

PROVINCIAL / REGIONAL

Received

2013 Apr - 2013 Jul  Alan Burton Award in Medical Biophysics, Western University, London, Ontario, Canada. (Specialty: Medical Biophysics)

2013 Mar  Vivian Saykaly Visiting Professor of Oncology, McGill University, Montreal, Quebec, Canada.

2006  Best Annual Research Performance Award, DRO Annual General Meeting, Toronto, Ontario, Canada. (Research Award)
Robert Glen BRISTOW

LOCAL
Received

2016 May

**Best Clinical Paper for 2015.**, Princess Margaret Cancer Center Research Institute. (Research Award)

*Nature Genetics paper describing “Spatial genomic heterogeneity within localized, multifocal prostate cancer. (Boutros et al; 47;736, 2015).*

2014

**Best RMP Rounds for ‘Precision Cancer Medicine for Localized Prostate Cancer: Genomic Subsets and Treatment Intensification’**, Princess Margaret Hospital, Canada. (Distinction)

2014

**Radiation Medicine Program “Radiation Oncology Research Productivity” Award**, Princess Margaret Hospital, Canada. (Distinction)

2011

**CROF/Sanofi-Aventis Research Innovation Award, Department of Radiation Oncology**, University of Toronto, Canada. (Research Award)

2009

**Radiation Medicine Program “Radiation Oncology Research Productivity” Award**, Princess Margaret Hospital, Canada. (Distinction)

2009

**Sustained Excellence in Research Award, Department of Radiation Oncology**, University of Toronto, Canada. (Distinction)

2006

**Radiation Medicine Program “Research Leadership” Award**, Princess Margaret Hospital, Toronto, Ontario, Canada. (Distinction)

2006

**Research Leadership Award, Radiation Medicine Program**, Princess Margaret Hospital, Canada. (Distinction)

2003

**Winner of Best Poster, Department of Medical Biophysics Student Research Day**, Supervisor, University of Toronto, Canada.

1996

**1st Annual Brady Award for Resident Research, Joint Oncology Program**, University of Toronto, Toronto, Ontario, Canada. (Research Award)

1996

**W.J. Simpson Award for Resident Research, Department of Radiation Oncology**, University of Toronto, Toronto, Ontario, Canada. (Research Award)

1994

**W.J. Simpson Award for Resident Research, Department of Radiation Oncology**, University of Toronto, Toronto, Ontario, Canada. (Research Award)

Nominated

2011

**Gerald Kirsh Humanitarian Award**, The Princess Margaret Hospital Foundation, Canada. (Distinction)

**Teaching and Education Awards**

PROVINCIAL / REGIONAL
Received

2006

**Postgraduate Classroom Teaching Award**, Dept of Radiation Oncology, Faculty of Medicine, DRO Annual General Meeting, Toronto, Ontario, Canada. (Postgraduate MD)

LOCAL
Received

2013 Jun

**Professional Mentorship Award, Radiation Medicine Program, Princess Margaret Cancer Centre**, Dept of Radiation Oncology, Faculty of Medicine, Toronto, Ontario, Canada

2009

**Post-Graduate Medical Education (PGME) Excellence Award in Teaching Performance/Mentorship and Advocacy, Faculty of Medicine**, Dept of Radiation
Robert Glen BRISTOW

Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

2008

Postgraduate Medical Education Excellence in Research Supervision Award, Department of Radiation Oncology, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

2007

Radiation Medicine Program Education Award “Research Supervisor” Award, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto, Ontario, Canada. (Postgraduate MD)

Student/Trainee Awards

INTERNATIONAL

Received

2010 - 2011

Junior Investigator Award, Supervisor, Awardee Name: K Luoto. Tumor Microenvironment Workshop

Total Amount: 500 USD

2010 - 2011

Selected to attend Films Workshop – Methods in Clinical Cancer Research, Supervisor, Awardee Name: J Thoms. ECCO-AACR_EORTC-ESMO, Films, Switzerland

2009

AACR- AstraZeneca International Scholar-in-Training Award, Supervisor, Awardee Name: Norman Chan. American Association for Cancer Research, United States

For the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics Meeting in Boston, Massachusetts.

2009

AICR Marie Curie Fellowships 2010, Supervisor, Awardee Name: Stephania Berton. American Institute for Cancer Research (AICR)

2009

ASCO Cancer Foundation Young Investigator Award, Supervisor, Awardee Name: Stanley Liu. American Society of Clinical Oncology, United States

“Identification and characterization of the cellular mechanisms underlying DLL4-Notch pathway-mediated tumor radioresistance.”.

2009

VARIAN-Juliana Denekamp Award 2009, Supervisor, Awardee Name: Stéphane Supiot. European Society for Therapeutic Radiology and Oncology

11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology 2009.

2008

10th ECCO-AACR-ASCO Workshop on Methods in Clinical Cancer Research – Travel Award, Supervisor, Awardee Name: Dr. Bezad Banihashemi. ECCO-AACR-ASCO, Flims, Switzerland

2008

AACR-GSK Outstanding Clinical Scholar, Supervisor, Awardee Name: Eva Christensen. American Association for Cancer Research, United States

2008

Scholar-in-Training Award, Supervisor, Awardee Name: Eva Christensen. American Association for Cancer Research, United States

2007 May

Young Investigator Award, Supervisor, Awardee Name: Nirmal Bhogal. VIIIth International Workshop, Radiation Damage to DNA, Alberta, Canada

Poster - ASTRO.

2007

Travel Award, Supervisor, Awardee Name: Dr. Stephane Supiot. AACR, Aspen, Colorado, United States

AACR Workshop, Molecular Biology in Clinical Oncology.

2007

Winner of the 2007 ASCO Foundation Merit Award, Supervisor, Awardee Name: Dr. Stephane Supiot. ASCO Foundation, Orlando, Florida, United States

2007 Prostate Cancer Symposium.

2007

Winner of the 2007 ECCO pResidential Abstract Award, Supervisor, Awardee Name: Dr. Stephane Supiot. European Cancer Congress Meeting, Barcelona, Spain

(Given to the best abstract at the European Cancer Congress Meeting).

2006

Scholar-in-Training Travel Award, Supervisor, Awardee Name: Ramya Kumarsewaran. Radiation Research Society
2006 **Winner of the Scholars –In-Training Award**, Supervisor, Awardee Name: Norman Chan. Radiation Research Society  
*Poster* - ASTRO.

2006 **Winner of the Scholars –In-Training Award**, Supervisor, Awardee Name: Ramya Kumarsenwaran. Radiation Research Society  
*Poster* - ASTRO.

2006 **Winner of the Shenaq International Research Award**, Supervisor, Awardee Name: Artur Gevorgyan. University of Toronto

2005 **Fellowship**, Supervisor, Awardee Name: Ananya Choudhury. Cancer Research UK/ Royal College of Radiologists, United Kingdom

2005 **Marie Curie Award**, Supervisor, Awardee Name: Shahnaz Al-Rashid. Radiation Research Society

2005 **Poster Presentation Award**, Supervisor, Awardee Name: Norman Chan. Radiation Research Society

2005 **SIT Travel Award**, Supervisor, Awardee Name: Norman Chan. Radiation Research Society

2005 **SIT Travel Award**, Supervisor, Awardee Name: Shahnaz Al-Rashid. Radiation Research Society

2005 **Student in Training Travel Award**, Supervisor, Awardee Name: Ananya Choudhury. Radiation Research Society

2004 **Trainee Award**, Supervisor, Awardee Name: Shahnaz Al-Rashid. Radiation Research Society, St. Louis, United States

2004 **Trainee Award**, Supervisor, Awardee Name: Oliver Faulhaber. Radiation Research Society, St. Louis, United States

2001 - 2003 **Travel Award**, Supervisor, Awardee Name: Shahnaz Al-Rashid. Radiation Research Society, Canada  

**NATIONAL**

2011 **Abbott Research Award**, Supervisor, Awardee Name: A Dal Pra. Canadian Urologic Oncology Group, Canada

2010 **Abbott Research Award**, Supervisor, Awardee Name: A Ishkanian. Canadian Urologic Oncology Group, Flims, Canada  
**Title**: Identification of candidate predictive biomarkers specific to intermediate risk prostate cancer, which may aid in prognostication and prediction of individual response to therapy.

2009 **2009 Canadian Research Award for Specialty Residents, Division of Medicine**, Supervisor, Awardee Name: Stanley Liu. Royal College of Physician and Surgeons of Canada, Canada  
“A novel poly (ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under hypoxia.”.

2009 **Post MD Research Fellowship Award through NCIC**, Supervisor, Awardee Name: Stanley Liu. Terry Fox Foundation, Canada  
“Identification and characterization of the cellular mechanisms underlying DLL4-Notch pathway-mediated tumour radiosresistance.”.

2008 - 2009 **Post-doctoral Fellowship**, Supervisor, Awardee Name: Dr. Michael Fraser. National Cancer Institute of Canada, Terry Fox Foundation, Canada

2008 **Oncology Canada Young Investigator Award-ASCO 2008**, Supervisor, Awardee Name: Dr. Adrian Ishkanian. Novartis

2008 **Post MD Research Fellowship Award**, Supervisor, Awardee Name: Dr. Stanley Liu. Terry Fox Foundation, Canada
Robert Glen BRISTOW

2006 - 2009 **Winner of the Excellence in Radiation Research (EIRR21), Strategic Training Fellowship**, Supervisor, Awardee Name: Eva Christensen. Canadian Institutes of Health Research

2006 - 2008 **EIRR21st Scholarship**, Supervisor, Awardee Name: Ramya Kumarsewaran. Canadian Institutes of Health Research, Canada
*Training Fellow in the Excellence in Radiation Research for the 21st Century (EIRR21st) Program.*

2004 **Junior Investigator Travel Grant**, Supervisor, Awardee Name: Shahnaz Al-Rashid. Canadian Association of Radiation Oncologists, Canada

2004 **Junior Investigator Travel Grant**, Supervisor, Awardee Name: Oliver Faulhaber. Canadian Association of Radiation Oncologists, Canada

2004 **Junior Investigator Travel Grant**, Supervisor, Awardee Name: Dr. A. Tabassum. Canadian Association of Radiation Oncologists, Canada

2004 **Junior Investigator Travel Grant**, Supervisor, Awardee Name: Dr. A. Cuddihy. Canadian Association of Radiation Oncologists, Canada

2002 - 2004 **Prostate Training Fellowship**, Supervisor, Awardee Name: Dr. Andrew Coleman. Canadian Prostate Cancer Research Initiative - National Cancer Institute of Canada, Canada

2001 **Travel Award**, Supervisor, Awardee Name: Gillian Bromfield. Radiation Research Society, Canada

2000 - 2003 **Studentship**, Supervisor, Awardee Name: Shahnaz Al-Rashid. National Cancer Institute of Canada/Clinical Trials Group, Canada

2000 - 2001 **Prostate Training Fellowship**, Supervisor, Awardee Name: Dr. T. Kumaravel. Canadian Prostate Cancer Research Initiative - National Cancer Institute of Canada, Canada

**PROVINCIAL / REGIONAL**

Received

2010 Jul **Peterborough K.M. Hunter Graduate Student Fellowship award**, Supervisor, Awardee Name: S. Harding. University of Toronto, Canada
*Total Amount: 20,000 CAD*

2010 - 2011 **Fellowship Grant – Flims Workshop**, Supervisor, Awardee Name: J Thoms. Ontario Institute of Cancer Research, Canada

2010 - 2011 **Paul Starita Graduate Student Fellowship award**, Supervisor, Awardee Name: S. Harding. University of Toronto, Canada
*Total Amount: 2,000 CAD*

2010 **Travel Award**, Supervisor, Awardee Name: N. Chan. Terry Fox Research Institute, Canada
*To attend the at the 2nd Terry Fox Research Institute Scientific Meeting, Vancouver, British Columbia, May 2010.*

2006 - 2007 **Ontario Graduate Scholarship**, Supervisor, Awardee Name: Eva Christensen. Province of Ontario, Canada

2005 **Winner**, Supervisor, Awardee Name: Norman Chan. Ontario Student Opportunity Trust Fund, Canada

2004 **Summer Studentship**, Supervisor, Awardee Name: Graeme Nimmo. Ontario Cancer Institute, Canada

2002 **Summer Studentship**, Supervisor, Awardee Name: Jonathan Ng. Ontario Cancer Institute, Canada

1999 **Summer Studentship**, Supervisor, Awardee Name: Katherine Shim. Ontario Cancer Institute, Canada

**LOCAL**

Received
2009 Overall Excellence in Radiation Research by a Postgraduate Trainee, Supervisor, Awardee Name: Adrian Ishkanian. University of Toronto Department of Radiation Oncology, Canada

2009 Travel Award, Supervisor, Awardee Name: Kaisa Luoto. University Health Network, Canada For the 11th International Wolfsberg Meeting on Molecular Radiation.

2009 Travel Award, Supervisor, Awardee Name: Michael Fraser. University Health Network, Canada For the 11th International Wolfsberg Meeting on Molecular Radiation.

2009 Travel Award, Supervisor, Awardee Name: Adrian Ishkanian. University Health Network, Canada For the 11th International Wolfsberg Meeting on Molecular Radiation.

2009 W.J. Simpson Award, Academic Excellence in Research by a Resident, Supervisor, Awardee Name: Adrian Ishkanian. University of Toronto Department of Radiation Oncology, Canada

2008 - 2009 Helena Lam Fellowship, Supervisor, Awardee Name: Dr. Michael Fraser. Ontario Cancer Institute

2008 Best Oral Presentation – Fellow Award - DRO-UofT Research Day, Supervisor, Awardee Name: Dr. Danny Vesprini. University of Toronto, Canada

2008 Best Oral Presentation – Resident Award- DRO-UofT Research Day, Supervisor, Awardee Name: Dr. Stanley Liu. University of Toronto, Canada

2008 Best Radiation Medicine Program Resident Award, Supervisor, Awardee Name: Dr. Stanley Liu. Princess Margaret Hospital, Canada

2008 DRO-UofT Research Day Best Oral Presentation, Supervisor, Awardee Name: Eva Christensen. University of Toronto, Canada

2007 - 2008 Frank Fletcher Memorial Fund, Supervisor, Awardee Name: Shane Harding. University of Toronto

2007 - 2008 Graduate Fellowship in Prostate Cancer Research, Supervisor, Awardee Name: Shane Harding. Princess Margaret Hospital Foundation, Canada

2007 The Scace Graduate Fellowship in Prostate Cancer Research, Supervisor, Awardee Name: Shane Harding. University of Toronto

2007 2007 Robert Matthews Scholarship, Supervisor, Awardee Name: Eva Christensen. Princess Margaret Hospital, Canada

2007 DRO Resident Award, Supervisor, Awardee Name: Dr. Stanley Liu. University of Toronto, Canada

2007 Helena Lam Fellowship, Supervisor, Awardee Name: Dr. Michael Fraser. Princess Margaret Hospital

2007 IMS Entry Scholarship, Supervisor, Awardee Name: Eva Christensen. University of Toronto, Canada

2007 Medical Biophysics Research Excellence Scholarship, Supervisor, Awardee Name: Norman Chan. University of Toronto, Canada

2007 Open Scholarship, Supervisor, Awardee Name: Norman Chan. University of Toronto, Canada

2007 W. J. Simpson Award, Supervisor, Awardee Name: Dr. Stanley Liu. Princess Margaret Hospital, Canada For Academic Excellence in Research by a Resident Department of Radiation Oncology.

2006 - 2007 Lawrence, Ila and William Gifford Scholarship, Supervisor, Awardee Name: Ramya Kumarswaran. University of Toronto, Canada

2006 Graduate Fellowship in Cancer Research, Supervisor, Awardee Name: Ramya Kumarswaran. Princess Margaret Hospital Foundation

2006 Honorable mention, The Laidlaw Manuscript Competition, Supervisor, Awardee Name:
Artur Gevorgyan. UofT Annual Research Day
2006
Winner of the Radiation Medicine Program for Exceptional Research Support,
Supervisor, Awardee Name: Farid Jalali. University of Toronto

OTHER
Received
2009
Scholars-in-Training (SIT) Travel Award, Supervisor, Awardee Name: Ken Tse. Radiation
Research Society
For the Radiation Research Society Annual Meeting in Savannah, Georgia.
2005
EIRR Post-Doctoral Award, Supervisor, Awardee Name: Evangelia Tomai
Declined.
2005
Helen Lam Fellowship Award, Supervisor, Awardee Name: Evangelia Tomai
Declined.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
American Association for Cancer Research
American Society for Therapeutic Radiology and Oncology
Canadian Association of Radiation Oncologists
Canadian Medical Association
Canadian Urological Association
College of Physicians and Surgeons of Ontario
European Society for Therapeutic Radiology and Oncology
Ontario Medical Association
Radiation Research Society
Royal College of Physicians and Surgeons of Canada
The American Society for Cell Biology

Administrative Activities
INTERNATIONAL
12th International Tumour Microenvironment Workshop Toronto
2010 Organizer, Radiation Oncology, Toronto, Ontario.
2010 Co-Chair, Radiation Oncology, Toronto, Ontario.

8th International Workshop on DNA Damage and Repair
2004 Chair, Session on “DNA-dsb Repair”, Banff, Alberta.

ABBOTT Pharmaceuticals
2010 - present Consultant
2010 - present Member, Scientific Advisory Board

Academic Clinical Oncology and Radiobiology Research Network
2005 - 2008 Member, International Advisory Committee, United Kingdom.
American Association for Cancer Research
2003 Member, Clinical Program Committee, Washington, District of Columbia.

American Society for Therapeutic Radiology and Oncology
2011 - present Member, ASTRO Cancer Biology/Radiation Biology Task Force
2011 - present Member, Biology Resource Panel of the Clinical Affairs and Quality Committee
2011 - present Chair, Radiation and Cancer Biology Committee
2011 - present Member, Radiobiology and Cancer Biology Task Force
2011 - present Member, Science and Research Council
2011 - present Member, Annual Scientific Meeting Organization Committee
2008 - present Vice Chair, Translational Radiobiology Committee
2004 - 2009 Member, Education Committee

American Society of Therapeutic Radiology and Oncology
2011 Session Moderator, "DNA Repair", 3B Research Forum: Benchtop to Bedside and Back, Atlanta, Georgia.
2011 Organizer, 3B Research Forum: Benchtop to Bedside and Back, Atlanta, Georgia.
2011 Faculty, 3B Research Forum: Benchtop to Bedside and Back, Atlanta, Georgia.
2011 Chair, Prostate Cancer Genomics and Personalized Medicine Session, 2011 ASTRO Annual Scientific Meeting, Miami, Florida.
2011 Chair, Session on DNA Repair and Radiation Oncology, ASTRO Annual Scientific Meeting, Miami, Florida.
2011 Organizer, Biology Session Reviews, ASTRO Annual Scientific Meeting, Miami, Florida.
2011 Co-Chair, Biology Session Reviews, ASTRO Annual Scientific Meeting, Miami, Florida.
2011 Chair, Session on New Targets - DNA Response and Intracellular Signals, ASTRO Annual Scientific Meeting, Miami, Florida.
2010 Co-Chair, Translational Radiobiology Session, ASTRO Annual Meeting and Scientific Program, San Diego, California.
2010 Session Moderator, "Translational Aspects of DNA Damage and Repair", 52nd Annual Meeting, San Diego, California.
2001 Chair, Poster Session on “Translational Biology”, Annual Meeting, San Francisco, California.

Antoni van Leeuwenhoek Hospital
2010 Member, Scientific Advisory Board, Division of Radiotherapy, The Netherlands Cancer Institute
2010 Site Reviewer, Division of Radiotherapy, The Netherlands Cancer Institute

Astra-Zeneca
2001 Faculty, Focus Group on Prostate Cancer, Miami, Florida.

Australian-Canadian Prostate Cancer Alliance
2008 Organizer, Multidisciplinary Treatment of Prostate Cancer, First Meeting, Brisbane, Australia.
2008 Session Chair, Multidisciplinary Treatment of Prostate Cancer, First Meeting, Brisbane, Australia.
2008  Session Chair, “Translational Opportunities & Correlative Biomarkers”, Brisbane, Australia.

2008  Session Chair, “Clinical Trials Networks & Collaborations – Ongoing and new trials”, Brisbane, Australia.

Australian-Canadian Prostate Cancer Research
2010  Session Chair, The Tumour Microenvironment International Organizing Committee, AC-PCRA Scientific Meeting, Brisbane, Australia.

Canadian Prostate Cancer-BioNet
2002  Program Director, Annual Meeting, National Satellite Meeting, San Francisco, California.

Canadian-US Cancer Control Alliance
2005  Faculty, Seattle, Washington.

ECCO-ESTRO
2011  Chair, ECCO Debate on Personalized Breast Cancer Trials, Annual Scientific Meeting, Stockholm, Sweden.
2011  Chair, Session on Immunology and Radiotherapy, Annual Scientific Meeting, Stockholm, Sweden.

European Society for Therapeutic Radiology and Oncology
2011 - present  ESTRO Honorary Fellow
2003  Chair, Session on “Clinical Genomics”; Radiobiology Workshop, Nijmegen, Netherlands.
2002  Chair, Session on “Introduction to Proteomics”; Annual Meeting, Prague, Czech Republic.
2000 - 2002  Member, Scientific and Planning Committee, Prague, Czech Republic.
2000  Chair, Session on “p53 Strategies”, Annual Meeting, Istanbul, Turkey.
2000  Co-Chair, Session on “Gene Therapy”, Annual Meeting, Istanbul, Turkey.

Golden Horseshoe Radiobiology Meeting
2008  Organizer, University of Rochester, Rochester, New York.
2008  Session Chair, University of Rochester, Rochester, New York.
2005  Program Director, Princess Margaret Hospital, Toronto, Ontario.
2004  Chair, Session on “DNA Damage Response, McMaster University, Hamilton, Ontario.

Gordon Research Conference
2010  Vice Chair, Radiation Oncology, Houston, Texas.

ICPC
2005  Faculty, Conference on Issues & Controversies in Prostate Care, Jamaica.

Innovative Strategies to Improve Target Definition in Radiation Oncology
2001  Chair, Session on “Biomolecular Targets in Radiotherapy”; Target Insight Meeting, Toronto, Ontario.

International Atomic Energy Agency
Robert Glen BRISTOW

2004  **Member**, Tissue Banking & Genomics Committee, (IAEA-Vienna), Amsterdam, Netherlands.

**International Cancer Genome Consortium**
2010 - present  **Member**, International Steering Committee
2010 - present  **Lead PI**, Prostate Cancer Project

**International Conference on Translational Research and Oncology**
2006  **Faculty**, Lugano, Switzerland.

**International Conference on Translational Research and Pre-Clinical Strategies in Clinical Radio-Oncology**
2002  **Chair**, Session on “Genomic Response”; Meeting, Lugano, Switzerland.

**International Union Against Cancer**
2001  **Course Director**, Training Program, Toronto, Ontario.
2001  **Faculty**, Training Program, Toronto, Ontario.

**Irish Prostate Cancer Consortium**
2011  **Member**, Scientific Advisory Board, Galloway, Ireland.

**Joint ECCO 15-34th ESMO Multidisciplinary Congress**
2009  **Session Chair**, “Cancer Stem Cells and Radiation Resistance”, Berlin, Germany.

**Joint Meeting of the Prostate Cancer Research Foundation of Canada and Prostate Cancer Research Foundation-United Kingdom**
2008  **Member**, Program Committee, Toronto, Ontario.

**MOVEMBER Prostate Cancer Global Action Plan (GAP)**
2009 - present  **Member**, Scientific Advisory Committee

**Myriad Genetics**
2010  **Member**, Scientific Advisory Board, Park City, Utah.

**National Institute of Health**
2003  **Chair**, Session on “Predictive Assays”; Workshop on Radiobiology, Bethesda, Maryland.
2002  **Chair**, Session on “Biological Assays”; Workshop on Bio-Targeting, Bethesda, Maryland.
2000  **Delegate**, Young Investigators Workshop, Bethesda, Maryland.

**National Institutes of Health (NIH)**
2009 - present  **Member**, Scientific Advisory Board, Structural Biology of DNA Repair NIH PO1 Program

**Prostate Cancer Foundation**
2010 - present  **Member**, Scientific Advisory Board, United States.
2010  **Judge**, Australia Annual Scientific Meeting, Brisbane, Australia.
2010  **Member**, Organizing Committee, United Kingdom.
Robert Glen BRISTOW

2009 **Member**, Scientific Advisory Board, STAR Program, United States.

**Radiation Research Society**

2011 **Member**, Constitution and Bylaws Committee
2009 **Member**, Editor Search Committee
2009 **Member**, Annual Meeting Committee
2008 **Session Chair**, Developments in the CMCR Programs, Annual Meeting, Boston, Massachusetts.
2001 **Chair**, Session on “DNA Repair II”, Annual Meeting, San Juan, Puerto Rico.

**Radiation Research Society and American Society of Therapeutic Radiation Oncology**


**Radiation Therapy Oncology Group**

2007 **Member**, Translational Committee, Tampa, Florida.

**Radiotherapy Oncology Group**

2007 - present **Canadian Lead**, Translational Research Program (TRP) Committee
2008 **Committee Member**, 2009 Annual Meeting, New Orleans, Louisiana.

**Research Council**

2011 - 2012 **Chair**, Radiation and Cancer Biology Committee, Miami, Orlando.

**Target Insight II: Innovation Strategies for Target Definition to Enhance the Therapeutic Ratio Meeting**

2006 **Chair**, Session on Biological Targets in Radiation Therapy Session, Toronto, Ontario.

**Terry Fox Research Institute**

2010 - present **Member**, Prostate Cancer Biomarkers Scientific Committee

**University of Oxford**

2010 **Chair**, Scientific Advisory Board, Gray Institute for Radiation Oncology & Biology

**VERTEX Pharamceuticals**

2011 - present **Chair**, Scientific Advisory Board

**Wolfsberg Radiobiology Meeting**

2004 - 2005 **Member**, Planning Scientific Committee, Ermatingen, Switzerland.
2004 **Judge**, “Translational Biology” Poster Competition, 8th International Meeting, Ermatingen, Switzerland.

**Worlsberg ESTRO Radiobiology Meeting**

2011 **Poster Judge**, Ermatingen, Switzerland.
NATIONAL

Canadian Association for Radiation Oncologists
2001 - 2010  **Chair**, National Task Force on Translation Radiobiology

Canadian Association of Radiation Oncologists
2008  **Session Chair**, Imaging and Biology of the Tumour Microenvironment, Annual Scientific Meeting
2004  **Chair**, Session on “Molecular Targets and Predictors in Radiotherapy”, Annual Meeting, Halifax, Nova Scotia.
2003 - 2009  **Chair**, Translational Biology Scientific Advisory Group
2002  **Chair**, Poster Session on “New Modalities in Radiotherapy”, Annual Meeting, Toronto, Ontario.
2001  **Chair**, Poster Session on “Translational and GU Oncology”, Annual Meeting, Montreal, Quebec.

Canadian Cancer Research Alliance
2009  **Session Discussion Leader**, Stakeholder Consultation Session, Toronto, Ontario.

Canadian Cancer Research Conference
2011  **Member**, Scientific Program Committee, Toronto, Ontario.
2011  **Session Chair**, Session on Biological Adapted Therapy: Lessons Learned from Prostate and Breast Cancer, Toronto, Ontario.

Canadian Cancer Society & National Cancer Institute of Canada
2004 - present  **Career Research Scientist**

Canadian Prostate Cancer BioResearch Network
2007  **Program Director**, 6th Annual Satellite Meeting, Montreal, Quebec.
2007  **Co-Chair**, 6th Annual Satellite Meeting, Montreal, Quebec.
2002 - 2006  **Co-Administrator**

Canadian Prostate Cancer Genome Sequence Project
2010 - present  **Project Lead**, Steering Committee

Canadian Prostate Cancer Research Initiative
2006  **Chair**, Biomarkers Planning Committee
Robert Glen BRISTOW

Canadian Urology Association
2001 Member, Prostate Expert Panel on Locally Advanced Prostate Cancer

GU Radiation Oncologists of Canada
2004 Consultant, Prostate Radiotherapy Group Consensus Meeting
2004 Faculty, Prostate Radiotherapy Group Consensus Meeting
2000 Consultant, Advisory Board
2000 Faculty, Advisory Board

National Cancer Institute of Canada
2004 Member, External Planning Committee
2004 Chair, Workshop on “Translational Oncology”, Toronto, Ontario.

National Cancer Institute of Canada/Clinical Trials Group
2010 - present Chair, GU Disease Site Correlative Science Working Group Committee
2008 - present Member, IND Translational Biomarker Subcommittee
2008 Member, Investigation New Drugs Translational Committee
2007 Chair, Session on Biomarkers, Vancouver, British Columbia.

Prostate Cancer Canada
2009 - present Chair, Networks & Partnerships Committee
2009 - present Chair, National Network of BRCA1/2 Prostate Cancer Carriers
2006 - present Board Member
2011 Organizer, Translational Biology Meeting

Prostate Cancer Research Foundation of Canada
2005 - 2009 Chair, Scientific and Medical Advisory Committee

Target Insight III Meeting
2009 Co-Organizer, Toronto, Ontario.

PROVINCIAL / REGIONAL
Other Organizations
2012 - present Canadian Association for Radiation Oncology (CARO), Ottawa, Alberta, Canada.

Ontario Cancer Biomarker Network
2007 - 2009 Chair, Steering Committee
2007 - 2009 Member, Scientific Advisory Board

Ontario Cancer Institute
2006 Session Chair, Applied Molecular Oncology – Retreat, Toronto, Ontario.

Ontario Institute for Cancer Research
2010 - present Co-Lead, Prostate Cancer Initiative
2010 Co-Chair, Workshop on Prostate Cancer Strategic, Annual Meeting, Nottawasaga Inn, Ontario.

2008 Chair, Clinical Session, Annual Retreat, Nottawasaga Inn, Ontario.

The Thunder Bay Regional Research Institute
2008 - present Member, Scientific Advisory Board

LOCAL
Cancer Canada Research Alliance
2013 - present Scientific Meeting Committee, Ontario, Canada.

Mount Sinai Hospital
2011 - present Consultant, Clinical Genomics Centre, Samuel Lunenfeld Research Institute, Toronto, Ontario.

Princess Margaret Hospital
2008 Faculty Member, Developments in Cancer Management: The 8th Princess Margaret Hospital Conference, Toronto, Ontario.

2007 - 2008 Program Director, Prostate Cancer Program Retreat, Toronto, Ontario.


2000 - 2004 Member, Continuing Education Committee, DRO
1999 - 2004 Member, Postgraduate Education Committee, DRO
1999 - 2004 Coordinator, Genito-Urinary (GU) Rounds, PMH GU-Site Group
1999 - 2002 Secretary, DRO Staff Association Meetings
1994 Representative, Department of Radiation Oncology, Association of Residents and Interns of Ontario (PAIRO)

Princess Margaret Hospital - University Health Network
2010 - present Co-Lead, Terry Fox Hypoxia Project Program Team
2004 - 2010 Co-Investigator, Terry Fox Hypoxia Project Program Team
2004 - 2010 Team Member, Terry Fox Hypoxia Project Program Team
2003 - 2005 Leader, Prostate Clinical Research Program
2000 - 2003 Leader, Section II, Clinical Research Program-Prostate
2000 - 2003 Leader, Clinical Impact Team-Prostate

University of Toronto
2008 - present Member, Department of Medical Biophysics Promotions Committee, Faculty of Medicine, Dept of Medical Biophysics

2011 Poster Judge, Institute of Medical Science Research Day, Faculty of Medicine, Dept of Radiation Oncology

2011 Chair, Search Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of
Radiation Oncology

2010  **Member**, UT-DRO Strategic Planning Committee, Faculty of Medicine, Dept of Radiation Oncology

2009  **Committee Member**, 2009 Target Insight Meeting, Princess Margaret Hospital

2009  **Organizer**, 2009 Target Insight Meeting, Princess Margaret Hospital

2001 - 2003  **Course Director**, MBP1018Y Oncology Course, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education

*Designed and administered Course; convened lecturers, exam preparation. 2001 - 50 Students, 20 hrs. 2002 - 45 Students, 10 hrs. 2003 - 45 Students, 10 hrs.*

1999 - 2004  **Member**, Faculty Council, Faculty of Medicine

1996  **Graduate School Representative**, External Review for Department of Medical Biophysics, Faculty of Medicine, Dept of Medical Biophysics

1991  **Member**, Aiken’s Award Committee on Course Development and Coordination, Faculty of Medicine

1990  **Member**, Palliative Care Subcommittee of the Oncology Coordinating Council

**Peer Review Activities**

**EDITORIAL BOARDS**

**Editor**

2013 Jan - present  Cancer Research (AACR)

2010 - present  Clinical and Investigative Medicine

2010 - present  European Journal of Clinical and Medical Oncology

2003 - present  Basic Science of Oncology, 4th edition-(international oncology textbook for residents and graduate students)

2003 - present  Radiotherapy and Oncology

**Associate Editor**

2010 - present  BMC Cancer

2007 - present  Radiation Research

**Guest Editor**

2010  Seminars in Radiation Oncology

2008  Cancer and Metastasis Reviews

**Senior Editor**

2013 Jan - present  Molecular Cancer Research (AACR)

**GRANT REVIEWS**

**External Grant Reviewer**

2008  Medical Research Council-UK, MRC Fellowships Committee Panel


2007  Cancer Research - United Kingdom, Progress and Project Panel, Oxford Initiative Grants Panel

2006  Netherlands Cancer Society

2006  South African Cancer Society

2005  Cancer Research – United Kingdom, Oxford Initiative Grants Panel

2005  Swiss Cancer League, Operating Grant Panel

2003  Canadian Institutes of Health Research

2003  Michael Smith Program in Health Research
2003 National Sciences and Engineering Council of Canada

Reviewer
2009 - present Prostate Cancer Canada, Clinician Scientist Awards Panel
2011 Canadian Cancer Society Research Institute, G2 Grant Panel
2011 Canadian Institutes of Health Research, Terry Fox Project Program Grants Panel
2011 Prostate Cancer Charity, UK
2011 Yorkshire Cancer Research Foundation, UK
2010 Canadian Breast Cancer Foundation, Prairies/NWT Region, Operating Grants Panel
2010 Cancer Research Society, Quebec, Ontario
2010 French National Cancer Institute (INCa), France
2010 Israel Cancer Research Fund, Panel, New York, USA
2010 Juravinski Cancer Centre Foundation, Grant Panel, Hamilton, Ontario
2010 Prostate Cancer Foundation of Australia
2010 The Prostate Cancer Charity, United Kingdom
2010 The Prostate Cancer Foundation, USA
2009 - 2010 Cancer Care Ontario, Clinician Scientist Awards Panel
2009 American Institute of Cancer Research
2009 Health Research Board- NHS, Ireland, Health Research Awards Panel
2009 Prostate Cancer Canada, Operating Grants Panel
2009 Swiss National Science Foundation
2008 Canadian Institutes of Health Research, Targeted Initiatives Awards Panel
2007 National Cancer Institute of Canada, Project Program Grant Panel
2004 National Institute of Health, Biomedical Award Study Section. Rockland, Maryland.

Chair
2007 - 2010 Canadian Association of Radiology and Oncology, RAZCER Awards-Grant Panel.
2005 - 2008 Prostate Cancer Research Foundation of Canada, Grant Panel

Reviewer Ad Hoc
2011 Swiss Cancer League, Operating Grants Panel

MANUSCRIPT REVIEWS
Reviewer
Biochemistry and Cell Biology
BMC Cancer
BMC Genomics
Breast Cancer Treatment and Research
Robert Glen BRISTOW

British Journal of Cancer
Cancer Epidemiology. Biomarkers and Prevention
Cancer Letters
Cancer Prevention and Detection
Cancer Research
Cancer Treatment Reviews
Carcinogenesis
Cell Death and Differentiation
Clinical Cancer Research
DNA Repair
EMBO Reports
European Journal of Cancer
European Journal of Clinical and Medical Oncology
European Journal of Clinical and Medical Oncology
European Urology
European Urology
International Journal of Cancer
International Journal of Radiation Biology
International Journal of Radiation Oncology, Biology and Physics
Journal of Cellullar and Molecular Medicine
Journal of Clinical Oncology
Journal of Clinical Oncology
Journal of the National Cancer Institute
Journal of Urology
Lung Cancer
Mutation Research
Mutation Research - Genetic Toxicology and Environmental Mutagenesis
Nature Reviews Urology
Nucleics Acid Research
Oncogene
PLOS Genetics
Radiation Oncology Investigations Clinical and Basic Research
Radiation Research
Radiotherapy and Oncology
SCIENCE
Science Translational Medicine
Scientific Reports, Nature
The Canadian Journal of Urology
Urology

PRESENTATION REVIEWS

Reviewer
2011 ASTRO 3B Forum: Benchtop to Bedside and Back, Atlanta, Georgia
2011 ASTRO Annual Meeting Abstracts, San Diego, California
2010 ASTRO Annual Meeting Abstracts, San Diego, California
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


Determine genomic and TME effects on radioresistance of prostate cancer and drive novel Phase II trials to overcome radioresistance.

2012 Jul - 2015 Jun **Co-Principal Investigator.** Clinician Scientist Award. Ontario Association of Radiation Oncologists (OARO). PI: Bristow, Rob. 255,000 CAD. [Grants]

This peer-reviewed award provides personal salary support for research to offset clinical activity.

2012 Jul - 2014 Dec **Principal Investigator.** High-throughput discovery of prostate tumour initiating cells markers for prognosis and personalized medicine. Prostate Cancer Canada (PCC). Collaborator(s): Ailles Laurie, Brinkman Ryan, Van der Kwast Theodorus H. 150,000 CAD. [Grants]


NON-PEER-REVIEWED GRANTS

FUNDED

2008 Jul - present  **Co-Investigator.** Fiducial Localization and Individualized Radiotherapy for Prostate Cancer (FLIP). REB#: 08-0271-C. PI: Menard, Cynthia. Collaborator(s): Bristow RG, Chopra S, Craig T, Foltz W, Milosevic M. [Clinical Trials]

2008 Jul - present  **Co-Investigator.** Hypoxia & Clinical Outcome after Radiotherapy for Invasive Bladder Cancer (Chart Review). REB#: 08-0271-C. PI: Milosevic, Michael. Collaborator(s): Bristow RG. [Clinical Trials]

2008 - present  **Principal Investigator.** Evidence for Intrinsic Tissue Sensitivity as a Predictor of Prostate Cancer Radioresponse (Chart Review). REB#:08-0473-CE. Collaborator(s): RMP Co-Investigators: D. Vesprini, C. Catton. [Clinical Trials]


2007 - present  **Co-Investigator.** A Phase I-II Trial of Post-Operative Image-guided and Intensity Modulated Radiotherapy (IG-IMRT) for Localized Prostate Cancer. REB#: 07-0234-C. PI: Menard C. Collaborator(s): RMP Co-Investigators: Catton C, Craig T, Kong V, Bristow RG. [Clinical Trials]


2006 - present  **Principal Investigator.** A Pilot Study to Determine the Feasibility of Testing Serum, Plasma...
2005 - present


2005 - present


2005 - present


2001 Jul - present

Principal Investigator. Molecular Determinants of Radiosresponse in Prostate Cancer. REB #: 01-0620-C. Collaborator(s): Milosevic M, Warde P, Lilge L. [Clinical Trials]

2000 - present


REB#00-0443-C (Dr. Milosevic); REB#01-0620-C (Dr. Bristow).

2013 Jul - 2018 Jul


2013 Jul - 2018 Jul

Co-Principal Investigator. PCC Prostate Cancer Discovery Team Grant. Prostate Cancer Canada. PI: Buttyan R, Bristow RG. Collaborator(s): Gleave M, Houmedia A. 6,000,000 CAD. [Grants]

2013 Jul - 2016 Jul


2013 Jul - 2015 Jul

Principal Investigator. Investigation of Predictive Biomarkers for First-In-Class Inhibitors of Mitotic. Prostate Cancer Canada. 200,000 CAD. [Grants]

To study the effect of PLK4 inhibitors on Prostate Cancer Growth.

2012 Jul - 2015 Jun

Principal Investigator. The Canadian Prostate Cancer Genome Network (CPC-GENE): A National Outcomes-Based DNA Sequencing Initiative. Prostate Cancer Canada and the
Ontario Institute for Cancer Research. Collaborator(s): Boutros P, Hudson T, Stein L, Muthuswamy, L, van der Kwast T, Collins C. 20,000,000 CAD
To complete whole genome sequencing of 500 prostate cancers and test for novel prognostic factors in outcome.

2012 Jul - 2014 Jun  
*To quantify KLK proteins in urine and correlate to prostate cancer progression.*

2011 - 2014  
**Principal Investigator.** Augmin-Centrosome Complexes: A Novel Marker for Prostate Cancer Aggression/Progression. Ontario Institute for Cancer Research. Collaborator(s): Pelletier L, van der Kwast T. 513,612 CAD. [Grants]

2011 - 2013  
**Co-Investigator.** Active Surveillance Magnetic Resonance Imaging Study (ASIST Trial). Ontario Institute for Cancer Research. Collaborator(s): Loblaw, Menard C, **Bristow RG**, Vesprini D. 2,700,000 CAD. [Grants]
*Précis: To understand the role of MRI in active surveillance.*

2011 - 2012  
**Principal Investigator.** A High-throughput Discovery of Prostate Cancer Stem Cell Epitopes. Orillia Cancer Foundation. Motorcycle Ride For Dad. 70,000 CAD. [Grants]

2011 - 2012  
**Principal Investigator.** Stem Cell Markers and Radiotherapy Outcome in Intermediate Risk Prostate Cancer-Translational Studies. Canadian Radiation Oncology Foundation. Collaborator(s): Zafarana G. 20,118 CAD. [Grants]

2010 - 2015  
*Précis: To create Tissue Microarrays in prostate radiotherapy for novel prognostic markers.*

2010 - 2015  
*Précis: Test the role of gold nanoparticles as radiosensitizers*
*Effort: 3 %*
*Amount: $129,931/year.*

2010 - 2013  
**Co-Investigator.** Clinical Course of BRCA2-associated prostate cancer. Canadian Institutes of Health Research (CIHR). PI: Narod SA. Collaborator(s): **Bristow RG**, Nam RK, Trachtenberg J. 463,131 CAD. [Grants]
*Précis: To determine the pronosis of BRCA2 carriers in prostate cancer.*
*Amount: $154,377/yr.*

2010 - 2011  
**Co-Principal Investigator.** A Prostate Cancer Proteomic Profiling Program. Ontario Institute for Cancer Research. Collaborator(s): **Bristow RG** (co-PI), Fleshner, N and Evans, K. 300,000 CAD. [Grants]
*Précis: To discover novel proteomic signatures of aggressive prostate cancer versus indolent prostate cancer.*

2010 - 2011  
**Principal Investigator.** Individualization of Therapy for Prostate Cancer Patients: Predictive Biomarkers Based on DNA Repair Gene Expression. Rapid AstraZeneca. Ontario Institute for Cancer Research. 25,537 CAD. [Grants]
*Précis: To complete mRNA expression analyses on 115 prostate cancers and test for novel*
prognostic factors in radiotherapy outcome.


Précis: Training Program in Radiation Oncology.
Amount: $325,000/ per year.

2009 - 2014 **Co-Investigator.** Molecular-Mechanism-Based Target Identification and Drug Discovery for Radiotherapy of Cancer. Canadian Institutes of Health Research (CIHR). PI: Lu QB. Collaborator(s): **Bristow RG,** Jaffray D. 662,865 CAD. [Grants]
Précis: This grant will investigate novel radiosensitizers to improve breast and prostate cancer outcome.
Effort: 2%.

Précis: Hypoxia effects on homologous recombination.
Effort: 15%.

Précis: To determine CGH array biomarkers of prostate cancer radiotherapy response.
Effort: 10%.

Précis: To determine whether gammaH2AX foci predicts radiotherapy toxicity
Effort: 2%.

Précis: Study cytokine expression in men undergoing radiotherapy
Effort: 2%.

2008 Jul - 2012 Jun  **Principal Investigator.** Evidence for Intrinsic Tissue Sensitivity as a Predictor of Prostate Cancer Radioresponse (Chart Review). REB#:08-0473-CE. Collaborator(s): D. Vesprini, C. Catton. [Clinical Trials]

2008 - 2010  **Principal Investigator.** DNA Repair Inhibition in Prostate Cancer Cells and Individualized Therapy. Prostate Cancer Research Foundation of Canada. Collaborator(s): Bharati Bapat, Theo van der Kwast, John Trachtenberg. 60,000 CAD. [Grants]

**Précis:** Developing new targets for radiotherapy based on prostate cancer cell DNA repair status

**Effort:** 5%.


**Amount:** $146,178/ per year

**Précis:** Understanding the roles of p53 in DNA-dsb repair.

**Effort:** 10%.


Wilson B. 2,000,000 CAD. [Grants]
Amount: $400,000/ per year
Précis: Equipment grant.

2005 - 2010
Amount: $171,781 U.S./ per year
Précis: Determining the utility of DNA repair foci and micro nuclei as IR biodosimeters in skin murine.

2005 - 2009
Co-Investigator. Development of a prostate deformation model to enable accurate registration of endorectal coil magnetic resonance images (ERC-MRI) to reference treatment planning CT images. REB#: 05-0041-C. PI: Menard, C. Collaborator(s): RMP Co-Investigators: Bristow RG, Gospodarowicz M, Milosevic M, McLean M, Chung P, Crook J, Bayley A, Catton C, Warde P. [Clinical Trials]

2005 - 2009

2005 - 2008
Co-Investigator. The MYH gene and colorectal cancer risk. National Cancer Institute of Canada (NCIC). PI: Gallinger, S. Collaborator(s): Bristow RG, Cotterchio M, Manno M, Bishop T. 423,000 CAD. [Grants]
Précis: To determine the epidemiologic and molecular biologic role of MYH in colorectal cancer.

2005 - 2008
Précis: The role of SNPs in breast radiotherapy response.

2005 - 2007
Précis: To test SNP-toxicity profiles in prostate cancer radiotherapy.

2005 - 2006
Co-Investigator. Identification of Lung Cancer Mutations that Contribute to Treatment Response: A Pilot Study by the Princess Margaret Hospital Foundation Invest in Research Program. Princess Margaret Hospital Foundation. PI: Wouters B, Tsao M. Collaborator(s): Liu G, Brade A, Bejak A, Bristow RG, Hope A. 100,000 CAD. [Grants]
Effort: 2%.

2005 - 2006
(one-time award).

2005 - 2006
Co-Investigator. Development of chemotherapeutic agents based on Inhibition of the ERK MAPkinase pathway. Canadian Institutes of Health Research (CIHR). Collaborator(s): Jongstra J, Bristow RG. 149,157 CAD. [Grants]
(one-time award).
2004 - 2012  **Principal Investigator.** Basic and translational studies of DNA damage and repair as relates to p53. National Cancer Institute of Canada (NCIC). Canadian Cancer Society (CCS).  
[Grants]  
Salary Support Award (#15559)  
Amount: $75-85,000/ per year  
Précis: Career Salary Award  
Effort: N/A-salary award only.

Canadian Foundation for Innovation Grant. CFI-Infrastructure Grant. Collaborator(s): Jaffray D (PI), Milosevic M (PI). 11,418,194 CAD.  
[Grants]  
R. Bristow: Core I Leader: Cell Imaging Program ($1,850,000)  
Précis: Start up of a new STTARR Innovation Facility for cell and animal imaging.  
Effort: N/A-Infrastructure grant only.

[Grants]  
2004 - 2006  **Principal Investigator.** Intracellular Trafficking of the Rad51 Protein in Prostate Cancer.  
Prostate Cancer Research Foundation of Canada. 98,000 CAD.  
Amount: $49,000/ per year.

[Grants]  
Amount: $300,000/ per year  
Précis: Training Program in Radiation Oncology.

[Clinical Trials]  
2003 - 2006  **Principal Investigator.** The p53 protein and DNA damage recognition. National Cancer Institute of Canada (NCIC). NCIC-Operating Grant. 400,710 CAD.  
[Grants]  
Amount: $133,570/ per year.

2002 - 2006  **Principal Investigator.** Pre-Clinical Efficacy and Biomarker Analyses Pertaining to a Novel DNA Repair Inhibitor in Prostate and Pancreatic Cancer. Ontario Cancer Research Network Research. Collaborator(s): Hedley D, Moore M, Vallerga A. 565,440 CAD.  
[Grants]  
Amount: $141,360/ per year.

[Grants]  
Amount: $48,000/ per year.
*Amount: $39,800 over 2 years.*

2002 - 2004  **Principal Investigator.** Pilot Studies into the Anti-Apoptotic Protein, Survivin, as a Potential Target in Prostate Cancer Radiotherapy. Abbot-CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): Sweet J, Squire J. 61,000 CAD. [Grants]
*Amount: $30,500/ per year.*

2002 - 2004  **Principal Investigator.** Pilot Studies into the Anti-Apoptotic Protein, Survivin, as a Potential Target in Prostate Cancer Radiotherapy. Abbot-CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): Sweet J, Squire J. 61,000 CAD. [Grants]
*Amount: $30,500/ per year.*


*Amount: $666,000/ per year.*

*Amount: $97,483/ per year.*


*Amount: $105,000/ per year.*


*Amount: $114,000/ per year.*

2000  **Principal Investigator.** Molecular and Clinical Aspects of DNA Repair. Canada Foundation for Innovation (New Opportunities Fund). Collaborator(s): Investigators: Milosevic M (PI), Toi A, Sweet J, **Bristow RG**, Hedley D, Panzarella T, Hill R. 386,000 CAD. [Grants]
*(one-time award; equipment/infrastructure only).*


1999 - 2000 **Principal Investigator.** PMH Scientist Start-up Funds. Princess Margaret Hospital Foundation (The). 10,000 CAD. [Grants] (one-time award).


**D. Publications**

1. **MOST SIGNIFICANT PUBLICATIONS**

1. Al Rashid ST, Harding S, Law C, Coackley C, **Bristow RG**. Chromatin-binding of p53 with ATM and 53BP1 in response to DNA damage. Radiation Res. 2011 May;175(5):588-98. **Senior Responsible Author.**

2. Chan N, **Bristow RG**. Contextual Synthetic Lethality/Loss of Heterozygosity: Tumor Hypoxia and Modification of DNA Repair. Clin Cancer Res. 2010;16(18):4553-60 (Trainee publication, N Chan). **Senior Responsible Author.**

   *Important studies showed that support chronic hypoxic cells as homologous recombination defective and prone to increased sensitivity to DNA damaging agents PARP inhibitors. These manuscripts suggests that chronically hypoxic cells and acutely hypoxic cells may be used as biomarkers for personalized medicine. (IMPACT FACTORs 7.3 and 8.2 – Highlighted in Nature Reviews Cancer and Nature Reviews Drug Discovery).*


   *Important studies showed that support chronic hypoxic cells as homologous recombination defective and prone to increased sensitivity to DNA damaging agents PARP inhibitors. These manuscripts suggests that chronically hypoxic cells and acutely hypoxic cells may be used as biomarkers for personalized medicine. (IMPACT FACTORs 7.3 and 8.2 – Highlighted in Nature Reviews Cancer and Nature Reviews Drug Discovery).*

This paper is one of the first to define the genetics of intermediate risk prostate cancer and defined five novel microdeletions associated with the disease. It also clarified the genetics of the commonly used prostate cancer cell lines to show that only one, 22RV1, had genetic changes consistent with primary human samples. Importantly, NKX3.1 haploinsufficiency (a gene involved in cancer initiating cell biology and DNA repair) was found to be a new prognostic factor in prostate cancer. (IMPACT FACTORS 7.3 and 4.1).


This paper describes the activity of the wild type and mutant versions of recombinant DNA repair protein MYH in colorectal carcinogenesis based on actual mutations found in cancer patients. This paper sets up the basic science behind studying MYH and other BER repair proteins in hypoxic tissues and using novel biochemical assays to determine activity in relation to cellular radiobiology. (IMPACT FACTOR 14.0).


This review critically discusses the role of hypoxia in altering DNA-dsb repair leading to repair-deficient and aggressive tumour cell phenotypes. It argues for a new hypothesis concerning hypoxia in which HR-deficient hypoxic cells may be the target for novel cancer therapies and associated biomarkers. (IMPACT FACTOR 37.2).


**COVER OF DEC 1 2005 CANCER RESEARCH: This manuscript suggests a unique biology for this p53 phosphoform in the initial steps of DNA damage signaling and implicates ATM-p53 chromatin-based interactions as mediators of cell cycle checkpoint control and DNA repair to prevent carcinogenesis. (IMPACT FACTORS 8.2 and 2.6).**

## 2. PEER-REVIEWED PUBLICATIONS

### Journal Articles


12. Kumareswaran R, Chaudary N, Jaluba K, Meng A, Sykes J, Borhan A, Hill RP, Bristow RG. Cyclic hypoxia does not alter RAD51 expression or PARP inhibitor cell kill in tumor cells. Radiother Oncol. 2015 Sep 1;116(3):388-91. **Senior Responsible Author.**


16. Siadiat F, Sykes, J, Zlotta, AR, Aldaoud N, Egawa DP, Kuk C, Bristow RG, Montironi R, van der Kwast T. Not all Gleason Pattern 4 Prostate Cancers are Created Equal: A Study of Latenet Prostatic Carcinomas in Cystoprostatectomy and Autopsy Series. Prostate. 2015 May 1;75(12):1277-84. **Co-Principal Author.**


34. Locke JA, Zafarana G, Mallof CA, Lam WL, Sykes J, Pintilie M, Rammarine VR, Meng A, Ahmed O, Jurisica I, Guns ET, van der Kwast T, Milosevic M, **Bristow RG**. Allelic loss of the loci containing the androgen synthesis gene, StAR, is prognostic for relapse in intermediate-risk prostate cancer. Prostate. 2012 Sep;72(12):1295-305. **Senior Responsible Author.**


44. Harding SM, **Bristow RG**. Discordance between phosphorylation and recruitment of 53BP1 in response to DNA double-strand breaks. Cell Cycle. 2012 Apr 1;11(7):1432-44. **Senior Responsible Author.**


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76. Tabassum A, **Bristow RG** and Venkateswaran V. Ingestion of Selenium and Other Antioxidants During Prostate Cancer Radiotherapy: A Good Thing? Cancer Treat Rev. 2010 May;36(3):230-4. **Coauthor or Collaborator.**


81. Chan N, **Bristow RG**. Contextual Synthetic Lethality/Loss of Heterozygosity: Tumor Hypoxia and Modification of DNA Repair. Clin Cancer Res. 2010;16(18):4553-60 (Trainee publication, N Chan). **Senior Responsible Author.**


111. Liu SK, Coackley C, Bristow RG. A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under hypoxia. Radiother Oncol. 2008;88(2):258-68. **Senior Responsible Author.**


Book Chapters


Editorials


Commentaries


5. Zafarana G, Bristow RG. Tumor senescence and radioresistant tumor-initiating cells (TICs): let sleeping dogs lie! Breast Cancer Res. 2010;12(4):111. (Total Accesses to this article: 2910; denoted as “Highly Accessed”). Senior Responsible Author.


Letters to Editor


In Preparation


Online Resources

Journal Issues

Journal Articles, Review

Other Publications

3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


23. Harding SM, **Bristow RG**. Discordance between phosphorylation and recruitment of 53BP1 in response to DNA double-strand breaks. Cell Cycle. 2012 Apr;11(7):1432-44. **Senior Responsible Author.**


35. PMH Prostate Program. PMH Forefront – A Prostate Center Update Newsletter, Winter issue. 2008.

37. A Prostate Centre Update. PMH Forefront – A Prostate Center Update Newsletter, Summer issue. 2008.

38. A Prostate Centre Update. PMH Forefront – A Prostate Center Update Newsletter, Spring issue. 2008.


42. FISH and CHIPs and prostate cancer: Refining prognosis and treatment by analyzing unique tissue genetics. Canadian Prostate Cancer Network News. 2007 Oct;1(3).

43. Assessment tools offer answers online. The Toronto Star. 2007 Sep 17.

44. PMH Prostate Program. PMH Forefront – A Prostate Center Update Newsletter. 2007.


Books


Books Edited


Book Chapters


7. Fraser M, Saad F, Bristow RG. The Genetics of Prostate Cancer As Relates to Prognosis. In: Cancer Genomics. Wtham (United States); 2013. Senior Responsible Author.


Commentaries


Multimedia


5. DNA Repair and Genetic Instability in Solid Tumours. Department of Medical Biophysics brochure and website.


7. Prostate Cancer Research in Canada. Spokesperson, Prostate Cancer Research Foundation Canada Media Campaign and Fundraising. PRINT; Media Campaign.

In Preparation


Newspaper Articles


6. “Health: Prostate Cancer Researchers say that federal funding is dwindling. A special breakfast today was intended to get that message to MPs”. Ottawa Sun (Health Today). 2004 Nov. Acknowledged in Publication (Not Author).


Journal Issues


Other Publications


4. SUBMITTED PUBLICATIONS

Journal Articles


7. Fenton AL, Harding SM, Meng L, Jalali F, **Bristow RG**, Koch A. The sustained of aprataxin and polynucleotide kinase-like factor (APLF) at sites of DNA damage is dependent on a site of ATM phosphorylation at serine-116. Journal of Biological Chemistry. 2011. **Coauthor or Collaborator.**


**Other Publications**


3. **Bristow RG**, Al Rashid S, Jonkman J, and Oliver PA. Intranuclear DNA Repair Protein Foci and Radiotherapy: Caveats on Counting. International Journal of Radiobiology (Trainee publication). **Senior Responsible Author.**

**E. Intellectual Property**

**1. PATENTS**

2015 Jul  **BIOPSY-DRIVEN GENOMIC SIGNATURE FOR PROSTATE CANCER PROGNOSIS.** Granted. Patents #: PCT/CA2015/000026, Ontario, Canada. Joint Holder Name(s): Boutros P, Lalonde E.


**Invention: Multi-Modal Prostrate Cancer Marker.** Applied. Ontario, Canada.
F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 May 18 **Presenter.** Biomarkers for Radiation Oncology. Session II: Preclinical and clinical studies of the biomarkers for radiation oncology. Tumor genomic and microenvironmental heterogeneity as biomarkers for personalized prostrate cancer medicine. Dresden, Germany.


2014 Sep 21 **Invited Speaker.** Targeting tumour hypoxia: current status and future prospects. Radiation Research Meeting. Las Vegas, California, United States. Presenter(s): Bristow, RG.

2014 Apr 3 **Chair.** Complimentarity of Genomic Instability & Hypoxia Indices for Predicting Prostate Cancer Recurrence. ESTRO. Vienna, Austria. Presenter(s): Bristow, R.

2014 Apr 3 **Invited Speaker.** 3D-CRT/IMRT with/without short term androgen deprivation in localized T1b-cT2aN0M0 prostate cancer. ESTRO. Vienna, Austria. Presenter(s): Bristow, R.

2013 Nov 13 **Invited Speaker.** DNA Repair Targeting and Radiobiology. CC-115 Advisory Board. New York, New York, United States.


2013 Sep **Invited Speaker.** Good, Bad, Better, Best: Precision Cancer Medicine for Prostate Cancer. The Gray Symposium. Oxford, Finland. Presenter(s): Bristow, RG.

2013 Aug **Invited Speaker.** Stress Induced Hypoxia and Treatment Resistance. Aus-Can Prostate Cancer Research Alliance Symposium. Queensland, Australia. Presenter(s): Bristow, RG.

2013 Aug **Invited Speaker.** ICGC Prostate Cancer Sequencing. Queensland, Australia. Presenter(s): Bristow RG.

2013 Aug **Invited Speaker.** Tracking DNA Repair Following Chemotherapy and Radiotherapy In Situ. Aus-Can Prostate Cancer Research Alliance Symposium. Queensland, Australia. Presenter(s): Bristow, RG.

2013 Jul **Invited Speaker.** “Genetics Factors of Prostate Cancer Radioresponse”. BigArt Symposium. Århus, Denmark.

2013 Jul **Invited Speaker.** “Interplay between the Cancer Genome and Tumour Microenvironment in Prostate Cancer Progression”. Heinrich-Warner Symposium. Hamburg, Germany.

2013 Jul **Invited Speaker.** Genetics, Hypoxia and Radiobiology Entwined: The Case for Hypofractionation. Davos, Zürich (de), Switzerland. Presenter(s): Bristow, RG.

2013 May 23 **Visiting Professor.** Hypoxia-mediated Defects in DNA Repair as the Basis for Contextual Synthetic Lethality and Cancer Treatment”. Johns Hopkins. Baltimore, Maryland, United States.

2013 May 23 **Visiting Professor.** “Prostate Cancer Genomics and Microenvironment Entwined: “Caveat Emptor” for Personalized Medicine”. Johns Hopkins University. Baltimore, Maryland, United States.

2013 May **Invited Speaker.** The genomic and microenvironmental landscape for personalized prostate cancer
Robert Glen BRISTOW

medicine. Tumour Microenvironment Meeting. Miami, Florida, United States.

2013 **Visiting Professor.** Radiation/Chemoradiation and Bilogical Targeting. ASTRO's Annual Meeting Steering Committee. Atlanta, Georgia, United States.

2011 Genomic and Microenvironmental Predictors of Prostate Cancer Radioresponse. 22nd L H Gray International Conference, Realizing the potential of drug/radiation interactions in cancer treatment. Manchester, United Kingdom.


2011 Contextual Synthetic Lethality: Studies of Hypoxia and DNA Repair. 3B ASTRO Translation Research Meeting. Atlanta, Georgia, United States.


2011 **Invited Speaker.** Personalized Prostate Cancer Treatment on the Basis of Individual Genomics. ASTRO Annual Scientific Meeting. Miami, Florida. Audience: Radiation Oncologists & Scientists. (Continuing Education).


2010 Genomics, DNA Repair and Prostate Cancer. Myriad Genetics Scientific Advisory Baord Meeting. Salt Lake City, Utah.

2010 View of the Radiation Oncologist in Prostate Cancer. Swiss Academy of Multidisciplinary Oncology (SAMO) Interdisciplinary Workshop on Urogenital Tumors. Lucerne, Switzerland.

2010 Predicting radiotherapy outcome using somatic genetics in prostate cancer. Acta Oncologica 2010

2010 The ICGC Prostate Project. Australian-Canadian, Prostate Cancer Research Alliance (AC-PCRA). Brisbane, Australia.

2010 Thoughts on IHC and Genetic Validation of MRI-based Prostate Imaging. Australian-Canadian, Prostate Cancer Research Alliance (AC-PCRA). Brisbane, Australia.

2010 The Biology of Prostate Hypoxia and Approaches to Targeting. Australian-Canadian, Prostate Cancer Research Alliance (AC-PCRA). Brisbane, Australia.

2010 Targeting DNA Repair as a New Therapy for Prostate Cancer. Prostate Cancer Foundation of Australia (PCFA). Brisbane, Australia.


2010 Out of the Box Thinking in Radiobiology for Hypoxia and DNA Repair. Medical Biophysics (MBP) Retreat. Lake Couchiching, Ontario.

2010 Contextual Cell Lethality and Hypoxic Cancer Cell Kill. American Society for Radiation Oncology (ASTRO) 52nd Annual Meeting. San Diego, California.

2010 DNA repair gene modifications in prostate cancer and individualised therapy: A Canadian-ICGC prostate cancer project. Translational Cancer Genomics Symposium - Personal Genomes for Improved Cancer Care, Garvan Institute of Medical Research. Sydney, Australia.


2009 Feb Hypoxia, DNA Repair and Genetic Instability. 4th International Conference on Translational Research (ICTR) and Pre-Clinical Strategies in Radiation Oncology. Geneva, Switzerland. Audience: Oncologists & Scientists. (Continuing Education).


2009 Invited Speaker. IMRT and Biological Approaches in Radiotherapy for Prostate Cancer. Joint ECCO 15-34th ESMO Multidisciplinary Congress. Berlin, Germany. Audience: Oncologists & Scientists. (Continuing Education).


2009 Visiting Professor. Contextual Synthetic Lethality of Cancer Cell Kill Based on the Tumor Microenvironment. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia. Audience: Oncologists & Scientists. (Continuing Education).

2009 Tissue-Based Imaging In Tumours and Normal Tissues in Response to Experimental Cancer Therapies: The STTARR Program. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia.

2009 Visiting Professor. The STTARR Program State of MaRS: Complementary Activities between Industry and Academia. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia. Audience: Oncologists & Scientists. (Continuing Education).

2009 Hypoxia and DNA Repair. ON-Q-ITY Advisory Board Meeting. Boston, United States.

2009 Visiting Professor. Imaging to a Mixed Clinical and Academic Audience. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia. Audience: Oncologists & Scientists. (Continuing Education).


2008 Jun Individualizing Cancer Therapy on the Basis of Intratumoral DNA Repair. Scientific Meeting of the Prostate Cancer Research Foundation of the United Kingdom. King City, Ontario. Audience: Oncologists & Scientists. (Continuing Education).


2008  DNA Repair Inhibitors and the Clinic. Annual Meeting of the American Society of Therapeutic Society (ASTRO). Boston, Massachusetts.

2008  STTARR-MaRs, Advanced In Vivo Imaging Centre PMH Toronto. Australian Canadian Prostate Cancer Research Alliance Program. Brisbane, Australia.

2008  Hypoxia, DNA Repair and Prostate Cancer. Australian Canadian Prostate Cancer Research Alliance Program. Brisbane, Australia.


2007  DNA Repair Mechanisms and Implications for Radiation Oncology. 10th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland.

2007  p53 Phosphorylation and Interactions with ATM following DNA damage. 13th International Congress of Radiation Research. San Francisco, California.


2007  Hypoxia and DNA Repair as Factors in Prostate Cancer Progression and Aggression. Prostate Cancer Research Program 2007 IMPaCT Meeting. Atlanta, Georgia.


2006 DNA Damage and Repair Biomarkers During Conformal Radiotherapy for Prostate Cancer: Results From A Phase I Pre-Operative Trial of 15 Patients. ASCO Prostate Meeting. San Francisco, California.


2005 Sep DNA repair as a biological modifier and target. 7th International Conference on Dose, Time and Fractionation in Radiation Oncology. Madison, Wisconsin. Audience: Clinicians & Basic Researchers. (Continuing Education).


2005 Expression of DNA-dsb Repair Proteins is Altered Under Hypoxia in Prostate Cancer Cells. 9th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland.

2005 Strikes, Spares and Misses: Hypoxia, DNA Repair and Prostate Cancer. Clinical And Experimental Research In Radiation Oncology (CERRO)- The European Society for Therapeutic Radiology and Oncology. Les Menuires, France. Audience: International-Basic Scientists and Oncologists. (Continuing Education).


2005 DNA Repair Foci As A Biological Dosimeter, In Situ. Center for Biophysical Assessment and Risk Management Following Irradiation, University of Rochester. Rochester, New York.


<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>2000</td>
<td>Modifying DNA repair capacity as genetic target for radiotherapy. First International Conference on Translational Research and Pre-Clinical Strategies in Radio-Oncology. Lugano, Switzerland.</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>p53 as therapeutic target. First International Conference on Translational Research and Pre-Clinical Strategies in Radio-Oncology. Lugano, Switzerland.</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>G1 Cell Cycle Checkpoint and DNA Damage Response. Future of Radiobiology in Radiation Oncology International Symposium, Department of Radio-Oncology, University of Essen. Essen, Germany. DA: Molecular and Cellular Biologists (&gt;100). (Continuing Education).</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>G1 Cell Cycle Checkpoint and DNA Damage Response. Future of Radiobiology in Radiation Oncology International Symposium, Department of Radio-Oncology, University of Essen. Germany.</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>Molecular mechanisms of non-homologous recombination in DNA dsb repair following ionizing radiation. Medical Genetics Centre, Erasmus University. Rotterdam, Netherlands.</td>
<td></td>
</tr>
</tbody>
</table>
Presented Abstracts


2014 Apr 3  **Chair.** Radiobiology 3: Interplay Between Hypoxia, DNA Repair and Radiosensitivity. ESTRO. Vienna, Austria. Presenter(s): Bristow, R.


2011  **Senior Responsible Author.** Genomic and Microenvironmental Predictors of Prostate Cancer Radioresponse. L H Gray International Conference. Manchester, United Kingdom. Bristow RG.

2009  **Senior Responsible Author.** RNF8 independent K63 poly-ubiquitination plays a role in maintaining genomic stability. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Ramaekers C, van den Beucken Twan, Bristow RG, Wouters BG. (Trainee Presentation).

2009  **Senior Responsible Author.** A subset of nuclear Akt is phosphorylated on Ser473 in an ATM-dependent manner in response to radiation –induced DNA Double Strand Breaks. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Fraser M, Bristow RG. (Trainee Presentation).

2009  **Senior Responsible Author.** Array CGH of prostate cancer biopsies identifies genetic variations in DNA

2009 **Senior Responsible Author.** c-Myc and DNA Double Strand Break Repair Gene Expression. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Luoto KR, Meng A, Penn LZ, Bristow RG. (Trainee Presentation).


2008 Apr **Senior Responsible Author.** PML nuclear bodies are juxtaposed to DNA-DSBs following IR-induced DNA damage. American Association of Cancer Research (AACR) Annual Meeting. San Diego, California. Tse KCK, Jalali F, Kumareswaran R, Dellaire G, Bazett-Jones DP, Bristow RG. (Trainee Presentation).

2008 **Senior Responsible Author.** Hypoxia and DNA Repair as Factors in Prostate Cancer Progression and Aggression. Proceedings of the 13th International Congress of Radiation Researchs. San Francisco, California. Chan N, Milosevic M, Bristow RG.


2008 **Senior Responsible Author.** Goda J, Bristow RG. Use of gammaH2AX and Lymphocytes to Predict Prostate Radiosensitivity. Golden Horseshoe Meeting- Radiation Symposium. Rochester, New York.

2007 **Senior Responsible Author.** Nutlin-3 Radiosensitizes Prostate Cancer Cell Lines Independent of p53 Status. The Prostate Cancer Symposium. Tampa, Florida. Supiot S, Bristow RG.

2007 **Senior Responsible Author.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes
malignant human cell lines under oxia and hypoxia. 10th International Wolfsberg Meeting. Ermatingen, Switzerland. Liu S, Coackley C, Bristow RG.

2006 Nov  
**Senior Responsible Author**. DNA-dbS Signaling and Repair in Hypoxic Cells within Prostate Cancer Xenografts. American Society of Therapeutic Radiation and Oncology (ASTRO). Phan T, Meng A, Do T, Nicklee T, Ho J, Cole H, Sweet J, Hedley D and Bristow RG. (Trainee Presentation).

2006 Jun  

2006 May 17  

2006 Mar  

2006 Feb  

2006 Feb  

2006  

2006  
**Senior Responsible Author**. Nutlin-3 Radiosensitizes Prostate Cancer Cell Lines Independent of p53 Status. American Society of Therapeutic Radiation and Oncology (ASTRO). Supiot S, Bristow RG.

2006  

2006  
**Senior Responsible Author**. Hypoxia As A Mediator Of DNA-dbS Repair in Prostate Cancer Xenografts. European Society for Therapeutic Radiation Oncology (ESTRO). Bristow RG.

2006  
**Senior Responsible Author**. Molecular Epidemiology of DNA repair signaling proteins as a risk factor for bladder cancer. National Cancer Research Institute Conference. Birmingham, United Kingdom. Choudhury A, Barrett J, Sak SC, Bristow RG, Bishop DT, Kiltie AE. Awarded the BOA Young Investigator Award.

2006  
**Senior Responsible Author**. Enhancement of chemo and radiosensitization by targeting homologous recombination via RAD51. Medical Research Society/Academy of Medical Sciences/Royal College of Physicians. London. Choudhury A, Zhao H, Al-Rashid S, Kiltie A, Bristow RG.

2005 Oct  


2005 Apr  **Senior Responsible Author.** Mutant p53 and phosphostates. Golden Horseshoe Radiobiology Meeting. Toronto. Cuddihy A, Bristow RG.


2005 **Senior Responsible Author.** Hypoxia Reduces Expression of DNA Double Strand Break Repair Genes in Prostate Cancer. 9th International Tumor Microenvironmental Workshop. Oxford. Meng A, Jalali F, Nicklee T, Ho J, Hedley D, Bindra R, Glazer P and Bristow RG.

2005 **Principal Author.** DNA-dsb Repair as a Biological Modifier and Target. 7th International Conference on Dose, Time and Fractionation in Radiation Oncology. Madison, Wisconsin. Bristow RG.


2003 Jan  **Principal Author.** Homologous Recombination as A Target for Therapy in Prostate Cancer. Gordon


Robert Glen BRISTOW


1994 **Collaborator.** The p53-mediated G1 checkpoint remains intact in rat embryo fibroblasts transfected with ras or HPV16-E7. 7th International p53 Workshop. Lake Muskoka, Ontario. Peacock J, Chung S, Bristow RG, Hill RP, Benchimol S.

1991 **Principal Author.** Ras and radioresistance. International Congress of Radiation Research. Toronto. Bristow RG, Hunt T and Parde F.


1990 **Principal Author.** Chromosomal Damage Following XRT and 5-FU in CHO Cells. 37th Meeting of the Radiation Research Society. New Orleans. Bristow RG, Savin S, Hittelman W and Brock W.


Lectures and Other Presentations

2011 **Visiting Professor.** Contextual Synthetic Lethality: Studies of Hypoxia and DNA Repair Within the Tumour Microenvironment. Center for Cancer Research and Cell Biology, Queen’s University Belfast. Belfast, United Kingdom.

2011 **Visiting Professor.** Personalized Medicine for Prostate Cancer. Center for Cancer Research and Cell Biology, Queen’s University Belfast. Belfast, United Kingdom.


2010 Oxygen and Prostate Cancer-Friend or Foe. Prostate Cancer Foundation of Australia. Brisbane, Australia. (Presentation to Patients/Public).

2010 **Visiting Professor.** Contextual Synthetic Lethality: the Tumour Microenvironment and DNA Repair As Targets for Novel Cancer Therapies. Department of Radiation Oncology, University of Florida Shands Cancer Center. Gainsville, Florida.


2009 Feb **Visiting Professor.** Cancer Cell Hypoxia and DNA Repair: New Targets and New Therapies. Department of Biology, Adam Mickiewicz University. Poznan, Poland. Audience: Oncologists & Scientists. (Continuing Education).


2009 **Visiting Professor.** Hypoxia and DNA Damage Biomarkers as Predictors of Prostate Cancer Therapy Response. Faculty of Science and Technology, Institute of Health and Biomedical Innovation Centre, Queensland University of Technology. Brisbane, Australia. Audience: Oncologists & Scientists. (Continuing Education).


2008 Sep The phosphorylation of 53BP1: a response to DNA-double strand breaks category: DNA damage
induction, repair and the damage response. ASTRO. Harding S. (Trainee Presentation).

2008 Jun A subset of nuclear Akt is phosphorylated on Ser473 in an ATM-dependent manner in response to radiation –induced DNA Double Strand Breaks. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Fraser M. (Trainee Presentation).

2008 Jun A subset of nuclear Akt is phosphorylated on Ser473 in an ATM-dependent manner in response to radiation –induced DNA Double Strand Breaks. 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. Fraser M. (Trainee Presentation).


2008 Feb **Visiting Professor.** Hypoxia Leads to DNA Repair Deficiencies ad Novel Therapuetics. Department of Radiation Oncology, University of Texas Southwestern University. Dallas, Texas. Audience: Oncologists & Scientists. (Continuing Education).


2008 **Visiting Professor.** Biomarkers for DNA Repair Inhibitor Radiotherapy Trials. University Hospital Carl Gustav Carus, Technische Universität Dresden. Dresden, Germany.


2006 Dec **Visiting Professor.** DNA Repair and Prostate Cancer Progression: The Hypoxia Connection. UCLA’s GU Leaders in the Field Seminar, Department of Urology, University of California. Los Angeles, California. Audience: Biologists and Clinicians. (Continuing Education).

Robert Glen BRISTOW


2006 Sep  

2005 Nov  

2005 Oct  
**Visiting Professor.** Novel Strategies in Targeting DNA Repair To Improve Oncologic Outcome. Department of Oncology, Peter MacCallum Cancer Centre, Melbourne, Australia. Audience: Clinicians & Basic Researchers. (Continuing Education).

2005 Jun  
**Visiting Professor.** Hypoxia, DNA Repair and Prostate Cancer. Department of Radiation Oncology, University of Maastricht, Maastricht, Netherlands. DA: International-Basic Scientists and Oncologists. (Continuing Education).

2005 Jun  
**Visiting Professor.** Hypoxia, DNA Repair and Prostate Cancer. Department of Radiation Oncology, University of Medical Center Nijmegen, Nijmegen, Netherlands. Audience: International-Basic Scientists and Oncologists. (Continuing Education).

2005  
**Senior Responsible Author.** RAD51: A DNA repair target for increasing the therapeutic potential in the treatment of bladder cancer. The European Society for Therapeutic Radiology and Oncology/ECCO, Paris. Choudhury A, **Bristow RG**. (Trainee Presentation).

2004 May  
Recruitment of Serine-15 Phosphorylated P53 To Nuclear Sites Of DNA Damage In Situ. 8th International Workshop On Radiation Damage To DNA. Banff, Alberta, Canada. Audience: Clinicians and Researchers (100). (Continuing Education).

2003 Jul  

2003 Jun  

2003 Jun  
Rad51 as Target in Prostate Cancer Treatment. 2nd Annual CPC-BioNet Satellite Meeting. Montreal, Quebec. Audience: Clinicians and Researchers (50). (Continuing Education).

2003 Jan  

2002  
**Visiting Professor.** p53 and DNA Repair Complexes In Situ. Medical Research Council (MRC) Harwell Radiation Stability and Genetics Unit and Department of Oncology, Oxford University. Oxford, United Kingdom.

2001  

1996  
**Visiting Professor.** P53 as a determinant of therapeutic response: fiction or function? Department of Radiation Oncology, University of Pennsylvania. Philadelphia, Pennsylvania.

**Lecutres and Other Presentations**

2007 Apr  

2007  
Hypoxia and DNA Repair as Factors in Prostate Cancer Progression and Aggression. 13th International
2. NATIONAL

Invited Lectures and Presentations


2014 Oct 6  Invited Lecturer. “Precision Cancer Medicine for Prostate Cancer: Lets Make It Personal !”. Memorial University. St. Johns, Newfoundland and Labrador, Canada. Presenter(s): Bristow, RG.


2013 Sep  Speaker. Metformin use in PRostate Cancer Patients Treated with Radiotherapy: Improved outcomes due to Enhanced Tumor Oxygenation. CARO-COMP JSM. Presenter(s): Bristow RG, Dal Pra A.

2013 Mar  Visiting Professor. “Personalized Genomic and Biomarker Assessment for Individualized Prostate Cancer Treatment.”. Department of Oncology, Dalhousie University. Halifax, Ontario, Canada.


2012  Invited Speaker. The CPC-GENE Project for Individualized Prostate Cancer Therapy. Terry Fox Research Institute (TFRI) Meeting on Prostate Cancer. Montreal, Quebec, Canada.


2011 Personalized Prostate Cancer Medicine Based on Genetic Predictors of Radiotherapy Response. Southern Alberta Cancer Research Institute, University of Calgary. Calgary, Alberta.


2008  **Canadian Research Network.** Australian Canadian Prostate Cancer Research Alliance Program. Brisbane, Australia.


2005 Apr  Fidelity of DNA Repair as a Factor in Prostate Carcinogenesis. Montreal General Hospital/McGill. Montreal, Quebec. Audience: Clinicians & Scientists. (Continuing Education).


Presented Abstracts


2010 May  Chronic Hypoxia Suppresses Base Excision Repair by Inhibition of Protein Synthesis: An Example of Contextual Synthetic Lethality. 2nd Terry Fox Research Institute Scientific Meeting. Vancouver, British Columbia. Presenter(s): Chan N. N Chan, M Ali, GP McCallum, PG Wells, S Gallinger and RG Bristow. (Trainee Presentation).

2007  Principal Author. Hypoxia Limits DNA-dsb Signalling and Repair in Prostate Cancer Cells: In Vitro and In Vivo Studies. Prostate Cancer Research Foundation of Canada Retreat. Toronto. Bristow RG.


2006  Principal Author. DNA Repair and Prostate Cancer-Canadian Collaborations in Carcinogenesis and Therapy. 5th Annual Canadian Prostate Cancer BioResearch Network Meeting. Niagara-on-the-lake. Bristow RG.


Media Appearances


2006 Sep 18  Prostate Cancer Program offers Assessment Tools. CTV.ca. Toronto, Ontario. (Presentation to Patients/Public).

Lectures and Other Presentations


2010  Prostate Cancer: Individualizing a Man’s Disease. Prostate Cancer Canada Breakfast Fundraiser. Toronto, Ontario. (Presentation to Patients/Public).

2010  New Avenues of Prostate Cancer Research Funded by Prostate Cancer Canada. Prostate Cancer Canada Annual Conference. Toronto, Ontario. (Presentation to Patients/Public).


2009  Visiting Professor. Inhibiting DNA Repair as a Means to Improve Radiotherapy Outcome. Department of Radiation Oncology, University of Manitoba and Manitoba Institute of Cell Biology, Cancercare Manitoba. Winnipeg, Manitoba. Audience: Oncologists & Scientists. (Continuing Education).


2008 Sep  Chronically Hypoxic Cells are Uniquely Sensitized to PARP Inhibition. CARO. Chan N. (Trainee Presentation).

2008 Sep  Novel targeted inhibitors of PARP, ATM and DNAPKcs radiosensitize oxic and hypoxic malignant human cells. CARO. Coackley C. Poster presentation. (Trainee Presentation).


2007 Sep  A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. CPCRI. Toronto. Liu SK. (Trainee Presentation).


2006  CPCRI Prostate Cancer Research Education Breakfast. (Presentation to Patients/Public).


2004 Jun  Home Run Challenge. Prostate Cancer Awareness Week, Blue Jays Game on behalf of the Prostate Cancer Research Foundation of Canada. Toronto, Ontario. (Presentation to Patients/Public).


2000  **Visiting Professor.** Department of Radiation Oncology, University of Bristish Columbia. Genetics Determinants of Radiation Curability. Vancouver, British Columbia.
Lectures and Other Presentations

2007 Nov  

2007 Sep  

2007 Apr  

Workshop Leader

2013 Nov 21  
Workshop Leader. Genomic Signatures in Prostate Cancer. GUROC. Montreal, Quebec, Canada.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2016 May 10  

2016 Feb 1  

2014 Feb 20  

2013 May  
Invited Speaker. Ottaw, Ontario, Canada. Presenter(s): Bristow, RG.

2013  
Invited Speaker. ‘Caveat Emptor for Sequencing Prostate Cancer: Genomics and Tumour Hypoxia Entwined.’. OCI Retreat: Genomic Biomarkers in Research and Practice. Huntsville, Ontario, Canada.

2011  

2011  

2010  

2009  

2007  
Biomarkers of DNA Damage for Clinical Trials. AstraZeneca / KUDOS / Princess Margaret Hospital Site Visit. Toronto, Ontario.

2007  
Ongoing studies in Hypoxia and DNA Repair. Hypoxia Consultants Meeting (Terry Fox Hypoxia Program). Toronto, Ontario.

2006 Nov  
Robert Glen BRISTOW


2006  DNA-dsb Repair as a Target for Radiobiology. Target Insight II: Innovation Strategies for Target Definition to Enhance the Therapeutic Ratio Meeting. Toronto, Ontario.


2002 Nov  Cancer Genetics and Individualized Cancer Treatment: Lessons with Prostate Cancer. Ontario Medical Student Weekend Conference, Faculty of Medicine, University of Toronto. Toronto, Ontario. Audience: Clinicians and Researchers (150). (Continuing Education).


**Presented Abstracts**


Robert Glen BRISTOW


2006 May  Principal Author. DNA-dsb Repair as a Target for Radiotherapy. Target Insight II: Innovation Strategies for Target Definition to Enhance the Therapeutic Ratio Meeting. Toronto. Bristow RG. Audience: Biologists, Physicists and Clinicians. (Continuing Education).


Media Appearances


Robert Glen BRISTOW


2005 New and upcoming Developments in Prostate Cancer Research. CBC Radio 88.3 at 5:30p.m. Thunder Bay, Ontario. Taped interview. (Presentation to Patients/Public).


2004 Jun Why men do not like the in doctor? It usually takes a wife or partner to get the man to go for a physical. City-TV. Toronto, Ontario. Taped Interview Public Awareness Television Program.


Lectures and Other Presentations


2008 May Continual Hypoxia compromises the repair of DNA-double strand breaks: Implication for genetic instability. Applied Molecular Oncology Seminar, Division of the OCI, UofT. Kumareswaran R. Poster presentation. (Trainee Presentation).


2008 Apr The STTARR Program at UHN. Eli-Lilly Industrial Presentation. Toronto, Ontario. (Presentation to Patients/Public).


2008 Apr  The STTARR Program at UHN. Merck Industrial Presentation. Toronto, Ontario. (Presentation to Patients/Public).


2003 Sep  “Prostate Cancer Awareness in Canada” on behalf of the Prostate Cancer Research Foundation of Canada. Heart Lake Dragon Boat Race of Prostate Research. Brampton, Ontario. (Presentation to Patients/Public).

2003  “Prostate Cancer Health”; on behalf of the Prostate Cancer Research Foundation of Canada. Albany Club Members. Toronto, Ontario. (Presentation to Patients/Public).


Lectures and Other Presentations


4. LOCAL

Invited Lectures and Presentations


M, Boutros P, Bristow RG.


2014 Apr Invited Speaker. Personalized Medicine: the Prostate Cancer Example at PMH. The Ride to Conquer Cancer Event. Toronto, Ontario, Canada. Presenter(s): Bristow, R.


2004 May Preventing Carcinogenesis and Improving Therapeutic Response. Late Effects Biology: The Science and Management of Radiation Late Effects, University of Toronto, Department of Radiation Oncology. King City, Ontario. Audience: Radiation Oncologists, Nurses & Therapists (>100).

1999 May Trends in Radiation Oncology. Annual Debate: University of Toronto Continuing Medical Education Course in Radiation Oncology, University of Toronto. Toronto. DA: Clinicians and Scientists (100). (Continuing Education).

Presented Abstracts


2006 Apr Senior Responsible Author. Hypoxia and DNA-dsb Signaling and Repair in Prostate Cancer Xenografts. U of T Department of Radiation Oncology Annual Research Day. Phan T, Meng A, Do T, Nicklee T, Ho J, Hedley D, Bristow RG. (Trainee Presentation).

2006 Apr Senior Responsible Author. Correlation between Radiation Induced Acute Toxicity and Biochemical
Robert Glen BRISTOW


Media Appearances


2007 University of Toronto, Department of Radiation Oncology Career Choice Video. Toronto, Ontario. (Presentation to Patients/Public).

Invited Workshop

2013 Sep 30 Personalize Treatment. ICGC.

Lectures and Other Presentations

2011 Studies using array CGH and Prostate Radiotherapy Outcome. GU Tumour Board, Princess Margaret Hospital. Audience: GU Tumour Board. (Continuing Education).

2010 Studies using array CGH and Prostate Radiotherapy Outcome. GU Tumour Board, Princess Margaret Hospital. Audience: GU Tumour Board. (Continuing Education).


2007 Jun A STTARR is Born: Focusing on Radiation Response. Toronto Sunnybrook Regional Cancer Centre —

2007 Jun

2007 May

2007 May

2007 May
DNA-double strand break sensing and hypoxia-mediated genetic instability. Department of Medical Biophysics Student Symposium. Princess Margaret Hospital. Kumareswaran R. Poster presentation. (Trainee Presentation).

2007 Mar

2007 Feb
Hypoxia-mediated genetic instability and DNA-double strand break sensing”. Department of Medical Biophysics Student Seminar, University of Toronto. Kumareswaran R. Seminar presentation. (Trainee Presentation).

2006 Nov

2006 Nov

2006 Jun

2006 Jun
Hypoxia-mediated genetic instability and DNA-double strand break sensing. Department of Medical Biophysics Student Seminar, Princess Margaret Hospital. Toronto, Ontario. Kumareswaran R, Meng A, Bristow RG. (Trainee Presentation).

2006 May 19

2006 May 9

2006 May 5

2006 Mar
Hypoxia-mediated genetic instability and DNA-double strand break sensing. Hypoxia Meeting, Princess Margaret Hospital. Kumareswaran R, Bristow RG. (Trainee Presentation).

2006 Feb
Targeting DNA Repair for Prostate Cancer Therapy. Urology Research Rounds, Princess Margaret Hospital. Audience: Clinicians (15). (Continuing Education).

2006 Feb
Targeting DNA-dsb Repair as a New Cancer. Radiation Medicine Rounds, Princess Margaret Hospital. Audience: Radiobiologists, Physicists and Clinicians (50). (Continuing Education).

2006 Feb
Selenium Use and Radiotherapy: A good or bad thing? GU Tumor Board, Princess Margaret Hospital. Audience: Clinicians (30). (Continuing Education).
2006 Jan  
Inhibition of DNA Repair: A novel treatment for prostate cancer. GU Tumour Board, Princess Margaret Hospital. Audience: Clinicians (30). (Continuing Education).

2006  
Hypoxia Program, Project 3. ESAC Visit, Princess Margaret Hospital. Audience: Biologists, Physicists and Clinicians. (Continuing Education).

2006  

2005 Aug 16  

2005 Aug  

2005 Aug  
Targeting DNA Repair as a Cancer Treatment Strategy. RMP Rounds, Princess Margaret Hospital. Audience: Clinician & Radiotherapist (50). (Continuing Education).

2005 Apr  
Rad51: A DNA Repair Target For Increasing The Therapeutic Potential In The Treatment Of Bladder Cancer. UofT Research Day. Presenter(s): Choudhury A, Bristow RG. (Trainee Presentation).

2005 Jan  
Translational Cancer Research at UHN. UHN Board of Trustees, Toronto Club. Toronto, Ontario. (Presentation to Patients/Public).

2004 Oct  
Mechanisms of Cell Kill Following Radiotherapy: Defining New Biomarkers and Therapeutic Targets. Radiation Medicine Program Rounds, Department of Radiation Oncology, University of Toronto, Princess Margaret Hospital. Toronto, Ontario. Audience: Radiation Oncologists and RMP Staff Members (60). (Continuing Education).

2004 Jun  
Designer Genes, Designer Rads. Donor Awareness Night, Behind the Scenes, Princess Margaret Hospital Foundation Event Fundraiser. Toronto, Ontario. (Presentation to Patients/Public).

2004 Jun  
Microscopic Analyses of DNA Repair Complexes In Situ: Hypoxia and Genetic Instability. Princess Margaret Hospital Gyne-Oncology Rounds, University of Toronto, Princess Margaret Hospital. Toronto, Ontario. Audience: Clinicians and Researchers (20). (Continuing Education).

2004 Jun  
Strikes, Spares and Misses: DNA Repair Complexes In Situ in Prostate Cancer. GU Oncology Rounds, University of Toronto, Nursing Residence-Toronto General Hospital. Toronto, Ontario. Audience: Clinicians and Researchers (20). (Continuing Education).

2004 Jun  
Rad51 and Hypoxia. Meeting of the Terry Fox Hypoxia Program Grant Group, University of Toronto, Sheraton Hotel. Toronto, Ontario. Audience: Clinicians and Researchers (20). (Continuing Education).

2004 May  
Senior Responsible Author. DNA-dsb Repair In Situ In Normal and Malignant Cells. ET Division Research Rounds. Coleman A, Jonkman J, Bristow RG. (Trainee Presentation).

2004 Apr  
The STARR Innovation Centre: A Template for Radiation Research. Department of Radiation Oncology, University of Toronto Rounds, Princess Margaret Hospital. Toronto, Ontario. Audience: Radiation Oncologists and RMP Staff Members (60). (Continuing Education).

2004 Mar  
The Hypoxia Program and Prostate Cancer. Department of Radiation Oncology, University of Toronto Rounds, Princess Margaret Hospital. Toronto. WINNER BEST RADIATION MEDICINE PROGRAM ROUNDS. Audience: Radiation Oncologists and RMP Staff Members (60). (Continuing Education).

2003 Oct  
Homologous Recombination and Prostate Carcinogenesis. Princess Margaret Hospital Prostate Clinical Research Program, Princess Margaret Hospital. Toronto. Audience: Clinicians and Researchers (30). (Continuing Education).

2003 Aug  
The STTARR Innovation Program for Cell and Human Imaging within RMP. Department of Radiation Oncology Rounds, Princess Margaret Hospital. Toronto. Audience: Radiation Oncologists and RMP Staff Members (60). (Continuing Education).
Lectures and Other Presentations

2009 Something Old, Something New. RMP Rounds - Prostate Cancer, Princess Margaret Hospital. Audience: 60 Radiation Medicine Program Affiliates. (Continuing Education).


5. OTHER

Invited Lectures and Presentations


2013 Prostate Cancer Genomics and Changing Clinical Practice: A Partnership between Clinicians, Bioinformaticians and the Patients. Ontario, Canada. Presenter(s): Bristow, RG.

Presented Abstracts

2012 Nov AZD5438, an inhibitor of CDK 1, 2, and 9, enhances the radiosensitivity of non-small cell lung carcinoma cells. Presenter(s): Tumati V, Raghavan P, Yu L, Chan N, Tomimatsu N, Buma, S, Bristow RG, Saha D.

2012 Sep Hypofractionated and conventionally fractionated radiotherapy schedules for localized prostate cancer. Canadian Association of Radiation Oncologists (CARO) 2012 Annual Scientific Meeting. Ottawa, Ontario,

G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2004 Translational Radiobiology IMS 1502H, Graduate Education, Faculty of Medicine, Institute of Medical Science, University of Toronto
This new half-year course will be given over 2 terms starting in 2005 within the new trans-disciplinary M.Sc in Radiation Sciences Program (IMS-based). The course is designed to be seminar-based and student-interactive. It also has a unique hands-on laboratory component spread over 5 basic and applied oncology research modules. Local and guest lecturers will interact with the students to generate modern state-of-the-art approaches to molecular oncology and the development of new treatments within the field of radiation oncology.

2001 MBP1018Y-Basic Science of Oncology, Graduate Education, Faculty of Medicine, Dept of Medical Biophysics, University of Toronto Press
This full-year graduate course is available to all graduate students in biological sciences within the School of Graduate Studies (SGS) at the University of Toronto. It is hosted by the Department of Medical Biophysics. Dr. Bristow took over as Course Supervisor in 2001 and re-designed a series of lectures in a didactic format interspersed with clinical examples to showcase the breadth of oncology research. The course covers molecular and cellular oncology and the biological basis for several cancer treatment modalities in 13 to 15 lectures of 2 hours each. Overall, the course received excellent evaluations.

2000 UICC Cancer Research Training Course: International Union for the Control of Cancer (UICC-Geneva) and Princess Margaret Hospital (University Health Network-Toronto), Faculty of Medicine, Dept of Radiation Oncology
This course was designed by Dr. Bristow de novo as per UICC guidelines and was hosted by OCI-PMH laboratories and local OCI/PMH scientific lecturers. Dr. Bristow was Course Director, lecturer and established the didactic and practicum curriculum for the international attendees. The course covered major topics of cellular and molecular oncology and cancer treatments over a seven-day period. More than 20 graduate and post-graduate trainees from over 16 countries took part in the course. The course was instrumental in teaching state-of-the-art biology to a wide variety of students from varied scientific background to take back to their home countries and implement within their own programs and laboratories.

A full schedule of lectures pertaining to the breadth and depth of the subjects is appended as well as an evaluation of the course. The vast majority of the group stated that the overall experience within the course was excellent.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

2011 Primary Supervisor. Ramya Kumareswaran.
2011 Primary Supervisor. Michael Fraser.
2010 - 2011 Primary Supervisor. PhD. Kenneth Tse.


2004 - 2006 **Primary Supervisor.** PhD. Ahmed Haddad. Collaborator(s): Supervisor: Dr. L. Klotz and Dr. N. Fleschner.


2004 **Primary Supervisor.** MSc. Cindy Yau. Collaborator(s): Supervisor: Dr. Hedley.

2004 **Primary Supervisor.** PhD. Adam Shuhendler. Collaborator(s): Supervisor: Dr. Peter Wells.


Undergraduate MD

2010 - 2011  Primary Supervisor. Fiona Warde.
2010 - 2011  Primary Supervisor. Shaquil Kassam.
2009  Primary Supervisor. Derek Wong.
2008  Primary Supervisor. Refat Khan.
2008  Primary Supervisor. Safia Ladha.
2008  Primary Supervisor. Jas Waspiewski.
2008  Primary Supervisor. Nadja Ring.
2007  Primary Supervisor. Annie Cheng.
2007  Primary Supervisor. Tanya Pavri.
2007  Primary Supervisor. Aleem Abdulla.
2007  Primary Supervisor. Refat Khan.
2006  Primary Supervisor. Kenneth Tse.
2006  Primary Supervisor. Agatha Jassem.
1999  Primary Supervisor. Wissam Assaily.

Postgraduate MD

2005 - 2010  Primary Supervisor. Helen Zhao.
2005  Primary Supervisor. Cindy Law.
2005  Primary Supervisor. Clinical Fellow. Dr. Kirsty Wiltshire.
2001 - 2011  Primary Supervisor. Alice Meng.

Postdoctoral Research Fellow (PhD)

2011  Primary Supervisor. Christine Schultze.
2007  Primary Supervisor. Stanley Liu. Awards: 2007: W. J. Simpson Award for Academic Excellence in Research by a Resident Department of Radiation Oncology, PMH.
2006 - 2007  Primary Supervisor. Stephane Supiot. Awards: 2007: Winner of the 2007 ASCO Foundation Merit Award. 2007 Prostate Cancer Symposium, Orlando, FLA. AACR Travel Award, AACR Workshop, Molecular Biology in Clinical Oncology, Aspen, CO. Winner of the 2007 ECCO pResidential Abstract Award, Barcelona, Spain (Given to the best abstract at the European Cancer Congress Meeting)
2000 - 2003  Primary Supervisor. Dr. Rong Fan.

2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member
2010 - 2011  Nataliya Zhukova.
2010 - 2011  Ken Kron.
2009 - 2011  Kika Anyiwe. Collaborator(s): Supervisor: Dr. Aaron Schimmer.
2009 - 2011  Preethy Prasad. Collaborator(s): Supervisor: Dr. X.Y. Wu.
2009 - 2011  Johnny Li. Collaborator(s): Supervisor: Dr. Rasq Hakem.
2008 - 2011  Andrea Para. Collaborator(s): Supervisor: Dr. R. Hill.
2008 - 2011  Kenneth Tse. Collaborator(s): Supervisory: Dr. R. Bristow.
2006 - 2009  Eva Christensen. Collaborator(s): Supervisor: Dr. R. Bristow.
2006 - 2009  Shane Harding. Collaborator(s): Supervisor: Dr. R. Bristow.
2006  Carla Rosario. Collaborator(s): Supervisor: Dr. C. Swallow.
2006  Jamil Sawani. Collaborator(s): Supervisor: Dr. R. Bristow.
2006  Andrea Para. Collaborator(s): Supervisor: Dr. R. Hill.
2005 - 2006  Shahnaz Al Rashid. Collaborator(s): Supervisor: Dr. R. Bristow.
2005  Artur Gevorgyan. Collaborator(s): Supervisor: Dr. C. Forrest; HSC.
2005  MSc. Andrew Primeau. Collaborator(s): Supervisor: Dr. I. Tannock.
2005  PhD. Katherin Zaugg. Collaborator(s): Supervisor: Dr. Tak Mak.
2005  PhD. Jerry Machado. Collaborator(s): Supervisor: Dr. S. Kamel-Reid.
2003  PhD. Kathryn Zaun. Collaborator(s): Supervisor: Tak Mak.
2003  MSc. Dr. Benchimol. Collaborator(s): Supervisor: Dr. D. Hedley.
2002  MSc. Carol Lee. Collaborator(s): Supervisor: Dr. Malkin – HSC.
2000        MSc. Lynn Shepherd. Collaborator(s): Supervisor: Dr. Ian Tannock.
2000        MSc. Patricia Ruozo. Collaborator(s): Supervisor: Dr. David Hedley.

Thesis Examiner

2005        PhD. Michael Ko. Collaborator(s): Supervisor: Dr. C. Swallow and Dr. J. Dennis.
2004 May    David Sealy.
2004        Joseph M.
2004        Carol Lee.
2004        PhD. Mark Niedre.
Curriculum Vitae

Charles Nicholas Catton
Professor

A. Date Curriculum Vitae is Prepared: 2016 July 29

B. Biographical Information

Primary Office
Princess Margaret Hospital
610 University Ave
Rm 5-991
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2983
Fax 416-946-4586
Email charles.catton@rmp.uhn.on.ca

1. EDUCATION

Degrees
1972 - 1976 MD, University of Ottawa, Ottawa, Ontario
1970 - 1972 Western University, London, Ontario

Postgraduate, Research and Specialty Training
1984 Senior Registrar, Radiation Oncology, The Royal Marsden Hospital, Sutton, United Kingdom
1983 Clinical Fellow, Radiation Oncology, Toronto-Bayview Regional Cancer Centre, Toronto, Ontario
1980 - 1983 Resident, Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
1979 - 1980 Chief Resident, Toronto East General Hospital, Toronto, Ontario
1978 - 1979 Toronto Western Hospital, Toronto, Ontario
1976 - 1978 Sunnybrook Health Sciences Centre, Toronto, Ontario

Qualifications, Certifications and Licenses
1983 Board Certified, American Board of Radiology (Therapeutic)
1983 FRCPC, Radiation Oncology, Royal College of Physicians of Canada
1980 FRCPC, Internal Medicine, Royal College of Physicians of Canada
1980 Board Certified, American Board of Internal Medicine

2. EMPLOYMENT

Current Appointments
2010 - present Professor, Radiation Oncology, University of Toronto
1988 - present Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario
Previous Appointments

HOSPITAL
1986 - 1988 Staff Radiation Oncologist, OCTRF Toronto-Bayview Regional Cancer Centre, Toronto, Ontario
1985 - 1986 Staff Radiation Oncologist, OCTRF Hamilton Regional Cancer Centre, Hamilton, Ontario

UNIVERSITY - RANK
2010-present Professor, Radiation Oncology, University of Toronto
2003 - 2010 Associate Professor, Radiation Oncology, University of Toronto
1992 - 2003 Assistant Professor, Radiation Oncology, University of Toronto
1988 - 1992 Assistant Professor, Radiology, University of Toronto
1986 - 1988 Lecturer, Dept of Radiology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2006 Godfrey Price Memorial Lecturer, Bristol University, Bristol, United Kingdom. (Distinction)
2016 Best of ASCO award. 2016 ASCO ASM Chicago, USA (Award)

LOCAL
Received
2008 Radiation Oncology Research Productivity Award, Princess Margaret Hospital. (Research Award)

Teaching and Education Awards

LOCAL
Received
2002 Teaching Award - Best RMP Rounds, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital. (Multilevel Education)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
2004 - present Canadian Association of Radiation Oncologists
College of Physicians and Surgeons of Ontario
European Society of Therapeutic Radiology and Oncology
Ontario Medical Association
Fellow, Royal College of Physicians and Surgeons of Canada
Administrative Activities

INTERNATIONAL

American Society of Clinical Oncology
2011-present  **Member**, GU Expert Panel, Prostate Guideline Committee

Cancer Research UK (CRUK)
2011  **Reviewer**, Clinical Trial Proposal

Connective Tissue Oncology Society
1999 - 2000  **Member**, Scientific and Organizing Committees - Annual Scientific Meeting

European Organisation for Research and Treatment of Cancer (EORTC)
2011  **Member**, Protocol Review Committee
*Clinical Trial Proposal Peer Review.*

National Cancer Institute of Canada/Clinical Trials Group
2011  **Member**, Protocol Review Committee
2006 - present  **Vice Chair**, Trial Management Group
* MRC PR10, NCIC-CTG PR-13 (RADICALS).*

Society of Surgical Oncology
2010  **Member**, Accreditation Site Review Committee

Union for International Cancer Control (UICC)
2011 - present  **Member**, GU Expert panel, TNM Literature Watch, Geneva, Switzerland.

NATIONAL

Canadian Association of Radiation Oncologists
2002 - 2003  **Member**, Scientific and Organizing Committees - Annual Scientific Meeting

National Cancer Institute of Canada/Clinical Trials Group
2004 - 2013  **Executive**, GU Disease Oriented Group

Royal College of Physicians and Surgeons of Canada
2001 - 2008  **Member**, Specialty Committee in General Surgical Oncology
*Radiation Oncology representative.*

PROVINCIAL / REGIONAL

Cancer Care Ontario
2010 - present  **Member**, GU Disease Site Group Evidence Based Guidelines Committee
2009 - present  **Chair**, Sarcoma Expert Panel and Sarcoma Services Oversight Committee
2014- present  Expert consultant, Request for Out of Country Care panel.

Ontario Association of Radiation Oncologists
2005 - 2008  **Chair** (elected position)
Charles Nicholas CATTON

2005 - 2008 **Co-Chair**, OCOG Clinical Trial Committee, PROFIT trial

**LOCAL**

University of Toronto

2005 - 2014 **Director**, Fellowship Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2011 - 2012 **Member**, PGME Fellowship Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2002 - 2014 **Associate Member**, Graduate Faculty, Faculty of Medicine, Institute of Medical Science, Graduate Education

2002 - 2005 **Member**, Medical Oncology Resident Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2000 - 2008 **Member**, Umbrella Committee, Surgical Oncology Fellowship Programs, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1997 - 2008 **Member**, General Surgical Oncology Resident Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

**Peer Review Activities**

**GRANT REVIEWS**

**External Grant Reviewer**

2009 Cancer Research UK (CRUK)

2009 Prostate Cancer Charity (UK)

2009 Trans-Tasman Radiation Oncology Group (TROG)

2006 Hercules Foundation, Belgium

2005 Canadian Prostate Cancer Research Initiative (NCIC)

2004 Alberta Cancer Board

**MANUSCRIPT REVIEWS**

**Reviewer**

Annals of Surgical Oncology

British Journal of Radiology

British Journal of Urology-International

Canadian Medical Association Journal

Canadian Urological Association Journal

Clinical Oncology

European Journal of Surgical Oncology

Expert Review of Anticancer Therapy

International Journal of Radiation Oncology Biology Physics

JAMA Oncology

Journal of Clinical Oncology

Journal of Surgical Oncology

Lancet

Nature- Clinical Practice Oncology

Radiation Oncology
C. Academic Profile

1. RESEARCH STATEMENTS

1992 – present

My scholarly efforts over the past 20 years have been to optimize treatment outcomes for patients with localized prostate cancer, and sarcomas. Conceptual innovations undertaken for optimizing the care of those with localized prostate cancer include:

- Development of high-precision radiotherapy treatment techniques.
- Investigation of an altered radiation fractionation regimen.
- Establishing the limitations of standard therapy.
- Development of novel combined radiotherapy-surgery techniques.

I have had impact on professional practices nationally and internationally through:

- Leading proof-of-principle clinical trials.
- Application of these principles through process improvement and practice change.
- Leadership to promote the adoption of new concepts and approaches into practice.
- For sarcomas, I lead the development and implementation of Provincial sarcoma care guidelines.

2. TEACHING PHILOSOPHY

To provide teaching and mentorship to Radiation, Medical and Surgical Oncology fellows and residents; medical students, allied health workers and the public. I have promoted best practices through participation in General Surgical Oncology curriculum development at a national level. I have expanded capacity through leadership of the University of Toronto Radiation Oncology Fellowship Program.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2011 - 2014

Co-Investigator. Tumor-targeted Radiotherapy for Prostate Cancer. Canadian Cancer Society. PI: C Menard. Collaborator(s): Bristow R, Brock K, Craig T, Foltz W, Haider M, Milosevic M, Stanescu T, van der Kwast T. 745,340 CAD. [Grants] This trial will utilize novel imaging and guidance techniques along with our experience in prostate hypofractionation to investigate hypofractionated dose escalation to the dominant prostate nodule only. It includes imaging correlative studies to investigate tumor hypoxia.

2010 - 2015

331,405 CAD. [Grants]
Known as the PROFIT trial, this is an international phase III trial designed to test the hypothesis generated by my Phase II trial; that hypofractionated IG-IMRT for intermediate risk prostate cancer is non-inferior to conventionally fractionated dose-escalated IG-IMRT.

2009 - 2012
This grant was obtained to fund the Australian component of the PROFIT trial.

2008 - 2009
This grant was obtained to fund the Australian component of the PROFIT trial.

2008
This is a formal evaluation of the toxicity associated with our established fiducial marker IGRT program.

2007
A prospective trial designed to limit toxicity of prostate RT by PTV optimization, employing multi-modal imaging techniques.

2006 - 2019
An international trial designed to investigate the optimal timing of post-operative radiotherapy, and optimal duration of adjuvant hormone therapy for prostate cancer. I was involved in trial design and international implementation as co-vice chair of the Trial Management Committee, and I implemented the trial in Canada through the NCIC-CTG as the Canadian Co-principal Investigator.

2006 - 2007

2006
A study to evaluate deformational changes in normal tissue that occur over the course of prostate radiotherapy, and to evaluate the impact on prostate and normal tissue dosimetry.

2006
Co-Investigator. The impact of prostate dimensions on toxicity after high dose conformal external beam radiotherapy for prostate cancer. This was a secondary analysis of my dose-

2005 - 2010  
**Principal Investigator.** A randomized trial of a shorter fractionation schedule for localized carcinoma of the prostate. Canadian Institutes of Health Research (CIHR). Known as the PROFIT trial, this is an international phase III trial designed to test the hypothesis generated by my Phase II trial; that hypofractionated IG-IMRT for intermediate risk prostate cancer is non-inferior to conventionally fractionated dose-escalated IG-IMRTCollaborator(s): H Lukka, P Warde, M Levine, J Julian, A Gafni, G Bauman, M Parliament, J Wu, T Pickles, L Souhami, JP Bahary. 2,209,971 CAD. [Grants]

2005  

2004  
**Supervisor.** Evaluation of rectal and bladder normal tissue complication probability after escalated dose external beam radiotherapy for prostate cancer. This project undertook a dosimetric analysis of prospectively collected toxicity data from our initial phase II dose escalation prostate trial. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). PI: Peter Chung. Collaborator(s): R Bristow, A Bayley, P Warde, M Gospodarowicz, M Milosevic, E White and D Jaffray. 29,614 CAD. [Grants]

2003 - 2004  
**Principal Investigator.** A cohort comparison of daily target organ image matching and correction using implanted fiducial markers or flat plate cone beam computerised tomography (CT) for patients undergoing conformal radiotherapy for localized prostate cancer. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). 03-0483-CE. Collaborator(s): P Chung; R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]

2003  
This prospective trial acquired cinematic MRI images of the prostate, to evaluate the magnitude and causes of intrafractional prostate motion, and to evaluate the impact of a bowel regimen on inter- and intrafractional prostate motion.

2002  
**Supervisor.** A cohort study of a bowel regimen to reduce intra-fraction prostate motion. Canadian Prostate Cancer Research Initiative. 15485. PI: Alan Nichol. Collaborator(s): P Warde, R Bristow, M Gospodarowicz, M Milosevic, E White, D Jaffray. 36,500 CAD. [Grants]  
This prospective trial acquired cinematic MRI images of the prostate, to evaluate the magnitude and causes of intrafractional prostate motion, and to evaluate the impact of a bowel regimen on inter- and intrafractional prostate motion.

2001 - 2005  
**Principal Investigator.** A cohort comparison of daily target organ image matching and correction using implanted fiducial markers or flat panel cone beam computerized tomography (CT) for patients undergoing conformal radiotherapy for localized prostate cancer. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): P Warde, R Bristow, A Bayley, M
Gospodarowicz, M Milosevic, E White D Jaffray. 15,000 CAD. [Grants]
This was the initial clinical evaluation of the cone beam CT technology in comparison with our standard IG technique.

2001

Principal Investigator. A Phase I-II Prospective Trial of Conformal Hypofractionated Intensity Modulated Radiotherapy (IMRT) for Clinical Stage T1,T2N0M0 Adenocarcinoma of the Prostate. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): P Warde, R Bristow, M Gospodarowicz, M Milosevic, T Haycocks. 29,000 CAD. [Grants]
This trial was to investigate the safety and feasibility of short-course, large dose per fraction radiotherapy for prostate cancer, using an IG-IMRT technique.

NON-PEER-REVIEWED GRANTS

FUNDING

2006 - present

Co-Principal Investigator. Prostate cancer: Radiotherapy and Androgen Deprivation In Combination After Local Surgery (RADICALS). National Cancer Institute of Canada (NCIC). 07-063. PI: F Saad. Collaborator(s): M Sydes; W Paruleker; J Logue; N Clarke; K Mellon; H Kyneston; C Cooper; H Payne; M Parmar. [Clinical Trials] Co-funded with Cancer Research UK (C Parker, Principal Investigator).

2004 - 2005

Principal Investigator. A phase III randomised study of preoperative radiation plus surgery vs surgery alone for patients with retroperitoneal sarcoma (RPS). American College of Surgery Oncology Group. 04-0416-C. Collaborator(s): C Swallow; B O’Sullivan. [Clinical Trials]

2002 - 2003

Principal Investigator. A randomized study of inter-and intra fraction prostatic motion using two different immobilization devices during conformal prostatic radiotherapy. Princess Margaret Hospital Foundation (The). 01-0856-C. Collaborator(s): P Warde; R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]

2000 - 2001

Principal Investigator. A phase III trial of supine vs. prone positioning for men undergoing escalated dose conformal radiotherapy for localized adenocarcinoma of the prostate. Princess Margaret Hospital Foundation (The). Collaborator(s): A Bayley; P Warde; R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]

1999 - 2004

Co-Investigator. A Randomized phase III study of neo-adjuvant hormone therapy in patients with localized prostate cancer treated with escalated dose radiotherapy. Princess Margaret Hospital Foundation (The). PI: P Warde. Collaborator(s): R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]

1998 - 2001

Principal Investigator. Phase I-II trial of pre-operative irradiation and postoperative brachytherapy for the management of non-metastatic retroperitoneal soft tissue sarcoma. Princess Margaret Hospital Foundation (The). Collaborator(s): C Swallow; B O’Sullivan. [Clinical Trials]

1997 - 1999

Principal Investigator. A phase I-II trial of escalated dose conformal external beam radiotherapy for the management of localized carcinoma of the prostate. Princess Margaret Hospital Foundation (The). Collaborator(s): A Nichol; P Warde; R Bristow; M Milosevic; M McLean; T Haycocks; M Gospodarowicz. [Clinical Trials]

1996 - 1997

Principal Investigator. A randomized, double blind, placebo-controlled multicentre trial of a shorftatty acid rectal enema in the treatment of radiation induced proctitis and
proctosigmoiditis. Industry. Collaborator(s): H Steinhart. [Clinical Trials]

1989 - 1992 **Principal Investigator**. A multicentre phase I-II trial of hyperfractionated cranial irradiation for primary CNS lymphoma. Toronto-Bayview Regional Cancer Centre. [Clinical Trials]

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   *This prospective phase II trial used cine-MRI scan to measure the magnitude of intra-fractional prostatic movement at different points in the planning and treatment process, and evaluated an intervention designed to limit that motion. This trial provided important information regarding the magnitude of uncertainty associated with intra-fractional prostate motion, and provided an accurate evaluation of the safety margin (PTV) required in prostate treatment planning to account for this uncertainty.*


   *This prospective phase II trial represented the application of our accumulated experience in developing high-precision radiotherapy techniques for prostate cancer, and reports the safety and efficacy of a novel, dose-escalated hypofractionation technique. The results were instrumental in my being awarded a CIHR grant to establish an ongoing Ontario Clinical Oncology Group sponsored phase III trial. This trial has since been adopted by the Trans-Tasman Radiation Oncology Group (TROG) and is accruing internationally.*


   *This prospective phase II trial reported the long-term outcome of the initial Canadian experience with dose-escalated radiotherapy, and confirmed the safety and efficacy of our technique. It was a direct consequence of our earlier work to optimize conformal prostate radiotherapy. It has been cited 21 times.*


   *This randomized trial formed part of our long-term work to minimize set-up error and optimize the PTV for dose-escalated prostate radiotherapy, and was one of the first to formally evaluate different immobilization methods. It has been cited 38 times.*


   *This study formed part of our long-term work to minimize set-up error and optimize the PTV for dose-escalated prostate radiotherapy, and was one of the first to demonstrate the feasibility and utility of CT/MRI fusion in radiation treatment planning for prostate cancer. It has been cited 51 times.*
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Charles Nicholas CATTON


Charles Nicholas CATTON


Charles Nicholas CATTON


62. Rosewall T, Yan J, Bayley AJ, Kelly V, Pellizzari A, Chung P, **Catton CN**. Inter-Professional Variability In The Assignment And Recording Of Acute Toxicity Grade Using The RTOG System During Prostate Radiotherapy. Radiother Oncol. 2009;90(3):395-9. **Senior Responsible Author.**

63. White EA, Brock KK, Jaffray DA, **Catton CN**. Inter-observer Variability of Prostate Delineation on Cone-Beam CT Images. Clin Oncol. 2009;21:32-38. **Senior Responsible Author.**


Charles Nicholas CATTON


**Letters to Editor**


**Consensus Development Conference, Journal Articles, Practice Guideline, Review**


### 3. NON-PEER-REVIEWED PUBLICATIONS

**Journal Articles**


10. Swallow C, **Catton C**. The Local Management of Adult Soft Tissue Sarcomas. Semin Oncol. 2007 Jun;34(3):256-69. **Coauthor or Collaborator**.

11. Lock M, **Catton C**. High-precision radiotherapy: where are we going and how do we get there? CJU. 2006;13(2). **Coauthor or Collaborator**.


17. **Catton CN**. Soft-tissue sarcomas. Oncology Rounds. 2002;4:3. **Principal Author**.

18. **Catton CN**. Aiming to Kill. External beam radiotherapy for prostate cancer. Our Voice: Living with Prostate Cancer in Canada. 2001. (Special Issue). **Principal Author**.

19. **Catton CN**, Swallow CJ and O’Sullivan B. Approaches to local salvage of soft tissue sarcoma following primary site failure. Semin Radiat Oncol. 1999 Oct. **Principal Author**.


25. **Catton CN** and Gospodarowicz MK. Palliative Radiotherapy in Prostate Cancer. Semin Urol Oncol. 1997;15:1. **Principal Author**.

Book Chapters


Editorials


Commentaries


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2015

The OCOG-TROG PROFIT trial. Lessons from a successful international collaboration. TROG ASM, Newcastle, NSW, Australia.

Radiation Oncology collaborative trials, the Canadian perspective. TROG ASM, Newcastle, NSW, Australia.
Clinical trials for rare tumors: Opportunity in scarcity. TROG ASM, Newcastle, NSW, Australia

Hypofractionated radiotherapy for prostate cancer. What we know and what we don’t. Controversies in Clinical Oncology. Tata Medical Centre, Kolkata, India.

Debate: Stereotactic radiotherapy will replace brachytherapy for localized prostate cancer (For: C Catton; against Prof P Hoskin). Controversies in Clinical Oncology. Tata Medical Centre, Kolkata, India.

Panel Discussion: Is radiotherapy now an obsolete treatment for testicular seminoma? Controversies in Clinical Oncology. Tata Medical Centre, Kolkata, India.

Update on moderate hypofractionated radiotherapy for prostate cancer. AROICON2015, Lucknow, India

Combined management of extremity soft-tissue sarcoma. AROICON2015, Lucknow, India

2013

Management of soft tissue sarcomas. Calvary Mater Hospital Centre, Newcastle, NSW, Australia.

Combined Modality therapy for prostate cancer. Calvary Mater Hospital Centre, Newcastle, NSW, Australia.

How to write a clinical paper. Trainee session, RANZCR Faculty of Radiation Oncology ASM> Auckland New Zealand.

What is the best radiotherapy for 2013 and beyond? 5th triennial best practice workshop in Urological Oncology. Sydney, NSW.

2012

UTDRO Fellowship Program. Royal Australian and New Zealand College of Radiology. Cairns, Queensland, Australia. (Trainee Presentation).

2010


2009


2007


2006

Department of Clinical Oncology, Liaquat National Hospital. Karachi, Pakistan.

Departments of Radiation, Surgical and Medical Oncology, Aga Khan University Hospital. Karachi, Pakistan.

Department of Clinical Oncology, Bristol University. Bristol, United Kingdom.

IMRT and IGRT for STS. Elekta Users Annual Meeting. Miami, Florida.


Local management of Soft-tissue sarcomas. Grand Surgical Rounds, Aga Khan University Hospital. Karachi, Pakistan. (Continuing Education).

Current Controversies is Prostate Cancer. GU rounds, Aga Khan University Hospital. Karachi, Pakistan.
2006 Special Rounds: Current Controversies is Prostate Cancer. Institute for Postgraduate Medical Studies and Health Sciences, Liaquat National Hospital. Karachi, Pakistan.


2004 Clinical application of cone-beam CT to conformal prostatic irradiation. Elekta Users Research Group Annual Meeting. Crawley, United Kingdom.


Presented Abstracts


2007 Outcome following limb salvage surgery and external beam radiotherapy for high grade soft tissue sarcomas of then groin and axilla. American Society of Therapeutic Radiology and Oncology Annual Scientific Meeting. Phimolsarnti RP, Griffin AM, Ferguson PC, Catton CN, Chung PW, Bell RS, Wunder JS, O’Sullivan B.


2. NATIONAL

Invited Lectures and Presentations


2013 VMAT workshop. GU Radiation Oncologists of Canada, Montreal.


2011 Critique of RTOG 94-08. GU Radiation Oncologists of Canada.


2010 Pelvic IMRT for Prostate Cancer. Allan Blair Cancer Centre. Regina, Saskatchewan.

2010 Visiting Professor. Allan Blair Cancer Centre. Regina, Saskatchewan.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Visiting Professor. Queen Elizabeth II Health Sciences Centre, Dalhousie University. Halifax, Nova Scotia.</td>
</tr>
<tr>
<td>2007</td>
<td>Optimizing the PTV. BC Cancer Agency GU Radiation Oncology Strategic Retreat. Victoria, British Columbia.</td>
</tr>
<tr>
<td>2006</td>
<td>Visiting Professor. Department of Radiation Oncology University of Alberta, Tom Baker Cancer Centre. Calgary, Alberta.</td>
</tr>
<tr>
<td>2004</td>
<td>Visiting Professor. Department of Radiation Oncology, University of Saskatchewan. Saskatoon, Saskatchewan.</td>
</tr>
<tr>
<td>2004</td>
<td>Visiting Professor. Department of Radiation Oncology, Allan Blair Cancer Centre. Regina, Saskatchewan.</td>
</tr>
<tr>
<td>2004</td>
<td>Workshop IMRT planning process. The evolution of high precision radiotherapy in the GU group at the Princess Margaret Hospital. The Saskatchewan Cancer Foundation. Saskatoon, Saskatchewan.</td>
</tr>
<tr>
<td>2004</td>
<td>The evolution of high precision radiotherapy in the GU group at the Princess Margaret Hospital. The Saskatchewan Cancer Foundation, Allan Blair Cancer Clinic. Regina, Saskatchewan.</td>
</tr>
</tbody>
</table>
Charles Nicholas CATTON

2002 Hypofractionation for prostate cancer. Princess Margaret Hospital experience. IMRT workshop, GU Radiation Oncologists of Canada (GUROC) Annual Meeting. Montreal, Quebec.


Presented Abstracts


2007 Bone fractures following external beam radiotherapy and limb preservation surgery for extremity soft tissue sarcoma: relationship to irradiated bone length, volume and dose. Connective Tissue Oncology Society Annual Scientific Meeting. Dickie CI, Parent AL, Griffin AM, Chung PW, Catton CN (collaborator), Wunder JS, Ferguson PC, Sharpe MB, O’Sullivan B.


2005 Comparison of outcomes of soft tissue sarcoma arising in the popliteal fossa or posterior thigh. Canadian Orthopaedic Association. Montreal, Quebec. Clarkson PW, Griffin AM, Catton CN, O’Sullivan B, Ferguson PC, Wunder JS, Bell RS.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2011 Hormonal and Radiotherapy for Localized Prostate Cancer. Grand River Regional Cancer Centre.

2010 Feb 10 Hypofractionation for localized prostate cancer. Web seminar to SEORCC; Ottawa Hospital, Barrie Regional Cancer Centre and Cornwall Cancer Clinic.


Charles Nicholas CATTON


2005 **Visiting Professor.** Department of Radiation Oncology, McMaster University, Juravinski Cancer Centre. Hamilton, Ontario.

2004 **Visiting Professor.** Department of Radiation Oncology, Lakehead University, Northwestern Ontario Regional Cancer Centre. Thunder Bay, Ontario.


1999 **Visiting Professor.** Department of Oncology, University of Western Ontario, London Regional Cancer Centre. London, Ontario.


4. LOCAL

**Invited Lectures and Presentations**

2013 Mar 1 **Speaker.** The UTDRO Fellowship Program. UTDRO Career Day. Toronto, Ontario, Canada. (Trainee Presentation).

2013 Jan 22 **Invited Speaker.** Building the research platform in the GU site group. Making the most of what you got. Odette Cancer Centre. Ontario, Canada.

2013 Jan **Invited Lecturer.** Combined management of soft tissue sarcomas. Department of Surgical Oncology. Toronto, Ontario, Canada. (Trainee Presentation).

2012 Sep **Invited Speaker.** Radiotherapy for prostate cancer. Department of Surgical Oncology. Toronto, Ontario, Canada. (Trainee Presentation).

2012 Feb **Lecturer.** Radiation Management of Sarcomas. Lecture for General Surgical Oncology and Breast Surgical Oncology clinical fellows. Toronto, Ontario, Canada. (Trainee Presentation).


2011 Oct 31 Introduction to Radiotherapy. UT Surgical Oncology Fellows. (Trainee Presentation).


2011 **Presenter.** Palliative care: Complex case discussion. The Toronto Cancer Conference. Toronto, Ontario, Canada.
2011 **Presenter.** Critique of RTOG 94-08. GU Radiation Oncologists of Canada. Toronto, Ontario, Canada.


2005 Modifying the late effects of combined therapy for STS. U of T DRO Rounds, Princess Margaret Hospital. Toronto, Ontario.


2002 High precision RT and beyond for prostate cancer. At New Developments in Cancer Management. Inter-Division Dept of Oncology, University of Toronto. Toronto, Ontario.


2000 Recent advances in prostate cancer. CE Programme for Community Urologists. Toronto, Ontario. (Continuing Education).


1999 Opportunities afforded by modern radiotherapy in prostate cancer. GU Oncology 99 Symposium, University of Toronto. Toronto, Ontario.


1997 Palliative radiotherapy for prostate cancer. GU Oncology 97 Symposium, Inter-Division Dept of Oncology, University of Toronto. Toronto, Ontario.


1995 The Role of Radiation Therapy in Early Stage Prostate Cancer. Uro-Oncology Workshop, University of Toronto. Toronto, Ontario.


G. Research Supervision

1. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2007 - 2008 MSc. Eva Christensen.
Biographical Sketch – 2008 to Present
Pamela Catton MD, MHPE, FRCPC

Dr. Catton is the Medical Director of both Patient Education at UHN, and Survivorship at PMH, where she also holds the title of Director Cancer Education. She is a practicing radiation oncologist who has treated prostate cancer patients since 1983. In 2006 she left the GU site group to focus on breast cancer, but maintains a small follow up practice. She is a Professor and Vice Chair of Radiation Oncology at the University of Toronto, and in 2005 was awarded the Butterfield Drew Chair in Breast Cancer Survivorship (PMH and U of T). In 2006 she was the PI on a successful CFI grant that allowed the development of ELLICSR, the Electronic Living Laboratory for Interdisciplinary Cancer Survivorship Research, which opened four years later. This 12000 foot centre has been developed into a collaborative centre for health wellness and cancer survivorship and supports clinicians researchers, educators and patients in their quest to revolutionize the cancer experience. She is the Director of ELLICSR and has assembled an eclectic team of over 40 researchers, ehealth innovators, educators, cancer specialists, advanced practice nurses and other allied health professionals to build a comprehensive survivorship program for all patients. She has a long history of developing innovative education programs for patients, health care undergraduate and post graduate students, graduate students and practitioners, with an emphasis on digital tools. She was the series medical editor of Oncology Interactive, a 23 title CD ROM patient education series that included prostate cancer, and www.caringtotheend, www.caringvoices the Virtual Tour, and more recently www.theprincessmargaret. The patient version of the Princess Margaret website is now the platform that will enable patients to access a host of self care and self management tools and personalized support.

Employment

CURRENT APPOINTMENTS
2011 Jul - present Medical Director, Patient Education, University Health Network
2010 Jul - present Director, Collaborative Centre for Health Wellness and Cancer Survivorship, Princess Margaret Cancer Program, University Health Network
2009 Jul - present Radiation Oncologist, St. Michael’s Hospital, Toronto, Ontario
2005 Jul - present Butterfield Drew Chair in Survivorship Research, Princess Margaret Cancer Program,University Health Network
2004 Jul - present Medical Director, Breast Cancer Survivorship Program, Princess Margaret Cancer Program, University Health Network

Education

DEGREES
1994 Jul - 1996 Jun Masters in Health Professions Education, University of Illinois at Chicago
1973 Jul - 1977 Jun MD, University of Ottawa

QUALIFICATIONS, CERTIFICATIONS AND LICENSES
1982 Jul - present Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1982 Jul - present Diplomate, Therapeutic Radiology, American College of Radiology
1977 Jul - present Licentiate, Medical Council of Canada
Role in Residency Program:

COMMITTEE:
Member and Fellow of the Royal College of Physicians and Surgeons 1983 - Present
Member, Canadian Association of Radiation Oncologists (CARO) 1986 - Present

Grant Reviewer
RCPSC Faculty Development Grants and Research Grants 2001 - Present
RCPSC/AMS CanMeds Development Grants 2001 - Present
RCPSC/AMS Medical Education Fellowship Grants 2003 - Present

RESIDENTS SUPERVISED

<table>
<thead>
<tr>
<th>Catton, P</th>
<th>Scholarship, Teaching and Learning in Residency</th>
<th>January 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catton, P</td>
<td>Saudi Arabia Observer, Yaser Alayed, Senior Resident</td>
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<td>DRO Resident, Nafisha Lalani, PGY2</td>
<td>December 2012</td>
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Research Interests
Establishing a comprehensive academic Cancer Survivorship program.

Inter and Extra-Mural Support

Funded Peer-Reviewed Grants


**Research Summary – Research Supervisor**

**Supervisor UT Medical Student**

Project supervisor, “Lifestyle interventions and the risk of breast cancer recurrence, a systematic review

Nafisha Lalani 2008-2010

Lalani N, Urowitz S, **Catton, P**. Lifestyle interventions and the risk of breast cancer recurrence.

Presented to the Ontario Medical Research Day March 2010

**Supervisor Radiation Oncology Fellow**

Project supervisor, “Analysis of the quality of life of breast cancer survivors with lymphedema”

Dr. Sandra Wajstaub 2009-2010

**Supervisor of Graduate Student**

Thesis supervisor, Masters of Science

Dr. Eng-Siew Koh, Institute of Medical Science 2005-Present

“Understanding the Determinants of Recruitment and Retention in Longitudinal Research in Childhood Cancer Survivors”

Thesis committee member, Masters of Science

Dr. Orla McArdle, Institute of Medical Science 2008-2012

“Fertility in Young Cancer Survivors - Novel Assessment of Ovarian Reserve”

- Co-applicant on successful Canadian Breast Cancer Foundation Grant $330,391 2007-2010
- Winner WEBC fellowship 50,000.00, P. Catton supervisor 2008-2009

Project co-supervisor, Masters of Education Major Research Project

Dr. Minako Uchino 2010-2011

“Incorporating New Imaging Competencies in the Radiation Oncology Residency Curriculum”

**Selected Publications**

1. **PEER-REVIEWED PUBLICATIONS - JOURNAL ARTICLES**


   2. Papadakos J, Bussière-Côté S, Abdelmutti N, **Catton P**, Jusko-Friedman A, Massey C,


Curriculum Vitae

Patrick Cheung
Radiation Oncologist

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone
(1)-416-480-6165
Fax
(1)-416-480-6002
Email
patrick.cheung@sunnybrook.ca

1. EDUCATION

Degrees
1991 Sep - 1995 Jun MD, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada
1989 Sep - 1991 Jun BSc, Arts and Science, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training

2000 Jul 1 - 2001 Jun 30 Clinical Research Fellowship, Sunnybrook Odette Cancer Centre, Conformal Radiation Therapy & GU Brachytherapy, Dept of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Yee Ung & Dr. Gerard Morton

1998 Jul 1 - 2000 Jun 30 Radiation Oncology Residency, Princess Margaret Hospital & Sunnybrook Odette Cancer Centre, PGY 4-5, Radiation Oncology, Dept of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

1995 Jul 1 - 1998 Jun 30 Internship and Residency, Kingston General Hospital and Kingston Regional Cancer Centre, PGY 1-3, Radiation Oncology, Dept of Oncology, Queen’s University at Kingston, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

2000 - 2010 Diplomate, Radiation Oncology, American Board of Radiology, United States, License / Membership #: 47660

2000 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Ontario, Canada, License / Membership #: 525451

1997 United States Medical Licensing Examination Steps 1, 2, 3, United States Medical Licensing Examination, United States

1997 Medical Council of Canada Qualifying Examination Parts 1, 2, Medical Council of Canada, Canada
2. EMPLOYMENT

Current Appointments

2014 Jul 1 - present  Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2010 Jan - present  Affiliate Scientist, Evaluative Clinical Sciences, Sunnybrook Research Institute, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2001 Aug 1 - present  Staff Radiation Oncologist; Lung and GU Site Groups, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL

2009 Jan 1 - 2013 Sep 30  Radiation Oncology Genitourinary (GU) Site Group Leader, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

UNIVERSITY

2011 Jan 1 - 2012 Jan 1  Associate Director of Postgraduate Education, Radiation Oncology, Faculty of Medicine, University of Toronto

UNIVERSITY - RANK

2003 Jul 1 - 2014 Jun 30  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2001 Aug 1 - 2003 Jun 30  Lecturer, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2015 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2011 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2008 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2005 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2004 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)
2003 Mar  Academic Performance Award, Odette Cancer Centre. (Research Award)

Teaching and Education Awards

LOCAL

Received

2011 Jun  Residents’ Award for Excellence in Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
2008 Jun  Post Graduate Classroom Teaching Award (highest effectiveness scores), Dept of
Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
2004 Jun **Residents’ Award for Excellence in Clinical Teaching**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

**Professional Associations**

2001 - present  Ontario Medical Association / Canadian Medical Association
1998 - present  Canadian Association of Radiation Oncologists
1997 - present  American Society for Therapeutic Radiology and Oncology
1997 - present  Royal College of Physicians and Surgeons of Canada
2001 - 2007  American Society of Clinical Oncology

**Administrative Activities**

**PROVINCIAL / REGIONAL**

**Other Organizations**

2011 - 2012  **Co-Chair**, GU Conversations Organizing Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Mississauga, Ontario, Canada.

**University of Toronto**

2011 - 2013  **Co-Chair**, Target Insight Organizing Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Toronto, Ontario, Canada.

2009 - 2011  **Member**, Target Insight Organizing Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Toronto, Ontario, Canada.

**LOCAL**

**Odette Cancer Centre**

2009 - 2013  **Member**, Capital Replacement Committee, Toronto, Canada.

2009 - 2013  **Leader**, Radiation Oncology Genitourinary (GU) Site Group, Toronto, Canada.

**Sunnybrook Health Sciences Centre**

2014 - present  **Member**, Research Ethics Board, Toronto, Ontario, Canada.

**University of Toronto**

2011 - 2013  **Member**, Radiation Oncology Postgraduate Education Committee, Radiation Oncology Residency Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Canada.

2011 - 2012  **Associate Director**, Postgraduate Education, Radiation Oncology Residency Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Canada.
Peers Review Activities

MANUSCRIPT REVIEWS

Reviewer
2016  Journal of Thoracic Oncology
2015  International Journal of Radiation Oncology Biology Physics
2014  European Journal of Cancer
2014  International Journal of Radiation Oncology Biology Physics
2013  International Journal of Radiation Oncology Biology Physics
2013  Journal of Thoracic Oncology
2012  Clinical Oncology
2012  International Journal of Radiation Oncology Biology Physics
2012  Journal of Thoracic Oncology
2011  Clinical Oncology
2011  Journal of Thoracic Oncology
2010  Clinical Oncology
2009  Clinical Oncology
2009  Radiation Oncology
2009  Radiotherapy and Oncology
2008  Clinical Oncology
2006  Radiation Oncology
2006  Radiotherapy and Oncology
2004  Radiation Research
2004  Radiotherapy and Oncology

C. Academic Profile

1. RESEARCH STATEMENTS

2001 Jan - present  Research Statement.
My research has focused on optimizing high precision radiotherapy techniques to deliver hypofractionated/stereotactic radiotherapy, and then evaluating such treatment strategies in phase I/II clinical trials in lung and prostate cancers. More recently, these themes have continued with exploring the use of hypofractionated/stereotactic radiotherapy in patients with oligometastases and oligo-progression.

2. TEACHING PHILOSOPHY

My teaching philosophy can be summarized by the following statements: I believe that a successful teacher is one who 1) can teach without intimidation, 2) can make the topic interesting so the student will WANT to learn on their own, 3) can praise and criticize a student’s performance in a constructive and neutral manner, and 4) can be a mentor and friend at the same time.

I believe that most students are very receptive to such an approach, as demonstrated by the teaching awards I have been fortunate enough to receive. It has been gratifying to see previous residents and fellows of mine becoming successful staff Radiation Oncologists in various parts of the world.
3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

My work in the last decade has resulted in 3 major themes for creative professional activities. All fall under the category of professional innovation/creative excellence. Starting from the most recent, they are:

Theme 1: Treatment of Oligometastases and Oligo-Progression

Theme 2: Accelerated Hypofractionated and Stereotactic Body Radiotherapy for Lung Cancer.

Theme 3: High Precision Radiotherapy and Hypofractionation/Stereotactic Body Radiotherapy for Prostate Cancer.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2016 Sep - 2017 Sep  Principal Investigator. Randomized Feasibility Trial of Prostate Radiotherapy vs Prostatectomy in Men with Hormone Sensitive Oligometastatic Prostate Cancer. Abbvie ACURA Uro-Oncologic Radiation Award. Collaborator(s): Robert Nam, Lawrence Klotz, Raj Satkunasivam, D. Andrew Loblaw. 29,500 CAD. [Grants]

2016 Jan - 2019 Dec  Principal Investigator. BR.35 “A Randomized Phase II Study of Precision Radiotherapy for Oligometastatic Non-Small Cell Lung Cancer”. Canadian Cancer Trials Group (CCTG). 266,000 CAD. [Clinical Trials]

2015 Sep - 2016 Sep  Principal Investigator. Phase I Trial of SBRT with Radium-223 for Patients with Oligometastatic Castration Resistant Prostate Cancer with Bone Only Metastases. Abbvie ACURA Uro-Oncologic Radiation Award. Collaborator(s): Hany Soliman, Urban Emmenegger, Scott Berry, D. Andrew Loblaw. 29,500 CAD. [Grants]


2011 Jan - 2011 Dec **Co-Investigator.** Nomogram Predicting the 7-Year Biochemical Disease Free Survival After External Beam Radiation Therapy (EBRT) and androgen deprivation therapy (ADT) for High Risk Prostate Cancer Patients. Canadian Radiation Oncology Foundation/Sanofi-Aventis Research Innovation Award (CASARIA). PI: D’Souza, Neil and Loblaw, D. Andrew. Collaborator(s): Patrick Cheung, Michael Kattan. 12,000 CAD. [Grants]


2006 Jan - 2006 May **Principal Investigator.** BR.25 “Accelerated Hypofractionated 3-Dimensional Conformal Radiotherapy (3D-CRT) For Inoperable Stage I/II Non-Small Cell Lung Cancer (NSCLC)”. National Cancer Institute of Canada Clinical Trials Group. Collaborator(s): Islam Mohamed, Dorianne Rheaume, Frances Shepherd, Jim Wright, Yee Ung. 280,000 CAD. [Clinical Trials]


2001 Jan - 2001 Dec **Principal Investigator.** Prospective Assessment Of Radiation Induced Lung Injury: A Feasibility Study For A Normal Tissue Toxicity Database. Toronto-Sunnybrook Regional Cancer Centre. Radiation Program Fund. Collaborator(s): Eileen Rakovitch, John Kim, May Tsao, Kathy Mah, Yee Ung, Katharina Sixel, D. Andrew Loblaw, Lawrence Paszat. 16,541 CAD. [Grants]

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2015 Dec - 2018 Dec **Co-Principal Investigator.** Stereotactic Ablative Radiotherapy for Oligoprogressive Metastatic Castration-Resistant Prostate Cancer During Abiraterone Therapy. Janssen Biotech Investigator Initiated Grant. PI: Emmenegger, Urban; **Cheung, Patrick.** Collaborator(s): Katherine Zukotynski. 240,000 CAD. [Industrial Grants]

2015 Jan - 2017 Dec **Principal Investigator.** Comprehensive Stereotactic Radiotherapy for Oligometastatic Prostate Cancer: A Phase I/II Study. Abbvie Investigator Initiated Grant. Collaborator(s): Peter Chung, Andrew Loblaw, Arjun Sahgal, Robert Bristow. 246,855 CAD. [Industrial Grants]

2014 - 2017 **Co-Principal Investigator.** Stereotactic Radiotherapy for Oligo-Progression in Kidney Cancer Patients on 1st Line Sunitinib Therapy: A Phase II Study. Pfizer Investigator Initiated Grant. PI: **Cheung, Patrick; Bjarnason, Georg.** Collaborator(s): Arjun Sahgal, William Chu, Daniel Heng. 551,261 CAD. [Industrial Grants]
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   This is one of the few comparisons between accelerated hypofractionation and stereotactic ablative radiotherapy (SABR) for early stage NSCLC using a propensity score matched analysis. It confirms that SABR has superior loco-regional control. Overall survival is also superior in the SABR arm, most likely due to non-treatment factors.

This is the first published report of a prospective national phase 2 study evaluating the efficacy of an accelerated hypofractionated radiotherapy regimen for early stage non-small cell lung cancer. It serves as a benchmark representing “conventional radiotherapy” to compare to newer stereotactic approaches.


This was the first prospective randomized study to suggest that acute toxicity and quality of life may be worsened when delivering SBRT for lung tumours on 4 consecutive days compared to over 11 days.


This study reported on ~230 patients with high risk prostate cancer treated with a concomitant hypofractionated boost (simultaneous integrated boost) on 3 consecutive prospective trials. This particular manuscript focused on the effect of IMRT and bladder filling on acute toxicity and is one of the first prospective studies to show a benefit for IMRT over a 4 field box technique for elective pelvic nodal irradiation.


This was the first published report documenting the acute and late toxicities of a 5 week course of accelerated radiotherapy for localized high risk prostate cancer. This novel treatment regimen delivered a concomitant hypofractionated boost along with conventional elective pelvic nodal irradiation, and this study confirmed that it is a safe approach with toxicities that were comparable to more conventional courses of radiotherapy delivered over 7-8 weeks.


This study was one of the first to study the concept of small patient specific PTV margins for prostate cancer. It has become one my highest cited publications and the technical data has formed the basis of several hypofractionated/SBRT studies conducted at the Sunnybrook Odette Cancer Centre in the last few years.

2. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


Letters to Editor


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2015 Nov 20 Invited Lecturer. SABR for Oligoprogressive Cancer. UK SABR Consortium. Belfast, Belfast, United Kingdom. (Continuing Education).


Presented Abstracts


2. NATIONAL

Invited Lectures and Presentations


2014 Feb 20 Invited Lecturer. Role of Radiation in Hormone-Sensitive Metastatic Prostate Cancer. Issues &
Controversies in Urologic Cancer. Whistler, British Columbia, Canada. (Continuing Education).

2014 Feb 7 Invited Lecturer. Recent Canadian Trials in SBRT. Canadian Lung Cancer Conference. Vancouver, British Columbia, Canada. (Continuing Education).


Presented Abstracts


3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**

2015 Oct 30 **Invited Lecturer.** Case Based Discussions: Radiotherapy for Stage 3 and Oligometastatic NSCLC. Oncology Education - Best of Lung Cancer Summit. Toronto, Ontario, Canada. (Continuing Education).


2014 Oct 18 **Invited Lecturer.** SBRT for Primary RCC and Oligometastases. Okanagan Genitourinary Oncology Conference. Vernon, British Columbia, Canada. (Continuing Education).

2014 Oct 18 **Invited Lecturer.** SBRT for Prostate Cancer. Okanagan Genitourinary Oncology Conference. Vernon, British Columbia, Canada. (Continuing Education).

2014 Oct 17 **Invited Lecturer.** SBRT for Everything and Anything. BCCA Provincial Radiotherapy Rounds. Kelowna, British Columbia, Canada. (Continuing Education).

2014 May 26 **Invited Lecturer.** Optimizing the Management of Advanced NSCLC in the Northern Ontario Region. Pfizer. Sudbury, Ontario, Canada. (Continuing Education).

2013 May 2 **Invited Lecturer.** Panel Case Discussion: Oligoprogression in Metastatic Cancer. Target Insight VII: Rethinking Radiation Therapy for Metastatic Cancer. One King West Hotel & Residence. Toronto, Canada. (Continuing Education).

2012 Oct 22 **Invited Lecturer.** Stereotactic Body Radiotherapy for Lung Tumours. Oncology Rounds, Royal Victoria
2009 May 12

**Invited Lecturer.** Hypofractionation Using a Concomitant IMRT Boost for Localized High Risk Prostate Cancer. GU Technical Rounds, Juravinski Cancer Centre. Hamilton, Canada. (Continuing Education).

2009 Apr 17


2009 Apr 8

**Invited Lecturer.** Debate: Surgery vs Radiotherapy for Localized High Risk Prostate Cancer. GU Conversations, Ruth Chris’ Steak House. Mississauga, Canada. (Continuing Education).

2008 Oct 29


2007 Jan 10

**Invited Lecturer.** Radiation Oncology: Tour of the Specialty and Indications in Lung Cancer. Biweekly Patient Care Rounds, Yee Hong Centre for Geriatric Care. Toronto, Canada. (Continuing Education).

2005 Oct 28


2005 Mar 23

**Invited Lecturer.** Hypofractionation in Prostate Cancer: Concept and Emerging Trials. GU Conversations, Ruth Chris’ Steak House. Mississauga, Canada. (Continuing Education).

2001 Oct 14

**Invited Lecturer.** Osteoporosis and The Role of Bisphosphonates. Ontario GU Radiation Oncology Retreat, Deerhurst Resort. Timmons, Canada. (Continuing Education).

**Presented Abstracts**

2013 Apr 12


2001 Nov 12

4. LOCAL

Invited Lectures and Presentations

2016 Jun 9  **Invited Lecturer.** Ra-223 Clinical Trials at Odette Cancer Centre. Bayer Xofigo Consultant Meeting. Toronto, Canada. (Continuing Education).

2016 Feb 12 **Invited Speaker.** Prostate Cancer Research at Odette Cancer Centre. Giving Hearts Gala. Toronto, Canada. (Presentation to Patients/Public).

2016 Feb 9  **Invited Lecturer.** Radiotherapy for Metastatic Prostate Cancer....SBRT to Radium-223. TEGH-OCC Joint Educational Meeting. Toronto, Canada. (Continuing Education).


2016 Jan 19  **Invited Lecturer.** SBRT....increasing the indications with or without the evidence? Cancer Research Rounds (CR2); Sunnybrook Odette Cancer Centre. Toronto, Canada. (Continuing Education).


2015 Oct 6  **Invited Lecturer.** The Role of Local Ablative Therapy in Oligometastatic Prostate Cancer. Abbvie. Toronto, Ontario, Canada. (Continuing Education).

2015 Jun 16  **Invited Lecturer.** Upcoming Sunnybrook Clinical Trials with Ra-223. Bayer. Toronto, Ontario, Canada. (Continuing Education).

2015 Apr 29  **Invited Lecturer.** Novel Radiotherapy Strategies to Treat Metastatic Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, Canada. (Presentation to Patients/Public).

2013 Jun 20  **Chair.** The Changing Landscape in Managing Metastatic Castrate Resistant Prostate Cancer: A Focus on the Pre-Chemotherapy Space. Amgen Oncology and Janssen Educational Event, Oliver & Bonacini Cafe Grill. Toronto, Canada. (Continuing Education).


2011 Nov 16  **Invited Lecturer.** Clinical Trials in Prostate Radiotherapy: What we have done and where we are going. Patient Appreciation Night. McLaughlin Auditorium, Sunnybrook Health Sciences Centre. Toronto, Canada. (Presentation to Patients/Public).


2011 Apr 20  **Invited Lecturer.** Radiation Therapy for Prostate Cancer: The Latest and Greatest Approaches. Prostate Cancer: The Latest Lifesaving Information Lecture Series. McLaughlin Auditorium, Sunnybrook Health Sciences Centre. Toronto, Canada. (Presentation to Patients/Public).
2010 Nov 11  **Invited Lecturer.** Advances in Radiotherapy for Lung Cancer. Wellspring Discussion Series in conjunction with Lung Cancer Canada, Wellspring Westerkirk House. Toronto, Canada. (Presentation to Patients/Public).

2009 Sep 23  **Invited Lecturer.** Update on Treatment Options for Localized Prostate Cancer. 19th Annual Cancer Information Series for Patients, Edwards Gardens. Toronto, Canada. (Presentation to Patients/Public).


2007 May 9  **Invited Lecturer.** Debate: Locally Advanced Prostate Cancer Should Be Treated With Radiation and Hormonal Therapy. TSRCC 2nd Annual Nursing Symposium, Toronto-Sunnybrook Regional Cancer Centre. Toronto, Canada. (Continuing Education).

2005 Nov 11  **Invited Lecturer.** ABC’s of Lung Cancer. 2nd Annual Expanding Horizons: Timely Diagnosis & Treatment of Lung Cancer, Toronto-Sunnybrook Regional Cancer Centre. Toronto, Canada. (Continuing Education).


2002 Nov 30  **Invited Lecturer.** The Development and Application of Technology in GU: Do We Do It for Our Patients or For Ourselves? University of Toronto, Department of Radiation Oncology Saturday Seminar, Princess Margaret Hospital. Toronto, Canada. (Continuing Education).

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Postgraduate MD


2016 Jan - 2016 Jun  **Primary Supervisor.** Clinical Fellow. Pablo Munoz S. *SBRT for Metastatic Prostate Cancer.*

2015 Jul - 2015 Dec  **Primary Supervisor.** Clinical Fellow. Tomas Merino. *SBRT for Oligometastatic and Oligoprogressive NSCLC.*


H. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2011 - present  Treatment of Oligometastases and Oligo-progression.
A phase 1 study studying the use of SBRT to treat up to 5 sites of metastatic tumours has
just completed accrual at OCC recently. Almost all solid cancers were eligible. The data
will be analyzed in late 2014 and early results should be ready for presentation in 2015. I
was successful in obtaining an investigator initiated industry grant to study the use of SBRT
to treat hormone sensitive oligometastatic prostate cancer as a collaborative effort with
colleagues at Princess Margaret Cancer Centre. Another recent successful initiative was
obtaining another investigator initiated industry grant to study the use of SBRT for oligo-
progression in metastatic kidney cancer as a multi-institution Canadian phase II trial. A
review of the Sunnybrook experience in treating pulmonary oligometastases and oligo-
progression with SBRT is underway.
The role of radiotherapy in the management of oligometastases/oligo-progression is a topic
of interest for the whole Radiation Oncology specialty and is a priority for the Department of
Radiation Oncology at the University of Toronto. In the last 2 years, I have been invited to
speak about the role of radiotherapy in the management of oligometastatic cancers at
various venues locally, provincially, and nationally. In 2014, 2 large grants have been awarded to me to study this topic for prostate and kidney cancers and multi-institutional clinical trials are underway.

2002 - present

High Precision Radiotherapy and Hypofractionation/Stereotactic Body Radiotherapy for Prostate Cancer.

PTV Margin Optimization for Prostate Cancer:
In 2002, I was awarded my first peer reviewed grant to start a clinical and technical phase I study which measured patient specific intra-fraction prostate motion and used small patient specific PTV margins to deliver a hypofractionated external beam boost using daily image guidance for low and intermediate risk prostate cancer. Patients were treated with conventional fractionation for the first 4.5 weeks (42 Gy in 22 fractions) where pre- and post-treatment EPID images were performed to measure patient specific intrafraction prostate motion. After this, a hypofractionated boost of 30 Gy in 10 fractions was delivered using patient specific intra-fraction PTV which was calculated from each patient's intrafraction prostate motion data from the first phase of treatment.

Concomitant Hypofractionated IMRT Boost (Simultaneous Integrated Boost) for High Risk Prostate Cancer:
In 2003, I received a NCIC Prostate Cancer Research Initiative IDEA grant to study the delivery of a concomitant hypofractionated boost of 67.5 Gy in 25 fractions, while the pelvic lymph nodes received 45 Gy in 25 fractions at the same time as a more time efficient method to deliver a radical external beam radiotherapy to the prostate which explored hypofractionation and elective pelvic nodal irradiation at the same time for high risk prostate cancer. All patients received long term (2-3 years) of adjuvant androgen deprivation therapy. After the initial pilot project, more peer reviewed and industry grants were obtained to study this as part of a much larger phase II project of ~ 230 patients. Acute/late toxicities, and quality of life outcomes have been published, and the mature 5 year efficacy results has been reported at the 2013 CARO/ASTRO meetings as oral presentations (reviewer’s choice at CARO). One unique aspect of this study is that 5 year post radiotherapy prostate biopsies were performed to check for pathologic local failure.

SBRT to Mimic HDR Brachytherapy Boost for Prostate Cancer:
In 2009, I received a peer reviewed grant to conduct a phase I study of using SBRT to deliver a single fraction of 10-15 Gy to mimic HDR brachytherapy for intermediate risk prostate cancer. All patients received mildly hypofractionated external beam radiotherapy as well to a dose of 37.5 Gy in 15 fractions. This novel study employed a host of high precision techniques for the delivery of the single 10-15 Gy fraction: catheterization to control bladder volume, intra-rectal balloon for prostate immobilization, MRI/CT contouring, cine MRI to measure patient specific intrafraction motion, and use of patient specific PTV margins for the SBRT delivery, which continues the theme of small patient specific treatment margins from my first prostate IMRT project from 2002. This study has just completed accrual and acute toxicity results will be analyzed at the end of 2014.

PTV Margin Optimization for Prostate Cancer:
With the technical data gathered from this first IMRT project, small 4-5 mm population based intra-fraction PTV became the basis of all future hypofractionated/stereotactic radiotherapy studies for prostate cancer that employ daily image guidance with implanted fiducial markers at OCC. The 2005 publication about patient specific PTV margins is one of the highest cited references I have. Since 2007, I have been an invited lecturer regularly at the biannual GU Radiation Oncologists of Canada meeting to speak about various aspects of high precision radiotherapy for prostate cancer.

Concomitant Hypofractionated IMRT Boost (Simultaneous Integrated Boost):
The favourable toxicity/QoL results from these published studies have led to current randomized phase II studies being conducted at OCC, the Cross Cancer Institute, and a multi-centre phase III study in Quebec which compares the SIB approach pioneered at OCC to conventional fractionation for high risk prostate cancer. A recent publication from this
population of ~230 patients is the largest prospective study to demonstrate the value of IMRT and a full bladder to reduce acute toxicity during elective nodal irradiation for high risk prostate cancer patients. Long term results from this study will be analyzed in 2015.

SBRT to Mimic HDR Brachytherapy Boost for Prostate Cancer:
If the acute and late toxicity results are favourable, then larger studies of this approach may be started in the future. This will be the first study to tackle the question of whether a brachytherapy like dose of 10-15 Gy in 1 fraction can be safely delivered with external beam radiotherapy. The data gathered from the technical side of the study has already informed how OCC will technically approach the next generation of SBRT studies for prostate cancer with regards to immobilization and PTV margins.

2002 - present

Accelerated Hypofractionated and Stereotactic Body Radiotherapy for Lung Cancer.

Accelerated Hypofractionation for Early Stage Lung Cancer:
Since 1996, an accelerated hypofractionated radiotherapy schedule (48-52 Gy in 12-13 fractions) has been delivered for peripherally located early stage NSCLC at the Sunnybrook Odette Cancer Centre (OCC). This was relatively unique in the world, and I published on the results of this approach in 2002. In 2011, the long term results of such an approach were published. Based on this experience, a prospective multi-institutional phase II study was initiated in 2006 through the NCIC Clinical Trials Group which evaluated the use of 3DCRT to deliver a dose of 60 Gy in 15 fractions for stage I NSCLC. The results of this trial were presented at the 2012 CARO/ASTRO/Chicago Thoracic Symposium meetings and the manuscript has been published in 2014 in JNCI.

Stereotactic Body Radiotherapy for early stage Lung Cancer:
In 2008, I spearheaded a lung SBRT program at OCC, and it has become one of the largest SBRT centres in Canada. Early technical studies (including a randomized trial comparing 2 immobilization devices) have been published that justifies our techniques. In addition, a randomized pilot study was performed comparing delivering lung SBRT over 4 days vs 11 days. The results from this study were presented at the 2012 CARO/ASTRO/Chicago Thoracic Symposium meetings, and the manuscript was published in 2013. In the 2013 CARO/ASTRO meetings, the medium term efficacy outcomes of the OCC lung SBRT program (~250 patients treated from 2008-2011) were presented. Manuscripts about predictors of local control and chest wall toxicity have been published in 2014 and 2015, respectively. In 2014, the efficacy outcomes from the historical accelerated hypofractionated approach (1996-2008) have been compared to the modern SBRT era (2008-2011) for early stage NSCLC and were presented at the 2014 CARO/ASTRO meetings, with a manuscript submitted for publication in 2015.

Accelerated Hypofractionation for Early Stage Lung Cancer:
Even before the results of the NCIC-CTG trial were presented in 2012, many Canadian centres adopted the 60 Gy in 15 fraction fractionation scheme, based on the previous published OCC experience and their own experience when treating patients on the NCIC-CTG trial. The favourable results from the NCIC-CTG trial suggest that this approach may be an excellent alternative to SBRT in centres who do not have SBRT capability. This trial has also led to success in obtaining a Canadian Cancer Society Research Institute Impact Grant to conduct a multi-centre phase III study comparing 60 Gy in 15 fractions to SBRT in Canada.

Stereotactic Body Radiotherapy for Early Stage Lung Cancer:
Since 2010, I have supervised 5 Radiation Oncology fellows at OCC to gain clinical and research experience with lung SBRT and management of oligometastases. The high volume of SBRT treatments ensure a rich experience for those wishing to learn about this technique. The 4 vs 11 day randomized study revealed that SBRT delivered over 4 days was more acutely toxic compared to the 11 days, and is the first prospective study in the world to demonstrate a clinical effect due to overall treatment time for SBRT. In 2010, several technical and clinical publications were produced from our large lung SBRT experience. Since 2009, I have been invited to speak at various venues locally, provincially,
and nationally about lung SBRT.
CURRICULUM VITAE

Name: Charles Cho

Business Address: Radiation Medicine Program
Stronach Regional Cancer Centre at Southlake Regional Health Centre
596 Davis Drive
Newmarket, Ontario
L3Y 2P9

Telephone: 905-895-4521 ext. 6595
Fax: 905-952-2818
E-Mail: ccho@southlakeregional.org

Education

University Education:

1992-1996 Bachelor of Science (Honours Physiology)
University of Alberta, Edmonton, Alberta
Graduated with First Class Honours

1996-1999 Master of Science, Department of Physiology Banting and Best Institute
University of Toronto, Toronto, Ontario
Thesis: The Role of Oxidative Stress in Two Models of Insulin Resistance Within Primary Adipocytes

Post Graduate and Medical Training:

1999-2003 Doctor of Medicine
Queen’s University, Kingston, Ontario

2003-2008 Fellow of the Royal College of Physicians of Canada
Postgraduate Medical Training: Radiation Oncology
University of Toronto, Toronto, Ontario

2008-2009 Clinical Research Fellow: Radiation Oncology
Princess Margaret Hospital, University of Toronto, Toronto, Ontario

Biographical Information

Hospital/Staff Appointments:

2009-Present Active Staff, Radiation Oncology
Stronach Regional Cancer Centre (SRCC)
Southlake Regional Health Centre, Newmarket, Ontario, Canada

Active Staff, Radiation Oncology
The Princess Margaret Cancer Centre, Toronto, Ontario, Canada
Professional Affiliations:

- Canadian Medical Association
- Ontario Medical Association
- Canadian Association of Radiation Oncology
- American Society for Therapeutic Radiology and Oncology

Licensures:

- College of Physicians and Surgeons of Ontario (Canada)

Administration and Committee Appointments:

- Colorectal Cancer Pathway Working Group Member (2015-present)
- Cancer Care Ontario Program for Evidence Based Care: Gastrointestinal Disease Site Group (2011-Present)
- Southlake External Beam Process Committee (2009-Present)
- Postgraduate Medical Education Committee, Resident Representative (2007)
- MD admissions and interview committee (2000, 2001)

Current Clinical Studies

2011-present  Survey of Anti-cancer and non Anti-cancer Drug cost and Adherence: multicentre study between UHN, St Michaels Hospital, and SRHC  
Principal Investigator: Kassam, Z  
REB SRHC # 0011-1112 (SRHC)

2011-present  Patient Preferences for Completing Epidemiology Questionnaires Incorporated into Cancer Clinical Trials (Collaboration between UHN, St Michaels Hospital, and SRHC)  
Principal Investigator: Kassam, Z  
REB # 0010-1112 (SRHC)

2012-present  A Prospective Evaluation of Patients undergoing Radiation Treatment for Upper Gastrointestinal Malignancies in the Radical Setting: Quality of Life, Toxicity and Clinical Outcomes  
Principal Investigator: Kassam, Z  
Co-Investigators: Cho C, Zhang B  
REB # 0017-1112 (SRHC)

2012-present  The Influence of Social Determinants of Health, Physical Activity, and Supplement Use on Smoking Cessation and Recidivism in Cancer Patients (Collaboration between UHN and SRHC)  
Principal Investigator: Kassam Z  
REB # 0022-1213 (SRHC)

2012-present  An Evaluation of Factors Associated with Upper Gastrointestinal Malignancies  
Principal Investigator: Kassam Z  
2013- present  Ontario Health Study  
Principal Investigator: Kassam, Z  
REB # 0039-1314 (SRHC)

2013-present  Complementary and Alternate Medicine for Patients undergoing treatment at SRCC  
Principal Investigator: Kassam, Z  
Co-Is: Wells W, Fenkell F, Cho C, Taremi M, Dr Z Allibhai  
REB # 0018-1314 (SRHC)

2014-present  A pilot project to assess the feasibility of introducing patient reported outcomes (PROs) into the Standard of Care of patients undergoing radiation treatment for rectal carcinoma in the radical setting.  
Principal Investigator: Kassam, Z  
REB #0065-1314 (SRHC)

2014-present  Patient Preferences for Research Access to Administrative Data In Ontario  
Principal Investigator: Kassam, Z  
REB # 0020-1415 (SRHC)

2014-present  Prospective Evaluation and Data mining to predict and minimize Individual Clinical Toxicity in Breast cancer radiotherapy (PREDICT – Bre)  
Principal Investigator: Ruschin M, Local Principal Investigator: Fenkell L  
REB # 0012-1415 (SRHC)

Grants:  
2013-present  Accelerated Implementation Diffusion of Quality Initiatives for Rectal Cancer across Canada  
Canadian Partnership against Cancer: Grant Submitted September 2013

Publications

Refereed Publications:


Peer Reviewed Abstracts:


Curriculum Vitae

Byoung Chun John Cho

A. Date Curriculum Vitae is Prepared: 2016 July 20

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Hospital
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-4501 x2124
Fax 416-946-6566
Email john.cho@rmp.uhn.on.ca

1. EDUCATION

Degrees
2000 Sep - 2004 Feb PhD, Medicine, University of Amsterdam (Universiteit van Amsterdam), Netherlands
1991 Sep - 1995 Apr MD, Queen’s University at Kingston, Ontario
1989 Sep - 1990 Apr BSc, Biochemistry, University of Toronto

Postgraduate, Research and Specialty Training
1995 Jul 1 - 2000 Jun 30 Residency, Radiation Oncology, Cross Cancer Institute, Edmonton, Alberta

Qualifications, Certifications and Licenses
1995 Oct - present Licentiate (LMCC), Rad, Medical Council of Canada
2000 Jul - 2012 Dec Fellow FRCP(C), Radiation Oncology, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2004 Aug 1 - present Assistant Professor, Radiation Oncology, University of Toronto
2004 Aug 1 - present Staff Radiation Oncologist, Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario

Previous Appointments
UNIVERSITY - RANK
2004 Aug 1 - 2012 Dec 31 Assistant Professor, Radiation Oncology, University of Toronto
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
1989 Sep - 1992 Apr \textit{Canadian Scholarship}, University of Toronto. (Distinction)

PROVINCIAL / REGIONAL
Received
2000 Sep - 2002 Apr \textit{Clinical Research Fellowship}, Alberta Cancer Board. (Research Award)
1989 Sep - 1990 Apr \textit{Ontario Scholarship}, University of Toronto. (Distinction)

LOCAL
Received
1999 Sep - 2000 Apr \textit{Robert and Ada Wright Memorial Award}, University of Alberta. (Distinction)
1992 Sep - 1994 Apr \textit{Memorial Fund Award}, Queen’s University at Kingston, Ontario. (Distinction)
1991 Sep - 1992 Apr \textit{Chancellor Scholarship, Trinity College}, University of Toronto. (Distinction)
1989 Sep - 1991 Apr \textit{College Scholarship, Trinity College}, University of Toronto. (Distinction)
1989 Sep - 1991 Apr \textit{Faculty Scholarship}, University of Toronto. (Distinction)

Nominated
2010 May \textit{Gerald Kirsh Humanitarian Award}, Princess Margaret Hospital. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2009 - present \textit{International Association for the Study of Lung Cancer}
2004 - present \textit{Ontario Medical Association}
1998 - present \textit{Canadian Association of Radiation Oncology}
1997 - present \textit{Royal College of Physicians and Surgeons, Canada}
1991 - present \textit{Canadian Medical Association}
1998 - 2000 \textit{American College of Radiation Oncology}
1996 - 2000 \textit{American College of Radiology}
1996 - 2000 \textit{American Society for Therapeutic Radiology and Oncology}
1995 - 2000 \textit{Alberta Medical Association}
1995 - 2000 \textit{Canadian Association of Interns and Residents}
1995 - 2000 \textit{Professional Association of Interns and Residents of Alberta}
Administrative Activities

INTERNATIONAL

International Mesothelioma Interest Group
2007 - present Member

NATIONAL

National Cancer Institute of Canada/Clinical Trials Group
2007 - present Member, Mesothelioma and Thymoma Working Group, Lung Disease Site Committee

LOCAL

University of Toronto
2013 - present Chair, DRO Partnership Executive
2009 - present Member, Radiation Medicine Program Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Multilevel Education
2008 - present Social Director, DRO Partnership Executive
2006 - present Member, Radiation Medicine Program Quality Assurance Monitoring Committee, Dept of Radiation Oncology
2012 - 2013 Vice Chair, DRO Partnership Executive
2011 - 2012 Treasurer, DRO Partnership Executive
2004 - 2008 Secretary, DRO Staff

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDED


2009 Jan - 2010 Dec **Co-Investigator.** Seamless Phase I/II Study of Stereotactic Lung Radiotherapy (SBRT) for Early Stage, Centrally Located, Non-Small Cell Lung Cancer (NSCLC) in Medically Inoperable Patients (RTOG 0813). Radiation Therapy Oncology Group. 09-0112-C. PI: Bezjak A. Collaborator(s): Brade A, Hope A, Sun A. [Grants]

2009 Jan - 2010 Dec **Principal Investigator.** A Randomized Phase II Study Comparing 2 Stereotactic Body Radiation Therapy (SBRT) Schedules for Medically Inoperable Patients with Stage I Peripheral Non-Small Cell Lung Cancer. Radiation Therapy Oncology Group. 09-0857-C. Collaborator(s): Bezjak A, Brade A, Hope A, Sun A. [Grants]


2008 Jan - 2012 Dec **Co-Investigator.** A Phase II Trial of Stereotactic Body Radiation Therapy (SBRT) in the Treatment of Patients with Operable Stage I/II Non-Small Cell Lung Cancer. Radiation Therapy Oncology Group. 08-0107-C. PI: Bezjak A. Collaborator(s): Brade A, Hope A, Sun A. [Contracts]


2008 Jan - 2012 Dec **Co-Investigator.** A Phase 3 Study of Pemetrexed, Cisplatin and Radiotherapy Followed by Consolidation Pemetrexed versus Etoposide, Cisplatin and Radiotherapy Followed by Consolidation Chemotherapy for Stage III Non-Small Cell Non-squamous Lung Cancer. Eli Lilly Canada Inc. 08-041 OCREB. PI: Brade A. Collaborator(s): Bezjak A, Hope A, Shepherd F, Sun A. [Industrial Grants]


2008 Jan - 2011 Jan **Co-Investigator.** A Randomized Phase III Comparison of Standard-Dose (60Gy) versus High-Dose (74Gy) Conformal Radiotherapy with Concurrent and Consolidation Carboplatin/Paclitaxel in Patients with Stage IIIA/IIIB Non-small Cell Lung Cancer. Radiation Therapy Oncology Group. 08-0016-C. PI: Sun A. Collaborator(s): Bezjak A, Brade A, Hope A. [Contracts]


2005 Jan - 2011 Dec  **Principal Investigator.** Phase II Study of Neoadjuvant Pemetrexed (ALIMTA) plus Cisplatin followed by Surgery and Radiation Therapy for Malignant Pleural Mesothelioma. Eli Lilly Canada Inc. 05-0815-C. [Industrial Grants]

2005 Jan - 2008 Dec  **Co-Investigator.** A Phase I/II Study of Concurrent Premetexed/Cisplatin/Radiation in Stage IIIA/B Non-Small Cell Lung Cancer. Eli Lilly Canada Inc. 05-021-OCREB. PI: Brade A. Collaborator(s): Bezjak A, Hope A. [Industrial Grants]


**D. Publications**

1. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Oral Presentation


Poster Presentation


Other Publications

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

Book Chapters

Editorials

E. Intellectual Property

1. PATENTS


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations
2002 IMRT in breast cancer improving radiotherapy treatment. 21st Annual Meeting ESTRO. Prague, Czech Republic.

Presented Abstracts
2011 Sep The Characteristics of Tumour and Involved Lymph Nodes in Human Papilloma Virus (HPV) Related Oropharyngeal Carcinoma Determined by Gross Tumour Volumes (GTV) Defined for Radiotherapy


Presented and Published Abstracts

2016 Apr 29 Invited Speaker. The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Turin, Italy.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Oct 18


Publication Details:

2015 Oct 18


Publication Details:

2015 Oct 18


Publication Details:

2015 Oct 18

Impact of Surgical Margins on Outcomes in Oral Cavity Squamous Cell Carcinomas Following Postoperative Intensity Modulated Radiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO). St. Antonio, Texas, United States. Poster Discussion at the American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting, United States. (Abstract #2777).

Publication Details:

2015 Feb

Refining UICC TNM stage and prognostic groups for non-metastatic HPV-related oropharyngeal carcinomas. 5th International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:

2015 Feb

Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status. 5th International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:
Byoung Chun John CHO

Publication Details:

2015 Feb
‘Cure’ is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis. 5th International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:

2014 Sep

Publication Details:

2014 Sep
Refining UICC TNM Stage and Prognostic Groups for HPV-Related Oropharyngeal Carcinomas. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

Publication Details:

2014 Sep
Role of Radiation Therapy in Management of Nasal and Sinonasal Squamous Cell Carcinomas. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

Publication Details:

2014 Sep
IMRT With Selective Target Volume Approach in Head and Neck Squamous Cell Carcinoma of Unknown Primary Site. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

Publication Details:

2014 Sep
Patient-Reported Outcomes: Correlation of MDASI-HN and Clinical Support Required for Patients Receiving Curative Head and Neck Chemoradiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

Publication Details:

2013 Apr 19

Publication Details:

2012 Nov
Outcome of stage 1 non-small cell lung cancer after stereotactic body radiation therapy, does growth rate matter? ASRTO Annual Meeting. Miami, United States.

Publication Details:

2012 Nov
Comparison of 3D Conformal Radiotherapy (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non Small Cell Lung Cancer (NSCLC). American Society for Radiation Oncology (ASTRO) 54th Annual Meeting. Boston, United States.

Publication Details:

2012 Sep

Publication Details:

2011 Oct

Publication Details:
2011 Oct  Outcomes for T2N0M0 Glottic squamous cell treated with IMRT compared with conventional parallel opposed fields. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Miami Beach, Florida.


2011 Aug  Effect of image-guidance frequency on geometric accuracy and setup margins in radiotherapy for locally advanced lung cancer. CME ASTRO.


2010  Patterns of Failure in Patients with Limited-Stage Small Cell Lung Carcinoma. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Diego, California.


*Publication Details:* Giuliani M, Lindsay PE, Brade AM, Sun A, Bezjak A, Le LW, Cho J, Leighl N, Shepherd FA, Hope AJ. Outcomes of Salvage Therapy in Patients with Limited Stage Small Cell Lung Carcinoma with Isolated Locoregional Failure. CME ASTRO.

2010
Stereotactic Body Radiotherapy (SBRT) for Non-small Lung Cancer (NSCLC) – is FDG-PET a Predictor of Outcome? American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Diego, California.

Publication Details:

2009 Nov

Publication Details:

2009 Nov
Intrafractional target position accuracy for lung stereotactic body radiotherapy (SBRT) using cone-beam CT (CBCT). Chicago, Illinois, United States.

Publication Details:

2009 Nov
Assessing the accuracy of the carina as a landmark for image matching using cone-beam CT in radical lung radiotherapy. ASTRO. Chicago, Illinois, United States.

Publication Details:

2009 Jul

Publication Details:

2009 Jul

Publication Details:

2009 Jul
Publication Details:

2009 Jul

Publication Details:

2009
Fractionation modulated radiotherapy: adding time into IMRT by optimizing the dose per fraction. European Society for Therapeutic Radiology & Oncology (ESTRO). Maastricht, Netherlands.

Publication Details:

2009

Publication Details:

2009
Comparison of tumor coverage in radical lung radiotherapy: impact of cone-beam CT image guidance using spine or carina matching. 13th Annual World Conference on Lung Cancer. San Francisco, California, United States.

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009
Publication Details:

2008
Stereotactic Body Radiation Therapy (SBRT) for Early-Stage Non-Small Cell Lung Cancer (NSCLC). International Lung Cancer Conference. Liverpool, United Kingdom.

Publication Details:

2008

Publication Details:

2008
Respiratory Correlated Cone Beam CT in the Assessment of Non-small Cell Lung Cancer during Radiotherapy. American Society for Radiation Oncology (ASTRO). Boston, Massachusetts, United States.

Publication Details:

2008

Publication Details:

2008

Publication Details:

2008

Publication Details:

2007
Publication Details:

2007
The dosimetric effects of changes in thoracic cavity fluid levels during adjuvant hemithoracic intensity modulated radiotherapy following extrapleural pneumonectomy for mesotheliomas. World Conference on Lung Cancer (WCLC). Seoul, Korea, Republic Of.

Publication Details:

2007

Publication Details:

2006
Stereotactic body radiotherapy (SBRT) and medical inoperability of early stage non-small cell lung cancer. ASCO Annual Meeting. Atlanta, Georgia.

Publication Details:

2006
Lung cancer stereotactic body radiotherapy: the dosimetric effect of heterogeneity correction on normal tissue tolerances and target coverage. European Society for Therapeutic Radiology & Oncology (ESTRO). Leipzig, Germany.

Publication Details:

2006
Evaluation of 4Dimensional-Computed Tomography for Delineation of The Clinical Target Volume (CTV) for Breast Boost Radiotherapy. European Society for Therapeutic Radiology & Oncology (ESTRO). Leipzig, Germany.

Publication Details:

2006

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
2. NATIONAL

Invited Lectures and Presentations

2006  Clinical physics for radiotherapy oncologists: all the topics you may have forgotten and are too afraid to ask. 20th Annual Meeting CARO. Calgary, Alberta.

Presented Abstracts


2003  Incorporating spatial dose effects using dose-voxel based histograms. Canadian Association of Radiation Oncology Annual Scientific Meeting. Montreal, Quebec. Cho BC, Witte M.

Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:
Clinical outcomes following re-irradiation in head and neck cancers. Radiother Oncol. 2015(Suppl):S60.


Publication Details:

2015 Sep 2015 Outcomes in Patients with Stage III Non-Small Cell Lung Cancer Treated with Neoadjuvant Concurrent Chemotherapy and Radiotherapy Followed by Surgical Resection. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO). Kelowna, British Columbia, Canada.

Publication Details:


Publication Details:


Publication Details:

2014 Aug The prognostic value of pre-treatment circulating neutrophils in oropharyngeal cancer by HPV status.

**Publication Details:**

2014 Aug  Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2013 Sep  Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT). CARO Annual Meeting. Quebec, Canada.

**Publication Details:**

**2013 Sep** Late radiographic changes after lung stereotactic body radiotherapy: Piloting a synoptic reporting and recurrence predication scale. CARO Annual Meeting. Canada.


Stereotactic Lung Radiotherapy in Patients with Previous Pneumonectomy: Safety and Efficacy. CARO Annual Meeting. Quebec, Canada.


**2013 Sep** Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy compared to Primary Laryngectomy. CARO Annual Meeting. Quebec.


**2013 Sep** DISPLAYING 3D RADIATION DOSE ON ENDOSCOPIC VIDEO FOR THERAPEUTIC ASSESSMENT AND SURGICAL GUIDANCE. CARO Annual Meeting. Quebec, Canada.


**2012 Sep** Outcome of IMRT for hypopharyngeal cancer compared to conventional radiotherapy. CARO Annual Meeting. Ottawa, Ontario, Canada.


**Publication Details:**

2012 Sep

Comparison of 3D Conformal Radiotherapy (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non Small Cell Lung Cancer (NSCLC). CARO Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:

2011 Sep

Is SBRT alone appropriate for early stage non-small-cell lung cancer with primary tumours larger than 4cm? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba.

Publication Details:

2011 Sep


Publication Details:

2011 Sep

Correlation of Dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba.

Publication Details:

2011 Sep


Publication Details:

2011 Sep

Acute toxicities observed with neoadjuvant short accelerated hemithoracic radiotherapy (RT) followed by extra-pleural pneumonectomy (EPP) for malignant pleural mesothelioma (MPM): preliminary results. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Winnipeg, Manitoba.

Publication Details:

2011 Sep

Clinical outcomes in stage 1 non-small cell lung cancer patients managed with accelerated hypofractionated radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting.
Winnipeg, Manitoba.

Publication Details:

2010 Sep

Publication Details:


Publication Details:

2010
Four Year Outcomes of Patients with Stage I Lung Cancer Treated with Stereotactic Body Radiation Therapy (SBRT). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Vancouver, British Columbia.

Publication Details:

2010
A Phase Ii Study of Concurrent Pemetrexed (P)/Cisplatin (C) Radiation (RT) for unresectable Stage IIIA/B Non-Small Cell Lung Cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2010
FDG PET SUV Uptake in Stereotactic Body Radiotherapy (SBRT) for Non-Small Cell Lung Cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009 Sep
Factors Influencing Prophylactic Cranial Irradiation Utilization in Limited Stage Small Cell Lung Cancer.

Publication Details:

2009 Sep
Assessment of Intra-fraction Target Position Accuracy for Lung Stereotactic Body Radiotherapy (SBRT) using Cone-beam CT (CBCT). Canadian Association of Radiation Oncology. Quebec City, Quebec.
Byoung Chun John CHO

Canada.

Publication Details:


Publication Details:


Publication Details:

2009 Sep Princess Margaret Hospital experience with Lung Stereotactic Body Radiotherapy for early stage non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:


Publication Details:

2009 Sep Pre-Radiation Treatment PET/CT Scan can Predict the Localization of Residual Disease Post-Treatment in Lung Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:


Publication Details:
2008 A Pilot Prospective Study of Metabolic and Anatomic Response using FDG PET CT before, during and after Radiotherapy in Lung Cancer. Canadian Association of Radiation Oncology (CARO).

**Publication Details:**


**Publication Details:**


**Publication Details:**

2008 Respiratory Correlated Cone Beam CT in the Assessment of Volumetric and Geometric Tumour Changes in Non-Small Cell Lung Cancer during Radiotherapy. CARO Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

Publication Details:


Publication Details:


Publication Details:

2006 Selection of patients for stereotactic lung radiotherapy (SBRT) for early stage non-small cell lung cancer (NSCLC). Canadian Association of Radiation Oncology (CARO). Calgary, Alberta.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2005

Publication Details:

2005

Publication Details:

2005

Publication Details:

3. PROVINCIAL / REGIONAL

Presented Abstracts

2010

Presented and Published Abstracts

2009 Apr

Publication Details:

4. LOCAL

Invited Lectures and Presentations

2006
Evolution and revolution of radiotherapy treatment in breast cancer. 6th Princess Margaret Hospital Conference. Toronto, Ontario.

2006
A cased-based approach to recent major paradigm shifts in cancer treatment: breast cancer case. 6th Princess Margaret Hospital Conference. Toronto, Ontario.

Presented Abstracts

2006


5. OTHER

Presented and Published Abstracts

2009 Survival impact of prophylactic cranial irradiation in limited-stage small-cell lung cancer.

Publication Details:


Publication Details:

2008 Sep 10 A Pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during and after radiotherapy in lung cancer. CARO Annual Meeting. Montreal, Quebec, Canada.

Publication Details:


Publication Details:


Publication Details:
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Primary</td>
<td>Clinical</td>
<td>L Lao. <em>Incidental prophylactic nodal irradiation and patterns of nodal relapse in inoperable early stage NSCLC patients treated with SBRT: A case-matched analysis.</em></td>
</tr>
<tr>
<td>2010</td>
<td>Primary</td>
<td>Clinical</td>
<td>A Edwards. <em>A single institutional retrospective review of treatment and outcomes for unknown primaries of the head and neck treated with definitive radiotherapy.</em></td>
</tr>
<tr>
<td>2010</td>
<td>Primary</td>
<td>Clinical</td>
<td>Z Allibhai. <em>A feasibility study evaluating the utility of diffusion weighted magnetic resonance imaging to assess treatment response and recurrence after stereotactic body radiotherapy for early stage non-small cell lung cancers.</em></td>
</tr>
<tr>
<td>2008</td>
<td>Primary</td>
<td>Clinical</td>
<td>A Teh. <em>A feasibility study to evaluate intensity modulated radiation therapy (IMRT) for concomitant boost breast radiotherapy (CBRT).</em></td>
</tr>
</tbody>
</table>
Curriculum Vitae

Edward L.W. Chow

A. Date Curriculum Vitae is Prepared: 2016 August 4

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone (416) 480-4998
Fax (416) 480-6002
Email Edward.Chow@sunnybrook.ca

1. EDUCATION

Degrees

2002 Sep - 2007 Jun PhD, Institute of Medical Science, University of Toronto, Canada, Supervisor(s): Prof. Ian Tannock
1999 Jul - 2001 Jun MSc, Clinical Epidemiology, Health Policy, Management and Evaluation, University of Toronto, Canada, Supervisor(s): Prof. Ian Tannock
1983 - 1988 Bachelor of Medicine and Bachelor of Surgery (MBBS), University of Hong Kong

Postgraduate, Research and Specialty Training

1997 Dec - 1998 Jun Fellow, Radiation Oncology Program, St. Jude Children’s Research Hospital, United States
1997 Aug - 1997 Nov Fellow, Radiation Oncology Program, McMaster University, Canada
1994 Jul - 1997 Jun Resident, Radiation Oncology Program, Princess Margaret Hospital, University of Toronto, Canada
1993 Jan - 1993 Jun Resident, Core Internal Medicine Program, University of Toronto, Canada
1992 Jan - 1992 Dec Rotating Intern, Pasqua Hospital, University of Saskatchewan, Canada
1991 Jul - 1991 Dec Resident, Core Internal Medicine Program, University of Toronto, Canada
1991 Jun Clinical Fellow, Bone Marrow Transplant Team, Health Science Centre, University of Manitoba, Canada
1990 Oct - 1991 May Clinical Fellow, Addiction Research Foundation, University of Toronto, Canada
1990 Feb - 1990 Jul Senior House Officer, Accident and Emergency Department, Dudley Road Hospital, University of Birmingham, United Kingdom
1989 Feb - 1990 Jan Intern, Medicine and Surgery, Dudley Road Hospital, University of Birmingham, United Kingdom
1989 Jan Intern, Internal Medicine, Nethersole Hospital, University of Hong Kong, Hong Kong
Qualifications, Certifications and Licenses

1999 May  DABR, United States
1997 Jun  FRCP, Royal College of Physicians and Surgeons of Canada, Canada
1994 Jun  ECFMG, United States
1992 Jun  FLEX, United States
1991 May  LMCC, Medical Council of Canada, Canada
1990 Mar  MCCEE, Canada

2. EMPLOYMENT

Current Appointments

2010 - present  Associate Member, Institute of Medical Science, University of Toronto, Canada
2010 - present  Senior Scientist, Sunnybrook Research Institute, Canada
2009 - present  Professor, Radiation Oncology, University of Toronto, Canada
1998 - present  Active Staff, Department of Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Canada

Previous Appointments

HOSPITAL
1998 Oct  Consultant, Department of Radiation Oncology, St. Jude Children's Research Hospital, United States
1993 Jul - 1994 Jun  Clinical Associate, Department of Radiation Oncology, Princess Margaret Hospital, Canada

RESEARCH
2004 - 2009  Scientist, Sunnybrook Research Institute, Canada

UNIVERSITY - RANK
2004 - 2009  Associate Professor, Radiation Oncology, University of Toronto, Canada
1998 - 2004  Assistant Professor, Radiation Oncology, University of Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
1999 Aug  Travel Award, ASCO/AACR. (Research Award)

NATIONAL
Received
2015  Canadian Cancer Society's Top 10 Research Impact Stories of 2015, Canadian Cancer Society. (Research Award)

2013  
CARO Supportive Care Award, Canadian Association of Radiation Oncology. (Distinction)

2008  
Quality Award to Rapid Response Radiotherapy Program by Cancer Care Ontario, Cancer Quality Council of Ontario and Canadian Cancer Society, Canada. (Distinction)

PROVINCIAL / REGIONAL

Received

2010  
Outstanding Leadership Award, Ontario Palliative Care Association, Canada. (Distinction)

2008  
Co-op Student of the Year Employer Award, Education at Work Ontario, Canada. (Distinction)

2006  
Co-op Student of the Year Employer Award, Education at Work Ontario, Canada. (Distinction)

1997  
Fellowship Award, Geoffrey H. Wood Foundation, Canada. (Research Award)  
Total Amount: 50,000 CAD

LOCAL

Received

2015  
Best Annual Research Performance, University of Toronto, Department of Radiation Oncology AGM. (Research Award)

2013  
Sustained Excellence in Research Award, University of Toronto. (Research Award)

2010  
Best Annual Research Performance Award, Department of Radiation Oncology, University of Toronto, Canada. (Research Award)

2008  
Cummings Education Leadership Award, Department of Radiation Oncology, University of Toronto, Canada. (Distinction)

2008  
Excellence in Research Leadership, Department of Radiation Oncology, University of Toronto, Canada. (Distinction)

2004  
Best Annual Research Performance Award, Department of Radiation Oncology, University of Toronto, Canada. (Research Award)

2001 - 2005  
Dr. Marion Hilliard Trust Fund, Sunnybrook and Women’s College Health Sciences Centre, Canada. (Research Award)

2001  
Second Prize, MSc Clinical Epidemiology Poster Competition, University of Toronto, Department of Health Administration, Toronto, Ontario, Canada. (Research Award)

2000  
Open Fellowship Award in Department of Health Administration, Faculty of Medicine, University of Toronto, Canada. (Research Award)

1996  
PGY4 Radiation Oncology Resident Research Award, University of Toronto, Canada. (Research Award)  
“Enhanced Control By Radiotherapy Of Cervical Lymph Node Metastases Arising From Nasopharyngeal Carcinoma Compared With Nodal Metastases From Other Head And Neck Squamous Cell Carcinomas”.

1986  
Best Award in Community Medicine Research Project, University of Hong Kong, Hong Kong. (Research Award)  
“Care of Patients in End Stage Renal Failure”.  

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CONFIDENTIAL DOCUMENT
Teaching and Education Awards

LOCAL
Received
2013 2nd Annual Sunnybrook Education Advisory Council (SEAC) Educating Beyond Sunnybrook Award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Continuing Education)

Student/Trainee Awards

NATIONAL
Received
2011 - 2013 Fellowship Award in Clinical Research, Supervisor, Awardee Name: Dennis K. Canadian Institutes of Health Research, Canada Radiation-Induced Nausea and Vomiting (RINV): Part 1) an international survey of patterns of practice for RINV prophylaxis among radiation oncologists. Part 2) a pilot study investigating the efficacy of Aprepitant and Granisetron for the prophylaxis of RINV. Total Amount: 110,000 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Therapeutic Radiology and Oncology
Canadian Association of Radiation Oncologists
European Organization for Research and Treatment of Cancer Quality of Life Group
European Society for Therapeutic Radiology and Oncology
Ontario Medical Association
Royal College of Physicians and Surgeons of Canada

Administrative Activities

INTERNATIONAL
2010 Third International Consensus on Advanced Cancer with ASTRO, CARO, ESTRO and TROG 2008 - 2010 Co-organizer

American Board of Radiology
2004 - 2006 Invited item writer, Radiation Oncology written examination

ASTRO
2002 - present ASTRO representative, Hospice and Palliative Care groups
2005 Chair, Abstract - Quality of Life
2004 - 2005 Chair, Abstract - Palliative Care
Edward L.W. CHOW

2003 Co-Chair, Panel "Utilization of palliative radiotherapy in North America."
2001 - 2005 Member, Health Services Research Committee
2001 Co-Chair, Panel "Treatment of Bone Metastases in the 21st Century."

Hong Kong College of Radiologists
2013 Mar External examiner, third palliative medicine subspecialty board exit examination, Clinical Oncology, Hong Kong.
2009 External examiner, second palliative medicine subspecialty board exit examination, Clinical Oncology

International Bone Metastases Consensus Working Party on Palliative Radiotherapy Endpoints for Future Clinical Trials in Bone Metastases
2000 - present Chair (jointly organized with ASTRO, ESTRO and CARO).

RTOG CCOP
2008 - present Member, Steering committee

NATIONAL
CARO
2009 - present CARO Abstract Review, Canada.

PROVINCIAL / REGIONAL
Inaugural Joint University of Toronto and China Symposium: Current Concepts in Spinal and Musculoskeletal Oncology
Co-Chair, Toronto, Ontario, Canada.

The Annual Ontario Provincial Conference on Palliative and End-of-Life Care
2008 Member, Organizing committee, Toronto, Ontario.
2002 - 2007 Program Co-Chair, Toronto, Ontario.

The Science and Art of Pain and Symptom Management, Annual Conference
1999 Member, Organizing committee, 6th Annual Conference, Toronto, Ontario.

LOCAL
Department of Radiation Oncology, University of Toronto
2015 - present Member, Three Year Review Committee

International Medical Graduates Examinations in Ontario
1993 - 1996 Examiner, Canada.

Medical Council of Canada
1993 - 1996 Examiner, LMCC

Odette Cancer Centre
Edward L.W. CHOW

2007 - present  
Chair, Rapid Response Radiotherapy Program

2006 - present  
Member, Research Advisory Committee, Department of Radiation Oncology

2002 - present  
Chair, Bone Metastases Site Group

Toronto Sunnybrook Regional Cancer Centre

2006 - 2007  
Member at Large, Radiation Oncology Associates

1999 - 2002  
Co-Chair, Quality Assurance Advisory Committee, Department of Radiation Oncology

University of Toronto

2010 - 2015  
Member, Departmental Promotion Committee, Department of Radiation Oncology

2009 - 2011  
Department of Radiation Oncology Research Day Abstract review, Toronto, Ontario, Canada.

Peer Review Activities

EDITORIAL BOARDS

Editor
2011 - present  
Current Opinion in Supportive and Palliative Care

2006 - present  
Hotspot

Advisor
2001 - 2007  
Hospital News Advisory Board

Associate Editor
1999 - 2005  
Hotspot, educational newsletter for the community oncologists and palliative care physicians from Rapid Response Radiotherapy Program, Toronto-Sunnybrook Regional Cancer Centre

Guest Editor
2009  
Journal of Pain Management (Special issue on Cancer and Pain)

Member
2013 - present  
Editorial Advisory Board for Annals of Palliative Medicine

2013 - present  
Editorial Advisory Board for Hong Kong Journal of Radiology

2011 - present  
Editorial Advisory Board for Journal of Bone Oncology

2011 - present  
Editorial Advisory Board for Journal of Radiation Oncology

2008 - present  
Editorial Advisory Board for Journal of Pain and Symptom Management

2007 - present  
Editorial Advisory Board for Expert Review of Pharmacoeconomics and Outcomes Research

2002 - 2007  
Oncology Exchange

GRANT REVIEWS

External Grant Reviewer
2014 Dec  
United Arab Emirates University (UAEU), Number of Reviews: 1

2014 Sep - 2014 Nov  
Research Council of Norway, Number of Reviews: 4

Canadian Breast Cancer Research Alliance, Developmental and Exploratory (DEX) Research Grants

Canadian Institutes of Health Research, University Industry Committee

Catalan Agency for Health Information, Assessment and Quality for evaluation of the quality of life research projects for La Fundació La Marató de TV3

Chinese University of Hong Kong, General Research Fund
Dutch Cancer Society
Neurological Foundation of New Zealand
New Jersey State Commission on Cancer, Research Grant Competition
New Zealand Genesis Oncology Trust

MANUSCRIPT REVIEWS

Reviewer
2015 Mar 6      Cureus, Number of Reviews: 1
2014 Sep - 2014 Sep 30  Tumori, Number of Reviews: 1
2014 Apr  International Journal of Radiation Oncology, Biology, Physics, Number of Reviews: 1
2014 Apr  Rubriq, Number of Reviews: 1
2014 Mar  Journal of Bone Oncology, Number of Reviews: 1
2014 Feb  European Journal of Oncology Nursing, Number of Reviews: 1
2014  Clinical Oncology, Number of Reviews: 2
2014  European Journal of Oncology Nursing, Number of Reviews: 1
2014  Lancet Oncology, Number of Reviews: 4
2014  Radiotherapy and Oncology, Number of Reviews: 3

Asia-Pacific Journal of Clinical Oncology
BMJ Supportive & Palliative Care
Breast Cancer Research and Treatment
British Journal of Cancer
Canadian Family Physician
Cancer
Cancer Control: Journal of the Moffitt Cancer Center
CardioVascular and Interventional Radiology
Clinical & Experimental Metastasis
Clinical Cancer Research
Clinical Lung Cancer
Clinical Medicine & Research
Clinical Oncology
Clinical Orthopaedics and Related Research
European Journal of Pain
Expert Review of Anticancer Therapy
Expert Review of Pharmacoeconomics and Outcomes Research
Future Oncology
International Journal of Radiation Oncology, Biology, Physics
International Journal of Urology
Journal of Cancer Research and Therapeutics
Journal of Clinical Oncology
Journal of Experimental & Clinical Cancer Research
Journal of Hand and Microsurgery
Journal of Pain and Symptom Management
Journal of Palliative Care
Journal of Palliative Medicine
Journal of Psychosomatic Research
C. Academic Profile

1. RESEARCH STATEMENTS

Palliative radiotherapy in the treatment of bone metastases.
Development of quality of life instruments in advanced cancer.
End-of-life care including survival prediction and symptom cluster research.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED
2015 - 2017

2015 - 2017 Jul


2010


2010

**Principal Investigator.** Development of a Canadian-led international bone metastases module to accompany European Organization for Research and Treatment of Cancer Quality of Life Group Core Questionnaire (the EORTC QLQ-C30) for future clinical trials in patients with bone metastases. Phase IV study. EORTC. Quality of Life Group Grant. 74,000 EUR. [Grants]

2009 - 2012


2009


2007

**Principal Investigator.** Development of a Canadian-led international bone metastases module to accompany European Organization for Research and Treatment of Cancer Quality of Life Group Core Questionnaire (the EORTC QLQ-C30) for future clinical trials in patients with bone metastases. Translation of non-English speaking languages for international validation. EORTC. Quality of Life Group Grant. 3,030 EUR. [Grants]

2006


2005 - 2008


2004 - 2007

**Principal Investigator.** Validation of a predictive model for survival in metastatic cancer patients attending an outpatient palliative radiotherapy clinic. Canadian Institutes of Health Research (CIHR). Collaborator(s): Panzarella T, Bezjak A, and Wu J. 180,192 CAD. [Grants]

2003 - 2006

2003 - 2006  

2001  
**Principal Investigator.** Determination of the patient expectation of a clinically relevant partial response as achieved with palliative external beam radiotherapy for bone metastases. University of Toronto. Dean’s Fund Competition for New Staff Grants. Collaborator(s): Hruby G, and Danjoux C. 10,000 CAD. [Grants]

2000  

2000  

1999  

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2015 - present  

2013 Jul - 2014 Jun  

2002  
**Principal Investigator.** Prospective validation of a predictive model for survival in metastatic cancer patients attending an outpatient palliative radiotherapy clinic. Toronto Sunnybrook Regional Cancer Centre. Radiation Program Fund. 8,000 CAD. [Grants]

2002  
**Co-Investigator.** Quality of life in patients with brain metastases treated with a palliative course of radiotherapy. Toronto Sunnybrook Regional Cancer Centre. Radiation Program Fund. Collaborator(s): Tsao MN, **Chow E**, and Chan G. 10,350 CAD. [Grants]

1998  
1998


**Study Chair.** International randomized trial of single versus multiple fractions for re-irradiation of painful bony metastases. National Cancer Institute of Canada (NCIC). Collaborator(s): Hoskin P, Wu J, Roos D, Hartsell W, and van der Linden Y. [Clinical Trials] Clinical Trials Group Study (SC 20) in collaboration with TROG, RTOG, UK, French and Dutch Bone Metastases Study Group. Target accrual of 850 patients with per case funding $3500.


**Study Chair.** A randomized phase III double blind study of dexamethasone versus placebo in the prophylaxis of radiation-induced pain flare following palliative radiotherapy for bone metastases. National Cancer Institute of Canada (NCIC). [Clinical Trials] Clinical Trials Group Study (SC 23) in collaboration with TROG. Target accrual of 256 patients with per case funding $3500.

**Study Chair.** Assessing the quality of life in cancer patients receiving palliative radiotherapy for symptomatic lung cancer or lung metastases using the European Organization for Research and Treatment of Lung Cancer Module (EORTC QLQ- LC13). [Clinical Trials]

**Study Chair.** Assessing the quality of life in patients with bone metastases using the European Organization for Research and Treatment of Cancer Bone Metastases Module (EORTC QLQ- BM22). [Clinical Trials]

**Study Chair.** Prospective analysis of antiemetic medication prescribed for radiation induced emesis for patients in the Rapid Response Radiotherapy Program. [Clinical Trials]

**Study Chair.** Assessing the quality of life in patients with brain metastases using the European Organization for Research and Treatment of Cancer Brain Module (EORTC QLQ- BN20). [Clinical Trials]

**Study Chair.** Validation of the brain module to accompany European organization for research and treatment of cancer quality of life group core questionnaire (the EORTC QLQ-C30) for future clinical trials in patients with brain metastases. [Clinical Trials]

**Study Chair.** Multi-Lingual validation of the EORTC QLQ-BM22. [Clinical Trials]

**Study Chair.** Examining urinary markers for dexamethasone metabolism, inflammatory cytokines and bone marker turnover following the dexamethasone prophylaxis of pain flare. [Clinical Trials]

**Study Chair.** Dexamethasone for the prophylaxis of radiation-induced pain flare following palliative radiotherapy for bone metastases - A Phase II study. [Clinical Trials]
Study Chair. Examining urinary markers of pain flare in patients undergoing external beam radiotherapy in the treatment of bone metastases. [Clinical Trials]

Study Chair. Examining the incidence of pain flare following external beam radiotherapy in the treatment of bone metastases. [Clinical Trials]

Study Chair. Shortening the European Organization for Research and Treatment of Cancer Bone Metastases Module (EORTC QLQ-BM22). [Clinical Trials]

Study Chair. A prospective cohort study of androgen independent prostate cancer patients receiving Zoledronic Acid. [Clinical Trials]

Study Chair. A Phase II study of early integration of Zoledronic Acid with radiotherapy to bone in the treatment of painful bone metastases in prostate cancer. [Clinical Trials]

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


Accurate survival prediction is difficult, but important, in medical decision-making. A predictive model for survival in metastatic cancer patients attending an outpatient palliative radiotherapy clinic was developed using simple clinical prognostic factors. We have successfully validated the simpler model in an independent series of patients. This model can be used to guide clinical decisions, plan supportive services and allocate resource use. This manuscript has been selected to be accompanied by an editorial.


Optimal dose fractionation in the treatment of bone metastases remains controversial. This was a meta-analysis of all published randomized radiation trials in bone metastases, and provides evidence that single fraction radiation therapy results in the same degree of pain relief in uncomplicated bone metastases when compared with multiple treatments.


We are one of the first centers reporting that pain flare is common following external beam radiotherapy for bone metastases. This is the first publication that describes the potential role of dexamethasone as a prophylaxis for radiation-induced pain flare. Data from this study led to a randomized study sponsored by National Cancer Institute of Canada Clinical Trials Group (PI Edward Chow) that has been approved to open in 2009. International trial groups such as RTOG and TROG have expressed interest to join.

Symptom cluster research is in its infancy. We have published several papers in this area on bone metastases and brain metastases. Here we identified symptom clusters at baseline, and we also followed their interactions after the administration of palliative radiotherapy. This publication was accompanied by an editorial commenting the merits of the research. This work has also led to an ongoing effort by RTOG to repeat the same research in their randomized trial on bone metastases.


This is the first published paper examining the accuracy of survival prediction by palliative radiation oncologists. Most of the survival estimates are far from accurate, often in the overly optimistic direction. The paper recommends clinicians should employ validated predictive models to formulate the length of survival.

## 2. PEER-REVIEWED PUBLICATIONS

### Journal Articles


45. Thavarajah N, Ray S, Bedard G, Zhang L, Cella D, Wong E, Danjoux C, Pulenzas N, Chow E. Minimal clinically important differences in the EORTC QLQ-BN20 in patients with brain metastases. Support Care Cancer. 2015 Feb 10;23(9):2731-2737. **Senior Responsible Author.**


Edward L.W. CHOW


Edward L.W. CHOW


345. Napolskikh J, Selby D, Bennett M, **Chow E**, Harris K, Sinclair E, Myers J. Demographic profile and utilization statistics of a Canadian inpatient palliative care unit within a tertiary care setting. Curr Oncol. 2009;16(1):47-52. **Coauthor or Collaborator.**


Edward L.W. CHOW


410. Harris K, Li K, Flynn C, **Chow E**. Worst, average or current pain in brief pain inventory: which should be used to calculate response to palliative radiotherapy in patients with bone metastases? Clin Oncol. 2007;19:523-527. **Senior Responsible Author.**

411. Li K, Harris K, Hadi S, **Chow E**. What should be the optimal cutpoints for mild, moderate and severe pain? J Palliat Med. 2007;10(6):1338-1346. **Senior Responsible Author.**


417. Fan G, Sinclair E, Christakis M, Erhlich L, Zubovits J, **Chow E**. Solitary bone metastasis beneath the shoulder shield: coincidence or cause. Curr Oncol. 2006;13(4):121-123. **Senior Responsible Author.**


466. **Chow E**. Survival of patients with bone metastases enrolled in randomized trials of palliative radiotherapy. Curr Oncol. 2002;9(3):67-71. **Co-Principal Author**.


481. **Chow E, Danjoux C.** A need for mentoring in academic radiation oncology. Curr Oncol. 1999;6:103-105. **Principal Author.**

482. **Danjoux C, Chow E.** Creating a supportive mentoring environment for academic radiation oncology. Curr Oncol. 1999;6:106-107. **Co-Principal Author.**

Edward L.W. CHOW


**Editorials**


2. Rowbottom L, McDonald R, Chan S, **Chow E**, Henry B. Implications and thoughts on physician-assisted death. Journal of Pain Management. 2016;9(3). **Coauthor or Collaborator.**


**Letters to Editor**


### 3. NON-PEER-REVIEWED PUBLICATIONS

**Journal Articles**


2. Harris K, Chow E. Patients’ and health care professionals’ (HCPs) perspectives on the most important quality of life issues in bone metastases. EORTC Quality of Life Group Newsletter. 2007(6):4-6. Spring. **Senior Responsible Author.**


5. Chow E. What is ductal carcinoma in situ? In Stride. 2002;8. Spring. **Principal Author.**


7. Chow E. What’s involved in cancer clinical trials? In Stride. 2002;8. Winter. **Principal Author.**


Books


Books Edited


Book Chapters


Edward L.W. CHOW


Book Reviews


Invited Reviews


4. SUBMITTED PUBLICATIONS

**Journal Articles**


7. Wong E, Rowbottom L, Tsao M, Zhang L, McDonald R, Danjoux C, Barnes E, Chan S, Chow E. Prognostic value of baseline and changes in quality of life in predicting survival of patients with brain metastases. CNS Oncology. 2016. **Senior Responsible Author.**


Editorials

F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Mar 21 Visiting Professor. What have we learned from recent bone metastases radiation trials. Liaoning Cancer Hospital & Institute. Liaoning, Shenyang, China.


2015 Jun 19 Invited Speaker. Re-irradiation for painful bone metastases; how is the best approach? XVII Congress of the Brazilian Radiotherapy Society. Foz do Iguacu, Paraná, Brazil.


2013 Nov Palliative Care. 2013 Best of ASTRO. San Diego, California, United States. Presenter(s): Edward Chow.


2013 Mar Invited Speaker. The added challenges of bone metastases treatment in elderly patients. Hong Kong College of Radiologists. Hong Kong, Hong Kong.


2012 Nov Invited Speaker. Bone metastases palliative radiotherapy---obstacles and challenges. Association of
Italian Radiation Oncologists 2012 Annual Congress. Rome, Roma, Italy.


2012 May  Bone metastases treatment in the elderly patients: the added challenges of bone metastases treatment in elderly patients. ESTRO-CARO joint symposium. Barcelona, Spain.

2012 Mar  Development and validation of EORTC BM 22 bone metastases module. Department of Clinical Oncology, Prince of Wales Hospital, The Chinese University of Hong Kong. Hong Kong, China.

2012 Mar  Development and validation of EORTC BM 22 bone metastases module. Taipei-Veterans General Hospital, School of Medicine, National Yang-Ming University. Taipei, Taiwan, Province Of China.

2012 Mar  Implication of EORTC BM 22 Questionnaire in breast cancer patients with bone metastases. Pre-meeting of annual meeting of Taiwan Association of General Surgery. Taipei, Taiwan, Province Of China.


2009 Mar  Bone Metastases: Quality of Life – Whose Perspectives. VU University Medical Center, department of Neurology, Medical Center Haaglanden. The Hague, Netherlands.


2008 Jan  Symptom clusters: concepts, measurement and opportunities for research. RTOG scientific Meeting. San Diego, California.


2007 Jun  Modern management of bone metastases. Department of Clinical Oncology, Tuen Mun Hospital. Hong Kong, China.

2007 Jun  Bone metastases module. Faculty of Medicine. Showa University School of Medicine and Ritsumeikan University. Tokyo and Shiga, Japan.


2007 Apr  Bone metastases module. Zenith Meeting. Prague, Czech Republic.

2007 Mar  Bone metastases research. Department of Radiation Oncology, Mount Vernon Hospital. Middlesex, United Kingdom.
Edward L.W. CHOW


2006 Aug  Bone metastases research. Department of Radiation Oncology, Sydney Cancer Centre/Royal Prince Alfred Hospital, University of Sydney. Sydney, Australia.

2006 Aug  Bone metastases research. Department of Clinical Oncology, Prince of Wales Hospital, The Chinese University of Hong Kong. Hong Kong, China.

2006 Aug  Bone metastases research. Department of Clinical Oncology, Queen Mary Hospital, The University of Hong Kong. Hong Kong, China.

2006 Aug  Modern management of bone metastases. Breakfast session. Medical Oncology Group of Australia/Faculty of Radiation Oncology Annual Scientific Meeting. Queensland, Australia.

2006 May  Bone metastases module. EORTC Quality of Life Group Spring meeting. Paris, France.


2005 Mar  Pain and structural effects of external beam radiotherapy. Fifth International Conference on Cancer-Induced Bone Disease (CIBD). Davos, Switzerland.


2002 Jun  International consensus on palliative radiotherapy endpoints for future clinical trials in bone metastases. 18th UICC International Cancer Congress. Oslo, Norway.

Presented Abstracts


2011 Jun  Update on the systematic review in palliative radiotherapy trials for bone metastases. MASCC/ISOO 23rd International Symposium Supportive Care in Cancer. Toronto, Ontario, Canada.


2004 Jun  Prospective assessment of quality of life following whole brain radiotherapy for brain metastases. MASCC/ISOO 16th International Symposium Supportive Care in Cancer. Miami Beach, Florida.


2002 Jun  A predictive model for survival in metastatic cancer patients attending an outpatient palliative radiotherapy clinic. 18th UICC International Cancer Congress. Oslo, Norway.


1999 Nov  Palliation of bone metastases: a survey of patterns of practice in Canada. 6th Hong Kong International Cancer Care Conference. Hong Kong.


1998 Oct  Radiotherapy for unresectable or marginally resectable osteosarcoma. The European Cancer Conference. Vienna, Austria.

1999 Sep  Palliation of bone metastases: a survey of patterns of practice in Canada. 6th Hong Kong International Cancer Care Conference. Hong Kong.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2015 Presenter. Quality of life and symptom burden in breast cancer patients across the continuum. MASCC /

Publication Details:


Publication Details:


Publication Details:
Inadequacy of palliative training in the medical school curriculum. Supportive Care Cancer. 2015;23((Suppl 1)):S72-S73. Senior Responsible Author.


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 A review of fentanyl formulations in the management of breakthrough cancer pain. MASCC/ISOO

Publication Details:

2015
Update on the management of chemotherapy induced nausea and vomiting – focus on palonosetron. MASCC/ISOO International Symposium on Supportive Care in Cancer. Presenter(s): Zhou M, Popovic M, Pasetka M, Pulenzas N, Chow E, DeAngelis C.

Publication Details:

2015
Advances of palliative cancer treatments in the last 8 years: a selected literature review. MASCC/ISOO International Symposium on Supportive Care in Cancer. Presenter(s): Chiu D, Chiu N, Wong E, Lao N, DeAngelis C, McDonald R, Pulenzas N, Hamer J, Popovic M, Vuong S, Chow E.

Publication Details:

2015

Publication Details:

2015

Publication Details:

2015

Publication Details:

2015
Radio-frequency ablation assisted cementoplasty of a lytic acetabular lesion. MASCC/ISOO International
2015 Comparison of radiological changes before and after stereotactic body radiation therapy for non-spine bone metastases. MASCC/ISOO International Symposium on Supportive Care in Cancer. Presenter(s): Tan C M, Le P, Chow E, Chin L.

**Publication Details:**
Tan C M, Le P, Chow E, Chin L. Comparison of radiological changes before and after stereotactic body radiation therapy for non-spine bone metastases. Supportive Care Cancer. 2015;23((Suppl 1)):S41. **Coauthor or Collaborator.**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2015 Sclerotic humeral metastasis at risk of fracture. MASCC/ISOO International Symposium on Supportive Care in Cancer. Presenter(s): Lao N, Probyn L, McDonald R, Rowbottom L, Popovic M, Pulenzas N, Vuong S, Chow E.

**Publication Details:**

Edward L.W. CHOW


2015


Publication Details:

2015


Publication Details:

2015


Publication Details:

2015

Incidence of pain flare in radiation treatment of bone metastases: a literature review. MASCC/ISOO International Symposium on Supportive Care in Cancer. Presenter(s): McDonald R, Chow E, Rowbottom L, DeAngelis C, Soliman H.

Publication Details:

2015

International patterns of practice in radiotherapy for bone metastases: a review of the literature. MASCC/ISOO International Symposium on Supportive Care in Cancer. Presenter(s): McDonald R., Lam H, Chow E, Rowbottom L, Soliman H.

Publication Details:

2015


Publication Details:
cancer. Supportive Care in Cancer. 2015;23((Suppl 1)):S140-S141. Coauthor or Collaborator.


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Outcomes after whole-brain reirradiation for multiple brain metastases: total dose is associated with improved overall survival. American Society for Radiation Oncology (ASTRO). Presenter(s): Logie N,

Publication Details:

2015

Urinary cytokines/chemokines as markers of pain flare in patients with painful bone metastases undergoing external beam radiation therapy. Canadian Association of Radiation Oncologists (CARO); American Society for Radiation Oncology (ASTRO). Presenter(s): Bushehri A, Pasetka M, Dennis K, Hird A, Azad A, **Chow E**.

Publication Details:

2014

Sources of pain in a patient with metastatic prostate cancer, Paget’s disease and renal failure. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014

International patterns of practice for the treatment of painful bone metastases with palliative radiotherapy from 1993 to 2013. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014

A prospective pilot study of radiation therapy-induced nausea and vomiting among patients receiving neoadjuvant long course radiation therapy and concurrent 5-FU-based chemotherapy for rectal adenocarcinoma. MASCC / ISOO International Symposium on Supportive Care in Cancer.

Publication Details:

2014

Palonosetron in chemotherapy-induced nausea and vomiting: are statistically significant differences always clinically important? MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014

Symptom clusters using the functional living index – emesis instrument in patients with gastrointestinal cancer receiving radiotherapy treatments. MASCC (Multinational Association of Supportive Care in Cancer).
2014 A prospective study of gastrointestinal radiation therapy-induced nausea and vomiting. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Sources of pain in a patient with metastatic prostate cancer to bone and multiple co-morbidities. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Re-irradiation for painful bone metastases – a systematic review. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Minimal clinically important differences in the brief pain inventory in patients with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Prophylactic dexamethasone for pain flare (PF) following spine stereotactic body radiotherapy (SBRT). MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 The incidence of neuropathic pain in bone metastases patients referred for palliative radiotherapy in the rapid response radiotherapy program. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Karnofsky performance status and change in overall survival over five years. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Symptoms and quality of life in patients with brain metastases receiving whole brain radiation therapy. MASCC (Multinational Association of Supportive Care in Cancer).


2014 Muscular metastases arising from squamous cell carcinoma of the lung. MASCC (Multinational Association of Supportive Care in Cancer).


2014 Pathological fracture from metastatic bone disease of an unknown primary cancer. MASCC (Multinational Association of Supportive Care in Cancer).


2014 Palliative radiotherapy for brain and bone metastases from a papillary thyroid carcinoma. MASCC (Multinational Association of Supportive Care in Cancer).


2014 Comparison of three shortened questionnaires for assessment of quality of life in advanced cancer. MASCC (Multinational Association of Supportive Care in Cancer).


2014 Symptom clusters analysis in bone metastases patients using the European organization for research and treatment of cancer quality of life questionnaire bone metastases module (EORTC QLQ-BM22). MASCC (Multinational Association of Supportive Care in Cancer).


2014 Radiotherapy for a cervix cancer patient with Ehlers-Danlos syndrome: a case report. MASCC (Multinational Association of Supportive Care in Cancer).


2014 Pain relief from palliative radiation therapy in a patient with cervical spine bone metastases. MASCC
2014 Does cumulative dose of repeat whole brain radiotherapy correlate with survival: a pooled multicentre analysis. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Breakthrough cancer pain: a comparison of surveys with European and Canadian patients. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Quality of life after palliative radiotherapy in bone metastases: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Relatively asymptomatic presentation in a young man with widespread renal cell carcinoma. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Accomplishments of students working in the rapid response radiotherapy clinic: a ten year review. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Spinal cord compression as a first presentation of cancer: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Particle disease versus bone metastases: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:
2014 The incidence of “no CPR documentation” in patients referred for palliative radiotherapy in the rapid response radiotherapy program. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 The effects of denosumab on calcium profiles in advanced cancer patients with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 A systematic review and meta-analysis of radiotherapy for the prophylaxis of heterotopic ossification. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 The EORTC QLQ-BN20 for assessment of quality of life in patients receiving treatment or prophylaxis for brain metastases: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Review of brain metastases research in the rapid response radiotherapy program (RRRP). MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Review of radiation induced nausea and vomiting in the rapid response radiotherapy program. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Prognostic value of pre-treatment and changes in health-related quality of life for survival in patients with multiple brain metastases treated with whole brain radiotherapy. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Factors influencing health related quality of life in cancer patients with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).
**Publication Details:**

**2014**

Literature review of the development, characteristics and validity of the EORTC QLQ-PR25 and the FACT-P for assessment of quality of life in prostate cancer patients. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

**2014**

Comparison of the EORTC QLQ-LC13 and the FACT-L for assessment of quality of life in patients with lung cancer. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

**2014**

Comparison of the EORTC QLQ-BR23 and the FACT-B for the assessment of quality of life in patients facing breast cancer: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

**2014**

Comparison of the EORTC QLQ-BN20 and the FACT-Br quality of life questionnaires for patients with primary brain tumours: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

**2014**

Review of bone metastases research in the rapid response radiotherapy program (RRRP). MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

**2014**

Rasch analysis of the EORTC QLQ-BM22 module to assess health-related quality of life in patients with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

**2014**

Minimal clinically important differences in the EORTC QLQ-BN20 in patients with brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).
Publication Details:

2014
Survival of patients with multiple brain metastases treated with whole brain radiotherapy. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014
Correlating symptoms with survival in patients with multiple brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014
Bone and lung metastases 13 years after initial early stage breast cancer diagnosis: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014
Avascular necrosis of the femoral head in a patient with metastatic breast cancer. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014
Review of symptom cluster research in the rapid response radiotherapy program (RRRP). MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014
A case report of chronic lymphocytic leukemia and multiple myeloma. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014
Symptom clusters in patients with brain metastases treated with radiation – 3 different statistical analyses. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:
2014 Gender differences in symptoms experienced by advanced cancer patients: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Metastatic lung cancer to spine, liver and adrenal gland in a 27 year old female: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Primary synovial sarcoma of the distal femur: a rare case report. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Optimization of a surgical approach for validation studies in the spine. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014 Multiple myeloma as a second primary malignancy in a prostate cancer patient: a case report. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Phase II study of aprepitant and granisetron for the prophylaxis of radiotherapy-induced nausea and vomiting (RINV) following moderately-emetogenic radiotherapy for bone metastases: preliminary results. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Feasibility study of a daily diary for assessing the prevalence of radiation induced emesis (RIE). MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Quality of life in patients with advanced cancers using the functional assessment of cancer therapy-
general assessment tool: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Comparing prognostic factors in patients with spinal metastases: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Quality of life in patients with primary and metastatic brain tumors as assessed by the FACT-Br: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Quality of life in patients with primary and metastatic brain cancers as reported in the literature using the EORTC QLQ-BN20 and QLQ-C30. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Content validation of the brain symptom and impact questionnaire (BASIQ) in patients and health-care professionals to assess quality of life in patients with brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Minimal clinically important differences in the Edmonton symptom assessment system in patients with advanced cancer. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Minimal important differences in the EORTC QLQ-C30 to determine meaningful change for patients with advanced cancer. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Minimal important differences in the EORTC QLQ-C15-Pal to determine meaningful change in palliative
advanced cancer patients. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Palliative radiotherapy in the treatment of lung metastases or advanced lung cancer. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Incidence of skeletal morbidity rates over time in patients with multiple myeloma-related bone disease as reported in randomised trials employing bone-modifying agents. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Comparison of baseline quality of life scores in patients with bone and brain metastases as assessed using the EORTC QLQ-C30. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Skeletal morbidity rates over time in patients with bone metastases from solid tumors reported in bone modifiyng agents randomised trials. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Adverse events across generations of bone-modifying agents in patients with solid tumor cancers reported in phase III randomized trials. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 An update of the quality of life measurements in advanced lung cancer patients receiving palliative radiotherapy: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2013 Patterns of practice in the prescription of palliative radiotherapy for bone metastases at the rapid response radiotherapy program from 2005 to 2012. MASCC (Multinational Association of Supportive Care...
in Cancer).

**Publication Details:**

2013 Continued success in providing timely palliative radiation therapy at the rapid response radiotherapy program: a review of 2008–2012. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2013 Symptom clusters in patients with metastatic cancer: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2013 Patterns of practice in the prescription of palliative radiotherapy for the treatment of thoracic symptoms at the rapid response radiotherapy program between 2006 and 2012. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2013 The utilization of telephone follow-up in the advanced cancer population: a review of the literature. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2013 Single fraction palliative radiotherapy in the treatment of bone metastases with soft tissue mass. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2013 The accuracy of clinicians’ prediction of survival and prognostic factors indicative of survival: a systematic literature review. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**
2012 Incidence of pain flare following stereotactic body radiation therapy for bone metastases. American Society of Radiation Oncology (ASTRO).

**Publication Details:**


**Publication Details:**

2012 Pain management needs assessment: a survey of radiation therapists at a large academic comprehensive cancer center. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2012 Pain flare after stereotactic body radiotherapy for bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2012 Quality of life of brain metastases patients receiving stereotactic radiosurgery using the EORTC QLQ-C15-PAL and the EORTC QLQ BN20+2. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2012 Comparison of occupational stress in a palliative radiotherapy clinic’s interprofessional team, the radiation therapists and the nurses at an academic cancer centre. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2012 An international prospective study establishing minimal clinically important differences in the EORTC QLQ-BM22 and QLQ-C30 in cancer patients with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

**Publication Details:**

2012 Meaningful change in oncology quality of life instruments: a literature review. MASCC (Multinational Association of Supportive Care in Cancer).
Publication Details:

2012
Content validation of the EORTC QLQ-BN20+2 by patients and health care professionals to assess quality of life in brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012
Long-term survival in patients with brain metastases from non-small cell lung carcinoma: a case series. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012
Development of a shortened FACIT-Pal for patients with advanced cancer. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012
Characteristics and treatment of breakthrough pain in Canadian cancer patients.

Publication Details:

2012
Health care professional perspectives on quality of life issues most important to patients with brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012
A comparison of health care provider versus patient perspectives on the FACIT-Pal. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012
Projected referral for health care services in an outpatient palliative radiotherapy clinic. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:
2012 Predictive factors for overall quality of life in advanced cancer patients from EORTC QLQ C30. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012 Predictive factors for overall quality of life in advanced cancer patients from EORTC QLQ-Pal-15. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012 Comparison of the EORTC QLQ-BM22 and the FACT-BP for the assessment of quality of life in cancer patients with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012 Comparing prognostic factors in patients with spinal metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012 Quality of life in patients with brain metastases using the EORTC QLQ-BN20 and QLQ-C30. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012 Content validation of the FACT-Br in patients and healthcare professionals to assess quality of life in brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012 A pilot study to evaluate urinary cytokines/chemokines as markers of pain flare in patients undergoing external beam radiotherapy for the treatment of painful bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2012 Comparison of quality of life in patients with bone metastases depending on response to palliative radiotherapy. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2011


Publications Details:

2010


Publications Details:

2010

Palliative response and functional interference outcomes using the brief pain inventory for spinal bony metastases with conventional radiotherapy. 2010 International MASCC/ISOO Symposium.

Publications Details:

2010


Publications Details:

2010


Publications Details:

2010

Predictive factors for anxiety and depression in metastatic cancer patients. 2010 International MASCC/ISOO Symposium.

Publications Details:

2010

Comparing symptom severity and demographics between two time periods in an outpatient palliative radiotherapy clinic. 2010 International MASCC/ISOO Symposium.

Publications Details:
2010 Inter-rater reliability between musculoskeletal radiologists and orthopaedic spine surgeons on CT imaging features of spinal metastases. 2010 International MASCC/ISOO Symposium.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2008 Determining relevant quality of life issues for bone metastases patients: Differences in perspectives. 7th Int Mtg Canc Induc Bone Dis.

Publication Details:

2008 Dexamethasone for the prophylaxis of radiation-induced pain flare following palliative radiotherapy for bone metastases: A phase II study. 7th Int Mtg Canc Induc Bone Dis.

Publication Details:

2008 Pain flare following radiotherapy for painful bone metastases: A joint effort of three cancer centres to determine the incidence. 7th Int Mtg Canc Induc Bone Dis.
Edward L.W. CHOW

Publication Details:

2008 Minimally invasive treatment of tumour related vertebral compression fractures and other metastatic bone lesions. 7th Int Mtg Canc Induc Bone Dis.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Fairchild, A, Goh, P; Sinclair, E; Barnes, EA; Ghosh, S; Danjoux, C; Barbera, L; Tsao, M; Chow, E. Has the pattern of practice in the prescription of radiotherapy for the palliation of thoracic symptoms changed between 1999 and 2006 at the rapid response radiotherapy program? Int J Radiat Oncol Biol Phys. 2007;70(Suppl 3).


Publication Details:

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2007 Early phase in the development of a bone metastases quality of life module. The Royal College of Radiologists.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2007 Review of the rapid response radiotherapy program (RRRP) at the Toronto Sunnybrook Regional Cancer Centre (TSRCC). The Royal College of Radiologists.

**Publication Details:**
2006 Involvement of family physicians in the care of cancer patients seen in the palliative rapid response radiotherapy program. 20th Ann Sci Mtg Can Assoc Rad Oncol.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2004
Symptom control and palliative care content of abstracts presented at the Canadian Association of Radiation Oncologists annual meetings. 15th Int Sym Supp Care Cancer.

Publication Details:

2004

Publication Details:

2004

Publication Details:

2004
Review of eight years experience with the Rapid Response Radiotherapy Program at Toronto Sunnybrook regional cancer centre. 46th Ann Mtg Amer Soc Ther Rad Oncol.

Publication Details:

2004

Publication Details:

2004
Correlation of pain scorings with functional interference in Brief Pain Inventory. Ann Sci Mtg Explor Genom Rad Oncol.

Publication Details:

2004

Publication Details:

2004
An economic analysis of single fraction radiotherapy for treatment of hospice patients with symptomatic

Publication Details:

2004

Reasons for poor accrual in palliative radiotherapy (RT) research studies. 46th Ann Mtg Amer Soc Ther Rad Oncol.

Publication Details:

2004


Publication Details:

2004


Publication Details:

2003 Oct

Quality of life after local external beam radiotherapy for symptomatic bone metastases: A prospective evaluation. 45th Annual Meeting American Society for Therapeutic Radiotherapy and Oncology. Salt Lake City, Utah.

Publication Details:

2003 Oct

Evaluating remineralization in breast cancer patients with osteolytic bone metastases undergoing palliative radiotherapy using computerized tomography (CT) density measurements: A feasibility study. 45th Annual Meeting American Society for Therapeutic Radiotherapy and Oncology. Salt Lake City, Utah.

Publication Details:

2003

Multidisciplinary radiation oncology palliative care rounds as a continuing educational activity implementing the rapid response radiotherapy program at the Toronto Sunnybrook Regional Cancer Centre. Am Assoc Canc Edu Euro Assoc Canc Edu Mtg.

Publication Details:
2002 Oct
Successful salvage with percutaneous vertebroplasty for cancer patients with painful bony metastases failing palliative radiotherapy or with osteoporotic compression fractures. 44th Annual Meeting American Society for Therapeutic Radiotherapy and Oncology. New Orleans, Louisiana.

Publication Details:

2002
International consensus on palliative radiotherapy endpoints for future clinical trials in bone metastases.

Publication Details:

2002
A predictive model for survival in metastatic cancer patients attending an out-patient palliative radiotherapy clinic.

Publication Details:

2002
Prospective evaluation of functional status and quality of life in patients undergoing percutaneous vertebroplasty.

Publication Details:

2002
Prognostic factors in brain metastases: can we determine predictors of early death?

Publication Details:

2001
ESTRO/ASTRO consensus statement on the measurement of metastatic bone pain in radiotherapy trials. 11th Eur Canc Conf.

Publication Details:

2001

Publication Details:

2001

Publication Details:
Payne D, Chow E, O’Sullivan B, Pintilie M, Liu FF, Waldron J, Warde P, Cummings BJ. Radiotherapy...
2001
Educational value of radiation oncology palliative care rounds in the multidisciplinary cancer centre. 11th Eur Canc Conf.

Publication Details:

2000

Publication Details:

2000
New technology on radiation therapy treatment units ... does it make a difference? 42nd Ann Mtg Amer Soc Ther Rad Oncol.

Publication Details:

2000
New technology on radiation therapy treatment units-- does it make a difference? 19th Ann Mtg Eur Soc Ther Rad Oncol.

Publication Details:

2000
Phase II study assessing effectiveness of Biafine cream as a prophylactic agent for - acute skin toxicity to the breast in women undergoing radiotherapy with concomitant chemotherapy (CMF). 19th Ann Mtg Eur Soc Ther Radiol Oncol.

Publication Details:

2000
Prospective evaluation of the effectiveness of radiotherapy in providing pain relief for bony metastases and the impact of response criteria definition. 42nd Ann Mtg Amer Soc Ther Rad Oncol.

Publication Details:

1999

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

1999 Impact of new technology on radiation therapy treatment deviations at TSRCC. 41st Ann Mtg Amer Soc Ther Rad Oncol.

Publication Details:

1999 Impact of new technology on radiation therapy treatment deviations at TSRCC. Ann Mtg Eur Soc Ther Rad Oncol.

Publication Details:


Publication Details:

compared with nodal metastases from other head and neck squamous cell carcinomas. 38th Annual Meeting American Society for Therapeutic Radiology and Oncology. Los Angeles, California.

Publication Details:

1996 Enhanced control by radiotherapy of cervical lymph node metastases arising from nasopharyngeal carcinoma compared with nodal metastases from other head and neck squamous cell carcinomas. 38th Ann Mtg Amer Soc Ther Rad Oncol.

Publication Details:

2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

Publication Details:

2007

Publication Details:

2007
Pain flare following radiotherapy for painful bone metastases: A joint effort of three cancer centres to determine the incidence. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

2007
Review of the rapid response radiotherapy program at an outpatient cancer centre. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

2007
Quality of life and symptoms of patients treated with whole brain radiotherapy. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

2006
Involvement of family physicians in the care of patients receiving palliative radiotherapy. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

2006

Publication Details:

2006
Patients’ and health care professionals’ perspectives on the most important quality of life issues in bone metastases. Can Assoc Rad Oncol Ann Mtg.

Publication Details:

*Publication Details:*

2005  Pain and structural effects of external beam radiotherapy. 5th Ann Conf Canc.

*Publication Details:*  

2001  Phase II study assessing the effectiveness of biafine cream as a prophylactic agent for radiation-induced acute skin toxicity to the breast in women undergoing radiotherapy with concomitant CMF chemotherapy. Ann Mtg Can Assoc Radiol.

*Publication Details:*  


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  

**Publication Details:**

2000


**Publication Details:**

2000


**Publication Details:**

2000

Evaluation of our first year experience of new combined Bone Metastases Clinic. Canadian Society for Clinical Investigation (CSCI).

**Publication Details:**

1998


**Publication Details:**

1998


**Publication Details:**

1996


**Publication Details:**
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2005 Sep  Palliative care round on latest advances in the endocrine treatment of breast cancer. Scarborough Community Care Access Centre.

2005 Sep  Introduction to radiation therapy with a focus on palliative radiation. The Royal Victoria Hospital of Barrie.

2005 Apr  To know or not to know - that is the question. 15th Annual Ontario Provincial Conference on Palliative and End-of-Life Care. Toronto, Ontario.


2004 Sep  Palliative care round on management of bone metastases. Scarborough Community Care Access Centre.

Edward L.W. CHOW


2003 Mar  Survival prediction – how important is it and how good are we? 13th Annual Hospice Palliative Care Conference. Toronto, Ontario.


2002 Jan  Survival prediction: how important is it and how good are we? Grand Round, Scarborough General Hospital. Scarborough, Ontario.


Presented Abstracts


2011 Apr  Update of the international consensus on palliative radiotherapy endpoints for bone metastases. 2011 Annual Hospice Palliative Care Conference. Toronto.

2010 Apr  Radiation treatment of bone metastases----biased or evidence based. 2010 Annual Hospice Palliative Care Conference. Toronto.

2010 Apr  Radiation treatment of bone metastases----biased or evidence based. 2010 Annual Hospice Palliative Care Conference. Toronto.

2009 Apr  Determining the accuracy of health care professionals in predicting the survival of patients with advanced metastatic cancer. 2009 Annual Hospice Palliative Care Conference. Toronto.

2009 Apr  Validation of meaningful change in pain scores in the treatment of bone metastases. 2009 Annual Hospice Palliative Care Conference. Toronto.


2001 Apr  How accurate are physicians’ clinical prediction of survival and the available prognostic tools in estimating survival times of terminally ill cancer patients - a systematic review. Palliative Care 11th Annual Conference. Toronto, Ontario.

1999 Apr  New combined bone metastases clinic: the ultimate one stop for cancer patients with bony metastases. The annual Palliative Care Conference. Toronto, Ontario.

4. LOCAL

Invited Lectures and Presentations


Presented and Published Abstracts


Publication Details:
Ten years experience of a research student project (2004-2013) The Odette Cancer Centre Rapid Response Radiotherapy Program.

5. OTHER

Presented and Published Abstracts

2014  Prognostic significance of changes in symptom severity with survival following whole brain radiotherapy in patients with multiple brain metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:

2014  Rapid onsets of pain flare and pain relief following palliative radiotherapy in a patient with bone metastases. MASCC (Multinational Association of Supportive Care in Cancer).

Publication Details:
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
<th>Supersvisor</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Jan - present</td>
<td>Primary Supervisor. B. Sc. Stephanie Chan.</td>
<td>2nd Year, Supervisee</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2014 Aug - present</td>
<td>Primary Supervisor. B. Sc. Leigha Rowbottom.</td>
<td>3rd year, Supervisee</td>
<td>University of Waterloo.</td>
</tr>
<tr>
<td>2014 - present</td>
<td>Primary Supervisor. B. Sc. Rachel McDonald.</td>
<td>3rd year undergraduate student, Supervisee Position</td>
<td>University of Waterloo.</td>
</tr>
</tbody>
</table>
Awards: 2011 Co-op Student of the Year for Faculty of Science, University of Waterloo; 2011 North America Co-op Education & Internship Association - Honorable mention.

2009


2009

**Primary Supervisor.** B. Sc. Roseanna Presutti. Supervisee Institution: University of Waterloo. Awards: 2009 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo
2009 Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo
2009 Canadian Association for Co-operative Education Co-op Student of the Year - Honorable mention
2013-2014 Ontario Graduate Scholarship.

2009

**Primary Supervisor.** B. Sc. Sheldon Kwok. Supervisee Institution: Columbia University.

2008 - 2011

**Primary Supervisor.** B. Sc. Shaelyn Culleton. Supervisee Institution: University of Waterloo.

*Edmonton Assessment Scale.* Awards: 18th Annual Ontario Provincial Conference on Palliative and End-of-Life Care Best Oral Presentation Award
2008 Co-op Student of the Year for Faculty of Science, University of Waterloo - Honorable mention
2010 Co-op Student of the Year for Faculty of Science, University of Waterloo
2011 International Scholarship Foundation, Scholarship of $10,000.

2008

**Primary Supervisor.** B. Sc. Nadia Salvo. Supervisee Institution: University of Waterloo. *Skin Prophylaxis.* Awards: 2008 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo;
2010-2011 Ontario Graduate Scholarship; 2011 University of Toronto Medical School Alex G Climans scholarship preadmission best research award.

2008

**Primary Supervisor.** B. Sc. Alice Fitch. Supervisee Institution: McMaster University. *Skin Cancer.*

2008

**Primary Supervisor.** B. Sc. Harleen Bedi. Supervisee Institution: University of Toronto.

2008


2007 - 2008

**Primary Supervisor.** B. Sc. Amanda Hird. Supervisee Institution: University of Waterloo.

*Dexamethasone pain flare project.* Awards: 2007 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo
2007 Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo
2007 Canadian Association for Co-operative Education Co-op Student of the Year - Honorable mention
2007 Michael and Karyn Goldstein Travelling Award
2007 Education at Work Ontario Co-op Student of the Year Nominee.

2007 - 2008

**Primary Supervisor.** B. Sc. Candi Flynn. Supervisee Institution: University of Waterloo. *Testicular cancer module development.* Awards: Scholarship for MSc Degree in Clinical Epidemiology, University of Western Ontario
2008-2010 Ontario Graduate Scholarship
2009 Master’s Studentship Award, Heart and Stroke Foundation of Ontario
2009 CIHR MSc Scholarship
2010 Have a Heart Bursary Program Award, Canadian Cardiovascular Society Academy.

2007 - 2008

**Primary Supervisor.** B. Sc. Jennifer Wong. Supervisee Institution: Queen’s University. *Quality of life in brain metastases.*

2007

**Primary Supervisor.** B. Sc. Stephanie Hadi. Supervisee Institution: University of Waterloo.

*Symptom cluster and Brief Pain Inventory.* Awards: New Investigator Scholarship, 14th Annual Conference of the International Society for Quality of Life Research, Toronto, Ontario, October 2007
2010-2012 Ontario Graduate Scholarship.

2006 - 2008

**Primary Supervisor.** B. Sc. Julie Napolskikh. Supervisee Institution: University of Waterloo.
Length of stay in hospice care. Awards: 2006 Laura Talbot-Allan Award, Faculty of Applied Health Sciences, University of Waterloo.

2006 - 2008  
**Primary Supervisor.** B. Sc. Andrea Kirou-Mauro. Supervisee Institution: McMaster University. *Patient/Proxy correlation of ESAS.*

2006 - 2008  
**Primary Supervisor.** B. Sc. Eric De Sa. Supervisee Institution: York University. *Patterns of Practice at RRRP.*

2006 - 2008  
**Primary Supervisor.** B. Sc. Philiz Goh. Supervisee Institution: University of Waterloo. *Prostate bone metastases.* Awards: 2008 Seymour Schulich Award in Nursing, University of Toronto; 2008 Hal Rogers Endowment Award; 2008 National Education & Research Award, Canadian Nursing Student’s Association; 2008 Donner Wheeler Nursing Career Scholarship, Registered Nurses’ Foundation of Ontario; 2009 Hosinec Family Scholarship 2010 Lippincott Williams & Wilkins (LWW) Nursing Poster Presentation Award; 2010 University of Toronto Faculty of Nursing Gordon Cressy Student Leadership Award 2010 University of Toronto Student.

2006 - 2008  

2006 - 2007  

2006  
**Primary Supervisor.** B. Sc. Sukirtha Tharmalingam. Supervisee Institution: University of Waterloo. *Bone metastases module.* Awards: Patients’ and health care professionals’ perspectives on the most important quality of life issues in bone metastases. Young investigator award. MASCC/ISOO 18th International Symposium Supportive Care in Cancer, Toronto, Canada, June 2006 Scholarship for MSc Degree in Epidemiology, University of Toronto Ontario Graduate Scholarship.

2006  

2006  

2005 - 2006  
**Primary Supervisor.** B. Sc. Hannah Chiu. Supervisee Institution: University of Waterloo. *Gender difference in bone metastases.*

2005 - 2006  
**Primary Supervisor.** B. Sc. Kristin Harris. Supervisee Institution: University of Waterloo. *Gender difference in brain metastases and bone metastases module development.* Awards: New Investigator Scholarship, 13th Annual Conference of the International Society for Quality of Life Research, Lisbon, Portugal, October 2006; 2006 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo; 2006 Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo; 50th Anniversary Co-op Student Award, University of Waterloo; 2006 University Canadian Association for Co-operative Education Co-op Student of the Year 2006.

2004 - 2005  
**Primary Supervisor.** B. Sc. Meagan Doyle. Supervisee Institution: University of Waterloo. *Decadron prophylaxis in the pain flare from radiation treatment of bone metastases.* Awards: 2006 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo City of Thunder Bay Medical Student Award.

2004  
**Primary Supervisor.** B. Sc. Kathy Li. Supervisee Institution: University of Waterloo. *Brief Pain Inventory.* Awards: Scholarship for MSc Degree in Clinical Epidemiology and Biostatistics, McMaster University Scholarship for PhD Degree in Health Policy Program, McMaster University Ontario Graduate Scholarship for Diploma in Health Sciences and Policy Program, Ontario Training Centre.

2003 - 2006  
**Primary Supervisor.** B. Sc. Nicole Bradley. Supervisee Institution: University of Waterloo.
Symptom distress in patients attending an outpatient palliative radiotherapy clinic. Awards: The Best Oral Presentation Award. 15th Annual Ontario Provincial Conference on Palliative and End-of-Life Care, Toronto Ontario, April 2005
2005 Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo
2005 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo.

2003 - 2004
Primary Supervisor. B. Sc. Maria-Theresa de Borja. Supervisee Institution: University of Toronto. Correlation among patients and health care professionals in assessing functional status using the Karnofsky and ECOG performance status scales. Awards: Ed Carpen Award for the most outstanding technical or scientific student exhibit at the Ontario Association of Medical Radiation Technologists' Annual General Conference, April 2004, The Best Poster Award 14th Annual Ontario Provincial Conference on Palliative and End of Life Care, Toronto, Ontario, April 2004 Canadian Association of Medical Radiation Technologists' Dr. Marshall Mallet Student Exhibit Award, 2004, University of Toronto Radiation Sciences Program Research Project Award 03-04.

2003 - 2004
Primary Supervisor. B. Sc. Michelle Greig. Supervisee Institution: University of Toronto. Level of concordance between proxy and patient’s ratings in brief pain inventory.

2003 - 2004
Primary Supervisor. B. Sc. Leila Makhani. Supervisee Institution: McMaster University. Correlation of pain relief from spinal bone metastases with palliative radiotherapy.

2003

2003
Primary Supervisor. B. Sc. Alison Ling. Supervisee Institution: University of Toronto. Prospective validation of a predictive model for survival in terminally ill cancer patients.

2002 - 2003

2000 - 2001

Graduate Education

2002

Undergraduate MD

2014 May - 2014 Aug
Primary Supervisor. Year 1. Paul Cheon, Medical Science. Supervisee Institution: University of Toronto.

Postgraduate MD

2010 - 2012
Primary Supervisor. Clinical Fellow. Dr. Kristopher Dennis. Functional interference due to pain following palliative radiotherapy for bone metastases among patients in their last three months of life. Awards: 2011-2013 CIHR fellowship award The Best Abstract in Supportive Care and Symptom Control Award. CARO Annual Conference, Winnipeg, Manitoba, September 2011.

2006

2006
Primary Supervisor. Clinical Fellow. Dr. Alysa Fairchild. Has the pattern of practice in the prescription of palliative thoracic radiotherapy for lung cancer changed between 1999 and
2006 at the RRRP? Awards: Young Investigator’s Award, MASCC 19th International Symposium Supportive Care in Cancer, St. Gallen, Switzerland, June 2007.

2006


2001 - 2002


2. OTHER SUPERVISION

Undergraduate Education

2003 - 2006

Curriculum Vitae

William Chu
Clinician Investigator, B.Sc., M.Sc., M.D., F.R.C.P.C.

A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

Primary Office
Odette Cancer Center
Sunnybrook Health Sciences Centre
2075 Bayview Ave, T2-175
Toronto, Ontario, Canada
M4N 3M5

Telephone (416) 480-5000, Ext. 4982
Email william.chu@sunnybrook.ca

1. EDUCATION

Degrees
2003 MD, Health Sciences, Faculty of, McMaster University, Hamilton, Ontario, Canada
1997 MSc, Neurology and Neurosurgery, McGill University, Montreal, Canada
1993 BSc, Honours Biochemistry (Specialist - Molecular Biology), Biochemistry, McMaster
University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training
2008 - 2009 Fellow, Radiation Oncology and Imaging Research, Odette Cancer Center and Sunnybrook
Research Institute, University of Toronto, Toronto, Ontario, Canada
2007 - 2008 Chief Resident, Department of Radiation Oncology, University of Toronto, Toronto, Ontario,
Canada
2003 - 2008 Radiation Oncology Specialist Training, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2008 - present Fellow, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2013 Jul 1 - present Courtesy Staff, The Scarborough Hospital, Toronto, Ontario, Canada
2013 Jul 1 - present Courtesy Staff, Rouge Valley Hospital, Toronto, Ontario, Canada
2013 Jul 1 - present Courtesy Staff, Toronto East General Hospital, Toronto, Ontario, Canada
2009 - present Affiliate Scientist, Sunnybrook Research Institute, Sunnybrook Health Sciences Centre,
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2006  
Translational Research Travel Grant, American Society for Therapeutic Radiology and Oncology. (Distinction)

2005  
ECCO/AACR/ASCO Fellowship, 7th Joint Workshop on Methods in Clinical Cancer Research, Flims, Switzerland. (Distinction)

LOCAL

Received

2015 Oct  
A Sunnybrook Moment of Service Excellence, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction)  
In honor of outstanding service and dedication to patients.

2008 - 2009  
Fellowship, University of Toronto. (Research Award, Specialty: Radiation Oncology and Imaging Research)

2006  
W.J. Simpson Award, University of Toronto. (Research Award)  
For Academic Excellence in Research by a Resident, Department of Radiation Oncology.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2006 - present  
American Society for Therapeutic Radiology and Oncology

2006 - present  
European Society for Therapeutic Radiology and Oncology

2003 - present  
Canadian Association of Radiation Oncology

2003 - present  
Canadian Medical Association

2003 - present  
Ontario Medical Association

Administrative Activities

LOCAL

Cancer Care Ontario

2012 - present  
External Reviewer, Program in Evidence Based Care, Toronto, Ontario, Canada.

2014 Jun - 2014 Dec  
Member, Colorectal Cancer QBP Pathway Committee, Toronto, Ontario, Canada.
William CHU

Dept of Radiation Oncology, University of Toronto
2011 - 2012 Organizing Committee, Target Insight VI - Forging the HypoFractination Frontier: SBRT, HDR Brachytherapy and Beyond - May 3-4, 2012, Ontario, Canada.

Sunnybrook Health Sciences Centre - Odette Cancer Center
2015 Jan - present Lead, MRI Linac Consortium, GI Tumour Site Group, Toronto, Ontario, Canada.
2014 Jul - present Supervisor, OCC GU Resident Rotation Coordinator, Toronto, Ontario, Canada.
2013 OCC Head-Medical Physics Search Committee, Toronto, Ontario, Canada.
2010 - 2011 Member, Sunnybrook/OCC Mixed Use Steering Committee, Ontario, Canada.
2009 - 2012 Member, MRI Sim Operations Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2009 - 2010 Member, Sunnybrook Clinical Research Centre Committee

UHN/Princess Margaret Cancer Centre & SHSC/Odette Cancer Centre
2013 Sep - present Member, UT DRO Competency to Practice (Planning) Exam Committee, Toronto, Ontario, Canada.
Collaborating and consulting with DRO staff colleagues in order to prepare and execute the annual UT DRO PGY4 and PGY5 Competency to Practice (Planning)Exam.

University of Toronto
2011 - 2012 Member, Strategic Plan Implementation Committee, Department of Radiation Oncology
2009 - 2012 Reviewer, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2007 Member, External Review Committee, Royal College of Physicians and Surgeons of Canada, Department of Radiation Oncology
2006 - 2007 Member, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2003 - 2008 Member, Postgraduate Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2012 - present Journal of Cancer Research and Therapeutics
2010 - present Clinical Oncology
2009 - present International Journal of Radiation Oncology, Biology, Physics

PRESENTATION REVIEWS
Reviewer
2012 Nov - 2013 Jun The International Stereotactic Radiosurgery Society Congress 2013
C. Academic Profile

1. RESEARCH STATEMENTS

Advanced Imaging and Radiation Therapy.
My research focuses on novel functional MRI and ultrasound technologies to interrogate carcinogenesis and monitor radiotherapeutic response, the integration of advanced imaging technologies into radiation treatment planning and delivery, and innovative ablative treatment strategies. My clinical focus is on genitourinary and gastrointestinal malignancies.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

Stereotactic body radiotherapy (SBRT) is an emerging radiation therapy technique that delivers high doses of radiation with very high precision to a small tumor target. It is a definitive treatment option for an increasing variety of primary tumors including the lung, liver and prostate. SBRT is now a standard treatment option at the Odette Cancer Centre (OCC) for patients with renal cell carcinoma (RCC) who are either ineligible for surgery or decide against it. The principal aim of this study is to prospectively assess quality of life and outcomes in patients who receive kidney SBRT.

A multi-centre phase II study conducted in Canada to look at the role of SBRT in delaying the need to change systemic therapy in patients who develop oligo-progression while on Sutent. In essence, it is exploring a new way of using radiotherapy in the management of metastatic cancer in conjunction with systemic therapy.


2012 - present **Co-Investigator.** A prospective cohort study of radiotherapy-induced nausea and vomiting (RINV) among patients with gastrointestinal cancers. Sunnybrook Odette Cancer Centre. Rapid Response Radiotherapy Program. REB #069-2012. PI: Chung HT. Collaborator(s): DeAngelis C, Dennis K, Chow E, Chu W, Davey P. [Clinical Trials]

2012 - present **Co-Investigator.** Quality of life in patients treated with stereotactic ablative radiotherapy for liver metastases. REB#356-2012. PI: Chung H. Collaborator(s): Chu W, Thibault I, Erler D. [Clinical Trials]


2014 - 2019 **Principal Investigator - Canadian Lead.** The PACE trial (Prostate Advances in Comparative Evidence) - International randomized study of laparoscopic prostatectomy vs stereotactic body radiotherapy (SBRT) and conventionally fractionated radiotherapy vs SBRT for early stage organ-confined prostate cancer. Prostate Cure Foundation. PI: Chu, William. Collaborator(s): van As N, (Chief investigator - Royal Marsden), Loblaw A, Cheung P, Morton G, Vesprini D, Chung H, Szumacher E. 750,000 CAD. [Grants]


*Sponsor: Motorcycle Ride for Dad - Award.*


2010 - 2013 **Co-Investigator.** Radiosensitization with bevacizumab for stereotactic body radiotherapy (SBRT) for colorectal liver metastases. Hoffman-La Roche Limited. PI: Ko Y and Chung H. Collaborator(s): **Chu, W,** Milot L, Czarnota G. 72,930 CAD. [Clinical Trials]


2009 - 2010 **Principal Investigator.** Functional imaging of the prostate cancer metabolome with hyperpolarized 13C-MSRI. Prostate Cancer Canada. PCC Pilot Grant Program. Collaborator(s): Chen A, Cunningham C. 59,520 CAD. [Grants]

*Abbott - CARO Uro-Oncologic Radiation Award (ACURA).*

## E. Publications

### 1. PEER-REVIEWED PUBLICATIONS

#### Journal Articles


Book Chapters


Abstract


25. Sonier M, **Chu W**, Lalani N, Korol R. Implementation of a VMAT class solution for kidney SBRT. Medical Physics. 2014;41(28). **Coauthor or Collaborator.**


2. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2006 Presenter. Image-Guided Radiotherapy with Cone-Beam CT after Prostatectomy: Evaluating the Impact
on PTV Margin. European Society for Therapeutic Radiology and Oncology (ESTRO) 25. Leipzig, Germany.


Presented and Published Abstracts


2016 Jun 23 Radiological changes on CT after stereotactic body radiation therapy to non-spine bone metastases: A
William CHU


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Feb


Publication Details:

2014 Sep 14

Evaluation of immobilization on target localization for image-guided kidney/adrenal SBRT. ASTRO. San Francisco, California, United States. Presenter(s): Sonier M, Chu W, Korol RM.

Publication Details:

2014 Sep 14

Quality of life in patients treated with stereotactic ablative body radiotherapy (SABR) for liver metastases. American Society for Radiation Oncology. San Francisco, California, United States. Presenter(s): Thibault I, Chu W, Chan KK, Erler D, Chow E, Chung H.

Publication Details:

2014 Sep 14


Publication Details:

2013 Jun 16


Publication Details:

2012

Comparison of acute toxicity in patients treated with a 4-field box or IMRT to deliver elective pelvic nodal irradiation for localized high-risk prostate cancer. ASCO, Genito-Urinary Cancer Symposium. San Francisco, California, United States. Presenter(s): Jain S, Cheung P, Loblaw A, Morton G, Danjoux C,
Szumacher E, **Chu W**, Chung H, Vesprini D, Sahgal A, Zhang L, Deabreu A.

**Publication Details:**

2011 Oct 2
Evaluation of patient immobilization for liver SBRT. ASTRO. Miami, Florida, United States. Presenter(s): Korol RM, Davidson M, Karotki A, Lochray F, **Chu W**, Chung H.

**Publication Details:**

2011 Sep 27

**Publication Details:**

2011 Sep 27

**Publication Details:**

2011

**Publication Details:**

2009

**Publication Details:**

2008
High-frequency detection of cell death: Assessment of chemotherapy, radiotherapy, photodynamic therapy and novel microbubble-therapy effects. Ultrasonic Imaging and Tissue Characterization (UITC)

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2007

Publication Details:

2006

Publication Details:
Ultrasound Imaging and Spectroscopy of Cancer Therapy Effects.

2006

Publication Details:

2003
Improved Outcome of Children with Acute Myeloid Leukemia (AML) Treated with the Chemotherapy Protocol MRC AML10 at a North American Center - Central Role of Intensive Supportive Care. American Society of Hematology (ASH) Annual Meeting. San Diego, California, United States. Presenter(s): Das P, Chu W, Hitzler J, Sung L, Doyle J, Grant R.

Publication Details:

1998
Effect of human neuronal apoptosis on Alzheimer disease-related protein expression and metabolism. Neuroscience Annual Meeting. Los Angeles, California, United States. Presenter(s): LeBlanc A, Chu W, Goodyer C.

Publication Details:

1998

Publication Details:

Oral Presentation


2016 Sep 14 Presented and Published Abstracts


Publication Details:


Publication Details:
2016 Sep 14  
Acute quality of life changes after stereotactic ablative radiotherapy for liver metastasis: A prospective cohort analysis. Canadian Association of Radiation Oncology CARO. Banff, Alberta, Canada. 

Publication Details:

2014 Aug 25  
Quality of life in patients treated with stereotactic ablative body radiotherapy (SABR) for liver metastases. Canadian Association of Radiation Oncology. St. John’s, Newfoundland and Labrador, Canada. 
Presenter(s): Thibault I, Chan KK, Chu W, Erler D, Chow E, Chung H.

Publication Details:

2014 Aug 25  

Publication Details:

2009  

Publication Details:

2007  

Publication Details:
Evaluating Image-Guided Radiotherapy with Cone-Beam CT after Prostatectomy: Can we Reduce the PTV Margin?.

2006  

Publication Details:
Ultrasound Imaging and Spectroscopy of Cancer Therapy Effects.

Oral Presentation

2016 Sep 14  


**Poster**


2013 Sep 18  Quality Comparision of VMAT and IMRT Treatment Planning and Delivery for Liver SBRT. CARO COMP 2013 Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Wronski M, Korol R, Chu W, Chung H.

3. LOCAL

**Invited Lectures and Presentations**

2015 Sep 20  **Presenter.** Magnetic Resonance-Guided High Intensity Focused Ultrasound for Recurrent Rectal Cancer. Colorectal Cancer Association of Canada. Oakville, Ontario, Canada. Presenter(s): Chu W.

2015 Feb 2   **Presenter.** MR-guided Focused Ultrasound Hyperthermia for Recurrent Rectal Cancer. OCC GI Rounds. Toronto, Ontario, Canada. Presenter(s): Chu W.

2013 Oct 23  **Presenter.** The Emerging Role of Stereotactic Radiotherapy for Medically Inoperable Renal Cell Carcinoma. Annual Toronto East General Hospital-Sunnybrook Health Sciences Centre GU Meeting. Toronto, Ontario, Canada. TEGH-OCC CME Event. (Continuing Education).


2013 Apr 10  **Presenter.** Stereotactic Radiotherapy Ablation for Renal Cell Carcinoma in Poor Surgical Candidates. Sunnybrook Odette Cancer Centre w/Juravinski Cancer Centre. Mississauga, Ontario, Canada. Presenter(s): Chu W. Annual GU Conversations Meeting 2013.
G. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

Development and Implementation of MR-Guided Focused Ultrasound for Recurrent Rectal CA.
Principal Investigator (First-in-human trial).

The PACE Trial - International Randomized Study of Laparoscopic Prostatectomy vs Stereotactic Body Radiotherapy (SBRT) and Conventionally Fractionated Radiotherapy vs SBRT for Early Stage Organconfined Prostate Cancer.
Principal Investigator (Canadian-lead).

Stereotactic Body Radiotherapy for Renal Cell Carcinoma.
Principal Investigator (National Prospective Trial).

Stereotactic Radiotherapy for Liver Tumours.
Co-Principal Investigator.
2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

Development and Implementation of Unified UT DRO Anal Canal Cancer Treatment Protocol at OCC.

Development and Implementation of Renal Cell Cancer Stereotactic Treatment Protocol at OCC.
Curriculum Vitae

Caroline Chung
BSc, MSc, MD, FRCPC, CIP

A. Date Curriculum Vitae is Prepared: 2016 September 22

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Cancer Centre
610 University Ave
Toronto, Ontario, Canada
M5G 2M9

Telephone  (416) 946-6513
Fax        (416) 946-2227
Email       caroline.chung@rmp.uhn.on.ca

1. EDUCATION

Degrees
2008 - 2010 MSc, Institute of Medical Science, University of Toronto
1999 - 2003 MD, The University of British Columbia
1995 - 1999 BSc, Biochemistry – Molecular Biology and Genetics, The University of British Columbia

Postgraduate, Research and Specialty Training
2008 - 2010 Clinician Investigator Program, The University of British Columbia, Canada
2008 - 2010 Research Fellow, Radiation Oncology, Princess Margaret Hospital
2003 - 2008 Radiation Oncology Residency, The University of British Columbia

Qualifications, Certifications and Licenses
2008 Jun Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2005 - 2011 License, Ontario College of Physicians and Surgeons
2005 General Medical License, British Columbia
2004 Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2015 Aug - present Clinician-Scientist (cross-appointment), Joint Division of Medical Imaging, University Health Network, Toronto, Ontario, Canada
2012 Sep - present Lead, Brain Metastasis Clinic, University Health Network - Princess Margaret Cancer Centre, Toronto, Ontario, Canada
2012 - present Clinician-Scientist, Ontario Association of Radiation Oncologists, Ontario, Canada
2011 Jul 1 - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto,
Previous Appointments

HOSPITAL
2011 - 2012 Radiation Oncologist, Radiation Oncology, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada
2009 Jul 1 - 2010 Jun 30 Chief Fellow, Radiation Oncology, Radiation Oncology, University of Toronto, Princess Margaret Cancer Centre, Toronto, Ontario, Canada
2007 Jan 1 - 2008 Jan 1 Chief Resident, Radiation Oncology, Radiation Oncology, University of British Columbia, BC Cancer Agency, Vancouver, British Columbia, Canada

RESEARCH
2013 Aug - 2015 Apr Member, Ontario Cancer Research Ethics Board, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2015 Jan - 2015 Dec Marquis Who’s Who in the World. (Distinction)

For over 110 years, Marquis Who’s Who® has been the gold standard for biographical information, trusted by academic and public libraries. The 2015 32nd edition of Who’s Who in the World provides concise, accurate biographies of renowned individuals from around the world, representing virtually every major field of human endeavor.

2014 Jan - 2015 Dec Alliance for Clinical Trials in Oncology Alliance Scholar Award, Alliance for Clinical Trials in Oncology Foundation. (Research Award)
Total Amount: 88,000 USD

NATIONAL
Received
2007 Best Resident Poster Award, Canadian Association of Radiation Oncology. (Research Award)
2000 Summer Research Award in Medicine, Medical Research Council of Canada. (Research Award)

PROVINCIAL / REGIONAL
Received
2010 Jun Best Oral Presentation, The University of British Columbia, Vancouver, British Columbia, Canada. (Distinction, Specialty: Clinician Investigator Program)
2010 Scholarship, Government of Ontario. (Distinction)
2009 Jun Best Oral Presentation, The University of British Columbia, Vancouver, British Columbia, Canada. (Distinction, Specialty: Clinician Investigator Program)

LOCAL
Received
2015 Jun Research Productivity 2014/2015, Princess Margaret Cancer Centre - Radiation Medicine
Caroline CHUNG

Program, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)

2014 Jun  Chief’s Choice for 2014/2015, Princess Margaret Cancer Centre - Radiation Medicine Program, Toronto, Ontario, Canada. (Distinction, Specialty: Radiation Oncology)

2013 Sep  Outstanding Research Potential Award, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)

2012 Jul  Postgraduate Medical Education Excellence in Research Supervision Award, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)

2010 Oct  Department of Radiation Oncology Chair’s Award, University of Toronto, Toronto, Ontario, Canada. (Distinction)

2007  Barbara Allan Scholarship in Medicine, The University of British Columbia. (Distinction)

2006  Barbara Allan Scholarship in Medicine, The University of British Columbia. (Distinction)

2006  CanMeds Role Resident in Radiation Oncology Award, The University of British Columbia. (Distinction)

2005  Resident Research Day Oral Presentation Award, The University of British Columbia. (Distinction)

2003  Tommy Diespecker Memorial Medical Prize, The University of British Columbia. (Distinction)

2003  Victoria Herman Van Dine Scholarship in Medicine, The University of British Columbia. (Distinction)

2002  Louis Lipsey Toohill Scholarship, The University of British Columbia. (Distinction)

2001  Connie and Sam Carlin Scholarship, The University of British Columbia. (Distinction)

OTHER

Received

2007  Betty Rice Memorial Award for Lung Cancer Research, BC Cancer Agency, British Columbia, Canada. (Research Award)

Teaching and Education Awards

LOCAL

Received

2015  Chief’s Choice Award, Radiation Medicine Program, Dept. of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre

Chief’s Choice for 2014/2015 Award: Mind over Matters.

2015  RMP Research Award, Radiation Medicine Program, Dept. of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre


2014 Sep  Master of Health Science in Medical Radiation Sciences Best Guest Lecturer Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. (Postgraduate MD)

2013 Sep  Postgraduate Medical Education Excellence in Research Supervision Award, Dept of Radiation Oncology, Faculty of Medicine, Toronto, Ontario, Canada. (Postgraduate MD, Residents and Fellows, Specialty: Radiation Oncology)

2013 Jun  Best Academic Half-day Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre, Toronto, Ontario, Canada. (Specialty: Radiation Oncology)

2012 Jun  Best Academic Half-Day Teaching, Dept of Radiation Oncology, Faculty of Medicine. (2012)
2012 Jun  **Best Teaching Activity**, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre. (Multilevel Education)

Nominated

2012 Jun  **Clinical Teaching Award**, Dept of Radiation Oncology, Faculty of Medicine, Radiation Medicine Program Princess Margaret Hospital

2012 Jun  **Professional Mentorship Award**, Dept of Radiation Oncology, Faculty of Medicine, Radiation Medicine Program Princess Margaret Hospital

**Student/Trainee Awards**

INTERNATIONAL

Received

2012 May  **Trainee Educational Stipend**, Awardee Name: Lee SL. International Society for Magnetic Resonance in Medicine, Australia

LOCAL

Received

2013 Jun  **Best Fellows’ Oral Presentation Award**, Radiation Oncology, primary supervisor, Awardee Name: Minh-Thi Tieu. Princess Margaret Cancer Centre, Toronto, Ontario, Canada

2012 Jun  **Best Resident Poster Award**, Radiation Oncology, primary supervisor, Awardee Name: Goldie Kurtz. Princess Margaret Hospital/University of Toronto, Toronto, Ontario, Canada

4. **PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

**Professional Associations**

2014 Dec 8 - present  **Member**, Jumpstarting Brain Tumor Drug Development Coalition's Imaging Standardization Steering Committee

2014 Dec - present  **Member**, Radiological Society of North America

2014 Dec - present  **Lead - Research Subcommittee**, Society of Palliative Radiation Oncology (ASTRO)

2012 Nov - present  **Lead - Organs-at-risk Standardization Committee**, Gamma Knife Society

2012 Nov - present  **Member**, Society of Neuro-Oncology

2012 - present  **Member**, International Society of Radiosurgery

2012 - present  **Co-Director**, Women in Cancer

2011 - present  **Member**, Alliance for Clinical Trials in Oncology

2011 - present  **Member**, Flims Alumni Club

2011 - present  **Member**, Korean American Medical Association

2011 - present  **Member**, Korean American Society for Therapeutic Radiology and Oncology

2010 - present  **Member**, American Association for Cancer Research (AACR)

2010 - present  **Member**, American Society for Therapeutic Radiology and Oncology (ASTRO)

2010 - present  **Member**, Canadian Medical Association (CMA)

2010 - present  **Member**, International Society for Magnetic Resonance in Medicine (ISMRM)

2010 - present  **Member**, Ontario Medical Association (OMA)

2008 - present  **Member**, International Relations Working Group (CARO)
2010 - 2015 Apr  
Member, British Columbia Medical Association (BCMA)

**Administrative Activities**

**INTERNATIONAL**

**Alliance**
2012 - present  
Member, Neurooncology Committee
2012 - present  
Member, Imaging Committee

**Gamma Knife Society**
2013 - present  
Co-Chair, Gamma Knife Standardization Working Group
2012 - 2013  
Member, Gamma Knife Standardization Working Group

**Women in Cancer**
2012 - present  
Co-Chair, Women in Cancer

**NATIONAL**

**Canadian Association of Radiation Oncology (CARO)**
2009 - present  
Member, CIC Working Group
2008 - present  
Member, Symptom Control Advisory Group
2005 - present  
Member, Manpower Committee

**Canadian Breast Cancer Symposium**
2012 - 2013  
Member, Conference Organizing Committee

**PROVINCIAL / REGIONAL**

**Professional Association of Residents of British Columbia**
2004 - 2007  
Program Representative for Radiation Oncology
2003 - 2004  
Program Representative for St Paul’s Hospital PGY-1

**LOCAL**

**Department of Radiation Oncology, Princess Margaret Cancer Centre**
2012 Feb - 2014 Jan  
Secretary, Radiation Oncology Partnership Executive

**The University of British Columbia**
2006 - 2007  
Chief Resident of Radiation Oncology, Residency Training Committee, Postgraduate MD
2006  
Resident Representative, Radiation Oncology CaRMs Selection Committee, Postgraduate MD
2005 - 2006  
Resident Representative, Residency Training Committee, Postgraduate MD

**University of Toronto**
2012 - present  
Secretary, Oncology Executive Committee, Faculty of Medicine, Dept of Radiation Oncology
2011 - present  
Member, Strategic Initiative Committee: Metastatic and recurrent disease research, including building the best metastatic disease management program in the world
2009 - 2010  
Member, Academic Communications Committee, Faculty of Medicine, Dept of Radiation Oncology
Caroline CHUNG

Oncology

2009 - 2010  
**Fellow Representative**, Residency Training Committee, U of T/Dept of Radiation Oncology, Postgraduate MD

2009 - 2010  
**Chief Fellow of Radiation Oncology**

**Peer Review Activities**

**MANUSCRIPT REVIEWS**

**Reviewer**

- 2015 Feb - present  
  Oncotarget, Number of Reviews: 1

- 2015 Jan - present  
  Clinical Cancer Research, Number of Reviews: 4

- 2015 Jan - present  
  Neurooncology, Number of Reviews: 2

- 2014 Aug - present  
  PLOS ONE, Number of Reviews: 3

- 2014 Mar - present  
  Medical Dosimetry, Number of Reviews: 2

- 2014 - present  
  Int J Radiat Oncol Biol Phys, Number of Reviews: 10

- 2013 Jul - present  
  Onkologie, Number of Reviews: 1

- 2013 Apr - present  
  Radiation Oncology, Number of Reviews: 1

- 2012 Sep - present  
  Journal of Thoracic Oncology, Number of Reviews: 3

- 2012 May - present  
  Leukemia and Lymphoma, Number of Reviews: 2

- 2012 Jan - present  
  International Journal of Radiation Biology, Number of Reviews: 4

- 2012 Jan  
  Annals of Surgical Oncology, Number of Reviews: 2

- 2010 Jul  
  Cancer, Number of Reviews: 8

**PRESENTATION REVIEWS**

**Reviewer**

- 2011 Sep - present  
  Canadian Association of Radiation Oncology, Number of Reviews: 6

- 2012 Dec  
  International Society of Radiosurgery, ISRS abstracts, Number of Reviews: 10

- 2012  
  Canadian Association of Radiation Oncology, Number of Reviews: 8

**ABSTRACT REVIEW**

**Reviewer**

- 2012 - present  
  CARO, Radiotherapy Oncology (supplemental - abstracts), Number of Reviews: 38

- 2014  
  Society of Neuro-Oncology, Number of Reviews: 20

**PROTOCOL REVIEW**

**Reviewer**

- 2012 Jun - present  
  Radiation Medicine Program Protocol Review Committee, Number of Reviews: 8

**PROTOCOL REVIEWER**

**Reviewer**

- 2013 Apr - present  
  Ontario Cancer Research Ethics Board, Number of Reviews: 2

- 2012 - present  
  Symptom Control Committee, Alliance, Number of Reviews: 3
Other Research and Professional Activities

THESIS PROJECT
2011 Mar  Master of Science. Imaging Biomarkers of Response to Radiation and Anti-angiogenic Agents in Brain Tumors. Institute of Medical Science, University of Toronto.

C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly and Professional Activity.
Dr. Chung’s clinical practice includes the treatment of primary CNS malignancies, brain metastases and breast cancer. Her primary research interests have focused on personalized image-guided approaches for the management of brain tumors and metastases. Specifically, this includes the investigation of novel combinations of systemic therapy and radiosurgery for brain metastases and the evaluation of imaging biomarkers of both response and toxicity following treatment. With a translational approach, her preclinical work has included the investigation of conformal radiation in combination with targeted anti-angiogenic therapy in a murine intracranial brain tumor model with serial multiparametric MRI and biofluid measures to discover promising biomarkers of response to guide personalized treatment of brain tumors. The findings from this preclinical work have lead to several ongoing clinical trials evaluating serial MRI biomarkers in patients treated with radiosurgery as well as a Phase I dose-escalation trial of anti-angiogenic agent (Sunitinib) in concurrently with radiosurgery. In terms of image-guided therapy, Dr. Chung has also lead the early clinical evaluation of a novel image-guided Gamma Knife radiosurgery unit that incorporates cone-beam CT and infrared intrafraction motion-monitoring. In addition to tumor directed therapy, Dr. Chung is investigating imaging measures and potential treatments of radiation injury in the brain through her translational research and as the principal investigator of a multi-centred Phase II randomized clinical trial of bevacizumab + steroids vs. placebo + steroids through the Alliance for Clinical Trials in Oncology collaborative group.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2014 Jul - 2015 Jun  Principal Investigator. Randomized Phase II Study: Corticosteroids + Bevacizumab vs. Corticosteroids + Placebo (BeSt) for Radionecrosis after Radiosurgery for Brain Metastases
**2014 Jan - 2015 Dec**  
**Principal Investigator.** Alliance for Clinical Trials in Oncology Alliance Scholar Award.  
Alliance for Clinical Trials in Oncology Foundation. 88,000 USD. [Grants]  
Grant funding for correlative biomarkers for the research project entitled “Randomized Phase II Study: Corticosteroids + Bevacizumab vs. Corticosteroids + Placebo for Radionecrosis after Radiosurgery for Brain Metastases.”

**2013 Oct - 2014 Oct**  
**Principal Site Investigator.** The Toronto Brief Neurocognitive Battery (BNB) Development of a novel brief telephone battery for neurocognitive assessment of patients with brain metastases. University of Toronto. Department of Radiation Oncology Internal Seed Grant. 62,500 CAD. [Grants]

**2011 - 2012**  
**Co-Investigator.** A phase II study of PX-866 in patients with glioblastoma multiforme at time of first relapse or progression. National Cancer Institute of Canada (NCIC). REB#: 11-002-OCREB. PI: Mason W. Collaborator(s): Chung C, Millar BA, Laperriere N (Co-Investigators). 180,000. [Clinical Trials]  
Amount: $6,000/patient.

**2010 - 2013**  

**2010 - 2012**  

**2010 - 2011**  
**Co-Principal Investigator.** Imaging tumour hypoxia: feasibility of EF5-PET in prostate cancer. Canadian Association of Radiation Oncologists (CARO). Collaborator(s): McKenzie M, Chung C. 20,000. [Grants]

**2008 - 2010**  
**Co-Principal Investigator.** Introducing Sunitinib with Radiotherapy and Temozolomide in an Xenograft Glioblastoma Model. Canadian Association of Radiation Oncologists (CARO). 19,400. [Grants]

**2007 - 2015**  
**Site Primary Investigator.** A randomized phase III study of temozolomide and short-course radiation versus short-course radiation alone in the treatment of newly diagnosed glioblastoma multiforme in elderly patients. National Cancer Institute of Canada (NCIC). REB#: 07-0349-C. Collaborator(s): Mason W, Millar BA, Laperriere N (Co-Investigators). 203,000. [Clinical Trials]  
Amount: $4,000/patient.

**2007 - 2012**  
Validating the accuracy of a relocatable frame for PERFEXIONTM based stereotactic radiotherapy. PMH – Elekta. REB#: 08-0121-C. PI: Jaffray D. Collaborator(s): Chung C, Ruschin M (Study Chairs); Laperriere N, Tsang R, O’Sullivan B, Cho YB, Ménard C (Co-Investigators). 955,209. [Clinical Trials]

**2006**  
**Principal Investigator.** ACTION Research Grant for Neuropathic Pain Research. ACTION. 9,000. [Grants]
*Amount: $3,000/patient.*

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2013 Jul - 2018 May  **Site Investigator.** A double-blind, placebo-controlled, randomized, Phase IIIb trial evaluating the efficacy and safety of standard of care (SOC) +/- continuous bevacizumab treatment following progression of disease in patients with glioblastoma after first (1st)-line treatment with radiotherapy, temozolomide and bevacizumab. PI: Mason, W. Collaborator(s): Laperriere N, Millar BA. [Clinical Trials]

2013 Apr - 2015 Dec  **Principal Investigator.** Glycemic Interventions in Glioblastoma Outcomes (GIGO) Pilot Study. Gerry and Nancy Pencer Brain Tumor Centre. 50,000 CAD. [Grants]


2010 - 2013  **Co-Principal Investigator.** A phase I study of stereotactic radiosurgery concurrent with sunitinib in patients with brain metastases. Pfizer Inc. (USA). REB#: 09-0115-C. PI: Chung C, Brade A. Collaborator(s): Mason W, Zadeh G, Menard C (Co-Investigators). 140,250. [Clinical Trials]

2009 - 2012  **Co-Investigator.** A randomized, double blind, placebo controlled, multicenter phase III trial of bevacizumab, temozolomide and radiotherapy, followed by bevacizumab and temozolomide versus placebo, temozolomide and radiotherapy followed by placebo and temozolomide in patients with newly diagnosed glioblastoma. F. Hoffmann-la Roche Ltd. (Basel, Switzerland). REB#: 09-036-OCREB. PI: Mason, W. Collaborator(s): Chung C, Millar BA, Laperriere N (Co-Investigators). 179,752. [Clinical Trials]
*$26,000/patient.*

2. **SALARY SUPPORT AND OTHER FUNDING**

**Personal Salary Support**


2007  Peter Poon Grant Proposal Competition, Travel Grant. BC Cancer Agency.

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


**Editorials**


2. Mackenzie P, Fyles A, **Chung C**. Radiotherapy for breast cancer, the TARGIT-A trial. Lancet. 2014 May;383(9930):1717. **Senior Responsible Author.**


4. Lee SL, **Chung C**. Experience of Attending the 2012 Annual ISMRM Scientific Conference. Ontario Medical Students Association Scrub-In Magazine. 2012 Sep (Trainee publication, medical student). **Senior Responsible Author.**

**Medscape**

1. **Chung C**, Mehta M. Expert Column on Brain Metastases. 2012. Medscape - CNS Clinical Anthology. **Principal Author.**

**3. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**

1. **Chung C**. New Hope for Patients with Brain Metastases. Connexions. 2010 Nov;1(1). RMP Newsletter. **Cover Illustrator.**

**Cover Illustrator**

1. **Chung C**. Hope Beyond the Fall. Int J Radiat Oncol Biol Phys. 2013. **Principal Author.**

**4. SUBMITTED PUBLICATIONS**

**Journal Articles**

1. McNamara MG, Jiang H, Lim-Fat MJ, Sahebjam S, Kiehl TR, Karamchandani J, Coire C, **Chung C**, Millar BA, Laperriere N, Mason WP. Treatment outcomes in 1p19q co-deleted and partially deleted gliomas, including those treated with up-front temozolomide alone. BMC Cancer. 2015 Jul 3. **Coauthor or Collaborator.**


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2015 Jun  Chair. OAR Standardization Meeting. International Stereotactic Radiosurgery Society. Yokohama, Japan. Presenter(s): Chung C, Paddick I. Chair of the OAR Standardization Working Group supported by International LGKS and ISRS and co-Chair of this meeting.


Presented Abstracts


2014 Oct Presenter. Prognostic Factors that Predict Durable Response and Survival with Salvage Radiosurgery for Brain Metastases. EORTC Brain Mestastases Research and Emerging therapy Conference. Marseille, France. Presenter(s): Chung C.


2013 Sep 30 Screening patients for deep inspiration breath hold to reduce cardiac doses for adjuvant left breast irradiation. European Cancer Congress. Amsterdam, Netherlands. Presenter(s): R. Carlson, K. Hiemstra, S. Pearson, X. Qiu, A. Fyles, C. Chung. (Trainee Presentation).


2007 Detection of circulating tumour cells from peripheral blood samples by a novel cell concentration method.
and immunohistochemistry (IHC) compared with reverse-transcriptase-polymerase chain reaction (RT-PCR) in stage III and IV non-small cell lung cancer patients (NSCLC). 12th Annual World Lung Conference. Seoul, Korea, Republic Of. (Oral Presentation).

Presented and Published Abstracts

2015 Jun **Co-author.** Continuous Dose Delivery with Gamma Knife Perfexion. American Association of Physicists in Medicine. Anaheim, California, United States. Presenter(s): Ghobadi K.

*Publication Details:* 
Ghobadi K, Aleman D, Li W, **Chung C**, Jaffray D. Continuous Dose Delivery with Gamma Knife Perfexion. Medical Physics. 2015 Jun;42(6):3576. [Coauthor or Collaborator](#).


*Publication Details:* 


*Publication Details:* 

2015 Input Function Selection and T10 Correction on DCE-MRI Tumor Response Prediction Using Compared to Volumetric DCE CT. American Association of Physicists in Medicine. Anaheim, California, United States. Presenter(s): Coolens C.

*Publication Details:* 
Coolens C, Driscoll B, Foltz W, **Chung C**. Input Function Selection and T10 Correction on DCE-MRI Tumor Response Prediction Using Compared to Volumetric DCE CT. Medical Physics. 2015 Jun;42(6):3215. [Senior Responsible Author](#).

2014 Dec Predictors of breast radiotherapy plan modifications: Quality assurance rounds in a large cancer centre. World Cancer Congress. Melbourne, Victoria, Australia. Presenter(s): Lymberiou T.

*Publication Details:* 

2014 Nov Delaying radiotherapy in 1p19q co-deleted and partiall deleated gliomas. Society for Neuro-Oncology. Miami, Florida, United States. Presenter(s): McNamara M.

*Publication Details:* 

2014 Nov Prognostic value of early changes in neutrophil and lymphocyte measures during chemoradiotherapy for

Publication Details:

2014 Nov


Publication Details:

2014 Nov


Publication Details:

2014 Nov

Presenter. Delaying Radiotherapy In 1p19q Co-Deleted And Partially Deleted Gliomas. Society for Neuro-Oncology. Miami, Florida, United States. Presenter(s): McNamara M.

Publication Details:

2014 Sep 27

Temozolomide for 1p19q co-deleted and partially deleted gliomas. European Society for Medical Oncology. Madrid, Spain. Presenter(s): McNamara MG.

Publication Details:

2014 Sep

Reduction in neutrophil-lymphocyte ratio during initial concurrent chemoradiotherapy is prognostic for survival of glioblastoma patients. European Association of Neuro-Oncology. Turin, Italy. Presenter(s): Mason MT. (Trainee Presentation)

Publication Details:

2014 Sep

Presenter. Clinical Evaluation of a Novel Thermoplastic Mask System with Intrafraction Motion Monitoring using IR Tracking and Cone-beam CT for Gamma Knife® Radiosurgery. American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco, California, United States. Presenter(s):
Chung C.

**Publication Details:**

2014 Sep
Impact of Immobilization on Intra-Fraction Motion for Gamma Knife Stereotactic Radiosurgery Using Cone-Beam Computed Tomography. American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco, California, United States. Presenter(s): Li W.

**Publication Details:**

2014 Sep
Predictors of breast radiotherapy plan modifications: quality assurance rounds in a large cancer centre. American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco, California, United States. Presenter(s): Lymberiou T.

**Publication Details:**

2014 Sep
A Multi-institutional Predictive Nomogram for Distant Brain Failure in Patients Treated with Upfront Stereotactic Radiosurgery Without Whole Brain Radiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO). San Francisco, California, United States. Presenter(s): Ayala-Peacock D.

**Publication Details:**

2014 May

**Publication Details:**

2014 May
Social media use amongst oncologists: Results of a national physician survey. American Society of Clinical Oncology. Chicago, Illinois, United States. Presenter(s): Adilman R.

**Publication Details:**

2013 Dec

**Publication Details:**

2013 Dec

Publication Details:

2013 Dec

Publication Details:

2013 Dec

Publication Details:

2013 Nov
Structure and reliability of the dexamethasone symptom questionnaire-chronic in primary or metastatic brain tumor patients. World Federation of Neuro-Oncology. San Francisco, California, United States. Presenter(s): Vera-Bolanos E.

Publication Details:

2013 Nov
Does time to first progression (TTP) impact post-progression survival in glioblastoma (GBM) in the temozolomide (TMZ) treatment era? World Federation of Neuro-Oncology. San Francisco, California, United States. Presenter(s): McNamara MG.

Publication Details:

2013 Nov
Glycemia impacts survival of glioblastoma patients treated with radiation and temozolomide. World Federation of Neuro-Oncology. San Francisco, California, United States. Presenter(s): Tieu M. (Trainee Presentation)

Publication Details:
2013 Nov  

Non-invasive MRI biomarkers of response to anti-angiogenic therapy in glioblastoma multiforme. World Federation of Neuro-Oncology. San Francisco, California, United States. Presenter(s): Jalali S.

**Publication Details:**

2013 Sep 30  


**Publication Details:**

2013 Sep  

Factors impacting survival following second surgery in patients with glioblastoma (GBM) in the temozolomide (TMZ) treatment era, incorporating neutrophil/lymphocyte ratio (NLR) and time to first progression. European Cancer Congress. Amsterdam, Netherlands. Presenter(s): McNamara M.

**Publication Details:**

2013 Sep  

Impact of endocrine therapy in early-stage breast cancer on time to locoregional recurrence. ASCO Breast Cancer Symposium. San Francisco, California, United States. Presenter(s): Menjak IB. (Trainee Presentation)

**Publication Details:**
Menjak IB, Maki E, Berman HK, *Chung C*, McCready DR, Sridhar SS. Impact of endocrine therapy in early-stage breast cancer on time to locoregional recurrence. Journal of Clinical Oncology. 2013 Sep;31(26_supplement). **Coauthor or Collaborator.**

2013 Feb  


**Publication Details:**

2012 Nov  

**Presenter.** Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. American Society for Therapeutic Radiology and Oncology (ASTRO). Boston, Massachusetts, United States. Presenter(s): *Chung C*.

**Publication Details:**

2012 Nov  

Quantification of the magnetic susceptibility effects during MRI-guided radiosurgery of hemorrhagic brain metastases. American Society for Therapeutic Radiology and Oncology (ASTRO). Boston, Massachusetts, United States. Presenter(s): Stanescu T.
Caroline CHUNG

Publication Details:

2012 Nov

Publication Details:

2012 Nov
Salvage Radiosurgery for Brain Metastases: Prolonged Survival with Durable Tumor Control. American Society for Therapeutic Radiology and Oncology (ASTRO). Boston, Massachusetts, United States. Presenter(s): Kurtz G. (Trainee Presentation)

Publication Details:

2012 Sep
Conditional Probability of Survival in Patients with Glioblastoma Multiforme in the Temozolomide Treatment Era. European Society of Medical Oncology (ESMO). Vienna, Austria. Presenter(s): McNamara M.

Publication Details:

2012 Sep
Presenter. Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. European Association of Neuro-Oncology (EANO). Marseille, France. Presenter(s): Chung C.

Publication Details:

2012 May 11

Publication Details:

2012 May
Radiotherapy for treatment of basal cell carcinoma of the medial canthal region. European Society for Therapeutic Radiology and Oncology (ESTRO) 31. Barcelona, Spain. Presenter(s): Herrmann E. (Trainee Presentation)

Publication Details:

2012 Mar 25 Initial performance characterization and clinical implementation of a novel image-guided system for Perfexion. 16th International Leksell Gamma Knife Society Meeting. Sydney, Australia. Presenter(s): Ruschin M.

Publication Details:

2012 Mar 25 Presenter. Radiosurgery for Brainstem Metastases. 16th International Leksell Gamma Knife Society Meeting. Sydney, Australia. Presenter(s): Chung C.

Publication Details:


Publication Details:


Publication Details:

2011 Oct Evaluating setup reproducibility between a CT planning and gamma knife radiosurgery couch using a relocatable head frame. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Miami, Florida, United States. Presenter(s): Li W.

Publication Details:


Publication Details:

Caroline CHUNG

Brade AM.

Publication Details:

2010 Nov

Presenter. Intracranial murine tumor investigation of radiation and antiangiogenic agents using serial MRI. American Society for Therapeutic Radiology and Oncology (ASTRO). San Diego, California, United States. Presenter(s): Chung C.

Publication Details:

2010


Publication Details:

2007 Sep

Detection of circulating tumour cells from peripheral blood samples by a novel cell concentration method and immunohistochemistry (IHC) compared with reverse transcriptase-polymerase chain reaction (RT-PCR) in Stage III/IV Non-small cell lung cancer (NSCLC). International Association for the Study of Lung Cancer. Seoul, Seoul Teugbyeolsi [Seoul-T’ukpyolshi], Korea, Republic Of. Presenter(s): Chung C.

Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2015 May 1

Presenter. Corticosteroids + Bevacizumab vs. Corticosteroids + Placebo (BeSt) for Radionecrosis after Radiosurgery for Brain Metastases. NCIC CTG CEC.5. Radiation Forum NCIC CTG Spring Meeting. Toronto, Ontario, Canada. Presenter(s): Chung C.

2013 Jun 21

Invited Speaker. Role of Radiation: Pre-op or Post-NAT. Canadian Breast Cancer Symposium. Toronto, Ontario, Canada.

2013 May 2


2012 Jun

Invited Lecturer. Negotiating your first academic appointment. UBC Clinician Investigator Program. British Columbia, Canada.

2012 May 4

Invited Speaker. Personalized Treatment of Brain Tumors: Integrating Radiotherapy and Molecular Therapeutics. Target Insights VI. Toronto, Canada. (Continuing Education).

2011 Sep 14

Invited Lecturer. Stereotactic Radiotherapy – CNS, Eye and Breast. Canadian Association of Radiation
Oncology. Winnipeg, Manitoba, Canada.


**Presented Abstracts**


2012  **Presenter.** Phase I Dose Escalation Study of Sunitinib and Radiosurgery for Brain Metastases. Canadian Association of Radiation Oncology (CARO). Ottawa, Canada.

2011 Nov  **Presenter.** Evaluating the Role of Pre-operative MRI to Guide Individualized Early Breast Cancer Treatment. Canadian Cancer Research Conference. Toronto, Ontario, Canada. Presenter(s): **Chung C.**


2009 Sep  **Presenter.** Development of a Canadian Palliative Radiation Oncology Curriculum. Canadian Association of Radiation Oncology (CARO) 2009. Quebec City, Quebec, Canada. Presenter(s): **Chung C.** (Poster Discussion).


2008  **Presenter.** Detection of circulating tumour cells from peripheral blood samples by a novel cell concentration method and immunohistochemistry (IHC) compared with reverse transcriptase-polymerase chain reaction (RT-PCR) in Stage III/IV Non-small cell lung cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) 2008. Montreal, Quebec.

2007  Pearl of Wisdom: Choosing Your Battles Wisely. Royal College of Physicians and Surgeons 1st Chief
Residents’ Workshop. Winnipeg, Manitoba. (Oral Presentation).


Publication Details:


Publication Details:


Publication Details:

2005 Sep Preliminary Validation of the RTOG Acute Skin Toxicity Scoring System in Patients Undergoing Adjuvant Radiotherapy for Breast Cancer. Canadian Association of Radiation Oncologist. Victoria, British Columbia, Canada. Presenter(s): Berthelet E.

Publication Details:


Publication Details:

Caroline CHUNG
T, Patterson K, Olivotto I.

Publication Details:


Publication Details:

Conference Organizing Committee

Other Lectures and Presentations

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2013 Jun 23 Invited Speaker. (Receptor-)Targeted Therapy for Breast Cancer. Medical Disease Management Symposium. Huntsville, Ontario, Canada. (Continuing Education).


Presented Abstracts
2011 **Speaker.** Murine Model for Early Biomarkers of Response to Antiangiogenics and RT. Imaging Network of Ontario 9th Annual Symposium (ImNO). Toronto, Ontario, Canada.


**Facilitator, Discussion Leader**

2013 May 17 **Facilitator.** Imaging Biomarkers in Research and Practice. Ontario Cancer Institute. Huntsville, Ontario, Canada.

4. LOCAL

**Invited Lectures and Presentations**

2014 Nov **Presenter.** Mind over matters: Efforts to preserve cognition in cancer patients. RMP Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada.

2014 Aug **Presenter.** Highlights of Summer Series on Customer Satisfaction & where will we go from here? An open discussion on how we can enhance our patient experience at the Princess Margaret Cancer Centre. Summer Series Rounds, Princess Margaret Cancer Centre. Toronto, Canada.

2014 Jun 4 **Visiting Professor.** Changing landscape of brain mets management - including the growing potential to combine targeted therapies. Grand Rounds to the Department of Oncology Queen’s University. Kingston, Canada.

2013 Jun 12 **Invited Speaker.** Radiotherapy for Graves’ Orbitopathy: Eye do - for better, for worse. Department of Endocrinology, St Michael’s Hospital. Toronto, Ontario, Canada. (Continuing Education).


2012 May 8 **Presenter.** Cancer and Hyperglycemia. UHN Endocrine Rounds. Toronto, Ontario, Canada. Presenter(s): Caroline Chung.

2012 **Invited Speaker.** Endocrinology & Radiation Oncology for Graves’ Orbitopathy: ‘Eye do - for better for worse’. University of Toronto City-Wide Endocrine Rounds. Toronto, Ontario, Canada. Presenter(s): Caroline Chung.

2011 Mar **Invited Speaker.** Research of Brain Metastases at Princess Margaret. Odette Cancer Centre. Toronto, Ontario, Canada.

2011 **Speaker.** Research of Brain Metastases at PMH. RRRP Educational Rounds, Odette Cancer Centre. Toronto, Ontario, Canada.


Presented Abstracts

2012 Jan  


Other Lectures and Presentations

2011 Speaker. Palliative Radiotherapy. Subspecialty Noon Rounds, Department of Medicine, Toronto General Hospital. Toronto, Ontario, Canada.


5. OTHER

Presented and Published Abstracts


Publication Details:
G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2012 Feb - present UT-DRO Fellows Research Seminar, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 - present Joint Neuro-Oncology Journal Club, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 - present Resident Practice Drills, PGY 5, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2011 Sep - present Principles of Radiation Oncology, Undergraduate MD, Faculty of Medicine, Dept of Medicine Introductory lecture on the basic principles of Radiation Oncology to 2nd year medical students at the University of Toronto.

2006 - present Radiation Oncology Palliative Care Curriculum Development, Postgraduate MD, Canadian Association of Radiation Oncologists

- Resident Representative on SCADG (CARO)
  - Creation of a national survey to assess the educational needs of Radiation Oncology Residents in the area of palliative care in Radiation Oncology.
  - Creation of a national curriculum in the CanMEDS format to address these educational needs.

2014 May 1 - 2014 May 2 Target Insights VIII: 4PRT - Photons, Protons, Particles and Progress in Radiation Therapy, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Target Insight, now in its 8th year has been a mechanism to present targeted information to the radiation oncology community. In the recent past, this included the best practice use of advanced technologies such as IMRT, VMAT, IGRT and brachytherapy. This year the University of Toronto, The Hospital for Sick Children, Odette Cancer Centre, and Princess Margaret Cancer Centre are partnering together to bring the topic of Particle Therapy to the forefront of discussion for Canadians. Studies have demonstrated the gains in this treatment include lower overall costs because of less treatment morbidity.

- Member of the organizing committee and chair of session.

2014 May - 2014 Jun Research Mentor - Radbio Course, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, Medical Radiation Science, University of Toronto

- Worked with a student in the Masters of Health Science Radiation Science Program at the University of Toronto to develop a research proposal/concept. I provided guidance and mentorship in the approach and methodology for developing a study concept.

2014 Apr 24 - 2014 Apr 26 Personalized High Precision RT and Management for Brain Tumors, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University Health Network-Princess Margaret Cancer Centre

- I developed and lead this 3 day course in conjunction with the Academic Enrichment Program at the University Health Network. This course provides a multidisciplinary overview in the management of brain tumors, primary and secondary, and high-precision radiation delivery. The course included didactic sessions, case discussions, and interactive radiation contouring and planning exercises.

2013 Dec 6 Competency to Practice Evaluation Exam, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2013 Apr 10 Mentor, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

- Jenn Teichman & Madeline Song.

2013 Apr 2 MRI Basics, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology

- Development of an introductory session on MR physics and clinical applications for Radiation Oncology trainees.
2013 Jan 25  Biannual resident research, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *PGY 2-4 Research Proposal.*

2013 Jan 2 - 2013 Jan 18  Radiologist, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *Eye clinic/ CNS.*

2013 Jan 2 - 2013 Jan 18  Radiologist, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *CNS and Brain Mets.*

2012 Dec 6  Planning Examiner, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *PGY4 & PGY5 Resident Examiner.*

2012 Oct 8 - 2012 Oct 28  Radiologist, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *Eye clinic/ CNS review/ Brain Mets.*

2012 Oct 1 - 2012 Nov 30  PGY4 Rad Onc resident from Spain, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Oct 1 - 2012 Oct 13  Radiologist, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *Eye clinic.*

2012 Jul 9  Biannual Resident Research, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *PGY 2-4 Research Proposal.*

2012 Jul - 2014 Dec  Medical Oncology Resident Teaching (GIM), Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *Introductory lecture on Principles of Radiation Therapy given to Residents rotating through Medical Oncology.*

2012 Jun  CIP Research Meeting, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, UBC Clinician Investigator Program

2012 May  Exam Preparation, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Apr  Gamma Knife Treatment, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *Senior Resident Teaching.*

2012 Mar  Ocular Malignancies, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
   *Academic Half-day Teaching.*

2012 Mar  Frontiers of Radiation Medicine Research (MSC-1501H) Present, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Mar  Brain Mets and Metronomic Chemo, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Feb  Ocular Cancers Lecture, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

2012 Feb  Odette Cancer Center Competency to Practice Re-sit Exam, PGY 4 & PGY 5, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Odette Cancer Centre

2003 Aug  UBC Rehabilitation Medicine, Undergraduate MD, The University of British Columbia
   *Edition/Revision of 5 problem-based learning cases for UBC Medical School curriculum -- Review of the evidence to edit the tutorial case manual information content and re-structuring of cases to improve the PBL learning process, based on evolving concepts of medical education.*
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD


Postgraduate MD


2011 Dec - 2012 Apr  Primary Supervisor. Clinical Fellow. Evelyn Herrmann. 2) Index Ratio of Volume of Brain irradiated to 12 Gy to Volume Receiving the Prescription dose as a predictor of incidence of radionecrosis following Radiosurgery With or Without Whole Brain Radiotherapy for Brain Metastases, Non-thesis Project.

Curriculum Vitae

Hans Tse Kan Chung
B.Sc., MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 2

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue, T-Wing
Toronto, Ontario, Canada
M4N 3M5

Telephone  416-480-4982
Fax  416-480-6002
Email hans.chung@sunnybrook.ca

1. EDUCATION

Degrees
1995 - 1999 MD, Honours, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada
1992 - 1995 BSc, Pharmacology, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training

2011 Oct 27 - 2011 Oct 29 IGRT Liver Course, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
2005 Mar 7 - 2005 Mar 8 Ultrasound-guided Transperineal Brachytherapy for Early Stage Prostate Cancer Course, Department of Radiation Oncology, Seattle Prostate Institute, Seattle, Washington, United States
2004 Jul 15 - 2005 Jul 14 GU Fellow, Clinical Instructor, Department of Radiation Oncology, University of California, San Francisco, San Francisco, California, United States, Supervisor(s): Dr. Mack Roach III
2003 May Northwestern Radiobiology Course, Department of Radiation Oncology, University of Washington, Seattle, United States
2003 - 2004 Chief Resident, Department of Radiation Oncology, The University of British Columbia
2002 Oct Leaders’ Forum, Canadian Medical Association, Ottawa, Ontario, Canada
2002 May Northwestern Radiobiology Course, Department of Radiation Oncology, University of Alberta, Edmonton, Alberta, Canada
2001 May Northwestern Radiobiology Course, Department of Radiation Oncology, BC Cancer Agency, Vancouver, British Columbia, Canada
2000 - 2004 Resident, Department of Radiation Oncology, The University of British Columbia, Vancouver, British Columbia, Canada
1999 Jul 1 - 2000 Jun 30 General Internship, Royal Columbian Hospital, The University of British Columbia,
Qualifications, Certifications and Licenses

2006 - present  Diplomate, American Board of Radiology, United States
2004 Jul - present  License, Medical Board of California, California, United States
2004 Jul - present  Fellow, Royal College of Physicians and Surgeons of Canada, Canada
2001 - 2004  General Practitioner License, College of Physicians Surgeons of British Columbia, British Columbia, Canada
2000  Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments

2011 Jul 1 - present  Affiliate Scientist, Physical Sciences, Odette Cancer Research Program, Sunnybrook Research Institute, Toronto, Ontario, Canada
2009 - present  Consulting Staff Physician, Department of Surgery, North York General Hospital, Toronto, Ontario, Canada
2009 - present  Courtesy Staff Physician, Department of Surgery/Urology, Toronto East General Hospital, Toronto, Ontario, Canada
2008 Sep - present  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2008 Sep - present  Staff Physician, Department of Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2007 - 2008  Consultant Staff Physician, Department of Radiation Oncology, National University Hospital, Singapore
2005 Sep - 2006  Associate Consultant Staff Physician, Department of Radiation Oncology, National University Hospital, Singapore

UNIVERSITY
2004 Jul 15 - 2005 Jun 14  Clinical Instructor, Radiation Oncology, University of California, San Francisco, San Francisco, California, United States

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

1995 Jun - 1995 Aug  Health Research Foundation & Medical Research Council Summer Research Scholarship in Medicine, Pharmaceutical Manufacturers’ Association of Canada, Ontario, Canada. (Research Award)
   Total Amount: 3,680 CAD
1994 Jun - 1994 Aug  Health Research Foundation & Medical Research Council Summer Research Scholarship in Medicine, Pharmaceutical Manufacturers’ Association of Canada, Ontario,
Hans Tse Kan CHUNG

Canada. (Research Award)
Total Amount: 3,680 CAD

Total Amount: 9,500 CAD

1992 Jun **Governor General’s Academic Medal**, Government of Canada, Burlington, Ontario, Canada. (Distinction)
Awarded to the student graduating with the highest average from a high school.

1992 **University of Toronto Scholars**, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Recognition to the University’s outstanding students. Total Amount: 1,500 CAD

**PROVINCIAL / REGIONAL**

Received

1992 Jul - 1995 Jun **Howard Ferguson Provincial Scholarship**, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Awarded to outstanding Ontario students applying from outside the Greater Toronto area.
Total Amount: 10,000 CAD

**LOCAL**

Received

2001 May **Dr. Lucille Ellison Prize**, The University of British Columbia, Vancouver, British Columbia, Canada. (Distinction)
Awarded annually to the resident delivering the best presentation at the annual Residents’ Research Day.

1999 Apr **Dr. Kelly Gollish 5T7 Memorial Award**, University of Toronto. (Distinction)
Awarded to the medical student who has achieved honours standing and has demonstrated an interest in the field of ophthalmology.

1996 **Dr. JS Thompson Memorial Award**, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Awarded to the first-year medical student who demonstrated the greatest ability in Anatomy and Embryology.

1995 **Dr. James A. & Connie P. Dickson Award**, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Recognition of academic achievement in the past undergraduate academic year.

1994 **Dr. James A. & Connie P. Dickson Award**, University of Toronto, Toronto, Ontario, Canada. (Distinction)
Recognition of academic achievement in the past undergraduate academic year.

1993 **University College Alumni Scholarship**, University College, University of Toronto, Toronto, Ontario, Canada. (Distinction)

1990 **Chinese Heritage Language Aware of Excellence**, Halton Roman Catholic School Board. (Distinction)

**Teaching and Education Awards**

**LOCAL**

Received

2010 **Postgraduate Classroom Teaching Award**, Dept of Radiation Oncology, Faculty of
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 Jan 1 - present American Brachytherapy Society
2008 - present Ontario Medical Association
2006 - present American Board of Radiology
2005 - present Singapore Medical Council
2004 - present American Society of Clinical Oncology
2003 - present American Society for Therapeutic Radiology and Oncology
2002 - present European Society for Therapeutic Radiology and Oncology
2001 - present Canadian Medical Association
2000 - present Canadian Association of Radiation Oncologists
1999 - present Royal College of Physicians and Surgeons of Canada
2001 - 2005 British Columbia Medical Association

Administrative Activities

INTERNATIONAL
Radiation Therapy Oncology Group (RTOG)
2009 - present Member, GU Committee, United States.

NATIONAL
Genitourinary Radiation Oncologists of Canada (GUROC)
2013 Jun - present Steering Committee, Canada.

Royal College of Physicians and Surgeons of Canada

PROVINCIAL / REGIONAL
Chinese Canadian Medical Society
2001 - 2004 Member, Board of Directors, British Columbia.

Professional Association of Residents of British Columbia (PAR-BC)
2001 - 2002 Member, Bargaining Committee, British Columbia.
2001 - 2002 Director, Finance
2000 - 2003 Member, Board of Directors
Hans Tse Kan CHUNG

LOCAL
Sunnybrook Health Sciences Centre
2009 - 2010  **Member**, Research Ethics Board

Sunnybrook Odette Cancer Centre
2009 - present  **Group Leader**, Brachytherapy Lead, Department of Radiation Oncology, Toronto, Ontario, Canada.
2009 - present  **Group Leader**, GI Radiation Oncology Site, Department of Radiation Oncology

University of British Columbia
2003  **Member**, PAR-BC Internal Reviewer of Community Medicine Program
2002  **Member**, Search Committee for Associate Dean, Postgraduate Medical Education
2002  **Member**, 3rd Year Medical Students OSCE Examiner, Department of Surgery

University of Toronto
2010 - 2011  **Member-at-large**, Executive Committee, Department of Radiation Oncology

**Peer Review Activities**

**EDITORIAL BOARDS**
**Executive Editor-in-Chief**
2007 Mar  March 2007 issue of the China Oncology journal
**Member**
2009 - present  World Journal of Gastrointestinal Oncology

**MANUSCRIPT REVIEWS**
**Reviewer**
2014 - present  Canadian Urological Association Journal
2012 - present  British Journal of Urology International
2009 - present  Radiotherapy & Oncology
2009 - present  World Journal of Gastrointestinal Oncology
2008 - present  Expert Review of Anticancer Therapy
2008 - present  International Journal of Radiation Oncology Biology Physics

**PRESENTATION REVIEWS**
**Reviewer**
2009 - present  University of Toronto, Scientific Abstract Reviewer, Research Day, Department of Radiation Oncology
2008 - present  Canadian Association of Radiation Oncologists (CARO), Abstract reviewer, Annual Scientific Meeting
2013 Jan  International Stereotactic Radiosurgery Society, 11th International Stereotactic Radiosurgery Society Congress, Number of Reviews: 7
C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly and Professional Activity.
My clinical focus is genitourinary and gastrointestinal malignancies. My specialized skills include HDR and LDR prostate brachytherapy and stereotactic body radiotherapy for liver cancers. My research interests include ultrasound-based imaging of prostate cancers for detection and response, and clinical studies.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDING

Principal Site Investigator. NCIC GA.1: A Randomized Phase II/III Trial of Preoperative Chemoradiotherapy versus Preoperative Chemotherapy For Resectable Gastric Cancer. [Clinical Trials]

Co-Principal Investigator. Prospective study of palonosetron in the prophylaxis/rescue of radiation induced nausea and vomiting (RINV) – a Phase II Study. Eisai Limited. PI: Chow E. Collaborator(s): Chung, H, DeAngelis C, Chan K. [Clinical Trials]


Co-Chair (IMRT). RTOG 0924 Androgen deprivation therapy and high dose radiotherapy with or without whole-pelvic radiotherapy in unfavorable intermediate or favorable high risk prostate cancer: a phase III randomized trial. National Cancer Institute (USA). National
Hans Tse Kan CHUNG


2011 Jul - present

Principal Site Investigator. RADICALS: Radiotherapy and Androgen Deprivation in Combination after Local Surgery. A randomized controlled trial in prostate cancer (NCIC PR.13). National Cancer Institute of Canada (NCIC). OCREB#: 07-063. PI: Parker, Chris. [Clinical Trials]

2015 Nov - 2018 Jan


2014 Jul - 2015 Jul


2014 Jul - 2015 Jun


2014 - 2017


2013 Aug


2013 Jul - 2015 Jun


2013 Jul - 2014 Jul


2012 Jul - 2013 Jun


2012 Jul - 2013 Jun


2012 - 2014

Principal Investigator. A Prospective Cohort Study of Radiotherapy-Induced Nausea and Vomiting (RINV) Among Patients with Gastrointestinal Cancers. Sunnybrook Odette Cancer
Centre. Rapid Response Radiotherapy Program, Department of Radiation. REB#: 069-2012. Collaborator(s): DeAngelis C, Dennis K, Chow E, Chu W, Davey P. [Clinical Trials]


NON-PEER-REVIEWED GRANTS

Funded


2012 May Principal Applicant. Unrestricted educational grant. Abbott Laboratories. PI: Chung, Hans. 15,000 CAD. [Grants]


2011 Mar Principal Applicant. Unrestricted educational grant for residents’ education. Abbott Laboratories. PI: Chung, Hans. 1,500 CAD. [Grants]

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


**Letters to Editor**


**Online Resources**


**2. SUBMITTED PUBLICATIONS**

**Journal Articles**


**F. Presentations and Special Lectures**

1. INTERNATIONAL

**Invited Lectures and Presentations**

2016 May 21 **Invited Speaker**. HDR Prostate Monotherapy Brachytherapy Advisory Board. Elekta. Atlanta, Georgia, United States. Presenter(s): **Chung H**.

2013 Jun 19 **Invited Lecturer**. Liver SBRT. International Stereotactic Radiosurgery Society. Toronto, Ontario, Canada. Presenter(s): **Chung HT**.

2011 Nov **Invited Speaker**. Odette Cancer Centre Stereotactic Liver Metastases Program. Department of Clinical Oncology, Queen Mary Hospital and Queen Elizabeth Hospital. Hong Kong, Hong Kong.

2011 Ultrasound Imaging in Oncology, Today and Tomorrow. Elekta Clarity Society. Miami, United States.

2010 **Invited Lecturer**. Prostate Brachytherapy: LDR and HDR. Department of Clinical Oncology, Queen Mary Hospital and Queen Elizabeth Hospital. Hong Kong.

2006 Resident Grand Rounds. Department of Radiation Oncology, University of California. San Francisco, United States. (Continuing Education).

2006 Inter- and Intra-clinician Variability in Contouring of Gastric Target Volume for Adjuvant Chemoradiation. Annual Scientific Meeting of The Royal Australian and New Zealand College of Radiologists (RANZCR) Faculty of Radiation Oncology. Singapore.

2006 The Role of Radiotherapy in Adjuvant Treatment for Gastric Cancer. 1st Asia-Pacific Gastric Cancer Conference. Singapore.

**Presented Abstracts**


2013 Apr **co-author**. MRI-US Fused Targeted Prostate Biopsy Detects Clinically Significant Cancer in Active Surveillance Patients Better than 12 Core Random Biopsy with less than 4 Cores. International Society for

2006 Feb Presenter. A Pilot Study of Endorectal MRI and Spectroscopy Changes with Dutasteride in Patients with Low-Risk Prostate Cancer. Prostate Cancer Symposium, ASTRO, ASCO, SUO. San Francisco, California, United States. Presenter(s): Chung HT, Kurhanewicz J, Carroll P, Roach M.


2003 Preliminary analysis of outcomes following linac-based stereotactic irradiation for acoustic neuroma. Fourth International Conference on Vestibular Schwannoma and Other CPA Lesions. Cambridge, United Kingdom. Authors: Chung HT et al.

Presented and Published Abstracts


Publication Details:
SBRT in Metastatic NSCLC: for Oligometastases, Oligoprogression, and Local Control.


Publication Details:
Empowering patients through education – development and evaluation of a multimedia patient education tool to ensure patient preparedness for planning CT scan for prostate cancer (randomized study).


Publication Details:
Single 19 Gy High-Dose-Rate Brachytherapy monotherapy for Treatment of Prostate Cancer: Tolerability and dosimetric predictors of acute toxicity and health related quality of life.


Publication Details:
Concomitant Hypofractionated IMRT Boost For High Risk Prostate Cancer: Five Year Results.


Publication Details:
Combined stereotactic body radiation treatment and Bevacizumab as a radiosensitizer for colorectal liver metastases.


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Vesprini D, **Chung HT**, D’Alimonte L, Ravi A, Krahn M, Morton G, Loblaw A.

**Publication Details:**
Low dose rate brachytherapy vs standard external beam radiotherapy vs stereotactic body radiotherapy for low risk prostate cancer: a cost-utility analysis.


**Publication Details:**
Acute health-related quality of life changes after liver stereotactic ablative radiotherapy. Radiat Oncol.


**Publication Details:**


**Publication Details:**

2016 Jan **Coauthor.** Early toxicity in a randomized trial of high dose-rate (HDR) brachytherapy as monotherapy for low and intermediate risk prostate cancer. ASCO Genitourinary Cancers Symposium. San Francisco, California, United States. Presenter(s): Morton G, **Chung H**, McGuffin M, Zhang L, Ravi A, D’Alimonte L, Loblaw A.

**Publication Details:**


**Publication Details:**

2015 Oct **senior responsible author.** Changes and Dosimetric Correlates of Health Related Quality of Life After

Publication Details:

2015 Oct 

Publication Details:

2015 Jul 3 
Presenter. Preliminary data of a pilot study of combined stereotactic body radiotherapy (SBRT) and bevacizumab as a radiosensitizer for colorectal liver metastases. World GI Congress. Barcelona, Spain. Presenter(s): Chung HT, Milot L, Chu W, Czarnota GJ, Ko YJ.

Publication Details:

2015 Jun 

Publication Details:

2015 Apr 

Publication Details:

2015 Apr

Publication Details:
Chung HT, D’Alimonte L, Loblaw A, Ravi A, Wronski M, Davidson M, Haider M, Morton G. Quality of Life (QOL) and Acute Toxicities of a Pilot Study of Focal Salvage High Dose Rate (HDR) Prostate
Hans Tse Kan CHUNG

Brachytherapy in Patients with Local Recurrence after Definitive External-beam Radiotherapy (XRT). Brachytherapy. 2015 May;14(suppl):S51. **Principal Author.**


2014 Sep **senior responsible author.** Quality of life in patients treated with stereotactic ablative body radiotherapy (SABR) for liver metastases. American Society for Radiation Oncology. San Francisco, California, United States. Presenter(s): Thibault I, Chu W, Chan KK, Erler D, Chow E, **Chung H**. (Trainee Presentation) **Publication Details:** Thibault I, Chu W, Chan KK, Erler E, Chow E, **Chung HT**. Quality of life in patients treated with stereotactic ablative body radiotherapy (SABR) for liver metastases. Int J Radiat Oncol Biol Phys. 2014 Sep;90(1S):S709. **Senior Responsible Author.**


2014 Apr **Presenter.** Preliminary Results of a Pilot Study of Focal Salvage High-Dose-Rate Prostate Brachytherapy in Patients with Local Recurrence after Definitive External Beam Radiotherapy. American Brachytherapy...

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Hans Tse Kan CHUNG

e16070. **Coauthor or Collaborator.**

**2013 Apr**  

*Publication Details:*  

**2012 Nov 28**  
**Co-author.** US-MRI Fused Targeted Prostate Biopsy Detects Significant Cancer in Active Surveillance Patients Better than 12 Core Random Biopsy with < 4 Cores. Radiological Society of North America (RSNA). Chicago, Illinois, United States. Presenter(s): Haider MA, Milot L, Sugar L, Vesprini D, Loblaw A, Klotz L, **Chung H**.

*Publication Details:*  

**2012 Feb**  
**Co-author.** Comparison of acute toxicity in patients treated with a 4-field box or IMRT to deliver elective pelvic nodal irradiation for localized high risk prostate cancer. American Society of Clinical Oncology, Genito-Urinary Cancer Symposium. San Francisco, California, United States. Presenter(s): Jain S, Cheung P, Loblaw DA, Morton G, Danjoux C, Szumacher E, Chu W, **Chung H**, Vesprini D, Sahgal A, Zhang L, Deabreu A.

*Publication Details:*  

**2012 Feb**  

*Publication Details:*  

**2011 Oct**  
**Senior responsible author.** Evaluation of patient immobilization for liver SBRT. American Society of Radiation Oncology (ASTRO). Miami, Florida, United States. Presenter(s): Korol RM, Davidson MTM, Karotki A, Lochray F, Chu W, **Chung H**.

*Publication Details:*  

**2011 May**  

*Publication Details:*

2011 May


*Publication Details:*

2011 May


*Publication Details:*

2011 May


*Publication Details:*

2011 May


*Publication Details:*

2011 Feb


*Publication Details:*

2011 Feb


*Publication Details:*

**Publication Details:**

2008 Oct  **Senior Responsible Author.** Internal audit of a comprehensive IMRT program for prostate cancer: a model for centers in developing countries? The Royal Australian and New Zealand College of Radiologists (RANZCR). Adelaide, Australia. Presenter(s): Koh WY, Ren W, Mukherjee RK, Chung HT. (Trainee Presentation)

**Publication Details:**

2007 Oct  **Principal Author.** How much does experience add to IMRT planning? Final Results of an External Dosimetric Audit of IMRT for adjuvant chemoradiation for gastric cancer. American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): Chung HT, Lee B, Park E, Lu JJ, Xia P.

**Publication Details:**

2007 Oct  **Co-Principal Investigator.** Does IGRT improve the toxicity profile in whole pelvic-treated high-risk prostate cancer? A comparison between IGRT and non-IGRT IMRT. American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): Chan L, Chung HT, Xia P, Park-Somers E, Roach M.

**Publication Details:**

2007 Oct  **Senior Responsible Author.** 3D volumetric analysis of irradiated lung with adjuvant breast irradiation (ABR). American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): Park-Somers E, Teh AY, Shen L, Chung HT. (Trainee Presentation)

**Publication Details:**

2007 Oct  **Senior Responsible Author.** 3D volumetric analysis of irradiated lung with adjuvant breast irradiation (ABR). The Royal Australian and New Zealand College of Radiologists (RANZCR). Melbourne, Australia. Presenter(s): Teh AY, Park-Somers E, Shen L, Chung HT. Varian Prize Oral Presentation. (Trainee Presentation)

**Publication Details:**
Teh AY, Park-Somers E, Shen L, Chung HT. 3D volumetric analysis of irradiated lung with adjuvant breast irradiation (ABR). J Med Imag Radiat Oncol. 2007 Oct;51(suppl s3):A83. **Senior Responsible Author.**
2007 Oct  
**senior responsible author.** Is There A Learning Effect For The Use Of Intensity Modulated Radiotherapy (IMRT) Planning For Naso-pharyngeal Carcinoma? A Retrospective Review Of The Singapore Experience. The Royal Australian and New Zealand College of Radiologists (RANZCR). Melbourne, Australia. Presenter(s): Baxi S, Lu JJ, Choong V, Park-Somers E, **Chung HT.** Varian Prize Oral Presentation. (Trainee Presentation)  

*Publication Details:*  

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2007 May  
**Presenter.** Can All Centers Plan IMRT Effectively? Preliminary Results of an External Audit of Dosimetric Comparisons Between 3DCRT and IMRT for Adjuvant Chemoradiation for Gastric Cancer. American Radium Society (ARS). Amsterdam, Netherlands. Presenter(s): **Chung HT, Lee B, Park E, Lu JJ, Xia P.**

*Publication Details:*  
**Chung HT, Lee B, Park E, Lu JJ, Xia P.** Can All Centers Plan IMRT Effectively? Preliminary Results of an External Audit of Dosimetric Comparisons Between 3DCRT and IMRT for Adjuvant Chemoradiation for Gastric Cancer. The Cancer Journal. 2007 May;13(6). **Principal Author.**

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2006 Nov  

*Publication Details:*  

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2006 Oct  
**senior responsible author.** Whole Pelvic Radiotherapy for Prostate Cancer: a Dosimetric Comparison Between Intensity-Modulated Radiotherapy and 3D Conformal Radiotherapy. The Royal Australian and New Zealand College of Radiologists (RANZCR). Singapore, Singapore. Presenter(s): Tey J, Park E, **Chung HT.** (Trainee Presentation)  

*Publication Details:*  
Tey J, Park E, **Chung HT.** Whole Pelvic Radiotherapy for Prostate Cancer: a Dosimetric Comparison Between Intensity-Modulated Radiotherapy and 3D Conformal Radiotherapy. Aust Radiol. 2006 Oct;50(Suppl 52):A78. Abstr P29. **Senior Responsible Author.**

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2006 Oct  

*Publication Details:*  

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2003 Nov  
**Presenter.** Evaluation of a radiotherapy protocol based on INT0116 for completely resected gastric adenocarcinoma. American Society for Therapeutic Radiology and Oncology (ASTRO). Salt Lake City. Presenter(s): **Chung HT, Shakespeare TP, Wynne CJ, Lu JJ, Mukherjee RK, Back MF.**

*Publication Details:*  


Publication Details:

2002  Presenter. Percent positive cores in TRUS-guided biopsy is a significant independent predictor of cancer recurrence following prolonged neoadjuvant androgen suppression combined with curative external beam radiotherapy. European Society for Therapeutic Radiology and Oncology (ESTRO). Prague, Czech Republic. Presenter(s): Chung HT, Sidhu S, Pickles T, D'Yachkova Y, Morris WJ and the BCCA Prostate Cohort Outcomes Initiative.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

Session Chair


2. NATIONAL

Invited Lectures and Presentations

2007  

2007  
Radiotherapy in the Management of Rectal Cancer. National University Hospital Colorectal Cancer Symposium. Singapore.

2006  
Principles of Surgical and Medical Oncology, and Radiotherapy and Chemotherapy Interactions. Diploma in Radiation Therapy, Nanyang Polytechnic School of Health Sciences. Singapore.

2006  
Prostate LDR Brachytherapy. 15th Annual Scientific Meeting of the Singapore Radiological Society. Singapore.

Presented Abstracts

2016 Jul 21  

2014 Aug  

2014 Aug  

2014 Aug  

2014 Jul 9  

2013 Sep  

2013 Sep  

2013 Sep  
Presented and Published Abstracts

2013 Sep  

2013 Sep  
Senior Responsible Author. Impact of immobilization on delivery precision for liver SBRT. Canadian Association of Radiation Oncologists. Montreal, Quebec, Canada. Presenter(s): Korol RM, Wronski M, Lochray F, Chu W, Chung H.

2013 Sep  

2013 Sep  
Senior Responsible Author. Quality comparison of VMAT and IMRT treatment planning and delivery for liver SBRT. Canadian Association of Radiation Oncologists. Montreal, Quebec, Canada. Presenter(s): Wronski MM, Korol RM, Chu W, Chung HT.

2013 Mar  

2003  
Presenter. Evaluation of a radiotherapy protocol based on INT0116 for completely resected gastric adenocarcinoma. Canadian Association of Radiation Oncologists (CARO). Montreal, Quebec, Canada. Presenter(s): Chung HT et al.

2002  

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**Presented and Published Abstracts**

2016 Sep  

_Publication Details:_
SBRT in Metastatic NSCLC: for Oligometastases, Oligoprogression, and Local Control.

2016 Sep  

_Publication Details:_
Empowering patients through education – development and evaluation of a multimedia patient education tool to ensure patient preparedness for planning CT scan for prostate cancer (randomized study).

2016 Sep  

_Publication Details:_
Stereotactic Body Radiotherapy for Liver Metastases: Impact on Systemic Therapy?.

2016 Sep  
senior responsible author. Acute Quality of Life Changes after Stereotactic Ablative Radiotherapy for Liver Metastasis: A Prospective Cohort analysis. Canadian Association of Radiation Oncology (CARO).

Publication Details:
Acute Quality of Life Changes after Stereotactic Ablative Radiotherapy for Liver Metastasis: A Prospective Cohort analysis.

2016 Sep

Publication Details:
Acute Quality of Life Changes after Stereotactic Ablative Radiotherapy for Liver Metastasis: A Prospective Cohort analysis.

2015 Sep

Publication Details:

2015 Sep

Publication Details:

2015 Sep
- **Senior Responsible Author.** A Quality Improvement Evaluation of Evolving Technologies in Liver SBRT. Canadian Association of Radiation Oncology. Kelowna, British Columbia, Canada. Presenter(s): Erler D, Korol R, Chu W, Deegan N, Schultz B, Chung HT.

Publication Details:

2015 Sep

Publication Details:

2015 Sep
Mamedov A, Deabreu A, Lylyk E, Loblaw A.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**
2010 Sep  

*Publication Details:*  

2004 Nov  
**co-author.** Dosimetric consequences to the pelvic lymph nodes due to the daily motion of the prostate. American Society for Therapeutic Radiology and Oncology (ASTRO). Atlanta, Georgia, United States. Presenter(s): Chen H, Xia P, **Chung H**, Verhey L, Roach M.  

*Publication Details:*  
Chen H, Xia P, **Chung H**, Verhey L, Roach M. Dosimetric consequences to the pelvic lymph nodes due to the daily motion of the prostate. Int J Radiat Oncol Biol Phys. 2004 Nov;60(1):S479. **Coauthor or Collaborator.**

2003  
**Presenter.** Percent positive cores in TRUS-guided biopsy and androgen suppression are significant independent predictors of cancer recurrence following curative external beam radiotherapy using the Houston criteria. Canadian Association of Radiation Oncologists (CARO). Montreal, Quebec, Canada.  

*Publication Details:*  
**Chung HT**, Sidhu S, Pickles T, D'Yachkova Y, Morris WJ and the BCCA Prostate Cohort Outcomes Initiative. Percent positive cores in TRUS-guided biopsy and androgen suppression are significant independent predictors of cancer recurrence following curative external beam radiotherapy using the Houston criteria. Radiother Oncol. 2003;69(Suppl 1). Abstr 67. **Principal Author.**

2001  
**Presenter.** Prolonged neoadjuvant hormone therapy in the treatment of high-risk, localized prostate cancer by radical external radiotherapy. Canadian Association of Radiation Oncologists (CARO). Quebec City, Quebec, Canada. Presenter(s): **Chung HT**, Morris WJ, Pickles T.  

*Publication Details:*  

1998  

*Publication Details:*  
**Chung HTK**, Hurwitz JJ, Oestreicher J. Correlation of clinical lacrimal bone density and thickness with bone mineral densitometry testing. 1998. The Annual Meeting of the Canadian Ophthalmological Society of Oculoplastic & Reconstructive Surgery, Calgary. **Principal Author.**

1997  

*Publication Details:*  

1996  
Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


Other Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


2014 Oct 29 Invited Speaker. Stereotactic Ablative Radiotherapy for Liver Metastases and HCC. Toronto East General Hospital Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): Chung HT.

2013 Oct 9 Invited Speaker. Selected topics in gastric and rectal cancer. Toronto East General Hospital Medical Grand Rounds. Toronto, Ontario, Canada. Presenter(s): Chung HT.

2013 May 23 Invited Speaker. Focal Salvage HDR Prostate Brachytherapy for Prostate Cancer. University of Toronto
Presented Abstracts

2002 Percent positive cores in TRUS-guided biopsy is a significant independent predictor of cancer recurrence following prolonged neoadjuvant androgen suppression combined with curative external beam radiotherapy. The 17th Annual Resident’s Day, Department of Radiation Oncology, University of British
1997 Retinal detachment: a psychosocial perspective. Determinants of Health Course in 2nd year undergraduate medicine, Univ of Toronto. Authors: Chung HT, Howcroft M.

Presented and Published Abstracts

2001 May Prolonged neoadjuvant hormone therapy in the treatment of high-risk, localized prostate cancer by radical external radiotherapy. The Annual Resident's Day, Department of Radiation Oncology, University of British Columbia.

Publication Details:


Publication Details:
Chung HT, Morris WJ, Pickles T. Prolonged neoadjuvant hormone therapy in the treatment of high-risk, localized prostate cancer by radical external radiotherapy, 2001 May. The Annual Resident’s Day, Department of Radiation Oncology, University of British Columbia. Principal Author.

1998 Correlation of clinical lacrimal bone density and thickness with bone mineral densitometry testing. The 40th Annual Research Day, Department of Ophthalmology, University of Toronto.

Publication Details:

Other Lectures and Presentations


2010 Nov 10 "Introduction to Prostate Brachytherapy. Joint GU Oncology Meeting with TEGH. Toronto. (Continuing Education).

5. OTHER

Presented and Published Abstracts


Publication Details:
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Postgraduate MD


Continuing Education

Curriculum Vitae

Peter Chung
MB, ChB, MRCP, FRCR, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
Department of Radiation Oncology
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-6522
Email peter.chung@rmp.uhn.on.ca

1. EDUCATION

Degrees
1990 MBChB, School of Medicine, University of Sheffield, United Kingdom

Postgraduate, Research and Specialty Training
2001 - 2004 Clinical Fellow, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
1996 - 2001 Specialist Registrar, West Midlands Clinical Oncology Training Program, Birmingham, United Kingdom
1996 Senior House Officer, Oncology, Queen Elizabeth Hospital, Birmingham, United Kingdom
1995 - 1996 Senior House Officer, Genitourinary and HIV Medicine, Whittall Street Clinic, Birmingham, United Kingdom
1994 - 1995 Senior House Officer (Medical Rotation), The Royal Oldham Hospital, Oldham, United Kingdom
1992 - 1993 Senior House Officer, Elderly Medicine, East Birmingham Hospital, Birmingham, United Kingdom
1992 Senior House Officer, Accident and Emergency, West Middlesex University Hospital, London, United Kingdom
1991 - 1992 Locum Senior House Officer, General Medicine and Rheumatology, Chesterfield and North Derbyshire Royal Hospital, Chesterfield, United Kingdom
1991 House Surgeon, Vascular Surgery, General Surgery and Neurosurgery, Royal Hallamshire Hospital, Sheffield, United Kingdom
1990 - 1991 House Physician, Medicine, Gastroenterology and Haematology, Chesterfield and North Derbyshire Royal Hospital, Chesterfield, United Kingdom

Qualifications, Certifications and Licenses
2007 - present Certificate for Independent Practice, Radiation Oncology, College of Physicians and Surgeons of Ontario, Ontario, Canada, License / Membership #: 76790
2. EMPLOYMENT

Current Appointments

2004 - present  Assistant Professor, Radiation Oncology, University of Toronto
2004 - present  Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario

Previous Appointments

HOSPITAL
2000 - 2001  Senior Registrar (Chief Resident), Department of Clinical Oncology, Queen Elizabeth Hospital, Birmingham, West Midlands, United Kingdom

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
1988  Swann Morton Elective Prize, Association of Surgeons in Training (ASiT) Conference, Sheffield, United Kingdom. (Distinction)
Open competition for bursary to pursue medical student elective Zambia & Zimbabwe.

NATIONAL
Received
2013  Best Abstract in Clinical and Population-based Oncology, CARO-COMP Joint Scientific Meeting – Innovations in Imaging, (Distinction)
2002  Fellowship, Canadian Prostate Cancer Research Initiative. (Research Award)
Open competition for 2-year training grant (salary) for prostate cancer research.
2002  First Prize, Canadian Urologic Oncology Group/AstraZeneca Annual Research Grant Competition. (Research Award)
“Hypoxia-mediated mutation and faulty repair of DNA as a driving force in prostate cancer aggression and progression”. Total Amount: 10,000 CAD
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

- **Member**, American Society for Therapeutic Radiology and Oncology
- **Member**, American Society of Clinical Oncology
- **Member**, Canadian Association of Radiation Oncologists
- **Member**, College of Physicians and Surgeons on Ontario
- **Member**, Connective Tissue Oncology Society
- **Member**, Ontario Medical Association
- **Member**, Royal College of Physicians and Surgeons

Administrative Activities

**NATIONAL**
- **Royal College of Radiologists**

**PROVINCIAL / REGIONAL**
- **West Midlands Region**
  - 2000 - 2001 **Member**, Higher Specialist Training Committee, United Kingdom.

**LOCAL**
- **Princess Margaret Hospital**
  - 2006 - 2007 **Secretary**, Executive Committee, Radiation Oncologists
- **University of Toronto**
  - 2006 - 2009 **Member**, Executive Committee, Faculty of Medicine, Dept of Radiation Oncology

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

**PEER-REVIEWED GRANTS**

**FUNDED**


- **2013 Jul - 2014 Jul** **Co-Investigator**. Development of a novel geometrically robust technique for diffusion tensor

2008 - 2010


2007


2006


2006

Co-Investigator. A Phase I/II Study Of Dose Escalated Intensity Modulated Radiation Therapy For The Treatment of Pelvic Lymph Nodes and Primary Tumor in Patients with Carcinoma of the Prostate. Canadian Association of Radiation Oncologists (CARO). Abbott–CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): Bayley A. 29,600 CAD. [Grants]

2006


2005 - 2006


2005 - 2006


2005


2004


2003

Co-Investigator. A randomized study of inter and intrafraction prostatic motion using two

**NON-PEER-REVIEWED GRANTS**

**Funded**

- **Principal Investigator.** Feasibility study of pelvic nodal dose escalation during postoperative radiotherapy of prostate cancer. Sanofi. Collaborator(s): Menard C, Bayley A, Craig T, Warde P. 40,000 CAD. [Grants]

- **Principal Investigator.** Cone-Beam Computed Tomography in Image-Guided Radiotherapy for Patients with Bladder Cancer. 05-0620-CE. Collaborator(s): Bristow R, Milosevic M, Gospodarowicz M, Menard C, Tolan S, Kong V, Rosewall T, Brock K, Jaffray. [Clinical Trials]

- **Principal Investigator.** Phase II Study of Effectiveness of Using Low-Dose CT in Patients Undergoing Surveillance for Clinical Stage I Testicular Cancer. 05-0436-CE. [Clinical Trials]

**D. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Peter CHUNG


**Commentaries**


**Journal Articles, Review**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**


Commentaries


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2009 Radiotherapy is the Preferred Treatment for Muscle Invasive Bladder Cancer. First Annual Princess Margaret Hospital Uro-Oncology Dialogue. Hollywood, Florida.


2006 Does Radiosensitivity of Myxoid Liposarcoma Translate into Improved Local Control? Connective Tissue Oncology Society (CTOS). Venice, Italy.

Presented Abstracts


Presented and Published Abstracts

2014 Apr MR-guided and tumor-targeted salvage HDR brachytherapy for locally recurrent prostate cancer. ESTRO 33. Vienna, Austria.

Publication Details:
Peter Chung


2013 Oct
Contemporary management of Stage 1 and Stage II seminoma. ASTRO Annual Meeting. Atlanta, Georgia.

Publication Details:

2013 Oct
Improved geometric performance of diffusion-weighted imaging for prostate tumour delineation using a readout-segmented echo-planar-imaging technique. ASTRO Annual Meeting. Atlanta, Georgia.

Publication Details:

2013 Oct
Dosimetric consequences of tumor volume changes during preoperative IMRT for lower extremity soft tissue sarcoma. ASTRO Annual Meeting. Atlanta, Georgia.

Publication Details:

2013 Feb

Publication Details:

2012 May
Large retroperitoneal lymph nodes (RPLN) as a novel risk factor for venous thromboembolism (VTE) in germ cell tumor (GCT) patients (pts) receiving first-line chemotherapy (chemo). ASCO Annual Meeting. Chicago, Illinois.

Publication Details:

2011 Oct
A Comparison of Conventional and Hypofractionated Radiotherapy Schedules In the Treatment of Localized Prostate Cancer. ASTRO Annual Meeting. Miami, Florida.

Publication Details:

2011 Sep

Publication Details:

2010
Anxiety and Depression in Patients with Testicular Cancer: Surveillance vs. Radiation Treatment. International Psycho-Oncology Society/ Canadian Association of Psychosocial Oncology (IPOS/CAPO) Annual Meeting.

Publication Details:

2010

Publication Details:

2010

Publication Details:

2010

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009


Publication Details:

2009


Publication Details:

2009


Publication Details:

2008


Publication Details:

2008

Measuring Interfraction and Intrafraction Motion with Cone Beam Computed Tomography (CBCT) and an Optical Localization System (OLS) for Lower Extremity Soft Tissue Sarcoma Patients Treated with Preoperative Intensity Modulated Radiation Therapy (IMRT) (poster presentation). Proceedings for the American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Boston, Massachusetts.

Publication Details:

2008


Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*

2. NATIONAL

**Invited Lectures and Presentations**


2010 Skin Cancer. 15th Annual National Canadian Preparatory Course in Clinical and Radiation Oncology, McGill University. Montreal, Quebec.

**Presented and Published Abstracts**

2013 Aug Phase II study of low dose CT imaging for detection of relapse during surveillance in stage I testicular germ cell tumour. CARO COMP Annual Meeting. Montreal, Quebec.

*Publication Details:*

2013 Aug Testicular seminoma: Elimination of unnecessary toxicity in early stage disease. CARO COMP Annual Meeting. Montreal, Quebec.
Publication Details:

2013 Aug
Dose accumulation to the bladder wall during image-guided, intensity modulated radiotherapy for prostate cancer. CARO COMP Annual Meeting. Montreal, Quebec.

Publication Details:

2013 Jun

Publication Details:

2013 Jun
Lymph node counts in primary retroperitoneal dissection for nonseminomatous germ cell tumours.

Publication Details:

2013 Jun
Comparison of clinical stage I nonseminomatus germ cell tumours wit retroperitoneal progression on active surveillance to patients initially presenting as stage II. Canadian Urological Association 68th Annual Meeting. Niagara Falls, Ontario.

Publication Details:

2013 Jun
First line treatment for low-volume nodal disease in testicular seminoma: Radiation or chemotherapy?

Publication Details:

2011 Sep

Publication Details:

2011 Sep

2009

Intensity Modulated Radiation Therapy (IMRT) for Skull based Chordomas and Chondrosarcomas: Outcomes in the image guided era. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2009

Spatial patterns of local recurrence after radiotherapy for prostate cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2009

Semi-automatic delineation of pelvic lymph node clinical target volume (CTV-PLN) for prostate cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2009

Prostate Cancer Hypoxia Predicts Early Biochemical Failure after Radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2008

Baseline MRI Measure of Prostate Motion Enables Patient-Specific Design of PTV Margin. Proceedings for the Canadian Association of Radiation Oncology (CARO). Quebec.

Publication Details:

2008

Dosimetry and Acute Toxixity in IG-IMRT Using a Consensus Prostate Bed CTV Following Prostatectomy. Proceedings for the Canadian Association of Radiation Oncology (CARO). Quebec.

Publication Details:

2008

Multiparametric MRI Response During Radiotherapy for Prostate Cancer. Proceedings for the Canadian Association of Radiation Oncology (CARO). Quebec.

Publication Details:

2008

Comparing the Clinical Performance of Conebeam CT (CBCT) During Radiotherapy to The Prostate Gland and Prostate Bed. Proceedings for the Canadian Association of Radiation Oncology (CARO). Quebec.

**Publication Details:**

2006

The Effect of Abdominal Compression on Prostate Inter and Intrafraction Motion During Conformal Radiotherapy of the Prostate. CARO Annual Meeting. Alberta.

**Publication Details:**

2006


**Publication Details:**

2006

Accurately Co-Registering Endorectal Coil Magnetic Resonance Images (ERC-MRI) Using a Multi-Organ Finite Element-Based Prostate Deformation Model. CARO Annual Meeting. Alberta.

**Publication Details:**

2006

Dose Escalated Radiotherapy for Localized Prostate Cancer: Initial Experience at Princess Margaret Hospital. CARO Annual Meeting. Alberta.

**Publication Details:**

3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**

2013 Oct


2012 Jan

**Invited Lecturer.** Prostate and Sarcoma Cancers. University of McGill. Montreal, Quebec, Canada. Resident National Prep Course Lecture. (Trainee Presentation).

2010 Mar


2009


2009

Integrating Technology for Radiotherapy in Prostate Cancer. Brampton Prostate Cancer Network.
4. LOCAL

Invited Lectures and Presentations

2016 Feb 1  

2012 Jun  
Speaker. Radiation for Testis Patients. Princess Margaret Hospital Nursing Staff. Toronto, Ontario, Canada. (Trainee Presentation).

2012 Mar  

2011 Dec  
Prostate Cancer. Medical Grand Rounds, Toronto General Hospital. (Continuing Education).

2011 Mar  
Soft tissue sarcomas. Michener Institute, Health Sciences Building. Toronto, Ontario.

2010 Sep  

2010  
Image Guided Radiation Therapy in Prostate Cancer. IGRT Education Course, Princess Margaret Hospital. Toronto, Ontario.

2010  
New Information Reforming Clinical Practice. IGRT Education Course, Princess Margaret Hospital. Toronto, Ontario.

2009  
Clinical Case Presentation: Prostate Cancer. IMRT Education Course, Princess Margaret Hospital. Toronto, Ontario.

2006  

2003  
High Precision Radiation Therapy in Prostate Cancer: Target Imaging. IMRT and Treatment Verification. University of Toronto, Department of Radiation Oncology Seminar. Toronto, Ontario.

5. OTHER

Presented and Published Abstracts

2011 Jun  
Evaluation of low dose CT scans for surveillance in stage I testicular cancer.

Publication Details:

2011 Jan  
Testicular cancer: seminoma.

Publication Details:

2010 Sep  
Is maximum grade sufficient when reporting late GI toxicity after pelvic radiotherapy for prostate cancer?
Publication Details:

2009 Nov 3
Image guided dose escalated prostate radiotherapy: still room to improve.

Publication Details:

2009 Apr
Changes in Dynamic Contrast Enhanced MRI Parameters in the First 8 Weeks of Prostate Radiotherapy.

Publication Details:

2009
Validation of the clinical target volume for radiotherapy to the prostate bed after radical prostatectomy based on magnetic resonance imaging voxel probability of gross local recurrence.

Publication Details:

2007
The use of XVI during Bladder Radiotherapy-Bony Anatomy or Soft Tissue Match?

Publication Details:

2007
Evaluating Daily Cone Beam CT Image-Guided RT after Prostatectomy: Can We Reduce the PTV Margin?

Publication Details:

2007
The Impact of Pre-Treatment Prostate Dimensions on Toxicity from Conformal Radiotherapy for Prostate Cancer – Does Size Matter?

Publication Details:

2007
Adverse Late Effects in a Prospective Phase I-II Trial of Hypofractionated Radiotherapy (66Gy/22 Fractions) for Localized Adenocarcinoma of the Prostate.

**Publication Details:**

2007 A Strategy for Image Guidance During Loco-Regional IMRT to Prostate, SV & Pelvic Lymph Nodes.

**Publication Details:**

2006 The use of intra-prostatic fiducial markers during conformal and intensity modulated radiotherapy.

**Publication Details:**

2006 Image-Guided Radiotherapy with Cone-Beam CT after Prostatectomy: Evaluating the Impact on PTV Margin.

**Publication Details:**

2006 Testicular Cancer Surveillance: Comparison of Low-dose and Standard-dose Abdominal/Pelvic CT Using a 64-slice Multidetector Scanner.

**Publication Details:**

2005 Should Surveillance be considered the standard of care in stage I seminoma?

**Publication Details:**

2005
A prospective study of localized prostate cancer treated to 75.6 Gy using 3D conformal radiotherapy.

*Publication Details:*

2005
Dose escalated intensity modulated radiation therapy to pelvic lymph nodes and prostate / seminal vesicles for high risk prostate cancer.

*Publication Details:*

2003
Inter-observer variation in delineating target volume for pelvic lymph nodes.

*Publication Details:*

2003
Radical radiotherapy for invasive bladder cancer.

*Publication Details:*

2002
The treatment of pelvic lymph nodes for bladder cancer using intensity modulated radiation therapy – a feasibility study.

*Publication Details:*

2002
Results of escalated dose 3D-conformal radiotherapy (3D-CRT) for intermediate risk prostate carcinoma – biochemical response and local control.

*Publication Details:*

2002
Hypofractionated intensity modulated radiotherapy for prostate cancer.

*Publication Details:*

2002
Results of a phase II trial of escalated dose 3D-conformal radiotherapy for localized cancer.

*Publication Details:*


Publication Details:

2001 Can the NHS Cancer plan target for waiting times be achieved in rectal cancer?

Publication Details:


Publication Details:

2000 Does randomisation into the MRC CR07 trial delay surgery in operable rectal cancers?

Publication Details:
Curriculum Vitae

Jennifer Croke

A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

Primary Office Radiation Oncologist, Radiation Medicine Program, Princess Margaret Cancer Center
Assistant Professor, Department of Radiation Oncology, University of Toronto
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-4483
Fax 416-946-2227
Email jennifer.croke@rmp.uhn.ca

1. EDUCATION

Degrees
2016 May - 2018 Jun Masters of Health Professions Education (MHPE), Medical Education, School of Health Professions Education, Maastricht University, Maastricht, Netherlands
2004 - 2008 MD, Memorial University of Newfoundland
2000 - 2004 BSc, Memorial University of Newfoundland

Postgraduate, Research and Specialty Training
2013 - 2014 Clinical Fellow, Radiation Medicine Program, University of Toronto
2011 - 2012 Chief Resident, Department of Radiation Oncology, University of Ottawa
2008 - 2013 Resident in Radiation Oncology, University of Ottawa

2. EMPLOYMENT

Current Appointments
2015 Sep 8 - present Assistant Professor, Radiation Oncology, University of Toronto, University of Toronto, Ontario, Canada
2015 Sep 8 - present Radiation Oncologist, Radiation Medicine Program, Princess Margaret Cancer Center, Ontario, Canada

Previous Appointments
HOSPITAL
2014 Aug 11 - 2015 Sep 7 Radiation Oncologist, Cancer Care Program, Eastern Health, Newfoundland and Labrador, Canada

UNIVERSITY
2015 Jan 1 - 2015 Sep 7 Assistant Professor, Medicine, Memorial University of Newfoundland, Newfoundland and
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2015  
**Careers in Cancer Research Development Program New Principal Investigator award**, Canada. (Research Award)
*Careers in Cancer Research Development Program New PI award: Sponsored by the Canadian Institutes of Health Research-Institute of Cancer Research (CIHR-ICR) and the Canadian Cancer Society Research Institute (CCSRI).*

2014  
**Best Oral Presentation (Fellow)**, Annual CARO Meeting. (Distinction)

LOCAL

Received

2013  
**Academy of Medicine Resident of the Year**, University of Ottawa. (Distinction)

2013  
**Peter Laurence Fenn Memorial Oncology Award**, University of Ottawa. (Distinction)

2008  
**Dr. Robert B. Salter Award**, Memorial University. (Distinction)

2008  
**Ford Hewlett Memorial Oncology Scholarship**, Memorial University. (Distinction)

2006 - 2008  
**Millennium Scholarship**, Memorial University. (Distinction)

2006  
**Dean’s List**, Memorial University. (Distinction)

2006  
**Mary E. Pedersen MD Scholarship in Medicine**, Memorial University. (Distinction)

2006  
**Prize in Pediatrics**, Memorial University. (Distinction)

Teaching and Education Awards

LOCAL

Received

2014  
**Residents Award for Excellence in Clinical Teaching by a Fellow**, University of Toronto
*Department of Radiation Oncology Graduation Ceremony.*

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2014 Jul 1 - present  
**Member**, American Society for Radiation Oncology

2013 - present  
**Member**, European Society for Radiotherapy and Oncology

2009 - present  
**Member**, Canadian Association of Radiation Oncologists

Administrative Activities

NATIONAL

Canadian Association of Interns and Residents (CAIR)
Jennifer CROKE

2009 - 2012 Member, CAIR Sub-Committee on Professionalism
2008 - 2010 Liaison Representative, CMA Committee on Education and Professionalism

PROVINCIAL / REGIONAL

Provincial Association of Interns and Residents of Ontario (PAIRO)
2009 - 2012 General Council Member
2009 - 2012 PAIRO Site Chair, University of Ottawa

LOCAL

Other Organizations

2015 Sep 15 - present University of Toronto Department of Radiation Oncology Evening Journal Club, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Ontario, Canada.

Cancer Care Program, Eastern Health

2014 Chair, Breast Technical Site Group, Department of Radiation Oncology, Cancer Care Program
2014 Chair, Multidisciplinary Breast Oncology Journal Club
2014 Chair, Multidisciplinary Gynecologic Oncology Journal Club

Radiation Medicine Program

2015 Oct 15 - present Radiation Medicine Program Mentorship Program, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development, Ontario, Canada.

University of Ottawa

2012 Member, CaRMs Interview Panel, Division of Radiation Oncology, Postgraduate MD
2011 - 2013 Resident representative, Radiation Oncology Training Program Committee
2011 - 2012 Resident representative, Academy Of Medicine Ottawa Executive Committee
2010 - 2011 Committee Lead, The Ottawa Hospital, Radiation Oncology retreat
2010 - 2011 Member, Faculty of Medicine Accreditation Committee
2010 - 2011 Member, Postgraduate Medical Education Committee, Postgraduate MD

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters

E. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2012 May  Use of Pre-Op MRI and “3D Prostate Cancer Maps” to improve CTV Definition for Post-operative Prostate Radiation. ESTRO Annual Meeting. Barcelona, Spain. (Peer reviewed poster presentation).

Publication Details:


Publication Details:

Jennifer CROKE

Publication Details:


Publication Details:

2011 Sep Continuity clinics in Medical and Radiation Oncology training programs in Canada. International Conference for Residency Education Annual Meeting. Quebec City, Quebec, Canada. (Peer reviewed poster presentation).

Publication Details:


Publication Details:


Publication Details:

2. NATIONAL

Presented Abstracts


Presented and Published Abstracts

2015 Sep  

Publication Details:
Long term quality of life in cervical cancer patients treated with curative therapy. Senior Responsible Author.

2014 Sep  
Vaginal dose and patient reported sexual adjustment with MR-guided brachytherapy for cervical cancer. ASTRO Annual Meeting. San Francisco, California, United States. (Peer reviewed poster presentations).

Publication Details:

2014 Aug  

Publication Details:

2011 Sep  
The Case of the Missing Target: Mystery Solved. CARO Annual Meeting. Winnipeg, Manitoba, Canada. (Peer reviewed poster presentation).

Publication Details:

2010 Oct  

Publication Details:

2010 Oct  

Publication Details:

2010 Sep  

Publication Details:

2010 Sep  
Multidisciplinary management of cancer patients: Are we chasing our shadow or are they of real value? CARO Annual Meeting. Ottawa, Ontario, Canada. Croke J, El-Sayed S. (Peer reviewed poster
Publication Details:
Multidisciplinary management of cancer patients: Are we chasing our shadow or are they of real value?.


Publication Details:


Publication Details:

3. PROVINCIAL / REGIONAL
Invited Lectures and Presentations


4. LOCAL
Invited Lectures and Presentations


Presented Abstracts


### F. Research Supervision

#### 1. PRIMARY OR CO-SUPERVISION

**Undergraduate Education**

<table>
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<tr>
<th>Date Range</th>
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<th>Supervisee Position</th>
<th>Supervisee Institution</th>
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Curriculum Vitae

CONTACT INFORMATION

Name: CUMMINGS, Bernard Joseph

Business Address: Department of Radiation Oncology
Princess Margaret Hospital
610 University Ave. 5-979
Toronto, ON M5G 2M9

Business Telephone #: 416-946-2129
Business Fax #: 416-946-4586
E-mail Address: bernard.cummings@rmp.uhn.on.ca
Date of Last Update: February 2016

EDUCATION:

University Education
1962 Victoria University, Wellington, New Zealand (premedical course)
1963-1967 University of Otago School of Medicine, Dunedin, New Zealand

Post-Graduate and Medical Training
1968 - 1969 House Physician, North Canterbury Hospital Board, New Zealand (two years)
1970 - 1972 Registrar, Radiotherapy Department, North Canterbury Hospital Board, New Zealand (two years, six months)
1972 - 1973 Resident, Radiation Oncology, Princess Margaret Hospital, Toronto (one year)
1973 - 1974 Registrar, Clinical Oncology, Royal Marsden Hospital, London, England (one year)

Scholarships and Awards
1966 M.R.C. of New Zealand, Junior Research Scholarship (awarded - declined).
1966 Distinction, Preventive and Social Medicine, University of Otago.
1972 Royal Australasian College of Radiologists Prize, Membership Examinations.
1995 Honorary Membership, European Society for Therapeutic Radiology and Oncology.
1997 Seventh Gilbert Fletcher Distinguished Professor Lecture, MD Anderson Cancer Center, Houston, Texas, February 1997.
2000 RS Bush Visiting Professor, Princess Margaret Hospital, Toronto, June 2000.
2004 Department of Radiation Oncology, University of Toronto, Award for Sustained Excellence in Research.
2005 University of Toronto Department of Radiation Oncology Residents’ Award for Excellence in Clinical Teaching.
2006-2007 University of Toronto, Wightman-Berris Academy, Award for Individual Teaching Excellence.
2007 Elected Fellow, American Society of Therapeutic Radiology and Oncology.
2009 Awarded Life Membership, Association of Radiation Oncologists of India.
2011 Cosbie Lecture (NCIC Clinical Trials Group/Canadian Oncology Societies/Cancer Care Ontario), Toronto, April 2011.
2011 Gold Medal, American Society for Radiation Oncology (ASTRO)
2013 Gastrointestinal Oncology Societies of Latin America (SLAGO) – International Oncologist Award for contributions to SLAGO.

BIOGRAPHICAL INFORMATION

Degrees
MB, ChB, 1967, Otago University, New Zealand
MRACR, 1972, Member, Royal Australasian College of Radiologists; Fellow FRACR, 1984; College title changed 1998 to Royal Australian and New Zealand College of Radiologists - FRANZCR
FRCR, 1974, Fellow of the Royal College of Radiologists, England
FRCPC, 1974, Fellow of the Royal College of Physicians of Canada, Radiation Oncology

Hospital/Staff Appointments

1974 - Present Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario
1985 - 1989 Deputy Chief, Department of Radiation Oncology, PMH
1991 – 2001 Chief, Department of Radiation Oncology, PMH
1996 - 2001 Chief, Radiation Medicine Program, PMH
1997 - 2001 Associate Director, Clinical Programs, Oncology Program, PMH
1975 - 1996 Consultant staff, Department of Medicine, Wellesley Hospital, Toronto
1975 - 1997 Consultant staff, Division of Radiological Services, Toronto Hospital, Toronto

Dr. Bernard Cummings
CV Format/U of T
1997 - 2001 Visiting staff, Department of Radiation Oncology, Sunnybrook and Women’s College Health Science Center, Toronto

**Academic Appointments**

1975 - 1979 Lecturer, Department of Radiology, University of Toronto
1979 - 1981 Assistant Professor, Department of Radiology, University of Toronto
1981 - 1986 Associate Professor, Department of Radiology, University of Toronto
1986 - 1991 Professor, Department of Radiology, University of Toronto
1991 - Present Professor, Department of Radiation Oncology, University of Toronto
1991 - 2001 Chair, Department of Radiation Oncology, Faculty of Medicine, (Cross-appointment)
1986 - Present Professor, Department of Otolaryngology, University of Toronto
1991 - 2001 Executive Committee, Interdepartmental Division of Oncology, Member
2002 - 2006 Chair, Board of Examiners, Radiation Sciences Program, University of Toronto

**Professional Affiliations and Activities**

Canadian Association of Radiation Oncologists
American Society for Radiation Oncology
European Society for Therapeutic Radiology and Oncology
Canadian Medical Association
Ontario Medical Association
International Society of Gastrointestinal Oncology

**Certifications and Licensures**

College of Physicians and Surgeons of Ontario No. 27611

**Administration and Committee Appointments**

**Local Committees**

1976 – 1981 Admissions and Discharge Committee, Member,
Admissions Subcommittee, Chairman, Princess Margaret Hospital
1982 – 1984 Ambulatory Care Committee, Chair, Princess Margaret Hospital
1983 – 1984 ad hoc Committee for the Study of the Role of Surgical Services at OCI, Chair,
Princess Margaret Hospital
1982 - 1985 Technical Procedures Committee, Member, Princess Margaret Hospital
1984 – 1985 Task Force Appointed by the Dean of the Faculty of Medicine to Review Oncology in the Faculty, Member, University of Toronto
1983 – 1985 Joint Planning Committee for Study of the Role of the OCTRF and OCI in the
Delivery of Cancer Services in Ontario, Member, Princess Margaret Hospital
1983 – 1985 ad hoc Committee for the Study of the Role of Radiation Oncology
Department of the OCI, Member, Princess Margaret Hospital

1976 - 1987 Radiation Oncology Resident Committee, Member, Princess Margaret Hospital
1994 – 1995 Re-engineering Project Steering Committee, Member, Princess Margaret Hospital
1994 – 1996 Site Group Steering Committee, Member, Princess Margaret Hospital
1994 – 1995 Re-engineering Project Steering Committee, Member, Princess Margaret Hospital
1994 – 1996 Site Group Steering Committee, Member, Princess Margaret Hospital
1991 – 2001 Chair, Department of Radiation Oncology, University of Toronto
1998 – 2001 Cancer Committee, UHN/PMH, Member
2002 - 2006 Board of Examiners, Radiation Sciences Program, Chair, University of Toronto
2009 – 2010 Organizer, International Teaching Course on Radiation Therapy, Mexico City

National and Provincial Committees

1976 - 1979 Scientific Program Committee, Vice Chair, (Radiation Oncology), Canadian Association of Radiologists
1976 – 1979 Annual Meetings Committee, Member, Canadian Association of Radiologists
1981 Site Review Committee NCI(C) Clinical Trials Unit, Kingston, Member, National Cancer Institute (Canada)
1982 Site Review Committee NCI(C) Cancer Co-ordinator Application, Saskatoon, Member, National Cancer Institute (Canada)
1980 – 1984 Clinical and Epidemiological Research Advisory Group (CERAG), Member, National Cancer Institute (Canada)
1982 – 1984 Royal College Specialty Committee in Radiation Oncology, Member, Royal College of Physicians and Surgeons of Canada
1979 - 1985 Advisory Council on Radiation Oncology, Member, Canadian Association of Radiologists
1983 – 1985 ad hoc Committee on TNM Staging for Gastrointestinal Tumours, Chair, National Cancer Institute (Canada)
1984 – 1986 Advisory Committee on Research (ACOR), Member, National Cancer Institute (Canada)
1986 Site Review of Section of Radiation Oncology and of Training Program in Radiation Oncology. University of Manitoba, and Manitoba Cancer Treatment
and Research Foundation

1986  Site Review of Radiation Therapy Facilities and Radiation Oncology Program at Jewish General Hospital, McGill University, Montreal, and Jewish General Hospital, Montreal
1986  Site Review of Resident Training Program in Radiation Oncology, University of Western Ontario, and London Clinic, OCTRF
1987  Site Review of Radiation Oncology Program, Kingston Regional Cancer Centre, OCTRF
1986 – 1987  Standing Committee on Training and Qualifications, Radiation Oncology, Chairman, Canadian Association of Radiologists
1987 – 1989  Committee on Manpower and Economics, Chair, Canadian Association of Radiation Oncologists
1985 – 1989  Examining Board in Medical Oncology, Member, Royal College of Physicians and Surgeons of Canada
1987 – 1989  Board of Directors, Member, Canadian Oncology Society
1990  ad hoc Working Group on Radiation Services, Member, Ontario Ministry of Health
1991  Site Review of Radiation Oncology Department, University of Ottawa, and Ottawa Regional Cancer Center, OCTRF
1989 – 1991  President, Canadian Association of Radiation Oncologists
1987 – 1992  Royal College Specialty Committee in Radiation Oncology, Chair
1987 – 1992  Royal College Specialty Committee in Hematology, Corresponding Member
1987 – 1992  Royal College Specialty Committee in Medical Oncology, Corresponding Member
1991 – 1992  Task Group on Major Equipment Acquisition, Member, Cancer Care Ontario
1991 – 1993  Past President, Canadian Association of Radiation Oncologists
1993  Site Review of Radiation Oncology Program, Kingston Regional Cancer Centre, OCTRF
1994  ad hoc Working Group on Recruitment and Retention of Radiation Oncologists, Member, Ontario Ministry of Health
1990 – 1995  ACB Research Initiative Program, External Reviewer, Alberta Cancer Board
1993 – 1996  Cancer Staging Committee, Gastrointestinal Cancers, Chair, National Cancer Institute (Canada)
1997 – 1998  Central East Community Cancer Center Review Committee, Member, Ontario Ministry of Health
1994 – 1998  Radiation Oncology Forum, Clinical Trials Group, Chair, National Cancer Institute (Canada)
2000  ad hoc Working Group on Funding for Radiation Treatment Equipment, Ontario Ministry of Health
1996 – 2001  Radiation Treatment Program Committee, Member, Cancer Care Ontario
1998 – 2001  Central East Regional Coordinator, Radiation Therapy, Cancer Care Ontario
1999 – 2001  ad hoc Working Group on Case-Costing for Radiation Treatment (Joint Policy and Planning Committee), Co-Chair, Ontario Ministry of Health

2000 – 2001  Cancer Human Resources Planning Committee, Member, Ontario Ministry of Health

1989 – 2004  National Cancer Institute (Canada) Clinical Trials Group, Gastrointestinal Tumour Site Committee, Clinical Trials Group, Member ;(1991 – 2002 Executive, (Member)

2004  External Review of Department of Radiation Oncology, Chair. Capital Health, Halifax

2004 – 2006  Clinical Council, Member, Cancer Care Ontario

1996 – 2007  Program for Evidence-Based Medicine, Gastrointestinal Tumor Site Committee (Member 1996-2002, Co-Chair 2002-2007), Cancer Care Ontario


2003 – 2008  Canadian Prostate Cancer Research Initiative. Board of Directors, Member (NCIC Board Representative)

2007 – 2008  Governance and Nominating Committee, Member, National Cancer Institute (Canada)

2009  External Review of Department of Radiation Oncology. The Ottawa Hospital

2000 – 2012  National Cancer Institute (Canada) Clinical Trials Group, Clinical Trials Committee, Member (NCIC Board Representative)

2011  External Review of Radiation Treatment Program, Windsor Regional Cancer Center (with Dr P. Craighead)

**International Committees**

1984 - 1991  Committee on Clinical-Pathological Staging of Large Bowel Cancer, Member, American Society of Colon and Rectal Surgeons


1989 - 1993  Executive, Assistant Secretary, International Society for Radiation Oncology

1993 - 1996  Constitution and Bylaws Committee, Member, American Society for Therapeutic Radiology and Oncology

1997 - 2001  President-Elect, International Society for Radiation Oncology

2001 – 2002  Expert Advisory Group on the Beatson Oncology Centre, Chair, Greater Glasgow NHS Board, Glasgow, Scotland

2001 - 2004  President, International Society for Radiation Oncology

2003 - 2004  Advisory Committee on Long-Term Care, Member, Government of Pakistan

1997 - 2012  International Cancer Technology Transfer Fellowships for Researchers and Clinicians, Review Panel Member, International Union against Cancer (UICC)

2001 - 2012  TNM Expert Advisory Panel on Gastrointestinal Tumors, Member, International Union Against Cancer (UICC)

2002 - 2016  International Relations Committee (Chair 2004-2008), American Society for Radiation Oncology

2006 – 2010  Organizer, ASTRO Teaching Courses. Argentina 2006; Brazil 2007; Uruguay 2007 (ALATRO); China 2008 (SANTRO); Argentina 2008; Mexico 2009 (ALATRO); Brazil 2009; India 2009; Chile 2010.

2006 – 2010  Speaker ASTRO Teaching Courses. Philippines 2006; Argentina 2006; Chile, 2007; China 2008; Chile 2009; Brazil 2009; India 2009; Chile 2010.


**Grant Peer-Reviewed Responsibilities**

**Provincial/National**

1979 – 1981  Grant Review Panel for Medicine and Clinical Trials, Member, Cancer Care Ontario

1981 – 1983  Grant Review Panel for Pathology and for Studies with Clinical Components, Chair (1981-1983), National Cancer Institute (Canada)


1991  Health Care Systems Research Grants Panel, External Reviewer, Ontario Ministry of Health

1991  Grants Program, External Reviewer, Medical Research Council of Canada

**International**

2001 - 2002  Grants Program, External Reviewer, Netherlands Cancer Society

2006 - 2008  Grant Reviewer, Federal Ministry for Education and Research, Germany

**Journal Editorial and Peer-Review Responsibilities**

**Editorial Boards**


2011 – 2014  BMC Physics, Editorial Board Member.

1985 - 2013  International Journal of Colorectal Disease, Board of Consultants, Member.

2007 - 2011  Current Medical Literature – Colorectal Cancer, Advisory Board, Member.

2004 - 2008  Nature Clinical Practice Oncology, Editorial Advisory Board, Member.


1985 - 1987  Journal of Clinical Oncology, Editorial Board, Member.

1989 - 1996  Laryngoscope, Editorial Board, Member.
1975 - 1983 Canadian Association of Radiologists Journal, Editorial Committee, Member.

Manuscript Peer-Reviewer for:

1991 - 2014 Cancer
2012 – 2014 Current Oncology
2002 – 2014 International Literature Survey, McMaster University
1984 - 2012 Radiotherapy and Oncology
1985 - 2007 Journal of Clinical Oncology
1985 - 1987 Otolaryngology-Head and Neck Surgery
1990 American Journal of Clinical Oncology
1990 - 2001 European Journal of Cancer
1997 - 2009 Diseases of the Colon and Rectum
1997 - 1998 British Journal of Cancer
1998 Acta Oncologica
2003 Journal on Information Technology in Healthcare
2007 Journal of Pain and Symptom Management
2012 Science Translational Medicine

Research Grants

Previously Funded as Principal Investigator


Cummings, B.J. Rider WD. Grant for a Clinical Trials Secretary for the Princess Margaret Hospital Gastrointestinal Tumour Group. Ontario Cancer Treatment and Research Foundation (OCTRF). $20,200, 1980-1981.

Cummings, B.J. DeBoer D. Grant for a Clinical Trials Secretary for the Princess Margaret Hospital Gastrointestinal Tumour Group. Ontario Cancer Treatment and Research Foundation (OCTRF). $44,000, 1981-1983.

Previously Funded as Co-Investigator


**PUBLICATIONS:**

**Refereed publications**


Tannock I, Cummings B, Sorrenti V. Combined chemotherapy used prior to radiation therapy for locally advanced squamous cell carcinoma of the head and neck. Cancer Treat Rep 6:1421-1429, 1982. (Co-Principal)


Other Publications


As Member of the Gastrointestinal Disease Site Group, Cancer Care Ontario Practice Guidelines Initiative.


Rectal Cancer Alliance of Canada (RCAC). QuickSilver: A Phase II study using magnetic resonance imaging criteria to identify “good prognosis” rectal cancer patients eligible for primary surgery. JMIR Res Protoc 4(2): e41, 2015.

Non-Refereed Publications


**Cummings BJ.** Approaches to the treatment of rectal cancer - Princess Margaret Hospital. Perspectives Colon Rectal Surgery 7:176, 1994.


**Cummings BJ.** Squamous cell carcinoma of the anal margin (editorial) Oncology 10:1853-1854, 1996.


**Cummings BJ.** Infusional 5-Fluorouracil for anal cancer. Semin Rad Oncol 7:306-312, 1997.


Book Chapters


PUBLISHED ABSTRACTS


Dr. Bernard Cummings
CV Format/U of T


**Cummings BJ,** O'Sullivan B, Keane T, Gullane P, and the Head and Neck Group. Larynx conservation in a randomized trial of hyperfractionated versus conventional once daily radiation:


Spayne J, Warde PR, O’Sullivan B, Payne D, Liu F-F, Waldron J, Cummings BJ. Carcinoma in situ of the glottic larynx – results of treatment with radiation therapy. Canadian Association of


Khalil AA, Bentzen SM, Bernier J, Saunders MI, Horiot JC, Van den Bogaert W. Cummings BJ, Dische S. Compliance to the prescribed overall treatment time in five randomized controlled trials of altered radiotherapy fractionation in patients with squamous cell carcinoma of the head.


Presentations

Refereed Scientific Presentations

Relative risk factors in the treatment of juvenile nasopharyngeal angiofibroma. Can Assoc Radiol, 43rd Annual Meeting, Montreal, 1980


Chordoma: The results of conventional and multiple daily fractionated radiation therapy. Amer Soc Ther Radiol, 22nd Annual Scientific Meeting, Dallas, USA. 1980

Risk factors in the treatment of juvenile nasopharyngeal angiofibroma. Amer Soc Ther Radiol, 22nd Annual Scientific Meeting, Dallas, USA, 1980


Neurotoxic radiosensitizers and head and neck cancer patients - how many will benefit? Poster session (with G.M. Thomas, A.M. Rauth, V. Sorrenti, B. Black, R.S. Bush), C.R.O.S. Conference on Chemical Modification: Radiation and Cytotoxic Drugs, Key Biscayne, Florida, USA. 1981


Curative external radiation for adenocarcinoma of the rectum. Amer Soc Ther Radiol, 23rd Annual Scientific Meeting, Miami, USA. 1981

Radical radiation therapy alone or plus chemotherapy for primary squamous cell carcinoma of the anal canal. Amer Soc Ther Radiol, 23rd Annual Scientific Meeting, Miami, USA. 1981

The results of the treatment of chordoma by radiation therapy. Can Assoc Radiol, 45th Annual Meeting, Winnipeg, 1982


Radiation therapy alone or with chemotherapy for anal canal carcinoma. Royal Coll Phys Surg Canada, 51st Annual Meeting, Quebec, 1982

Local radiation therapy in the management of sarcomas of the breast. Amer Soc Ther Radiol, 24th Annual Scientific Meeting, Orlando, USA. 1982

The treatment of advanced glomus tumors of the middle ear region by radiation therapy. Amer Soc Ther Radiol, 24th Annual Scientific Meeting, Orlando, USA. 1982

Should radiotherapy be given alone or with chemotherapy for anal canal carcinoma? Amer Soc Colon Rectal Surg, 82nd Annual Meeting, Boston, USA. 1983
Radiation treatment in juvenile nasopharyngeal angiofibroma. Can Assoc Radiol, 46th Annual Meeting, Quebec, 1983

The results and late toxicity of megavoltage radiation for juvenile nasopharyngeal angiofibroma. Amer Soc Ther Radiol, 25th Annual Scientific Meeting, Los Angeles, USA. 1983


The treatment of anal canal carcinoma by combined radiation and chemotherapy. Can Assoc Radiol, 47th Annual Meeting, Vancouver, 1984


The results of elective irradiation with/without chemotherapy of the inguinal lymph nodes in carcinoma of the anal canal. Amer Soc Colon Rectal Surg, 85th Annual Meeting, Houston, USA. 1986


Treatment of perianal carcinoma by radiation or radiation plus chemotherapy. Amer Soc Ther Radiol Oncol, 28th Annual Meeting, Los Angeles, USA. 1986


Epidermoid anal cancer: treatment by radiation alone, or by radiation and 5-FU with and without Mitomycin. Amer Soc Ther Radiol Oncol, 32nd Annual Meeting, Miami, USA. 1990


Preservation of anorectal function in advanced epidermoid anal cancer. 6th Annual Scientific Meeting, Can Assoc Radiat Oncol, Ottawa, 1992
Radiation treatment of glomus jugulare tumors. 6th Annual Scientific Meeting, Can Assoc Radiat Oncol, Ottawa, 1992

Management of squamous cell cancers of the rectum. 8th Annual Scientific Meeting, Can Assoc Radiat Oncol, Toronto, 1994

Treatment of angiofibroma by radiation therapy. 9th Annual Scientific Meeting, Can Assoc Radiat Oncol, Montreal, 1995

Treatment of angiofibroma by radiation therapy. 4th International Conference on Head and Neck Cancer, Toronto, 1996


Larynx conservation in a randomized trial of hyperfractionated versus conventional once daily radiation: A Subgroup analysis. European Cancer Conference, ECCO 9, Hamburg, Germany. 1997

Preservation of the larynx in a prospective randomized trial of hyperfractionated versus conventional radiation in locally advanced larynx cancer. 10th Annual Scientific Meeting Can Assoc Radiat Oncol, Vancouver, 1997

Larynx preservation in category T3 and T4 primary larynx cancer treated by hyperfractionated or conventional once daily radiation. Combined Meeting of American Society for Head and Neck Surgery and Society of Head and Neck Surgeons, Palm Beach, Florida, USA. 1998


A randomized trial of twice daily radiation. 14th Annual Scientific Meeting, Can Assoc Radiat Oncol, Edmonton, Alberta, 2000

A prospective randomized trial of hyperfractionated versus conventional once daily radiation for advanced squamous cell carcinoma of the larynx and pharynx – 5 year results. 42nd Annual Scientific Meeting, Amer Soc Ther Radiol Oncol, Boston, USA. 2000

Invited Presentations

Radiation treatment of axillary lymph nodes in breast cancer. NCI(C) Clinical Trials Group Annual Meeting, Toronto, 1976

Radiation therapy in rectal cancer. Canadian Association of General Surgeons, Toronto, May 1977

The treatment of anal canal carcinoma. Toronto Academy of Medicine, Section of Colorectal Surgery, 1980


Adjuvant therapy for colorectal cancer. Toronto Academy of Medicine, Section of Colorectal Surgery, 1981

Clinical staging of rectal carcinoma. Toronto Academy of Medicine, Section of Colorectal Surgery, Toronto, 1981


The role of radiotherapy in rectal cancer. Toronto General Hospital Clinical Day "Controversies in Cancer", June 1981


Clinical staging for rectal carcinoma. Dept of Radiation Therapy and Oncology, Auckland, New Zealand. 1981

Radical external radiation therapy for primary rectal carcinoma. Dept. of Radiation Therapy and Oncology, Auckland, New Zealand. 1981

The treatment of cancer of the rectum and anal canal. Royal Australasian College of Radiologists, 32nd Annual Scientific Meeting, Christchurch, New Zealand. 1981


The treatment of anal canal carcinoma by combined radiation and chemotherapy. United Kingdom "51 Club" Radiation Therapists, Toronto, 1981


The treatment of anal and rectal carcinoma. Pfizer Lecture Series, Montreal General Hospital, Montreal, 1982

Symposium: The diagnosis and treatment of common cancers: Colorectal cancer. 51st Annual Meeting, The Royal College of Physicians and Surgeons of Canada, Quebec, 1982

Symposium: Soft tissue sarcomas: diagnosis and management - Radiotherapy. 51st Annual Meeting, The Royal College of Physicians and Surgeons of Canada, Quebec, 1982

The role of potential methods of clinical staging. Is there a role for primary radiotherapy? Panel on Carcinoma of the Colorectum, Amer Soc Ther Radiol, 24th Annual Scientific Meeting, Orlando, USA. 1982

Adjuvant radiation therapy for rectal carcinoma. 3rd Annual Symposium on Colon and Rectal Surgery, The Cleveland Clinic Educational Foundation, Cleveland, USA. 1982

The prevention of radiation injury to the intestine. 3rd Annual Symposium on Colon and Rectal Surgery, The Cleveland Clinic Educational Foundation, Cleveland, USA. 1982

The treatment of anal canal carcinoma using combined radiation therapy and chemotherapy. New York University Medical Center, New York, USA. 1982

The role of radiation therapy in metastatic melanoma. Malignant Melanoma - Current Controversies, University of Toronto, Toronto, 1983


Treatment of carcinoma of the anal canal. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983

The prevention of radiation bowel damage. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983

Radiation therapy for juvenile nasopharyngeal angiofibromas and glomus tumors. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983.

Treatment of chordoma by radiation therapy. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983.

Decision making in the management of rectal cancer. Department of Radiotherapy, Hillbrow Hospital, Johannesburg, South Africa. 1983

The place of radiation therapy in the treatment of rectal carcinoma. Combined Oncology Rounds, Johannesburg Hospital, Johannesburg, South Africa. 1983

The treatment of primary and metastatic melanoma by radiation. Combined Oncology Rounds, Johannesburg Hospital, Johannesburg, March 1983.

The treatment of anal carcinoma by radiation and chemotherapy. Department of Surgery, Johannesburg Hospital, Johannesburg, South Africa. 1983

The response of juvenile angiofibroma and glomus tumours to radiation. Departments of Otolaryngology and Radiotherapy, Johannesburg Hospital, Johannesburg, South Africa. 1983

The treatment of carcinoma of the larynx. Departments of Otolaryngology and Radiotherapy, Johannesburg Hospital, Johannesburg, South Africa. 1983

The treatment of primary and metastatic melanoma by radiation. Department of Radiotherapy, Groote Schuur Hospital, Cape Town, 1983
The place of radiation in the treatment of rectal carcinoma. Department of Radiotherapy, Groote Schuur Hospital, Cape Town, 1983

The treatment of anal carcinoma by combined radiation and chemotherapy. Department of Radiotherapy, Groote Schuur Hospital, Cape Town, 1983

The response of glomus tumors and juvenile nasopharyngeal angiofibromas to radiation. Department of Radiotherapy, Groote Schuur Hospital, Cape Town, 1983

The treatment of melanoma by radiation. Department of Radiotherapy, Karl Bremer Hospital, Cape Town, 1983

The treatment of anal carcinoma. Departments of Radiotherapy and General Surgery, Port Elizabeth Hospital, Port Elizabeth, 1983


The case for radiation therapy for juvenile nasopharyngeal angiofibroma. Controversies in Laryngology, Sixth British Academic Conference in Otolaryngology, Bristol, England. 1983


Pre- and post-operative radiation therapy for rectal and anal carcinomas - is it established therapy? Symposium: The Treatment of Gastrointestinal Tumors - Progress or Standstill? Munich, West Germany. 1983

Squamous cancer of the anal canal - multimodality approach. Clinical Day in General Surgery, Toronto General Hospital, Toronto, 1984


Preoperative radiation for rectal carcinoma. University of Minnesota, Minneapolis, USA. 1984

The place for radical radiation in carcinoma of the rectum. University of Minnesota, Minneapolis, USA. 1984

Clinical staging of rectal carcinoma. University of Minnesota, Minneapolis, USA. 1984

The treatment of anal cancer. Mallinckrodt Institute of Radiology, Washington University Medical Center, St. Louis, USA. 1984

Radical radiation therapy for rectal cancer. Washington University, St. Louis, and St. Luke's Medical Center, St. Louis, USA. 1984

Combined modality therapy (infusion 5-FU, Mitomycin, radiation) for squamous cell cancers. Symposium on Continuous Infusion Chemotherapy and its Interactions with Radiation in the Treatment of Malignant Tumors. Downstate Medical Center, State University of New York, New York, USA. 1985


Does the addition of chemotherapy to radiation therapy improve the therapeutic ratio for anal canal carcinoma? XVI International Congress of Radiology, Hawaii, USA. 1985


Radiotherapy for carcinoma of the rectum. Mid-West Colon and Rectal Society, Toronto, 1985

The role of radiation therapy for vascular tumors of the head and neck. American Academy of Otolaryngology - Head and Neck Surgery, Atlanta, USA. 1985

The role of radiation therapy in the treatment of anal carcinoma. Thomas Jefferson University, Philadelphia, USA. 1985

The role of radiation and chemotherapy in the treatment of anal carcinoma. Department of Radiation Therapy, Gainesville, Florida, USA. 1986

The Princess Margaret Hospital experience in treating juvenile angiofibromas. Department of Radiation Therapy, Gainesville, Florida, USA. 1986

The role of adjuvant radiation therapy for rectal carcinoma. Department of Radiation Therapy, Gainesville, Florida, USA. 1986


Treatment of gastrointestinal malignancy. 14th Annual Clinical Day, "Update in the Management of Neoplastic Disease", The Mississauga Hospital, Mississauga, 1986

Combined modality management of soft tissue sarcoma - controversial issues. Panelist. NCI(C) Clinical Trials Group Meeting, Toronto, 1986

Combined radiation and chemotherapy for anal cancer, MD Anderson Hospital, Houston, USA. 1986
Principals of radiation therapy in tumor management. Symposium on Rectal and Anal Cancer, the Jewish Hospital of St. Louis at Washington University Medical Center, St. Louis, USA. 1986

The ideal utilization of radiation therapy for rectal cancer. Symposium on Rectal and Anal Cancer, the Jewish Hospital of St. Louis at Washington University Medical Center, St. Louis, USA. 1986

The management of anal canal cancer. Symposium on Rectal and Anal Cancer, the Jewish Hospital of St. Louis at Washington University Medical Center, St. Louis, USA. 1986

Squamous cell carcinoma of the anus - results of conservative management. Clinical Day in General Surgery, Toronto General Hospital, Toronto, 1986

The role of radiation in rectal cancer. Clinical Day in General Surgery, Toronto General Hospital, Toronto, 1986


The treatment of carcinomas of the rectum and anal canal. The National Cancer Institute of Brazil, Rio de Janeiro, Brazil, 1986

Recent advances in the treatment of anal cancer. The 1986 World Congress of Gastroenterology, Sao Paulo, Brazil. 1986

The role of radiation therapy in the treatment of primary carcinomas of the rectum. Clinical Day, St. Joseph's Hospital, Buffalo, USA. 1986

Applying Principals of radiation therapy to tumor management. Southwest Ohio Regional Cancer Symposium, University of Cincinnati, Cincinnati, USA. 1986.

The Princess Margaret Hospital experience with preoperative radiation for rectal carcinoma. Panel on Adjuvant Therapy for Rectal Cancer. Amer Soc Ther Radiol Oncol, 28th Annual Meeting, Los Angeles, USA. 1986 (delivered by TJ Keane)


Radiotherapeutic management of oro-facial tumours. The Role of the Primary Care Dentist and Physician in Oro-Facial Cancer, Mount Sinai Hospital, Toronto 1987

Radiation therapy for colorectal cancer. 27th Annual Refresher Course for General Surgeons, University of Toronto, Toronto. 1987


Prospective sarcoma trials in Canada. The radiation oncology viewpoint. The Toronto Symposium on Soft Tissue Sarcomas of the Extremities, Toronto, 1988

Radiation therapy for head and neck cancer. Continuing Dental Education Program, Faculty of Dentistry, University of Toronto, Toronto, 1988

Radiation therapy for esophageal cancer. 28th Annual Refresher Course for General Surgeons, University of Toronto, Toronto, 1988

The Princess Margaret Hospital experience with rectal and anal cancers, British Institute of Radiology, Glasgow, Scotland. 1988

Basic concepts of radiation therapy related to the management of rectal and anal cancer, American Society of Colon and Rectal Surgeons, Anaheim, USA. 1988.


The treatment of anal cancer by combined radiation and chemotherapy. The Netherlands Cancer Institute, Amsterdam. 1988

Radiation therapy for vascular tumors. Second International Conference on Head and Neck Cancer, Boston, USA. 1988


Treatment of advanced cancers of the larynx and hypopharynx. 39th Annual Meeting of the Royal Australasian College of Radiologists, Auckland, New Zealand. 1988

Radiation therapy and rectal cancer. 39th Annual Meeting of the Royal Australasian College of Radiologists, Auckland, New Zealand. 1988

Radiation therapy for vascular tumors of the head and neck. 39th Annual Meeting of the Royal Australasian College of Radiologists, Auckland, New Zealand. 1988

Rectal and anal cancer. The preservation of function and esthetics. 74th Scientific Meeting Radiological Society of North America, Chicago, USA. 1988

Results and toxicity of treatment of cancers of the anal canal, esophagus, and head and neck by combined radiation, 5-Fluorouracil, and Mitomycin C. Loyola University, Chicago, USA. 1988

Radiation therapy and rectal cancer. Laval University, Quebec City, 1989

Continuous infusional 5-Fluorouracil with radiation therapy for head and neck and gynecological malignancies. Second Conference on Clinical Applications of Concomitant Infusion Chemotherapy and Radiation. New York, USA. 1989
Radiation in rectal cancer. 29th Annual Refresher Course for General Surgeons, University of Toronto, Toronto, 1989

Is it possible to answer the question of potential benefit from adjuvant radiation with or without chemotherapy for curable rectal cancer? Controversies in Gastrointestinal Cancer, CME, University of Toronto, Toronto, 1989


Should the response to chemotherapy be used as an indication for radiation therapy? Eastern Great Lakes Head and Neck Oncology Association, Toronto, 1989

Rectal and anal cancer. Refresher course. 75th Scientific Meeting, Radiological Society of North America, Chicago, USA. 1989

Is chemoradiation equivalent to surgery for early stages of anal cancer? 7th Annual Advances in Cancer Treatment Research, Albert Einstein College of Medicine/Montefiore Medical Center, New York, USA. 1990

Altered fractionation regimens in radiation of cancers of the head and neck. 34th Cancer Symposium, University of Saskatchewan, Regina, 1990

Neoadjuvant chemotherapy in cancers of the head and neck. 34th Cancer Symposium, University of Saskatchewan, Regina, 1990

Radiation and chemotherapy for anal cancer. Symposium on the Radio-Surgical Treatment of Tumors of the Rectum and Anus, Lyon, France. 1990

Adjuvant radiation therapy for rectal cancer. Department of Radiation Therapy and 1st Surgical Clinic, University of Vienna, Austria. 1990

Combined radiation and chemotherapy for anal cancer. XIIIth Biennial Congress, International Society of University Colon and Rectal Surgeons, Graz, Austria. 1990

Role of radiation for primary colorectal cancer. Victoria Cancer Clinic, Victoria, British Columbia, 1990

Role of conventional radiation in neoplasms of the skull base. Symposium: Interdisciplinary approach for lesions of the cranial base. Toronto Western Hospital, Toronto, 1990

Radiotherapy for cancer of the rectum and anus. Eleventh Annual Symposium on Colorectal Surgery. Cleveland Clinic, Cleveland, USA. 1990

Radiotherapy and chemotherapy for epidermoid cancer of the anal canal. 26th Annual San Francisco Cancer Symposium, San Francisco, USA. 1991
How real are the benefits from adjuvant radiation therapy for rectal cancer? Henry Ford Hospital, Detroit, USA. 1991


The role of the fourth year of residency training. International Symposium on Education of Residents in Radiation Oncology. ASTRO-SCAROP. Philadelphia, USA. 1991

Is irradiation of the paraaortic nodes necessary? Workshop on Rectal Cancer, A.Z. Maria Middelares, Ghent, Belgium. 1991

Late effects of radiation on the function of the bladder and rectum. Workshop on Rectal Cancer, A.Z. Maria Middelares, Ghent, Belgium. 1991

Should chemotherapy be given concurrently with radiation? Workshop on Rectal Cancer, A.Z. Maria Middelares, Ghent, Belgium. April 1991


From caecum to anus: an overview of radiation therapy. Eeuwfeestkliniek, Antwerp, Belgium. 1991


Radiotherapy for chemodectomas around the skull base. Eighth British Academic Conference in Otolaryngology, Dublin, Ireland. 1991

Clinical results of treatment of squamous cell cancers by combined mitomycin C, 5-Fluorouracil and radiation therapy. Workshop in Bioreductive Drugs, Sensitizers, Oxygen and Radiotherapy, Vienna, Austria. 1991

What has been learned from the combined modality treatment of anal cancer? Manitoba Cancer Foundation, Winnipeg, 1992


How real are the gains with adjuvant therapy for rectal cancer? University of Florida at Gainesville, Florida, 22nd Annual Radiation Oncology Clinical Research Seminar, Gainesville, USA. 1992


Should response to chemotherapy be used to select patients for head and neck radiation? University of Florida at Gainesville, Florida, 22nd Annual Radiation Oncology Clinical Research Seminar, Gainesville, USA. 1992


Should the response to chemotherapy be used as an indication for radiation therapy? OCTRF Kingston Regional Cancer Centre, Kingston, 1992

Management of anal cancer. OCTRF Kingston Regional Cancer Centre, Kingston, 1992

Is progress with radiation and chemotherapy for anal cancer real or imaginary? McGill University Department of Radiation Oncology, Montreal, 1992

The role of radiation for recurrent rectal cancer. Workshop on Multimodality Management of Anorectal Cancer, Washington University, St. Louis, USA. 1992


Radiation therapy in crisis. Workshop: Cancer Treatment Under Pressure. NCI Canada, Edmonton, 1992

Can function be preserved in advanced anal cancer? 25 Years of Radiation Oncology, University of Toronto Department of Radiation Oncology Alumni Day, Toronto, 1992 (poster).

Adjuvant radiation therapy for colorectal cancer. Controversies in Colorectal Cancer. Ontario Cancer Institute/University of Toronto Interdepartmental Division of Oncology CME Program, Toronto, 1992

Does tumor response to chemotherapy predict for response to radiation treatment? Wayne State University, Combined Head and Neck Rounds, Detroit, USA. 1993

Treatment of anal cancer by combined radiation and chemotherapy. Wayne State University Department of Radiation Oncology, Detroit, USA. 1993

Invited commentary (with B. O'Sullivan) on John M et al: Is mitomycin C necessary in the cheoradiation regimen for anal canal carcinoma? Interim results of a Phase III randomized


Why chemotherapy is not an established component of treatment of larynx cancer. Second World Congress on Laryngeal Cancer. Sydney, Australia. 1994

Commentary on salvage treatments for early glottic cancer failure. Second World Congress on Laryngeal Cancer. Sydney, Australia. USA. 1994

Should every patient with rectal cancer receive radiation therapy? Chattanooga Regional Oncology Association, Chattanooga, USA. 1994

Management of advanced epidermoid cancer of the anal canal. Memorial Hospital, Chattanooga, USA. 1994

Resource requirements for radiation oncology in Ontario. OMA Section for Radiation Oncology, Toronto, 1994

Chemoradiation in anal cancer - the paradigm revisited. Clinical Aspects of Radiation Biology, University of Toronto, Department of Radiation Oncology, CME Course, Toronto, 1994

Radiation oncology in the 21st century. Clinical Aspects of Radiation Biology, University of Toronto, Department of Radiation Oncology, CME Course, Toronto, 1994

Anal preservation in rectal and anal cancer. Symposium: Curable Cancers - Survivorship Challenges - Organ Preservation Program. SUNY Health Science Center - American Cancer Society, Brooklyn, USA. 1994


Anal canal carcinoma - have we come full circle? The CARO Lecture, 8th Annual Scientific Meeting, Can Assoc Rad Oncol, Toronto, 1994

Adjuvant radiotherapy for colorectal cancer. 10th World Congresses of Gastroenterology, Los Angeles, USA. 1994


Matching radiation resources to needs. Royal Australasian College of Radiologists, 45th Annual Scientific Meeting, Christchurch, New Zealand. 1994 Guest Professor.

Should the response to chemotherapy be used as the indication for radiation therapy in head and neck cancer? Royal Australasian College of Radiologists, 45th Annual Scientific Meeting, Christchurch, New Zealand. 1994 Guest Professor.

What are the objectives of registrar (residency) training? Royal Australasian College of Radiologists, 45th Annual Scientific Meeting, Christchurch, New Zealand. 1994 Guest Professor.

Where to next with anal cancer? Royal Australasian College of Radiologists, 45th Annual Scientific Meeting, Christchurch, New Zealand. 1994 Guest Professor.


Radiation Oncology - towards the year 2000. Symposium: New Developments in Oncology. The Peter MacCallum Cancer Institute, Melbourne, Australia. 1994

Radiation therapy for colorectal cancer in the 90s. Seminar: Partners in Care of the Cancer Patient. The Peter MacCallum Cancer Institute, Melbourne, Australia. 1994

The role of radiation therapy for rectal cancer. Auckland Regional Oncology Centre, Auckland, New Zealand. 1994

Radiotherapy for head and neck cancer. Hurley Medical Center, Flint Michigan, USA. 1995

Conservative management of tumours of the anus and rectum. Symposium on Clinical Radiation Therapy, Department of Clinical Oncology, University of Edinburgh, Scotland. 1995

Adjuvant therapy for rectal cancer: is less better? Department of Radiation Therapy and Oncology, St. Thomas’s Hospital, London, England. 1995


Combining radiation and chemotherapy in the treatment of cancers of the anus and rectum. Third Walter T. Murphy Memorial Lecture, Roswell Park Cancer Institute, Buffalo, USA. 1995

Defining the extent of primary colorectal cancer. Oncodiagnosis Panel, 81st Annual Scientific Meeting, Radiological Society of North America, Chicago, USA. 1995

Management of anal cancer. 6th International Congress on Anti-Cancer Treatment, Paris, France. 1996

Indications for and benefits of adjuvant radiation therapy for rectal cancer. Canadian Society of Surgical Oncology, Toronto, 1996

Debate: “That this house believes that fractionation schedules such as accelerated fractionation and hyperfractionation are superior to conventional fractionation for head and neck cancer.” For: Dr. J. Parsons (Gainesville, Florida), Dr. T. Keane (Vancouver, BC); Against: Dr. K.K. Ang (Houston, Texas), Dr. B. Cummings (Toronto). The 1996 University of Toronto Department of Radiation Oncology Debate, Toronto, 1996


Directions for future research in anal cancer. A. Maxwell Evans Clinic, British Columbia Cancer Agency, Vancouver BC, 1996
Interim results of a prospective randomized trial of hyperfractionated versus conventional once daily radiation for advanced squamous cell cancers of the larynx and pharynx. 15th Annual Meeting Eur Soc Ther Radiol Oncol, Vienna, Austria. 1996

Radiation therapy for benign tumours of the head and neck. 15th Annual Meeting Eur Soc Ther Radiol Oncol, Vienna, Austria. 1996


Combined modality treatment of anal canal cancer - what have we learned? The 1997 Gilbert Fletcher Lecture, MD Anderson Cancer Center, Houston, USA. 1997

A randomized trial of hyperfractionated radiation for advanced cancer of the larynx and pharynx. Department of Radiation Therapy, MD Anderson Cancer Center, Houston, USA. 1997

Predicting response to radiation after chemotherapy. Department of Radiation Therapy, MD Anderson Cancer Center, Houston, USA. 1997

Four week fractionated radical radiation for head and neck cancer. International Congress of Radiation Oncology, Beijing, China. 1997

Anal cancer: Strategies for cure. 3rd Jaffar Oncology Conference, Providence Cancer Center, Detroit, USA. 1997


Anal canal cancer. How can we do better? Department of Radiation Oncology, Wayne State University, Harper Hospital, Detroit, USA. 1997

Hyperfractionation for advanced cancer of the larynx and pharynx. Auckland Regional Oncology Centre, Auckland, New Zealand. 1997

Should response to neoadjuvant chemotherapy determine which patients with advanced cancers of the larynx or hypopharynx are eligible for organ preservation protocols? 8th International Congress on Anti-Cancer Treatment, Paris, France. 1998

Reduction of dysfunction in pelvic organs following the treatment of epidermoid cancer of the anal canal by radiation and chemotherapy. 8th International Congress on Anti-Cancer Treatment, Paris, France. 1998


The treatment of cancer of the anal canal and perianal skin. North East Ontario Regional Cancer Center, Sudbury, 1998

Treatment of anal cancer in North America. 6th World Congress of Endoscopic Surgery, Rome, Italy. 1998

Strategies for improving outcome in the treatment of anal canal cancer. Instituto Di Radiologia, Università Cattolica Del Sacro Cuore, Rome, Italy. 1998

Introduction to clinical considerations. Workshop – Variability in the radiosensitivity of normal cells and tissues. 17th Annual Meeting, European Society for Therapeutic Radiology and Oncology, Edinburgh, Scotland. 1998


Radiation therapy for primary or unresectable rectal cancer. Symposium – Progress in Gastrointestinal Disease, Mt. Sinai Hospital, Toronto, 1998

Combined modality treatment of anal cancer – more questions than answers. Department of Radiation Oncology, University of Michigan, Ann Arbor, USA. 1998

Should the clinical response to chemotherapy be used as an indication for radiation treatment for advanced head and neck cancer? Royal Victoria Hospital, McGill University, Montreal, 1998

What is the future for adjuvant radiation treatment for rectal cancer? Montreal General Hospital, McGill University, Montreal, 1998

How can we improve the management of anal cancer? The Annual “Advances in Oncology” Lecture, McGill University and University of Montreal, 1998

Postoperative radiation treatment for rectal cancer: what is the standard? Hôpital Maisonneuve-Rosemont, University of Montreal, Montreal, 1998

Improving the therapeutic ratio in anal cancer. Hôpital Maisonneuve-Rosemont, University of Montreal, Montreal, 1998

Neo-adjuvant chemotherapy and its implication for radiotherapy management in head and neck cancer. Hôpital Notre-Dame, University of Montreal, Montreal, 1998

An overview of the management of anal cancer. 9th International Congress on Anti-Cancer Treatment, Paris, France. 1999

How should adjuvant chemotherapy and radiation therapy for rectal cancer be combined? 9th International Congress on Anti Cancer Treatment, Paris, France. 1999

Debate: “That this house believes that cancer treatment will be individualized for each patient by 2010”. For: Dr. I. Tannock (Toronto), Dr. W. Mackillop (Kingston). Against: Dr. B. Cummings (Toronto), Dr. R. Bristow (Toronto). The 1999 University of Toronto Department of Radiation Oncology Debate, Toronto, 1999

Are radiation oncologists over-treating rectal cancer? Department of Radiotherapy, University Clinic, Freiburg, Germany. 1999

The role of hypoxia and anemia in cancer treatment. Introduction to Symposium, 1st International Conference: Erythropoietin in Radiation Oncology, Freiburg, Germany. 1999

The evolution of the treatment of anal cancer. Department of Radiation Oncology, Barrett Cancer Center, University of Cincinnati, Ohio, USA. 1999

Dr. Bernard Cummings
CV Format/U of T
Contemporary head and neck cancer: should we change fractionation or add chemotherapy? Symposium: Head and Neck Cancer Advances and Controversies, University of Cincinnati, Ohio, USA. 1999

Radiotherapy – pre, intra- or post op? Symposium: Management of Rectal Carcinoma as We Approach the Millenium. Canadian Society of Colon and Rectal Surgeons Annual Scientific Meeting, Montreal, 1999

The clinical response to cytotoxic chemotherapy as a predictor of response to radiation. Department of Clinical Oncology, St. Thomas’ Hospital, London, England. 1999
Combined radiation and chemotherapy for rectal and anal cancers. Department of Oncology, Beatson Cancer Center, Glasgow, Scotland. 1999


Future directions in radiation therapy of colorectal cancer. NCI Canada Gastrointestinal Clinical Trials Committee: Colorectal Cancer at the Millenium – Directions in Multimodality Therapy, Banff, Alberta, 1999

The Compleat Oncologist Revisited. The 2000 RS Bush Visiting Professor Lecture, Princess Margaret Hospital, Toronto, 2000

Radiation for benign tumors of the head and neck. 5th International Conference Head and Neck Cancer, San Francisco, USA. 2000

Debate: “Modern surgical techniques for rectal cancer have made adjuvant radiation redundant”. For-Professor R. Heald (England); Against- Dr. B. Cummings (Toronto), Symposium-Progress in Gastrointestinal Disease, University of Toronto, Toronto, 2000

Latest advances in the treatment of lower gastrointestinal malignancies. 7th Annual Conference: The Science and Art of Pain and Symptom Management, University of Toronto, Toronto, 2000


The contributions of radiation therapy to cancer control. Plenary Session Lecture. 6th International Congress of Radiation Oncology. Melbourne, Australia. 2001

Dose-intensification for anal cancer. Department of Radiation and Cellular Oncology, University of Chicago, USA. 2001


The future of adjuvant therapy for rectal cancer. Cancer Congress. Santiago, Chile. 2001

The integration of radiation and chemotherapy in the treatment of anal canal cancer. Cancer Congress, Santiago, Chile. 2001
Progress, or lack of progress, in the treatment of anal cancer? Christie Hospital, Manchester, England. 2002


Improving the outcome of the treatment of anal cancer. Addenbrooke’s Hospital, Cambridge, England. 2002

Integrating radiation and chemotherapy in the management of anal cancer. 7th International Meeting on Progress in Radio-Oncology, ICRO/OGRO, Salzburg, Austria. 2002

Best practice with limited resources. 1st Polish Cancer Congress, Gliwice, Poland. 2002

Head and neck cancer. Defining the target volume. Introduction to a Poster Workshop, 21st Annual Scientific Meeting, Eur Soc Ther Radiol Oncol, Prague, Czech Republic. 2002

Colorectal cancer: current role for adjuvant radiation therapy. 8th Annual General Meeting, Ontario Association of General Surgeons, Toronto, 2002

Management of cancer of the pharynx. 8th Annual Canadian Radiation Oncology Residents Refresher Course, Ottawa, 2003


Principles of Best Practice. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Principles of Combined Modality Treatment. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Management of Head and Neck Cancer. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Cancer of the Nasopharynx and Oropharynx. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Cancer of the Larynx and Hypopharynx. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Adjuvant treatment of Rectal Cancer. Best Practice for Radiation Therapy. ISRO International Teaching Course, Mexico City, Mexico. 2003

Cancer of the pharynx and larynx. 9th Annual Canadian Radiation Oncology Residents Refresher Course, London, Ontario, 2004

Cancer of the anal region. 9th Annual Canadian Radiation Oncology Residents Refresher Course, London, Ontario, 2004

Rethinking the GTV for adjuvant radiation for rectal cancer. Department of Radiation and Cellular Oncology, University of Chicago, Chicago, USA. 2004
Debate: “This house believes that by 2014, treatment of head and neck cancer will be based on molecular pathology”. For – Dr. B. O’Malley (Philadelphia), Dr. F.F. Liu (Toronto) against – Dr. B. Cummings (Toronto), Dr. D. Brown (Toronto). The Sixth Annual Wharton Day, Toronto, 2004

Current management of anal cancer. 2004 International Society of Gastrointestinal Oncology, Washington DC, 2004

Radiation Oncology in Canada. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Principles of combining radiation and chemotherapy. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Principles of radiation treatment of head and neck cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the larynx and hypopharynx. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Demonstration cases of larynx and hypopharynx cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the oropharynx and oral cavity. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Demonstration cases of oropharyngeal and oral cavity cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the nasopharynx – a North American perspective. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cervical node metastasis from an occult primary site. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the esophagus. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Adjuvant radiation therapy for gastric adenocarcinoma. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Dr. Bernard Cummings
CV Format/U of T
Adjuvant radiation treatment for rectal cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Determining the CTV for adjuvant radiation for rectal cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Cancer of the anal region. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Demonstration cases of rectal and anal cancer. National Health Research Institutes/Taiwan Society of Radiation Oncology Course for Clinical Oncology Trainees, Taichung, Taiwan. 2004

Clinical Practice Guidelines and the Academic Health Services Centre. Department of Internal Medicine Grand Rounds, Taichung Veterans General Hospital, Taichung, Taiwan. 2004

Modern management of rectal cancer. Department of Surgery General Rounds, Taichung Veterans General Hospital, Taichung, Taiwan. 2004

Clinical Practice Guidelines and the Academic Health Science Centre. Department of Internal Medicine Grand Rounds, National Cheng Kung University and Hospital, Tainan, Taiwan. 2004

Modern management of anal cancer. A happy convergence of science and empiricism. Department of Radiation Oncology Rounds, National Cheng Kung University and Hospital, Tainan, Taiwan. 2004

Cancer of the Pharynx. 10th Annual National Canadian Fellowship Examination Preparatory Course in Clinical and Radiation Oncology, Ottawa, 2005

Workshop on Head and Neck Cancer Treatment Planning. 10th Annual National Canadian Fellowship Examination Preparatory Course in Clinical and Radiation Oncology, Ottawa, 2005

Rethinking the CTV for adjuvant radiation for rectal cancer. CRILA Congress 2005, Lima, Peru. 2005

Indications for adjuvant radiation for gastric cancer, and Panel Discussion on Gastric Cancer. CRILA Congress 2005, Lima, Peru. 2005

Collaboration Strategies for Radiotherapy Societies. CRILA Congress 2005, Lima, Peru. 2005

Standards of Care in Radiation Therapy. How high should the bar be set? CRILA Congress 2005, Lima, Peru. 2005


Adenocarcinoma of the rectum. Current Standards and Best Practice. ASTRO Teaching Course, Manila, Philippines, January 2006.
Cancers of the oropharynx and nasopharynx. ASTRO Teaching Course, Manila, Philippines, January 2006.

Cancers of the larynx and hypopharynx. ASTRO Teaching Course, Manila, Philippines, January 2006.

Cancer of the Pharynx. 11th National Canadian Preparatory Course in Clinical and Radiation Oncology. Montreal, 2006

Principles of combined modality treatments. Current Standards and Best Practice. ASTRO Teaching Course, Buenos Aires, Argentina. 2006

Cancers of the esophagus and stomach. Current Standards and Best Practice. ASTRO Teaching Course, Buenos Aires, Argentina. 2006

Adjuvant treatment for rectal cancer. Current Standards and Best Practice. ASTRO Teaching Course, Buenos Aires, Argentina. 2006

Cancer of the anal canal. Ontario Gastrointestinal Cancer Conference, Toronto, 2006


Multimodality therapy in rectal cancer. Latin American Symposium in Gastrointestinal Malignancies, Santiago, Chile. 2007

Anal cancer. Latin American Symposium in Gastrointestinal Malignancies, Santiago, Chile. 2007

Debate: Adjuvant chemotherapy alone is the proper treatment in resectable pancreatic cancer. Latin American Symposium in Gastrointestinal Malignancies, Santiago, Chile. 2007

Cancer of the anal canal. Ninth Congress of the Radiotherapy Society of Brazil, Gramado, Brazil. 2007

The History of ASTRO. Symposium for Chinese radiation oncologists. 49th Annual Meeting ASTRO. Los Angeles, USA. 2007

ASTRO and the international community. First SANTRO (Sino-American Network of Therapeutic Radiologists and Oncologists) Symposium, Beijing, China. 2008

Gastric Cancer: North American Consensus Recommendations for curative surgery and adjuvant treatment. First SANTRO (Sino-American Network of Therapeutic Radiologists and Oncologists) Symposium, Beijing, China. 2008

Gastric Cancer: Background to the North American approach. First SANTRO (Sino-American Network of Therapeutic Radiologists and Oncologists) Symposium, Beijing, China. 2008

Anal Canal Cancer: North American Consensus and Background. First SANTRO (Sino-American Network of Therapeutic Radiologists and Oncologists) Symposium, Beijing, China. 2008
Progress in Anal Canal Cancer: the contributions of chance and systematic research. Fudan University Cancer Hospital, Shanghai, China. 2008

International outreach education programs of ASTRO. Symposium: ASTRO and the International Community. 50th Annual Scientific Meeting, ASTRO, Boston, USA. 2008

Chemoradiation for anal canal cancer. Early luck but slow progress. 8th Princess Margaret Hospital Conference: Developments in Cancer Management. Toronto, 2008


ASTRO international programs and the IAEA. IAEA Headquarters, Vienna, Austria. 2009

Radiation and chemotherapy for rectal cancer: Before or after surgery? Second Latin American Symposium on Gastrointestinal Malignancies, Vina del Mar, Chile. April 2009

Perisurgical treatment for pancreas cancer. Second Latin American Symposium on Gastrointestinal Malignancies, Vina del Mar, Chile. April 2009

Cancers of the esophagus and stomach. Limits and advantages of perioperative treatment. Second Latin American Symposium on Gastrointestinal Malignancies, Vina del Mar, Chile. April 2009

Cancer of the esophagus. Best Practice in Radiation Oncology. ASTRO International Education Program. 11th Annual Scientific Meeting of the Society of Radiation Oncologists of Brazil, Brazil. 2009

Cancer of the stomach. Best Practice in Radiation Oncology. ASTRO International Education Program. 11th Annual Scientific Meeting of the Society of Radiation Oncologists of Brazil, Brazil. 2009

Cancer of the rectum. Best Practice in Radiation Oncology. ASTRO International Education Program. 11th Annual Scientific Meeting of the Society of Radiation Oncologists of Brazil, Brazil. 2009

ARRO Conference. ASTRO International Education Programs. ASTRO Scientific Meeting, Chicago, USA. 2009

Dr. Solomon Padam Singh Oration. “The changing role of radiation treatment for cancer of the rectum.” 31st Annual Congress of the Association of Radiation Oncologists of India (AROI), Hyderabad, India. 2009

Using evidence-based guidelines. Princess Margaret Hospital Radiation Medicine Education Program: Current Strategies in Radiation Therapy, Mexico City, Mexico. 2010

Rectal cancer. Princess Margaret Hospital Radiation Medicine Education Program: Current Strategies in Radiation Therapy, Mexico City, Mexico. 2010

Case based teaching – gastrointestinal cancers. Princess Margaret Hospital Radiation Medicine Education Program: Current Strategies in Radiation Therapy, Mexico City, Mexico. 2010
Radiation treatment of metastases from colorectal cancer. Colorectal Cancer Association of Canada, Montreal. 2010

When change is progress. Reflections on 38 years of Head and Neck Radiation Oncology. Wharton/Elia Day, Annual Meeting, Princess Margaret Hospital, Toronto. 2010

Radiation therapy in Pancreas Cancer. ASTRO International Education Program. Annual Meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

Radiation therapy in Rectal Cancer: Short or long course? ASTRO International Education Program. Annual Meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

Conservative treatment of low rectal cancer. ASTRO International Education Program. Annual Meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

Radiation therapy in Rectal Cancer: Short or long course? ASTRO International Education Program. Annual meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

The development of treatment for anal cancer: from conventional to conformal. 32nd Annual Congress of the Association of Radiation Oncologists of India (AROI), Patna, India. 2010

Radiation Therapy, Rectal Cancer and Clinical Trials: Lessons and Opportunities. The Cosbie Lecture, NCIC Clinical Trials Group Spring Meeting, Toronto, 2011

Ontario Provincial Evidence-Based Guidelines for Preoperative Chemoradiation. Cancer Care Ontario Colorectal Cancer Champion Meeting, Toronto, 2011


Kuwait Cancer Control Centre Radiation Treatment Program, Kuwait, 2012
- Target volume delineation in head and neck cancer.
- Unknown primary cancer in lymph nodes.
- Management of T1 glottic cancer.


Fourth Latin American Symposium on Gastrointestinal Malignancies, Vina del Mar, Chile, 2013.
- Is there a role for adjuvant radiation for pancreas cancer?
- Which patients with rectal cancer do not need preoperative radiation and chemotherapy?


**Visiting Professorships**

1982  New York University Medical Center, Dept. of Radiation Therapy, New York, USA.

1983  University of the Witwatersrand, Dept. of Radiation Therapy, Johannesburg, South Africa.

1984  Mallinckrodt Institute of Radiology, at Washington University Medical Center, St. Louis, USA.

1985  Thomas Jefferson University, Department of Radiation Therapy, Philadelphia, USA.

1986  University of Florida, Department of Radiation Therapy, Gainesville, USA.

1988  Loyola University, Department of Radiation Therapy, Chicago, USA.

1991  Henry Ford Hospital, Department of Radiation Oncology, Detroit, USA.

1992  Manitoba Cancer Foundation Clinic, Winnipeg, Manitoba.

1992  University of Florida at Gainesville, Department of Radiation Therapy, Gainesville, USA.


1992  McGill University, Department of Radiation Oncology, Montreal, Quebec.

1993  Wayne State University, Department of Radiation Oncology, Detroit, USA.

1994  Christchurch Hospital Department of Oncology, Christchurch, New Zealand.

1994  Wellington Regional Cancer Centre, Wellington, New Zealand.

1994  Auckland Regional Cancer Centre, Auckland, New Zealand.


1997  MD Anderson Cancer Center, Houston, USA.
1997 Wayne State University, Department of Radiation Oncology, Detroit, USA
1998 Università Cattolica Del Sacro Cuore, Rome, Italy.
1998 University of Michigan, Department of Radiation Oncology, Ann Arbor, USA.
1998 University of Montreal and McGill University, Visiting Professor in Oncology, Montreal, Quebec.
1999 Cleveland Clinic Department of Radiation Oncology, Cleveland, USA.
1999 University of Cincinnati, Department of Radiation Oncology, Cincinnati, USA.
1999 University of Glasgow, Beatson Cancer Centre, Department of Clinical Oncology, Glasgow, Scotland.
2001 University of Chicago, Department of Radiation and Cellular Oncology, Chicago, USA.
2002 Christie Hospital, Department of Clinical Oncology, Manchester, England.
2002 Addenbrooke’s Hospital, Department of Clinical Oncology, Cambridge, England.
2004 University of Chicago, Department of Radiation and Cellular Oncology, Chicago, USA.
2007 London Regional Cancer Center, University of Western Ontario, London, Ontario.
2011 London Regional Cancer Center, University of Western Ontario, London, Ontario.
Curriculum Vitae

Gregory Jan Czarnota
Clinician Scientist and Radiation Oncologist

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

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Odette Cancer Centre
Sunnybrook Health Sciences Centre
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Toronto, Ontario, Canada
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Telephone 416-480-6128
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Email gregory.czarnota@sunnybrook.ca

1. EDUCATION

Degrees
2000 - 2005 F.R.C.P.C, Radiation Oncology, University of Toronto, Ontario, Canada
1996 - 2000 MD, Medicine, Faculty of, University of Toronto, Canada
1991 - 1995 PhD, Structural States of the Nucleosome, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1987 - 1991 B. Sc. Hons. Biochemistry /Biotechnology and Genetic Engineering, McMaster University, Canada

Postgraduate, Research and Specialty Training
1996 - 2000 Research Associate, Division of Medical Physics, Ontario Cancer Institute and Department of Medical Biophysics, University of Toronto, Canada
1995 - 1996 Postdoctoral Fellow, Division of Molecular and Structural Biology, Ontario Cancer Institute and Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1991 - 1996 Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1990 Biochemistry, McMaster University, Ontario, Canada
1989 Biochemistry, McMaster University, Ontario, Canada

Qualifications, Certifications and Licenses
2005 Specialist Certificate, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
2005 Certificate of Registration for Independent Practice, CPSO, College of Physicians and Surgeons of Ontario, Canada, License / Membership #: #75024
2001 Licentiate, LMCC, Medical Council of Canada, Canada, License / Membership #: #90046
2. EMPLOYMENT

Current Appointments

2013 - present  Head, Radiation Treatment Program, Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2013 - present  Chief, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2011 - present  Associate Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
2011 - present  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2011 - present  Senior Scientist, Physical Sciences Platform, Imaging Research, Sunnybrook Research Institute, Toronto, Ontario, Canada
2011 - present  Program Research Director, Odette Cancer Research Program, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2009 - present  Adjunct Professor, Department of Computer Science, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
2009 - present  Adjunct Professor, Department of Physics, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
2008 - present  Active Staff, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2008 - present  Full Member, Graduate Studies, University of Toronto, Toronto, Ontario, Canada
2005 - present  Mentor, Excellence in Radiation Research in the 21st Century Programme, University of Toronto, Canadian Institute of Health Research, Ontario, Canada
2005 - present  Clinician Scientist, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2013 - 2018  Chair in Breast Cancer Imaging and Ablation, University of Toronto, James and Mary Davie Chair, Ontario, Canada

Previous Appointments

2010 - 2011  Interim Program Research Director, Odette Cancer Research Program, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2009 - 2013  Chair in Imaging and Experimental Therapeutics, Cancer Care Ontario, Ontario, Canada
2008 - 2009  Acting Chair, Breast Radiation Oncology Site Group, Radiation Oncology, Sunnybrook Health Sciences Centre, Ontario, Canada
2005 - 2011  Assistant Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
2005 - 2011  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2005 - 2008  Associate Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
2005 - 2008  Provisional Active Staff, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2002 - 2009  Adjunct Professor, Math, Physics and Computer Science, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
1999 - 2002  Adjunct Professor, Math, Physics and Computer Science, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
1999 - 2002  Adjunct Professor, Chemistry, Biology and Chemical Engineering, School of Graduate Studies, Ryerson University, Toronto, Ontario, Canada
1996 - 2001  Lecturer, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
Fundamentals in Molecular and Cellular Biology II MBP 1008H
1994 - 1995  System Administrator (Part-Time), Medical Biophysics, University of Toronto
Research Computing: Ontario Cancer Institute
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2005  Clinical Trials Workshop Award, American Association of Cancer Research/American Society of Clinical Oncology, United States. (Research Award)
      Total Amount: 3,000 USD

2003  Scholar-In-Training Award, American Association of Cancer Research/Aventis, United States. (Research Award)
      Total Amount: 3,000 USD

1998  Annual Meeting Travel Award, Radiation Research Society. (Distinction)
      Total Amount: 2,000 CAD

1993  Presidential Scholarship, Microscopy Society of America, United States. (Research Award)

NATIONAL
Received

2003  Jean Roy Memorial Award, Canadian Association of Radiation Oncologists Annual Scientific Meeting, Canada. (Research Award)

1996  Annual Meeting, Presentation Award, Protein Engineering Network Centres of Excellence. (Research Award)

1995  Travel Award, Merck Frosst - Canadian Society of Biochemistry and Molecular Biology, Canada. (Research Award)

1994  Steve Fonyo Research Fellowship, National Cancer Institute of Canada, Canada. (Research Award)
      Total Amount: 15,000 CAD

1993  Connaught Scholarship, Canada. (Research Award)

1989  Undergraduate Research Scholarship, Natural Sciences and Engineering Research Council of Canada (NSERC), Canada. (Research Award)

PROVINCIAL / REGIONAL
Received

2016  Natural Sciences and Engineering Research Council of Canada Postdoctoral Fellowship, Supervisor, Awardee Name: Seyed Reza Mousavi. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada Personnel/Trainee Award. Total Amount: 45,000 CAD

2014 - 2016  Natural Sciences and Engineering Research Council of Canada Postdoctoral Fellowship, Supervisor, Awardee Name: Mehrdad Gangeh. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada Personnel/Trainee Award. Total Amount: 90,000 CAD

Canadian Institute of Health Research (CIHR), Ontario, Canada  
Personnel/Trainee Award. Total Amount: 140,000 CAD

2012 Alexander Graham Bell Canada Graduate Scholarship, Supervisor, Awardee Name: Hadi Tadayyon. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
Personnel/Trainee Award. Total Amount: 70,000 CAD

2012 NSERC Award, Supervisor, Awardee Name: Stephanie Zhou. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
Personnel/Trainee Award. Total Amount: 5,000 CAD

2011 ICR Travel Awards, Supervisor, Awardee Name: Golnaz Farhat. Canadian Institute of Health Research (CIHR), Ontario, Canada  
Personnel/Trainee Award. Total Amount: 1,000 CAD

2010 Fellowship Award, Supervisor, Awardee Name: Omar Falou. Canadian Breast Cancer Foundation, Ontario, Canada  
Personnel/Trainee Award. Total Amount: 141,000 CAD

2010 Fellowship Award, Supervisor, Awardee Name: Ali Sadeghi-Naini. Canadian Breast Cancer Foundation, Ontario, Canada  
Personnel/Trainee Award. Total Amount: 141,000 CAD

2009 - 2014 Cancer Care Ontario, Ontario, Canada. (Research Award)  
Research Chair in Imaging and Experimental Therapeutics. Total Amount: 500,000 CAD

2009 - 2014 Early Researcher Award, Ministry of Research and Innovation (MRI), Ontario, Canada. (Research Award)  
Total Amount: 150,000 CAD

2009 Undergraduate Summer Research Award, Supervisor, Awardee Name: Christina Kim. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
Personnel/Trainee Award. Total Amount: 5,000 CAD

2008 Excellence in Radiation Research in the 21st Century Award, Supervisor, Awardee Name: Justin Lee. Canadian Institutes of Health Research, Ontario, Canada  
Novel Ultrasound-Microbubble Radiosensitization of Prostate Cancers. Personnel/Trainee Award. Total Amount: 102,200 CAD

2008 Undergraduate Summer Research Award, Supervisor, Awardee Name: Shawn Ranieri. Natural Sciences and Engineering Research Council of Canada (NSERC), Ontario, Canada  
Personnel/Trainee Award. Total Amount: 5,000 CAD

2007 Research Summer Studentship Award, Supervisor, Awardee Name: Shawn Ranieri. Sunnybrook Health Sciences Centre, Ontario, Canada  
Ultrasound Imaging of Cancer Therapy Effects. Personnel/Trainee Award. Total Amount: 1,600 CAD

2006 Research Summer Studentship Award, Supervisor, Awardee Name: Shawn Ranieri. Sunnybrook Health Sciences Centre, Ontario, Canada  
Ultrasound Imaging of Cancer Therapy Effects. Personnel/Trainee Award. Total Amount: 1,600 CAD

2005 Excellence in Radiation Research in the 21st Century Award, Supervisor, Awardee Name: Roxana Vlad. Canadian Institutes of Health Research, Ontario, Canada  
Quantitative Ultrasound for Monitoring Cancer Therapy Effects. Personnel/Trainee Award. Total Amount: 51,000 CAD

LOCAL Received  

2016 Academic Performance Award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2015 Academic Performance Award, Sunnybrook Health Sciences Centre, Toronto, Ontario,
2014 **Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2014 **Excellence in Research Leadership Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Department of Radiation Oncology)

*Terry Fox New Frontiers Program Project Grant Team at Odette Cancer Centre.*

2013 - 2018 **James and Mary Davie Chair**, University of Toronto, Toronto, Ontario, Canada. (Research Award)

*Chair in Breast Cancer Imaging and Ablation. Total Amount: 1,000,000 CAD*

2013 **Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2013 **Department of Radiation Oncology**, University of Toronto, Toronto, Ontario, Canada. (Distinction)

2012 **Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2012 **Research Leadership Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Department of Radiation Oncology)

2011 **Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2010 **Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2009 **Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Academic, Specialty: Radiation Oncology)

2009 **Outstanding Research Potential Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)

2008 **Academic Performance Award**, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Radiation Oncology)

2004 **Best Rounds Award**, Princess Margaret Hospital, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Medicine Programme)

2002 **Faculty of Medicine and Research Award**, Supervisor, Awardee Name: David Spurrell. University of Toronto, Ontario, Canada

*Ultrasound Imaging of Apoptosis in Mouse Mammary Involution. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2002 **Faculty of Medicine and Research Award**, Supervisor, Awardee Name: Matthew Butler. University of Toronto, Ontario, Canada

*Ultrasound Imaging of Different Red Blood Cell Morphologies. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2002 **W.J. Simpson Research Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Department of Radiation Oncology)

2001 **Faculty of Medicine and Research Award**, Supervisor, Awardee Name: Matthew Butler. University of Toronto, Ontario, Canada

*Ultrasound Imaging of Different Red Blood Cell Morphologies. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2001 **Faculty of Medicine and Research Award**, Supervisor, Awardee Name: Michael Levesque. University of Toronto, Ontario, Canada

*Ultrasound Imaging of Apoptosis in Different Cell Culture Lines. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2001 **Faculty of Medicine and Research Award**, Supervisor, Awardee Name: Peter Darby Ph.D. University of Toronto, Ontario, Canada

*Ultrasound Imaging of the Cell Cycle. Personnel/Trainee Award. Total Amount: 4,000 CAD*

2001 **NCIC Young Investigator Award**, University of Toronto, Toronto, Ontario, Canada. (Research Award, Specialty: Department of Radiation Oncology)
Gregory Jan CZARNOTA

2000 Faculty of Medicine and Research Award, Supervisor, Awardee Name: Michael Levesque. University of Toronto, Ontario, Canada. Ultrasound Imaging of Apoptosis in an Animal Tumour System. Personnel/Trainee Award. Total Amount: 4,000 CAD

2000 Faculty of Medicine and Research Award, Supervisor, Awardee Name: Mohammed Hussain. University of Toronto, Ontario, Canada. The Role of Nuclear Structure in Ultrasonic Detection of Apoptosis. Personnel/Trainee Award. Total Amount: 4,000 CAD

2000 Faculty of Medicine and Research Award, Supervisor, Awardee Name: James Warrington. University of Toronto, Ontario, Canada. Spectral Analyses of Ultrasound Backscatter Signals from Apoptotic Tissues and Cells. Personnel/Trainee Award. Total Amount: 4,000 CAD

1999 Faculty of Medicine and Research Award, University of Toronto, Ontario, Canada. (Research Award) Ultrasound Imaging of Apoptosis. Total Amount: 4,000 CAD

1998 Faculty of Medicine Research Scholarship, University of Toronto, Toronto, Ontario, Canada. (Research Award) Total Amount: 4,000 CAD

1997 Faculty of Medicine Research Scholarship, University of Toronto, Ontario, Canada. (Research Award) (with funds from the Medical Research Council of Canada). Total Amount: 4,000 CAD

1992 Open Master’s Fellowship, University of Toronto, Canada. (Research Award)

1988 Senate Scholarship, McMaster University, Canada. (Distinction)

1987 Chancellor’s Scholarship, McMaster University, Canada. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2005 - present Fellow, Royal College of Physicians and Surgeons of Canada
2000 - present Member, American Association for Cancer Research
1998 - present Member, Ontario Medical Association
2002 - 2011 Member, Canadian Association of Radiation Oncologists
2001 - 2005 Resident, Royal College of Physicians and Surgeons of Canada
2000 - 2015 Member, American Institute for Ultrasound in Medicine
1998 - 2011 Member, Canadian Medical Association
1998 - 2000 Member, Radiation Research Society
1996 - 2000 Member, Microscopy Society of Canada
1995 - 2000 Member, American Association for the Advancement of Science
1992 - 1996 Member, Microscopy Society of America

Administrative Activities

INTERNATIONAL
American Institute of Ultrasound in Medicine
2008 - present Member, Bioeffects Committee, United States.
2015 Session Chair, Annual Scientific Symposium, United States.
Gregory Jan CZARNOTA

2013 - 2015 Chair, Bioeffects Committee, United States.
2013 Session Chair, Annual Scientific Symposium, United States.
2011 - 2013 Vice Chair, Bioeffects Committee, United States.
2010 Session Chair, Annual Scientific Symposium, United States.
2010 Chair, High-Frequency Ultrasound Section, United States.
2008 - 2009 Vice Chair, High-Frequency Ultrasound Section, United States.
2008 Session Chair, Categorical Course: Intravascular Ultrasound – Annual Meeting
2007 - 2008 Secretary, High-Frequency Ultrasound Section, United States.
2007 Session Chair, High-Frequency Ultrasound Imaging – Annual Meeting

International Symposium of Ultrasonic Imaging and Tissue Characterization
2016 Session Chair, United States.
2015 Session Chair, United States.
2014 Session Chair, United States.
2013 Session Chair, United States.
2012 Session Chair, United States.

Microscopy Society of America
1996 Session Chair, Macromolecular Microscopy, United States.

Research in Biological Sciences and Treatment Planning, University of Toronto
2008 Session Chair, Annual Research Day, Toronto, Ontario, Canada.

NATIONAL
Canadian Institutes of Health Research

PROVINCIAL / REGIONAL
Ontario Association of Radiation Oncology
2015 Chair, Clinician Scientist Appointments and Review Committee, Toronto, Ontario, Canada.
2011 - 2014 Member, Clinician Scientist Appointments and Review Committee, Toronto, Ontario, Canada.

Ontario Cancer Institute

LOCAL
Department of Radiation Oncology, University of Toronto
2006 - 2011 Member, Academic Communications Committee, Toronto, Ontario, Canada.

Sanofi
2008 - 2009 Mentor (1st place Toronto Championships), Aventis Bio Talent Challenge, Toronto,
Ontario, Canada.

Sunnybrook Health Sciences Centre
2011 - present **Coordinator**, Radiation Oncology, Cancer Research Rounds (bi-weekly), Toronto, Ontario, Canada.
2015 **Member**, Medical Oncology Search Committee, Toronto, Ontario, Canada.
2015 **Member**, Radiation Oncology Search Committee, Toronto, Ontario, Canada.
2015 **Member**, Radiation Oncology Scientist Search Committee, Toronto, Ontario, Canada.
2014 **Member**, Radiation Oncology Search Committee, Toronto, Ontario, Canada.
2014 **Member**, VP Odette Cancer Centre Search Committee, Toronto, Ontario, Canada.
2013 **Member**, Radiation Oncology Search Committee, Toronto, Ontario, Canada.
2010 **Member**, Campbell Research Chair Search Committee, Toronto, Ontario, Canada.
2008 - 2012 **Chair**, Radiation Oncology Associates, Toronto, Ontario, Canada.
2008 - 2009 **Acting Chair**, Breast Radiation Oncology Site Group, Department of Radiation Oncology, Toronto, Ontario, Canada.
2007 - 2008 **Secretary**, Radiation Oncology Associates, Toronto, Ontario, Canada.
2005 - 2011 **Coordinator**, Radiation Oncology, Radiobiology and Radiation Physics (R3) Rounds & Imaging Research Rounds (weekly), Toronto, Ontario, Canada.
2005 - 2010 **Imaging Representative**, Animal Care Committee, Toronto, Ontario, Canada.

Sunnybrook Research Institute
2015 **Member**, Scientist Search Committee, Toronto, Ontario, Canada.
2012 **Member**, Biological Sciences Director Search, Toronto, Ontario, Canada.

Technology in Cancer Research and Treatment (TCRT)
2008 - present **Member**, Editorial Board

Ultrasonic Imaging
2011 - present **Member**, Editorial Board, Canada.

University of Toronto
2011 **Chair**, Farqueson Research Chair Search Committee, Toronto, Ontario, Canada.
2009 - 2012 **Member**, Fellowship Selection Committee Member, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2008 **Session Chair**, Research in Biological Sciences and Treatment Planning – Annual Research Day, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2008 **Member**, Organizing Committee, Target Insight III Radiation Oncology Conference, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2008 **Moderator**, Annual Research Day, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2006 - 2010 **Member**, CaRMS Applicant Review, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2006 **Judge**, James Lepock Memorial Student Research Symposium, Faculty of Medicine, Dept of Medical Biophysics, Toronto, Ontario, Canada.
1998 **Associate Editor**, University of Toronto Medical Journal, Toronto, Ontario, Canada.
1993 - 1994 **Vice President**, Medical Biophysics Graduate Students Association, Toronto, Ontario, Canada.
1992 - 1993  **Member of Student Executive and Treasurer**, Medical Biophysics Graduate Students Association, Toronto, Ontario, Canada.
1991 - 1992  **Graduate Student Union Representative**, Graduate Students Union, Toronto, Ontario, Canada.

University of Toronto, Department of Radiation Oncology

University of Toronto, Research in Biological Sciences and Treatment Planning
2009  **Session Chair**, Annual Research Day, Toronto, Ontario, Canada.

**Peer Review Activities**

**GRANT REVIEWS**

**Reviewer/Panel Member**

- **2015**  Natural Sciences and Engineering Research Council of Canada (NSERC)
- **2015**  Terry Fox Programme
- **2014**  AIHS Collaborative Research and Innovations Opportunities
- **2014**  CCSRI Innovations Grant Panel
- **2014**  Natural Sciences and Engineering Research Council of Canada (NSERC)
- **2014**  Prostate Cancer Canada, Rising Star Awards
- **2014**  UK Cancer Agency
- **2013**  Alberta Innovates Health Care, Grant Panel
- **2013**  CCSRI Innovations Grant Panel
- **2013**  Komen Foundation, Breast Cancer Investigator initiated committee panel
- **2013**  Prostate Cancer Canada, CDMRP, Investigator initiated pre-review committee panel
- **2013**  Prostate Cancer Canada, Rising Star Awards
- **2012**  Komen Foundation, Breast Cancer Investigator initiated committee panel
- **2012**  Komen Foundation, Breast Cancer Investigator initiated pre-review committee panel
- **2011**  Alberta Cancer Board, Research Grants Competition
- **2011**  Canadian Cancer Society Research Institute, Biophysics, Imaging and Radiobiology Panel
- **2011**  Department of Defense, U.S. Army Medical Research and Materiel Command, Congressionally Directed Medical Research Programs (CDMRP), Prostate Cancer, Imaging and Radiation Oncology Panel
- **2011**  Komen Foundation, Breast Cancer Investigator initiated pre-review committee panel
- **2011**  OICR High-Impact Clinical Trials, ONTRECT Grants Panel
- **2011**  OICR High-Impact Clinical Trials, Small projects panel
- **2011**  Prostate Cancer Canada, Grants Competition
- **2010**  Alberta Cancer Research Institute, Alberta Cancer Board, Operating Grant Competition
- **2010**  Canadian Cancer Society Research Institute, Grants Panel
- **2010**  Department of Defense, U.S. Army Medical Research and Materiel Command, Congressionally Directed Medical Research Programs, Breast Cancer Clinical and Experimental Therapeutics Panel
- **2010**  Department of Defense, U.S. Army Medical Research and Materiel Command, Congressionally Directed Medical Research Programs, Prostate Cancer Imaging Panel
C. Academic Profile

1. Research Statements

Research Statement.

MANUSCRIPT REVIEWS
Reviewer
2014 - present Nature Communications
2014 - present PLOS1
2012 - present Journal of Acoustical Society of America (Express Letters)
2012 - present Journal of Translational Oncology
2010 - present IEEE Transactions on Medical Imaging
2009 - present Cancer Research
2008 - present American Journal of Pathology
2008 - present IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control
2008 - present Ultrasound in Medicine and Biology
2006 - present Radiation Research
2005 - present International Journal Radiation Oncology, Biology and Physics
My research goal is to develop our ultrasound imaging and treatment methods to improve cancer therapies and improve outcomes of cancer therapy.

We plan to continue developing our quantitative ultrasound tumour-response-imaging methods further and to fine tune them using preclinical scenarios, clinical evaluations, and to combine them with new therapies. The overarching goal is to transform conventional ultrasound, which is non-invasive, inexpensive and portable, such that it can be used to quantitatively to assess cancer therapies through functional imaging, in which tumour cell death is detected. By detecting cell death early in a treatment on the order of hours to days, rather than traditional anatomical assessments that take place weeks to months after the completion of therapy, ineffective therapies could be switched to more efficacious treatments. This has the potential of improving survival in addition to sparing patients unnecessary side effects of treatments that may span weeks to months. We will use these quantitative methods to evaluate standard cancer treatments and also more novel ultrasound based therapeutics.

In terms of ultrasound therapy we plan on further developing our new ultrasound-based radiation enhancing therapy. We have recently demonstrated that using microbubble-based ultrasound treatments the effects of radiation can be significantly enhanced leased to 70-80% tumour volume ablation when combined with a single low (2Gy) dose of radiation.

Cell Death Detection by Ultrasound

Accomplishments:
Quantitative ultrasound methods have been used in a research context since being developed to map out tissue types in the human eye, the heart, to differentiate prostate cancer from non-malignant prostate tissue, and most recently differentiate breast tumour types These are frequency dependent spectral analyses which can be used to generate parameters that may be related to acoustic properties of tissues including the scatterer size, the concentration of acoustic scatterers, and higher-order parameters.

We demonstrated the applicability of these methods in the detection of cell death, in vitro and in situ starting with high-frequency ultrasound. That initial research indicated that ultrasound spectroscopic changes were detectable in response to chemotherapy and photodynamic therapy in vitro with AML cell culture samples and in situ in excised tissues consisting of brain and skin exposed to photodynamic therapy. This was followed by the application of quantitative ultrasound analyses to assessments of cell death in vitro and then linking the changes detected to the cell’s nucleus and the changes it undergoes during cell death. Our current appreciation of ultrasound scattering theory, supported by experimental data from a number of systems, indicates that the nuclear condensation associated with pyknosis of necrotic cells, the nuclear condensation and fragmentation of apoptotic cells, and the disintegration of the cell nucleus seen in late stages of cell death are key features of cellular morphology permitting cell death to be detected and monitored in a longitudinal manner. Recent data indicates that different forms of cell death may be detected and differentiated in vitro under well controlled conditions with high-frequency ultrasound. These results have also been extended in preclinical tumour models and in tests from the high to lower clinical range ultrasound frequencies setting the stage for the research presently being carried out at clinical frequencies.

There are now four interrelated projects proposed which complement each other and are critical to bringing these technologies ultimately to the clinic. The first sees the continued development of quantitative ultrasound methods for the detection of tumour responses to cancer therapies at high and low frequency, for preclinical and clinical applications, respectively. The second focuses on correlative analyses which will be integrated with the quantitative ultrasound approaches and focuses on correlating dynamic contrast enhanced MRI tumour data, and whole mount three-dimensional histopathological data, with the ultrasound data. We are integrating these into our analyses as they are rapidly becoming clinical standards. A third project is centred about evaluating quantitative ultrasound data
from patients receiving cancer therapy and will draw on background established methods in quantitative ultrasound and be guided by ongoing developments from the first two projects. That project now couples previous work with new directions in photoacoustics imaging which brings together ultrasound and optical imaging. A last project will further develop recent innovations in using ultrasound as an enhancing agent for cancer therapy based on our discovery of bubble enhanced ultrasound potentiation of tumour response and as targeting method to deliver radiosensitizers.

Clinical Significance:
We have also initiated clinical evaluations of using these quantitative ultrasound methods to monitor treatment effects. We are currently conducting a pilot study to evaluate clinical-frequency quantitative ultrasound methods to monitor the efficacy of neoadjuvant chemotherapy in women with locally advanced breast cancer. Preliminary data indicate treatment effects on cell death may be detected as early as one week after the administration of chemotherapy. Ultrasound results will be correlated to whole mount histopathology of mastectomy samples from the women enrolled in this study using deformable registration methods. Having demonstrated the feasibility of this technique in monitoring tumour responses we are conducting a larger clinical study. We are using our quantitative ultrasound methods to further assess the effects of neoadjuvant chemotherapy in a prospective cohort of women (N=150) who are receiving neoadjuvant chemotherapy for large locally advanced breast cancer. We are collecting quantitative ultrasound data throughout their treatment course and correlate our findings to pertinent clinical outcome measures (tumour response, locoregional control, survival) as well as pathologic response. Complementary test dynamic contrast enhanced MRI data will also be collected for correlational analyses.

This research has the potential to change clinical practice by permitting the customization of chemotherapy delivery on a personal basis. By detecting ineffective therapies changes can be made to give more effective treatments. We have already undertaken such work by using optical imaging methods which we will be incorporating with our ultrasound methods.

Novel Ultrasound-Based Radiation Enhancing Cancer Treatment

Accomplishments:
We have recently developed novel ultrasound-based and microbubble therapy methods in which microbubbles are infused to enhance the effects of radiation. We are continuing to develop these techniques as a complementary therapeutic arm to our response detection projects and we will adapt our quantitative imaging studies above to evaluate their efficacy in addition to standard assays. There are two broad avenues of study here which include anti-vascular ultrasound therapy and a novel uses of microbubbles to improve radiotherapy efficacy.

Present Research:
We have recently discovered that ultrasound activated microbubbles may be used to enhance the effects of radiation. In this novel application by pretreating the vasculature to perturb endothelial cells biophysically the effects of radiation may be enhanced by more than 10-fold. Here, exposure of endothelial cells to microbubbles given intravenously causes vascular destruction which is enhanced further by combining the treatments with radiation. Our working hypothesis here is that the activation of the ceramide pathway by microbubble perturbation of endothelial cells on its own does not lead to significant cell death. Similarly at low doses radiation on its own causes negligible increases in ceramide and very little endothelial cell death. However, when microbubbles and radiation are combined we observe that significant tumour volumes are destroyed within 24 hours of treatment. For instance a 2Gy treatment which yields 5% cell death being combined with ultrasound vascular disruption increases the radiation response to yield near 50% tumour cell death within 24 hours after treatment. We have also recently conducted experiments demonstrating that such treatments may be monitored non-invasively using our quantitative ultrasound methods. In addition we have demonstrated that such treatments of bubbles alone can also lead to significant
endothelial cell apoptosis putatively through the activation of the ceramide pathway as a novel technique in which tumours may be treated in the absence of radiation.

Clinical Significance:
The method above has great potential to make radiation treatments more efficacious and improve cancer outcomes. In a second collaborative application novel microbubble based cell permeation techniques is being used to deliver radiosensitizing gold-nanoparticles to cells and tissues. These are new radiosensitizers whose effects can be potentially significantly enhanced by the improved delivery offered by such microbubble techniques. By spatially targeting the ultrasound treatment to tumours we anticipate that normal tissues will be spared significant treatment-related side effects. We are coupling this research with quantitative ultrasound methods may be used to monitor the response of such treatments. This research is in publication and discussions are taking place with Phillips Medical towards commercializing this work.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2016 - present  Co-Principal Investigator. Symposium on Imaging for Personalized Cancer Therapy: Tumor Response Monitoring. Canadian Institutes of Health Research (CIHR). PI: Kolios, Michael; Czarnota, Gregory. 10,000 CAD. [Grants]


**2014 - 2017**


**2013 - 2018**


**2013 - 2017**

**Co-Investigator.** Evaluation of MR Chemical Exchange Saturation Transfer Imaging as Market of Tumor Environment and pH. Canadian Institutes of Health Research (CIHR). PI: Stanisz, Gregory. 540,084 CAD. [Grants]

**2013 - 2016**

**Co-Investigator.** Chemical Exchange Saturation Transfer MRI as a Marker of Cancer Therapy. Canadian Cancer Society Research Institute (CCSRI). Innovations Grant. PI: Stanisz, Gregory. 198,156 CAD. [Grants]

**2013 - 2015**


**2013 - 2015**


**2013 - 2014**

**Principal Investigator.** Non-Invasive Diagnosis and Characterization of Breast Cancer Using Quantitative Ultrasound Techniques. MaRS Innovation - MSc PoP. 410002541. 25,000 CAD. [Grants]

**2012 - 2017**

**Principal Investigator.** Biophysical Fundamentals of Ultrasound Bioeffects. Natural Sciences and Engineering Research Council of Canada (NSERC). Discovery Grant. 160,000 CAD. [Grants]

**2012 - 2016**

**Co-Investigator.** Smarter Imaging Program - MRI Imaging of LABC Tumor Response. Ontario Institute for Cancer Research (OICR). PI: Fenster, Aaron; Stanisz, Greg; Yaffe, Martin. 293,250 CAD. [Grants]

**2012 - 2015**


**2012 - 2015**

**Co-Investigator.** Smarter Imaging Program - Combined US and Optical Methods for LABC Care ($670,000 Total Funding). Ontario Institute for Cancer Research (OICR). PI: Fenster, Aaron; Yaffe, Martin. 120,000 CAD. [Grants]

**2012 - 2015**

**Co-Investigator.** A Multicentre Randomized Controlled Clinical Trial for the Reduction of Acute Skin Reaction in Adjuvant Breast Radiation in Large Breasted Women Using a Prone Technique. Canadian Breast Cancer Foundation (CBCF). PI: Vesprini, Danny. 312,978 CAD.
Gregory Jan CZARNOTA


2011 - 2012 Principal Investigator. One-Time Infrastructure Funding for CCO Research Chairs. Cancer Care Ontario (CCO). 37,500 CAD. [Grants]


2010 - 2013 Principal Investigator. Optical Spectroscopy for Improving Chemotherapy. Canadian Breast
Gregory Jan CZARNOTA

Cancer Foundation (CBCF). Research Project Grant Program. 302,990 CAD. [Grants]

2010 - 2013

**Principal Investigator.** Ultrasound for Cancer Therapy. Canadian Institutes of Health Research (CIHR). Terry Fox New Frontiers Program in Cancer. 2,704,743 CAD. [Grants]

2010 - 2011


2010 - 2011


2010 - 2011

**Co-Investigator.** Optimization of Microbubble Agent for Improving Chemotherapy with Ultrasound. Natural Sciences and Engineering Research Council of Canada (NSERC). PI: Karshafian, Raffi. 22,100 CAD. [Grants]

2009 - 2015

**Co-Investigator.** Research Excellence in Radiation Medicine for the 21st Century. Canadian Institutes of Health Research (CIHR). Training Grant. PI: Liu, Fei-Fei. 1,950,000 CAD. [Grants]

2009 - 2012

**Co-Investigator.** Microbubble Anti-Vascular Treatment for Prostate Cancer. Prostate Cancer Research Foundation of Canada. 50,000 CAD. [Grants]
Co-Investigator: Karshafian R.

2009 - 2012

**Co-Principal Investigator.** Correlative Study of Ultrasound-Based Elastography Imaging with Whole-Mount Histopathology in Men with Prostate Cancer. Canadian Association of Radiation Oncologist (CARO). Acura Grant Programme. PI: Czarnota, Gregory; Chung, Hans. 36,458 CAD. [Grants]
Co-Investigators: Morton G, Sugar L, Yaffe M, Nam R.

2009 - 2012

**Co-Principal Investigator.** High-Frequency Ultrasound and Spectroscopy for Cancer Treatment Monitoring. Canadian Institutes of Health Research (CIHR). Operating Grant. PI: Czarnota, Gregory; Kolios Michael. 240,000 CAD. [Grants]

2009 - 2011

**Principal Investigator.** Ultrasound Microbubble Radiosensitization of Bladder Cancer. American Association for Cancer Research (AACR). Henry Shepard Translational Research Grant. 250,000 CAD. [Grants]
Co-Investigator: Wong CS.

2008 - 2014

**Co-Investigator.** Centre for Research in Image-Guided Therapeutics. Canadian Foundation for Innovation (CFI). PI: Hynynen, Kullevro. 143,000,000 CAD. [Grants]

2008 - 2012

**Principal Investigator.** Novel Moleurally-Targeted Microbubbles for Radiosensitization. Canadian Association of Radiation Oncology (CARO). Razcer Grant Programme. 25,000 CAD. [Grants]
Co-Investigators: Burns P, Karshafian R, Wong CS.

2008 - 2012

**Co-Principal Investigator.** Novel Microbubble Radiosensitization for Prostate Cancer.
Canadian Association of Radiation Oncology (CARO). Acura Grant Programme. PI: Czarnota, Gregory; Lee, Justin. 22,000 CAD. [Grants]

2008 - 2009

Principal Investigator. Diffuse Optical Spectroscopy Tomographic Device for Monitoring Neoadjuvant Chemotherapy. Sunnybrook Health Sciences Centre Foundation. 300,000 CAD. [Grants]
Co-Investigator: Yaffe M.

2008 - 2009

Principal Investigator. Low-Frequency Detection of Apoptosis. Technology Transfer Toronto. Ontario Commercialization Research Programme. 50,000 CAD. [Grants]
Co-Investigator: Kolios MC.

2008 - 2009

Co-Investigator: Karshafian R.

2007 - 2013


2007 - 2012

Principal Investigator. Radiosensitization by Ultrasound-Mediated Microbubble Cell Perturbation. University of Toronto. Grant Miller Research Award. 19,790 CAD. [Grants]

2007 - 2012

Principal Investigator. Radiosensitization by Ultrasound-Mediated Microbubble Cell Perturbation. University of Toronto. Dean's Fund. 10,000 CAD. [Grants]

2007 - 2012

Principal Investigator. Biophysical Fundamentals of Ultrasound Backscatter. Natural Sciences and Engineering Research Council of Canada (NSERC). Discovery Grant Application. 341,186. 80,000 CAD. [Grants]

2007 - 2011

Co-investigators: Burns P, Wong S.

2007 - 2010

Co-Investigators: Burns P, Foster S, Kolios M, Wong S.

2007 - 2009

Co-Investigators: Brade A, Kolios M.

2007 - 2008

Co-Investigators: Burns PN, Wong CS.

2007 - 2008

Principal Investigator. Ultrasound Equipment for Microbubble-Activated Radiosensitization. Sunnybrook Health Sciences Centre Foundation. 175,000 CAD. [Grants]

2007 - 2008

Principal Investigator. VEVO-770 for High-Frequency Ultrasound Imaging of Tumour Responses to Cancer Therapy. Ontario Institute for Cancer Research (OICR). 225,000 CAD.
2007 - 2008  
**Principal Investigator.** New Imaging Method to Detect Ultrasound Microbubble-Potentiated Enhancement of Breast Cancer Responses to Radiation. Ontario Institute for Cancer Research (OICR). Seed Funding. 60,000 CAD. [Grants]  
*Co-Investigators: Burns PN, Hynynen K, Kolios M.*

2007 - 2008  
**Co-Investigator.** Platform for Histopathological Correlation of Ultrasound and MRI Detected Tumour Data. Ontario Institute for Cancer Research (OICR). PI: Martel, Anne. 85,000 CAD. [Grants]  
*Co-Investigator: Stanisz G.*

2007  
**Co-Investigator.** Ultrasound Gastrointestinal and Endoscopic Research Programme. Sunnybrook Health Sciences Centre Foundation. PI: Cohen, Lawrence. 800,000 CAD. [Grants]  
*Co-Investigators: Wong CS, Yong E.*

2006 - 2013  
**Co-Principal Investigator.** Advanced Biomedical Ultrasound and Spectroscopy Laboratory: From 1 to 1000 MHz. Canadian Foundation for Innovation (CFI). PI: Kolios Michael. 980,562 CAD. [Grants]  
*Co-Investigators: Whelan B, Yang V.*

2006 - 2009  
**Co-Investigator.** Optoacoustic-Imaging of Cancer Responses to Therapy. Natural Sciences and Engineering Research Council of Canada (NSERC). CHRP Grant. PI: Kolios, Michael. 336,439 CAD. [Grants]  
*Co-Investigator: Whelan B.*

2006 - 2009  
**Co-Investigator.** High-Frequency Ultrasound Tissue Characterization for Cancer Classification and Treatment Monitoring. Canadian Institutes of Health Research (CIHR). PI: Kolios, Michael. 187,284 CAD. [Grants]  
*Co-Investigators: Hunt JW, Kumaradas C.*

2006 - 2007  
*Co-Investigator: Lemor R.*

2006 - 2007  
**Principal Investigator.** Ultrasound Probe for Ultrasound Imaging and Spectroscopy as Early Indicators of Response. Toronto-Sunnybrook Health Sciences Centre. Locally Advanced Breast Cancer Programme. 5,200 CAD. [Grants]

2006 - 2007  
**Principal Investigator.** Ultrasound Imaging Device for Parametric Delineation and Monitoring of Prostate Cancer Response. Toronto-Sunnybrook Health Sciences Centre. GU Funding Award. 10,000 CAD. [Grants]  
*Co-Investigators: Cheung P, Loblaw A, Nam R, Sugar L.*

2005 - 2007  
**Principal Investigator.** Functional Ultrasound Imaging of Prostate Cancer Cell Death in Response to Radiotherapy. Canadian Association of Radiation Oncology (CARO). ACURA Awards. 37,180 CAD. [Grants]  
*Co-Investigators: Foster FS, Kolios MC.*

2005 - 2006  
**Principal Investigator.** Evaluation of a New Spectroscopic Transrectal Ultrasound Probe in Prostate Cancer. Canadian Association of Radiation Oncology (CARO). ACURA Awards.


2002 - 2005  **Co-Investigator**: Ultrasound Imaging of Apoptosis in Organ Preservation for Transplant. Whitaker Foundation. Biomedical Research Engineering Research Grant. PI: Kolios, Michael; Sherar, Michael. 173,000 CAD. [Grants]


2000  **Co-Investigator**: Computational Infrastructure Facilities for Light and Ultrasound Research. Ryerson University (Toronto, ON). PI: Kolios, Michael. 30,000 CAD. [Grants]


**NON-PEER-REVIEWED GRANTS**

**FUNDED**


2007 - present  **Principal Investigator**: Pilot Investigation of Ultrasound Imaging and Spectroscopy and Ultrasound Imaging of Prostate Cancer. Collaborator(s): Chung H, Morton G, Burns PN. 60,000 CAD. [Clinical Trials]

2006 - present  **Co-Principal Investigator**: Non-Invasive Assessment of Lymph Circulation Disorders with
Three-Dimensional Magnetic Resonance Imaging and Mid- to High- Frequency Ultrasound: A Pilot Study. PI: Dinniwell, Robert. Collaborator(s): Czarnota GJ; Catton P, Levin W, Haider M, Kolios MC. 60,000 CAD. [Clinical Trials]

2006 - present  

2006 - present  

2012 - 2017  
Co-Investigators: Chopra R, Stanisz G, Goertz D, Hynynen K.

2012 - 2014  

2010 - 2015  

2006 - 2007  

2005  
Principal Investigator. Radiobiology Laboratory Research Start-Up Funding. Sunnybrook and Women's College Health Sciences Centre. 600,000 CAD. [Grants]

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   This manuscript deals with technical details regarding the optimization of ultrasound-stimulated microbubble radiation enhancement. This work follows on from most significant publication # 4 which demonstrated, for the first time, the enhancement of radiation response by acoustical stimulation of the vasculature.

This manuscript details new texture-based methods, combined with quantitative ultrasound imaging to detect therapy responses within one week of patients starting new adjuvant chemotherapy. This research demonstrates the potential of using this methodology in the future to make decisions within weeks of the start of therapy as to its efficacy enabling personalization of patient medicine. The innovation here deals with the novel application of texture methods to quantitative ultrasound.


This manuscript demonstrated for the first time the use of quantitative ultrasound in detecting cell death response in women with locally advanced breast cancer receiving neoadjuvant chemotherapy. This work demonstrated that within one to four weeks time, lack of response or responsiveness to chemotherapy could be detected in patients non-invasively using quantitative ultrasound methods. These methods were developed in Dr. Czarnota’s laboratory along with Dr. Michael Kolios over the past ten years.


This manuscript details the novel use of ultrasound stimulation of microbubbles, intravascularly, to enhance tumor responses to radiotherapy. The amount of enhancement of radiation response is unprecedented, with a 50-60 fold increase in cell death 24 hours after one combined treatment of ultrasound stimulated microbubble and external beam radiotherapy.


This contribution represents work in optical imaging for therapy response monitoring. This is a new avenue of research which is not being coupled with ultrasound imaging in the form of photoacoustic research.

### 2. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


Gregory Jan CZARNOTA


60. Vlad RM, Kolios MC, **Czarnota GJ**. Ultrasound imaging of apoptosis: spectroscopic detection of DNA-damage effects at high and low frequencies. Methods Mol Biol. 2011;682:165-87 (Trainee publication). **Senior Responsible Author.**


67. Strohm E, **Czarnota GJ**, Kolios MC. Quantitative measurements of apoptotic cell properties using acoustic microscopy. IEEE Trans Ultrason Ferroelectr Freq Control. 2010;57(10):2293-304 (Trainee publication). **Senior Responsible Author.**

68. Vlad RM, Saha RK, Alajez NM, Ranieri S, **Czarnota GJ**, Kolios MC. An increase in cellular size variance contributes to the increase in ultrasound backscatter during cell death. Ultrasound Med Biol. 2010;36(9):1546-58 (Trainee publication). **Senior Responsible Author.**


77. Kolios MC, **Czarnota GJ**. Potential use of ultrasound for the detection of cell changes in cancer treatment. Future Oncol. 2009;5(10):1527-32. **Co-Principal Author.**


82. Taggart LR, Baddour RE, Giles A, **Czarnota GJ**, Kolios MC. Ultrasonic characterization of whole cells and isolated nuclei. Ultrasound Med Biol. 2007;33(3):389-401. **Coauthor or Collaborator.**


88. Hunt JW, Worthington AE, Xuan A, Kolios MC, Czarnota GJ, Sherar MD. A model based upon pseudo regular spacing of cells combined with the randomisation of the nuclei can explain the significant changes in high-frequency ultrasound signals during apoptosis. Ultrasound Med Biol. 2002;28(2):217-26. **Coauthor or Collaborator.**


95. Beniac DR, Czarnota GJ, Rutherford BL, Ottensmeyer FP, Harauz G. The in situ architecture of Escherichia coli ribosomal RNA derived by electron spectroscopic imaging and three-dimensional reconstruction. J Microsc. 1997;188(Pt 1):24-35. **Coauthor or Collaborator.**


**Book Chapters**


**Monographs**


**3. NON-PEER-REVIEWED PUBLICATIONS**

**Book Chapters**


F. Intellectual Property

1. PATENTS

2015  **Prediction of Breast Tumor Response to Neoadjuvant Chemotherapy Using Pre-treatment Quantitative Ultrasound Backscatter Parameters.** Applied. United States. Joint Holder Name(s): Czarnota GJ.  
   *Invention Disclosure; SB390.*

   *Invention Disclosure; SB301.*

2014  **Non-invasive Breast Tumor Diagnosis and Grading Using Textural Properties of Quantitative Ultrasound Parametric Maps.** Applied. United States. Joint Holder Name(s): Czarnota GJ.  
   *Invention Disclosure; SB320.*


2006  **Methods of Monitoring Cellular Death Using Low Frequency Ultrasound.** Granted. Patents #: 8,192,362, United States. Joint Holder Name(s): Czarnota GJ; Co-Inventors: Sherar M, Kolios M, Hunt JW.  
   *External Reference: SB249.*

2001  **Method for Apoptosis Detection Using High Frequency Ultrasound.** Granted. Patents #: 6,511,430, United States. Joint Holder Name(s): Czarnota GJ.  
   *External Reference: SB248.*

1999  **Method for Apoptosis Detection Using High Frequency Ultrasound.** Granted. Patents #: 2,351,545, Canada. Joint Holder Name(s): Czarnota GJ.  
   *External Reference: SB248.*

2. DISCLOSURES

2015  **Quantitative Ultrasound Methods For Monitoring Tumour Vascular Changes And Related Tissue Morphological Changes During Cancer Therapies.** Applied. Joint Holder Name(s): Czarnota GJ.  
   *Invention Disclosure; SB018.*

2015  **Computer Aided Theragnosis Using Quantitative Ultrasound And Novel Texton-based Methods In Locally Advanced Breast Cancer.** Applied. Joint Holder Name(s): Czarnota GJ.  
   *Invention Disclosure; SB015.*

2015  **Prediction Of Breast Tumor Response To Neoadjuvant Chemotherapy Using Pre-treatment Diffuse Optical Spectroscopy Texture Parameters.** Applied. Joint Holder Name(s): Czarnota GJ.  
   *Invention Disclosure; SB016.*

2014  **Ultrasound Activated Microbubbles and Hyperthermia as an Anti-cancer Treatment Approach.**  
   Applied. Joint Holder Name(s): Czarnota GJ.  
   *Invention Disclosure.*

2014  **Prediction of Breast Tumor Response to Neoadjuvant Chemotherapy Using Pre-treatment
Quantitative Ultrasound Backscatter Parameters. Applied. Joint Holder Name(s): Czarnota GJ.  
*Invention Disclosure; SB390.*

2014 **Unsealed Gold Nanoparticle Brachytherapy Seed.** Applied. Joint Holder Name(s): Czarnota GJ.  
*Invention Disclosure; SB394.*

2014 **Computer Aided Theragnosis Using Quantitative Ultrasound and Maximum Mean Discrepancy in Locally Advanced Breast Cancer.** Applied. Joint Holder Name(s): Czarnota GJ.  
*Invention Disclosure; SB380.*

2013 **Combining Ultrasound-stimulated Microbubble Therapy and Vascular Targeting Agents as Novel Cancer Therapy.** Applied. Joint Holder Name(s): Czarnota GJ.  
*Invention Disclosure; SB357.*

2013 **Non-invasive Breast Tumor Diagnosis and Grading Using Textural Properties of Quantitative Ultrasound Parametric Maps.** Applied. Joint Holder Name(s): Czarnota GJ.  
*Invention Disclosure; SB320.*

*Invention Disclosure; SB314.*

2012 **Method of Classifying Tissue Response Cancer Treatment Using Photoacoustics Signal Analysis.** Applied. Joint Holder Name(s): Czarnota GJ.  
*Invention Disclosure; SB327.*

2012 **Ultrasound Activated Microbubbles and Hyperthermia as an Anti-Cancer Treatment Approach.** Applied. Joint Holder Name(s): Karshafian R, Czarnota GJ, Al-Mahrouki A, Tran WT, Oelze M, Kolios M.  
*Invention Disclosure; SB304.*

*Invention Disclosure; SB301.*

2011 **A Novel Approach to Simply the Direct Quantification of Ceramide from Tissues and Cells.** Applied. Joint Holder Name(s): Al-Mahrouki A, Czarnota GJ.  
*Invention Disclosure; SB299.*

2011 **ColonyCount - A Clonogenic Assay iPhone App.** Applied. Joint Holder Name(s): Lechtman E, El Kaffas A, Nofiele Tchouala J, Pignol JP, Czarnota GJ.  
*Invention Disclosure; SB292.*

*Invention Disclosure; SB277.*

*Invention Disclosure; SB275.*

2011 **HIFU (High Intensity Focused Ultrasound) MRI Table Extension.** Applied. Joint Holder Name(s): Czarnota GJ, Easton H, Hynynen K, Krohmer K.  
*Invention Disclosure; SB274.*

2011 **HemoLab.** Applied. Joint Holder Name(s): Czarnota GJ.  
*Invention Disclosure.*

2010 **3D Power Doppler Data Analyzer.** Applied. Joint Holder Name(s): El Kaffas A, Hupple C, Czarnota GJ.  
*Invention Disclosure; SB252.*

2010 **Software for Quantitative Ultrasound Analysis.** Applied. Joint Holder Name(s): Czarnota GJ, Kolios MC, Papanicloau N.  
*Invention Disclosure; SB254.*

2010 **3D Software for Quantitative Ultrasound Analysis.** Applied. Joint Holder Name(s): Czarnota GJ, Sofroni E, Papanicloau N.  
*Invention Disclosure; SB251.*

2010 **Methods of Monitoring Cellular Death Using Low-Frequency Ultrasound.** Granted. Joint Holder
*Invention Disclosure: SHSC016.*

**G. Presentations and Special Lectures**

**1. INTERNATIONAL**

**Invited Lectures and Presentations**

**2016**  
**Lecturer.** Cancer Informatics and Imaging. Department of Biochemistry and Molecular & Cellular Biology, Georgetown University. DC, Washington, United States.

**2016**  
**Presenter.** Monitoring and Predicting Chemotherapy Response Using Novel Methods in Quantitative Ultrasound. MD Anderson Cancer Center. Houston, United States. Presenter(s): Czarnota GJ.

**2016**  
**Presenter.** Microbubble-based Enhancement of Tumour Radiation Responses. The Center for Radiation Oncology Research Seminar Series - MD Anderson Cancer Center. Houston, United States. Presenter(s): Czarnota GJ.

**2015**  
**Presenter.** Ultrasound-Stimulated Microbubble Enhanced Low-Dose SRS. International Stereotactic Radiosurgery Society Congress. Japan. Presenter(s): Czarnota GJ.

**2015**  
**Presenter.** Quantitative Ultrasound Measurements of Tumor Response to Radiation or Chemotherapy. Annual Meeting of the American Association of Physicists in Medicine (AAPM). Anaheim, United States.

**2015**  

**2015**  

**2014**  

**2014**  
**Presenter.** Ultrasound Biomechanical Enhancement of Radiation Effects: Sphingolipid Importance. International Workshop on Molecular Medicine of Sphingolipids. Kloster Banz, Germany. Presenter(s): Czarnota GJ.

**2014**  

**2013**  
**Presenter.** Ultrasound-Stimulated Microbubble Enhanced Low-Dose SRS. International Stereotactic Radiosurgery Society Congress. Toronto, Canada. Presenter(s): Czarnota GJ.

**2013**  
**Presenter.** Enhancement of Radiation Treatments by Vascular-Perturbation. The Johns Hopkins Hospital Grand Rounds. Baltimore, United States. Presenter(s): Czarnota GJ.

**2013**  
**Presenter.** Ultrasound for Cancer Therapy: Monitoring and Enhancements of Cancer Therapy. The Johns Hopkins Cancer Center and the Engineering School. Baltimore, United States. Presenter(s): Czarnota GJ.


2012 **Presenter.** High- and Conventional-frequency Ultrasound for the Detection of Cell Death. International Conference on Ultrasonic Biomedical Microscanning (UBM). St-Paulin, Canada. Presenter(s): Czarnota GJ.


2011 **Presenter.** Ultrasound High-and Low-dose Radiation and Apoptosis. Annual Scientific Meeting of the Society for Neuro-Oncology. Orange County, United States. Presenter(s): Czarnota GJ.


2011 **Presenter.** Microbubble Radiosensitization of Prostate Cancer. IMPaCT Innovation Minds in Prostate Cancer Today. Orlando, United States. Presenter(s): Czarnota GJ.

2010 **Presenter.** Low to Very High Frequency Ultrasound Biomicroscopy of Cell Death. Microscopy and Microanalysis Annual Meeting. Los Angeles, United States. Presenter(s): Czarnota GJ.

2010 **Presenter.** Monitoring Cancer Responses to Treatment from Mice to Humans with Ultrasound and Light. Bioacoustics Research Laboratory Seminar, Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign. Urbana, United States.

2009 **Visiting Professor.** Quantitative Ultrasound of Cell Death. Bioacoustics Research Laboratory Seminar, Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign. Urbana, United States.

2009 **Presenter.** Novel Anti-vascular Combined Ultrasound and Radiation Therapy. Bioacoustics Research Laboratory Seminar, Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign. Urbana, United States. Presenter(s): Czarnota GJ.


Imaging and Tissue Characterization (UITC) Annual Meeting. Arlington, United States. Presenter(s): Czarnota GJ.

2008


2007

**Presenter.** Imaging Radiation Responses Using High-frequency Ultrasound. Fraunhofer Institute for Biomedical Engineering. Sankt Ingebert, Germany. Presenter(s): Czarnota GJ.

2007


2006

**Presenter.** High- and Mid-frequency Spectroscopic Ultrasound Imaging of Tumour Responses to Cancer Therapy. Preclinical and Small-Imaging Categorical Course, American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. Washington, United States. Presenter(s): Czarnota GJ.

2006

**Presenter.** Imaging Radiation Responses Using High-frequency Ultrasound. Veronique Benk Visiting Professorship. Presenter(s): Czarnota GJ.

2006

**Presenter.** Imaging Cell Death. Target Insight II: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio. Presenter(s): Czarnota GJ.

2004


2003

**Presenter.** Ultrasound Imaging of Apoptosis: Role of the Cell Nucleus and Membrane. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting in vivo Imaging of Apoptosis Symposium. Montreal, United States. Presenter(s): Czarnota GJ.

2002


2002

**Presenter.** UBM Monitoring of Tissue Death and Remodelling: Treatment of Melanoma with PDT and Mammary Involution. International Conference on Ultrasound Biomicroscopy. Rotterdam, Netherlands. Presenter(s): Czarnota GJ.

2001

**Presenter.** Quantitative Assessment of Apoptosis with High Frequency Ultrasound. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting - Categorical Meeting: High-frequency Imaging - From Mouse to Man. United States. Presenter(s): Czarnota GJ.

1997


1993

**Presenter.** Conformational Characterization of Nucleosome Structure by Electron Microscopy. Microscopy Society of America (MSA) Annual Meeting. Cincinnati, United States. Presenter(s): Czarnota GJ.

**Presented and Published Abstracts**

2016


*Publication Details:*

Dinniwell R, Tran WT, Czarnota GJ. Quantitative Ultrasound Measures of Lymphedema. International


Publication Details:
Sannachi L, Chiu S, Tadayyon H, Giles A, **Czarnota GJ**. Quantitative Ultrasound Imaging for Detection of Prognostically Significant Histological Features in Rabbit Liver. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

2016

Publication Details:

2016

Publication Details:
Papanicolau N, Sofroni E, Sadeghian A, **Czarnota GJ**. Real-time Cancer Treatment Response Monitoring Using a GPU Accelerated Spectral Processing (GASP) System. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

2016

Publication Details:

2016

Publication Details:
Tizhoosh HR, Gangeh MD, Tadayyon H, **Czarnota GJ**. Tumour ROI Estimation in Ultrasound Images via Radon Barcodes in Patients with Locally Advanced Breast Cancer. International Symposium on Biomedical Imaging (ISBI): From Nano to Macro. **Senior Responsible Author.**

2016
Breast Tumour Visualization Using 3-D Quantitative Ultrasound Methods. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. (Trainee Presentation)

Publication Details:
Gangeh MJ, Raheem A, Tadayyon H, Liu S, Hadizad F, **Czarnota GJ**. Breast Tumour Visualization Using 3-D Quantitative Ultrasound Methods. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. **Senior Responsible Author.**

2016
Response Monitoring Using Quantitative Ultrasound Methods and Supervised Dictionary Learning in Locally Advanced Breast Cancer. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. (Trainee Presentation)

Publication Details:
Senior Responsible Author.

2016

Publication Details:

2016
Low-frequency Ultrasound Radiosensitization and Therapy Response Monitoring of Tumors: An In Vivo Study. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. France.

Publication Details:
Sadeghi-Naini A, Stanisz M, Tadayyon H, Taank J, Czarnota GJ. Low-frequency Ultrasound Radiosensitization and Therapy Response Monitoring of Tumors: An In Vivo Study. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Coauthor or Collaborator.

2015
Advanced Machine Learning and Textural Methods in Monitoring Cell Death Using Quantitative Ultrasound Spectroscopy. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Taiwan, Province Of China.

Publication Details:

2015

Publication Details:

2015
WE-EF-210-02: Ultrasound innovations in therapy response monitoring.

Publication Details:

2015
Computed Consensus Contouring via Fast Barcode Retrieval. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Taiwan, Province Of China.

Publication Details:
Tizoosh H, Czarnota GJ. Computed Consensus Contouring via Fast Barcode Retrieval. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Co-Principal Author.

2015
Texton-based Approach in Response Monitoring for Locally Advanced Breast Cancer. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Taiwan, Province Of China. (Trainee Presentation)

Publication Details:
Gangeh MJ, Liu S, Tadayyon H, Czarnota GJ. Texton-based Approach in Response Monitoring for
Locally Advanced Breast Cancer. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**


*Publication Details:* Tran WT, Childs C, Probst H, **Czarnota GJ**. Correlates of Cell Death and Tumor Morphology in Breast Tumors Using Quantitative Ultrasound and Diffuse Optical Spectroscopy Imaging. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**


*Publication Details:* Tadayyon H, Sadeghi-Naini A, Sannachi L, Gangeh M, Trudeau M, **Czarnota GJ**. Quantitative Ultrasound as a Predictor of Tumour Response Prior to Treatment. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**


*Publication Details:* Sannachi L, Al-Mahrouki A, Tran WT, **Czarnota GJ**. Quantitative Ultrasound Monitoring of Tumor Cell Death Responses. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**


*Publication Details:* Pasternak M, Giles A, **Czarnota GJ**. A Quantitative Ultrasound Analysis of Paclitaxel-induced Mitotic Catastrophe in Breast Cancer Cells. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2015 Mechanical Radiosensitization of Endothelial Cells is Dependent on Sphingomyelinase. American Association for Cancer Research (AACR) Annual Meeting. Philadelphia, United States. (Trainee Presentation)

**Publication Details:**


**Publication Details:**

Publication Details:
Dinniwell R, Czarnota GJ. Quantitative Ultrasound Methods for Lymphedema Assessment. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Coauthor or Collaborator.**


Publication Details:


Publication Details:
Merino T, Tran WT, Czarnota GJ. Re-irradiation for Locally Recurrent Refractory Breast Cancer. St. Gallen International Breast Cancer Conference. **Senior Responsible Author.**

2014 Ultrasound-stimulated Microbubble-based Radiation Enhancement Dependence on Endothelial Ceramide Production. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

Publication Details:
El Kaffas A, Hashim A, Giles A, Czarnota GJ. Ultrasound-stimulated Microbubble-based Radiation Enhancement Dependence on Endothelial Ceramide Production. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**

2014 Investigating Tumour Response Mechanisms in Ultrasound-Stimulated Microbubble Treatments Combined with Radiation and the Anti-angiogenic Sunitinib. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

Publication Details:
El Kaffas A, Al-Mahrouki A, Giles A, Czarnota GJ. Investigating Tumour Response Mechanisms in Ultrasound-Stimulated Microbubble Treatments Combined with Radiation and the Anti-angiogenic Sunitinib. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**


Publication Details:

2014 Quantitative Ultrasound Monitoring of Tumour Cell Death Response in Locally-advanced Breast Cancer Patients Using a Multiparameter Approach. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

Publication Details:
2014 Cell Death Detection in Locally Advanced Breast Cancer Using Quantitative Ultrasound and Diffuse Optical Spectroscopy. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

Publication Details:

2014 Ultrasound-Stimulated Microbubble-based Radiation Enhancement Dependence on Endothelial Ceramide Production. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

Publication Details:

2014 Targeting Endothelial Cells in Cancer Therapy Using Ultrasound Activated Microbubbles. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

Publication Details:
Al-Mahrouki A, Wong E, Czarnota GJ. Targeting Endothelial Cells in Cancer Therapy Using Ultrasound Activated Microbubbles. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Senior Responsible Author.

2014 Ultrasound-stimulated Microbubble Effects on Cell Membrane Damage: UDP glycosyltransferase 8 (UGT8) Involvement in vitro and in vivo. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

Publication Details:


Publication Details:

2014 Tumour Response Evaluation of Concomitant Ultrasound Driven Microbubbles and Radiation in Breast Cancer in vivo. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

Publication Details:
2014 Investigating Tumour Response Mechanisms in Ultrasound-Stimulated Microbubble Treatments Combined With Radiation and the Anti-angiogenic Sunitinib. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

*Publication Details:* El Kaffas A, Al-Mahrouki A, Giles A, **Czarnota GJ.** Investigating Tumour Response Mechanisms in Ultrasound-Stimulated Microbubble Treatments Combined With Radiation and the Anti-angiogenic Sunitinib. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**

2014 Blocking Vascular Rebounds Following Radiation and Microbubble Treatments Using a Dll4 Notch Signalling Antibody. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

*Publication Details:* El Kaffas A, Giles A, **Czarnota GJ.** Blocking Vascular Rebounds Following Radiation and Microbubble Treatments Using a Dll4 Notch Signalling Antibody. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**

2014 Evaluation of Microbubble Vascular Disrupting Agents and Radiation in Bladder Cancer Using Quantitative Ultrasound. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

*Publication Details:* Tran WT, **Czarnota G.** Evaluation of Microbubble Vascular Disrupting Agents and Radiation in Bladder Cancer Using Quantitative Ultrasound. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**


*Publication Details:* Tadayyon H, Sadeghi-Naini A, **Czarnota GJ.** Non-Invasive Characterization of Breast Cancer Using Textural Analysis of Ultrasound Spectral Parametric Images. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**

2014 Texton-Based Method in Clinical Cancer Response Monitoring. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

*Publication Details:* Ganegh MJ, Tadayyon H, Sannachi L, Sadeghi-Naini S, Tran WT, **Czarnota GJ.** Texton-Based Method in Clinical Cancer Response Monitoring. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**


*Publication Details:* Ganegh MJ, Tadayyon H, Sannachi L, Sadeghi-Naini S, Tran WT, **Czarnota GJ.** Computer- Aided-Theragnosis Using Quantitative Ultrasound Spectroscopy and Maximum Mean Discrepancy in Locally Advanced Breast Cancer. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**

2014 VEGFR Targeted Microbubble Radiosensitization of Vascular Endothelial Cells Results in Enhanced
Tumour Response to Radiation Therapy. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

*Publication Details:*
El Falou A, Al-Mahrouki A, El Kaffas A, Wong E, Hashim A, Giles A, **Czarnota GJ**. VEGFR Targeted Microbubble Radiosensitization of Vascular Endothelial Cells Results in Enhanced Tumour Response to Radiation Therapy. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**

2014

Multi-class Quantitative Ultrasound Categorization of Breast Tumour Response To Chemotherapy. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

*Publication Details:*
Tadayyon H, Sannachi L, Sadeghi-Naini A, **Czarnota GJ**. Multi-class Quantitative Ultrasound Categorization of Breast Tumour Response To Chemotherapy. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**

2014

Imaging Biomarkers in Tumor Characterization. ASRT Radiation Therapy Conference. San Francisco, United States. (Trainee Presentation)

*Publication Details:*
Tran WT, **Czarnota GJ**. Imaging Biomarkers in Tumor Characterization. 2014 ASRT Radiation Therapy Conference. **Senior Responsible Author.**

2014

Quantitative Ultrasound Characterization of Genetically Modified Prostate Cancer Responses to Ultrasound-stimulated Microbubbles and Radiation. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

*Publication Details:*
Sannachi L, Al-Mahrouki A, **Czarnota GJ**. Quantitative Ultrasound Characterization of Genetically Modified Prostate Cancer Responses to Ultrasound-stimulated Microbubbles and Radiation. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**

2014

Measuring Tumor Heterogeneity Using Quantitative Ultrasound Acoustic Texture as a Biomarker of Chemotherapy Response. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Chicago, United States. (Trainee Presentation)

*Publication Details:*
Sadeghi-Naini A, Kolios MC, **Czarnota GJ**. Measuring Tumor Heterogeneity Using Quantitative Ultrasound Acoustic Texture as a Biomarker of Chemotherapy Response. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Senior Responsible Author.**

2014


*Publication Details:*

2014

Publication Details:

2014
Therapeutic Disruption of Tumor Vasculature with Combined Ultrasound-activated Microbubble Therapy and Radiation Therapy, Followed by Dll4-notch Signalling Blockade as a Maintenance Therapy. International Meeting on Angiogenesis. Amsterdam, Netherlands. (Trainee Presentation)

Publication Details:
El Kaffas A, Nofiele J, Giles A, Cho S, Liu SK, Czarnota GJ. Therapeutic Disruption of Tumor Vasculature with Combined Ultrasound-activated Microbubble Therapy and Radiation Therapy, Followed by Dll4-notch Signalling Blockade as a Maintenance Therapy. International Meeting on Angiogenesis. **Senior Responsible Author.**

2014
Ultrasound-stimulated Microbubble Radiosensitization is Dependent on Ceramide. International Meeting on Angiogenesis. Amsterdam, Netherlands. (Trainee Presentation)

Publication Details:
El Kaffas A, Hashim A, Giles A, Czarnota GJ. Ultrasound-stimulated Microbubble Radiosensitization is Dependent on Ceramide. International Meeting on Angiogenesis. **Senior Responsible Author.**

2014
Prostate Clinical Study of a Full Inversion Unconstrained Ultrasound Elastography Technique. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. San Diego, United States.

Publication Details:
Mousavi SR, Sadeghi-Naini A, Czarnota GJ, Samani A. Prostate Clinical Study of a Full Inversion Unconstrained Ultrasound Elastography Technique. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. **Coauthor or Collaborator.**

2014
Cancer Therapy Prognosis Using Quantitative Ultrasound Spectroscopy and a Kernel-Based Metric. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. San Diego, United States. (Trainee Presentation)

Publication Details:
Gangeh MJ, Hashim A, Giles A, and Czarnota GJ. Cancer Therapy Prognosis Using Quantitative Ultrasound Spectroscopy and a Kernel-Based Metric. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. **Senior Responsible Author.**

2014
Detecting apoptosis in vivo and ex vivo using spectroscopic OCT and dynamic light scattering. National Institutes of Health/Society of Photo-Optical Instrumentation Engineers (NIH/SPIE) Optical Workshop. (Trainee Presentation)

Publication Details:

2014
Quantitative Ultrasound Monitoring of Breast Tumor Response to Chemotherapy by Analysis of Frequency-dependent Attenuation and Backscattered Power. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. San Diego, United States. (Trainee Presentation)

Publication Details:
Tadayyon H, Sannachi L, Czarnota GJ. Quantitative Ultrasound Monitoring of Breast Tumor Response to Chemotherapy by Analysis of Frequency-dependent Attenuation and Backscattered Power. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. **Senior Responsible Author.**

**2013**


*Publication Details:*

**2013**


*Publication Details:*

**2013**


*Publication Details:*
El Kaffas A, Giles A, **Czarnota GJ.** High-frequency 3D Ultrasound for Characterizing Overall Tumor Response to Vascular Targeting Strategies. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

**2013**


*Publication Details:*

**2013**


*Publication Details:*

**2013**

Characterizing Tumour Heterogeneous Response to Chemotherapy Using Low-frequency Ultrasound Spectroscopy. International Congress on Acoustics. Montreal, Canada. (Trainee Presentation)

*Publication Details:*


2013

Publication Details:

2013
Optical and Ultrasound Spectroscopy in Monitoring Chemotherapy. 2013 ASRT Radiation Therapy Conference. Atlanta, United States. (Trainee Presentation)

Publication Details:
Tran WT, Czarnota GJ. Optical and Ultrasound Spectroscopy in Monitoring Chemotherapy. 2013 ASRT Radiation Therapy Conference. Senior Responsible Author.

2013

Publication Details:

2013

Publication Details:

2013

Publication Details:

2013

Publication Details:

2013

Publication Details:

2013

**Publication Details:**

2013

**Publication Details:**

2013

**Publication Details:**
Tran WT, Iradji S, Sofroni E, Giles A, Eddy D, **Czarnota GJ**. Microbubble and Ultrasound Radioenhancement of Bladder Cancer. International Stereotactic Radiosurgery Society (ISRS) Congress. **Senior Responsible Author.**

2013

**Publication Details:**

2013
Effects of Biophysical Parameters in Radiosensitizing Prostate Tumours with Ultrasound-stimulated Microbubbles. International Stereotactic Radiosurgery Society (ISRS) Congress. Toronto, Canada. (Trainee Presentation)

**Publication Details:**
Kim HC, Al-Mahrouki A, Karshafian R, Gorjizadeh A, **Czarnota, GJ**. Effects of Biophysical Parameters in Radiosensitizing Prostate Tumours with Ultrasound-stimulated Microbubbles. International Stereotactic Radiosurgery Society (ISRS) Congress. **Senior Responsible Author.**

2013

**Publication Details:**

2013
Gregory Jan CZARNOTA

Canada. (Trainee Presentation)

Publication Details:
Radiosurgery Society (ISRS) Congress. Senior Responsible Author.

2013 UDP Glycosyltransferase 8 (UGT8) Involvement in a Novel Cancer Therapy That Employ Ultrasound and
Toronto, Canada. (Trainee Presentation)

Publication Details:
Al-Mahrouki A, Czarnota GJ. UDP Glycosyltransferase 8 (UGT8) Involvement in a Novel Cancer Therapy
That Employ Ultrasound and Microbubbles; in vitro and in vivo Study. International Stereotactic
Radiosurgery Society (ISRS) Congress. Senior Responsible Author.

2012 Novel Conventional Frequency Detection of Cell Death in vivo with Neoadjuvant Chemotherapy for
Locally Advanced Breast Cancer. International Symposium on Ultrasonic Imaging and Tissue

Publication Details:
Czarnota GJ, Lee J, Papanicolau N, Sofroni E, Ira oddi S, Kolios M. Novel Conventional Frequency
Detection of Cell Death in vivo with Neoadjuvant Chemotherapy for Locally Advanced Breast Cancer.
Principal Author.

Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. Arlington, United
States.

Publication Details:
Enhancement of Radiation-induced Tumour Cell Death in vivo. International Symposium on Ultrasonic
Imaging and Tissue Characterization (UITC) Annual Meeting. Principal Author.

2012 Texture Analysis on Quantitative Ultrasound Images for Early Prediction of Breast Cancer Therapy
Response. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual
Meeting. Arlington, United States. (Trainee Presentation)

Publication Details:
Sadeghi-Naini A, Falou O, Papanicolau N, Ira oddi S, Sofroni E, Czarnota GJ. Texture Analysis on
Quantitative Ultrasound Images for Early Prediction of Breast Cancer Therapy Response. International
Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. Senior
Responsible Author.

2012 Elastography Evaluations of Therapy Response in Breast Cancer Patients. International Symposium on
Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. Arlington, United States. (Trainee
Presentation)

Publication Details:
Evaluations of Therapy Response in Breast Cancer Patients. International Symposium on Ultrasonic
Imaging and Tissue Characterization (UITC) Annual Meeting. Senior Responsible Author.

2012 Conventional Frequency Quantitative Ultrasound Evaluation of Tumor Cell Death Response in Locally
Advanced Breast Cancer Patients to Chemotherapy Treatment Administration. International Symposium
Gregory Jan CZARNOTA

Publication Details:

2012

Publication Details:

2012

Publication Details:

2012

Publication Details:

2012

Publication Details:

2012
Detecting Cancer Treatment Response Using Textural Properties of Quantitative Ultrasound Parametric Maps: Migrating from High-frequencies to the Conventional-frequencies. International Conference on Ultrasonic Biomedical Microscanning (UBM). St-Paulin, Canada. (Trainee Presentation)

Publication Details:

2012
Using High and Conventional Frequency Ultrasound for the Detection of Cell Death in Mouse Models After Chemotherapy. International Conference on Ultrasonic Biomedical Microscanning (UBM). St-Paulin, Canada. (Trainee Presentation)

Publication Details:

2012

Publication Details:

2012

Publication Details:

2012

Publication Details:

2012

Publication Details:

2012

Publication Details:

2012
Measuring Intracellular Motion Using Dynamic Light Scattering with Optical Coherence Tomography in a Mouse Tumor Model. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. (Trainee Presentation)

Publication Details:
Farhat G, Mariampillai A, Yang VXD, Czarnota GJ, Kolios MC. Measuring Intracellular Motion Using Dynamic Light Scattering with Optical Coherence Tomography in a Mouse Tumor Model. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. **Coauthor or Collaborator.**

2011

Optical Coherence Tomography Speckle Decorrelation for Detecting Cell Death. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. (Trainee Presentation)

*Publication Details:*
Farhat G, Mariampillai A, Yang VXD, **Czarnota GJ**, Kolios MC. Optical Coherence Tomography Speckle Decorrelation for Detecting Cell Death. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. **Coauthor or Collaborator.**

2011

Cell Death Monitoring Using Quantitative Optical Coherence Tomography Methods. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. (Trainee Presentation)

*Publication Details:*
Farhat G, Yang VXD, Kolios MC, **Czarnota GJ**. Cell Death Monitoring Using Quantitative Optical Coherence Tomography Methods. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. **Senior Responsible Author.**

2011


*Publication Details:*
Sofroni E, Papanicolau N, Iradj S, Yaffe M, Chung H, **Czarnota GJ**. Prostate Tissue Characterization by Ultrasound Spectral Methods and E. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

2011


*Publication Details:*

2011


*Publication Details:*
**Czarnota GJ**. Ultrasound and Microbubble Enhancement of Radiation Response in Tumours. Med Phys. 38:3823. **Principal Author.**

2011


*Publication Details:*

2011

on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting.

Publication Details:


Publication Details:
**Czarnota GJ**. Microbubble and Ultrasound Enhancement of Radiation-induced Tumor Cell Death in vivo. International Symposium on Therapeutic Ultrasound (ISTU) Annual Meeting. **Principal Author.**


Publication Details:
**Czarnota GJ**. Microbubble and Ultrasound Enhancement of Radiation-induced Tumor Cell Death in vivo. Congressionally Directed Medical Research Program IMPaCT. **Principal Author.**


Publication Details:
Farhat G, Yang V, Kolios MC, **Czarnota GJ**. High-frequency Ultrasound and Optical Coherence Tomography Imaging of Cell Death. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Senior Responsible Author.**


Publication Details:
Al-Mahrouki A, **Czarnota GJ**. UDP Glycosyltransferase 8 (UGT8) Involvement in a Novel Cancer Therapy that Employs Ultrasound and Microbubbles. International Symposium on Therapeutic Ultrasound (ISTU) Annual Meeting. **Senior Responsible Author.**


Publication Details:


Publication Details:
Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

2011


Publication Details:
El Kaffas A, Giles A, **Czarnota GJ.** 3D Power Doppler Ultrasound for Characterizing Tumour Vascular Response to Radiation. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

2011


Publication Details:
Papanicolau N, Giles A, Kolios MC, **Czarnota GJ.** Quantitative and Parametric Analysis Employing Conventional Frequency Ultrasound of Cancer Treatment Effects in vivo. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

2011


Publication Details:

2010


Publication Details:
Farhat G, Mariampillai A, Yang VX, **Czarnota GJ.** Speckle Decorrelation as a Method for Assessing Cell Death. Proceedings 2010 Optical Society of America Annual Meeting. **Coauthor or Collaborator.**

2010


Publication Details:
Soliman, H, Yaffe M, **Czarnota GJ.** Functional Imaging of Neoadjuvant Chemotherapy Response in Women with Locally Advanced Breast Cancer Using Diffuse Optical Spectroscopy. Proceedings 2010 Optical Society of America Annual Meeting. **Coauthor or Collaborator.**

2010

Novel Conventional Frequency Detection of Cell Death in vitro and in vivo. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. San Diego, United States. (Trainee Presentation)

Publication Details:
Papanicolau N, Azrif M, Karshafian R, Sadeghian A, Giles A, Kolios MC, **Czarnota GJ.** Novel Conventional Frequency Detection of Cell Death in vitro and in vivo. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Senior Responsible Author.**

2010

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
El Kaffas A, Giles A, Czarnota GJ. Investigating Vascular-targeting Strategies with Three-dimensional

Publication Details:


Publication Details:
Czarnota GJ. Low to Very High Frequency Ultrasound Biomicroscopy of Cell Death. 2010 Microscopy and Microanalysis. Principal Author.

2010 Quantitative Optical Coherence Tomography Imaging of Cell Death. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. (Trainee Presentation)

Publication Details:
Farhat G, Yang VXD, Kolios MC, Czarnota GJ. Quantitative Optical Coherence Tomography Imaging of Cell Death. The International Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. Senior Responsible Author.


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:

2009 Microbubble and Ultrasound Induction Gene Expression Associated with Novel Radiation Enhancing Therapy. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Rome, Italy.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Bailey C, Giles A, **Czarnota GJ**, Stanisz GJ. Quantitative T1 and T2 Relaxation in Apoptotic Cells in the Presence of Gd-DTPA. International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting. **Coauthor or Collaborator.**


*Publication Details:*


*Publication Details:*
Clarke GM, Mainprize JG, Peressotti C, Sun L, Wang D, Zubovits J, Holloway C, **Czarnota GJ,** Yaffe MJ. Validation of Cone-beam CT Measurements of Tumour Busing Three-dimensional Histopathology: Initial Results for a Lumpectomy. International Workshop on Digital Mammography. **Coauthor or Collaborator.**


*Publication Details:*
Kolios MC, **Czarnota GJ.** New Insights Into High Frequency Ultrasonic Tissue Scattering. International Symposium on Medical Bio- and Nano-Electronics. **Co-Principal Author.**


*Publication Details:*
Kolios MC, **Czarnota GJ.** High Frequency Ultrasound Scattering from Mixtures of Two Different Cells Lines: Tissue Characterization Insight. International Symposium on Advanced Biomedical Ultrasound. **Co-Principal Author.**


*Publication Details:*
Farhat G, Mariampillai A, Yang VXD, **Czarnota GJ,** Kolios MC. High-frequency Ultrasound and Optical Coherence Tomographic Imaging of Necrotic Cell Death. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Coauthor or Collaborator.**


*Publication Details:*
Papanicolau N, Azrif M, Ranieri S, Giles A, **Czarnota GJ.** Conventional-frequency Detection of Apoptosis in vitro and in vivo. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Coauthor or Collaborator.**

2008 High Frequency Ultrasound: Detection and Differentiation of Apoptosis and Necrosis During Cancer Therapy. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. San Diego, United States. (Trainee Presentation)

*Publication Details:*
Ranieri S, Vlad R, Debeljevic B, Giles A, Kolios MC, **Czarnota GJ.** High Frequency Ultrasound: Detection and Differentiation of Apoptosis and Necrosis During Cancer Therapy. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Senior Responsible Author.**

*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*
Vlad RM, Orlowa V, Hunt JW, Kolios MC, **Czarnota GJ.** Changes Measured in the Backscattered Ultrasound Signals During Cell Death can be Potentially Explained by an Increase in Cell Size Variance. Ultrasonic Imaging and Tissue Characterization. 2008;29:256. **Senior Responsible Author.**


*Publication Details:*


*Publication Details:*


*Publication Details:*


**Publication Details:**


**Publication Details:**


**Publication Details:**
Hupple C, Giles A, Wong S, Burns PN, Foster FS, **Czarnota GJ**. Radiation Effects on Tumour Microcirculation Assessed by High-frequency Power Doppler Micro-ultrasound Imaging in Mice. American Association for Cancer Research (AACR) Annual Meeting. **Coauthor or Collaborator.**


**Publication Details:**
Bailey C, Giles A, **Czarnota GJ**, Stanisz GJ. Quantitative T1 and T2 Relaxation in Apoptotic Cells in the Presence of Gd-DTPA. International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting. **Coauthor or Collaborator.**


**Publication Details:**


**Publication Details:**


**Publication Details:**
Vlad R, Giles A, Kolios MC, **Czarnota GJ**. High-frequency Ultrasound Imaging of Cell Structural Changes Following Radiation Therapy. International Symposium on Ultrasonic Imaging and Tissue Characterization (UITC) Annual Meeting. **Senior Responsible Author.**

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Principal Author.

2007
High Frequency Ultrasound Monitoring of Photodynamic Therapy Effects. American Association for Cancer Research (AACR) Annual Meeting. Los Angeles, United States. (Trainee Presentation)

Publication Details:

2007

Publication Details:

2007
Monitoring Responses to Treatment with High-frequency Ultrasound in vivo: Assessing Response to Radiation vs. Photodynamic Therapy in Melanoma Xenograft Tumors. American Society for Therapeutic Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States. (Trainee Presentation)

Publication Details:

2007
Extended System Transfer Compensation for Parametric Imaging in Ultrasonic Response Assessment of Anti-cancer Therapies. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. New York, United States.

Publication Details:

2007
High Frequency Ultrasound Characterization of Cell Death in vivo: Quantification of Tumour Responses to Radiation, Photodynamic Therapy and Chemotherapy. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. New York, United States.

Publication Details:

2007

Publication Details:

2007
The Dependence of Sonoporation on Cell Cycle Phase: Enhanced Effect During G2 and S-phase. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. New York, United States.
Publication Details:

2007
Low Frequency Ultrasound Spectral Characterization of Apoptosis and Necrosis. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. New York, United States.

Publication Details:

2006
Ultrasound Imaging and Spectroscopy of Cancer Therapy Effects. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Leipzig, Germany. (Trainee Presentation)

Publication Details:


Publication Details:

2006

Publication Details:

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Publication Details:

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Publication Details:

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Publication Details:

2006
Newer Ultrasound Backscatter Studies Demonstrate Excellent Agreements Between Simulations and
Experiments of Acute Myeloid Leukemia Cell Pellets in the Frequencies from 10 to 50 MHz. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Vancouver, Canada.

Publication Details:
Hunt JW, Kolios MC, Czarnota GJ, Tunis AS, Brand S. Newer Ultrasound Backscatter Studies Demonstrate Excellent Agreements Between Simulations and Experiments of Acute Myeloid Leukemia Cell Pellets in the Frequencies from 10 to 50 MHz. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Coauthor or Collaborator.

2006
Ultrasonic Monitoring of Epithelial Cell Death Using Spectral and Wavelet Based Signal Analysis of RF-Backscatter Signals. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Vancouver, Canada.

Publication Details:
Brand S, Solanki B, Czarnota GJ, Foster D, Kolios MC. Ultrasonic Monitoring of Epithelial Cell Death Using Spectral and Wavelet Based Signal Analysis of RF-Backscatter Signals. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Coauthor or Collaborator.

2006
Using High Frequency Ultrasound Envelope Statistics to Determine Scatterer Number Density in Dilute Cell Solutions. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Vancouver, Canada.

Publication Details:

2006

Publication Details:

2005
Using High Frequency Ultrasound Envelope Statistics to Determine Scatterer Number Density in Dilute Cell Solutions. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Vancouver, Canada.

Publication Details:

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Publication Details:

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Publication Details:

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Publication Details:

2004

Publication Details:

2004
Developing High-frequency Ultrasound and Signal Analysis Techniques to Monitor Liver Suitability for Transplantation. IEEE Ultrasonics, Ferroelectrics and Frequency Control (UFFC) 50th Anniversary Joint Conference. Montreal, Canada.

Publication Details:

2004
High Frequency Ultrasound Statistics from Mouse Mammary Tissue During Involution. IEEE Ultrasonics, Ferroelectrics and Frequency Control (UFFC) 50th Anniversary Joint Conference.

Publication Details:

2004

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Publication Details:

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Publication Details:

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Publication Details:

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Publication Details:

2002

Publication Details:
Czarnota GJ, Deveraj K, Giles A, Heng YM, Bear TD, Sherar MD, Ottensmeyer FP, Hunt JW, Kolios MC.
Ultrasound Imaging of Chromatin Structure. Congress of the World Federation for Ultrasound in Medicine and Biology. **Principal Author.**


**Publication Details:**
Vlad R, Kolios M, Sherar MD, **Czarnota GJ**, Giles A. Developing High-frequency Ultrasound and Signal Analysis Techniques to Monitor Organ Suitability for Transplantation. Congress of the World Federation for Ultrasound in Medicine and Biology. **Co-author or Collaborator.**

2001 Analysis of Ultrasound Backscatter from Ensembles of Cells and Isolated Nuclei. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Atlanta, United States.

**Publication Details:**
Kolios MC, **Czarnota GJ**, Hussain M, Foster FS, Hunt JW, Sherar MD. Analysis of Ultrasound Backscatter from Ensembles of Cells and Isolated Nuclei. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. **Co-Principal Author.**


**Publication Details:**
Darby PJ, **Czarnota GJ**, Sherar MD, Hunt JW. Ultrasound Imaging of the Cell Cycle. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Co-author or Collaborator.**


**Publication Details:**
**Czarnota GJ**, Kolios MC, Sherar MD, Hunt JW. Quantitative Assessment of Apoptosis with High Frequency Ultrasound. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Co-Principal Author.**


**Publication Details:**
**Czarnota GJ**, Sherar MD, Hunt JW, Kolios MC. High-frequency Ultrasound Imaging of Apoptosis as a Method of Assessing Transplant Organ Viability. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Principal Author.**


**Publication Details:**


**Publication Details:**
**Czarnota GJ**, Kolios MC, Sherar MD, Ottensmeyer FP, Hunt JW. Ultrasound Imaging of Chromosome Structure. American Institute of Ultrasound in Medicine (AIUM) Annual Meeting. **Co-Principal Author.**

Gregory Jan CZARNOTA

Publication Details:


Publication Details:


Publication Details:

2000 Ultrasound Imaging and Spectrum Analysis for the Detection of Apoptosis. World Congress on Medical Physics and Biomedical Engineering. Chicago, United States.

Publication Details:


Publication Details:


Publication Details:

1999 High-frequency Ultrasound Monitoring of Apoptosis: Theoretical Considerations. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Lake Tahoe, United States.

Publication Details:

1999 High-frequency Ultrasound Monitoring of Apoptosis in vitro and in Experimental Tumours. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Lake Tahoe, United States.
Publication Details:
Sherar MD, Hunt JW, Kolios MC, Czarnota GJ. High-frequency Ultrasound Monitoring of Apoptosis in vitro and in Experimental Tumours. Institute of Electrical and Electronics Engineers (IEEE) International Ultrasonics Annual Symposium. Coauthor or Collaborator.

1999

Publication Details:

1999

Publication Details:

1999

Publication Details:

1998
Ultrasound Biomicroscopy Detects Apoptosis in vitro, ex vivo, and in vivo. Ultrasonic Biomedical Microscanning International Meeting. Eastwood Park, United Kingdom.

Publication Details:

1998

Publication Details:

1998

Publication Details:

1998
Monitoring Photodynamic Therapy: The Potential of Minimally Invasive Electrical Impedance Spectroscopy and High-frequency Ultrasound. Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. San Diego, United States.

Publication Details:
Wilson BC, Molcovsky A, Czarnota GJ, Sherar MD, Kolios MC, Lilige L, Dattani RS, Osterman KS,
Paulsen KD, Hoopes PJ. Monitoring Photodynamic Therapy: The Potential of Minimally Invasive Electrical Impedance Spectroscopy and High-frequency Ultrasound. Society for Optics and Photonics (SPIE) International Medical Imaging Annual Conference. **Coauthor or Collaborator.**


*Publication Details:*  
Beniac DR, **Czarnota GJ**, Rutherford BL, Ottensmeyer FP, Harauz G. Probing Ribosomal RNA by Electron Spectroscopic Imaging and Three-dimensional Reconstruction. Microscopy Today. 1997;1:15. **Coauthor or Collaborator.**


*Publication Details:*  
Kolios MC, **Czarnota GJ**, Vaziri H, Benchimol S, Ottensmeyer FP, Sherar MD, Hunt JW. Ultrasonic Imaging of Viable, Dead, and Apoptotic Cells. Radiation Research Society (RRS) Annual Meeting. **Co-Principal Author.**


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  
Beniac DR, **Czarnota GJ**, Bartlett TA, Ottensmeyer FP, Harauz G. Challenges of Three-dimensional Reconstruction of Ribonucleoprotein Complexes from Electron Spectroscopic Images - Reconstructing Ribosomal RNA. Microscopy and Microanalysis (MSA) Annual Meeting. **Coauthor or Collaborator.**


*Publication Details:*  
**Czarnota GJ**, Bazett-Jones DP, Ottensmeyer FP. Three-dimensional Imaging of Nucleosomes from Transcriptionally Active Genes Using Electron Spectroscopic Imaging. Microscopy and Microanalysis (MSA) Annual Meeting. **Principal Author.**

1996 International Altschul Symposium on Cell Biology and Pathology of Myelin: Evolving Biological Concepts and Therapeutic Approaches. Saskatoon, Canada.

*Publication Details:*  
Beniac DR, Ridsdale RA, Luckevich MD, Harauz GH, Tompkins TA, **Czarnota GJ**, Ottensmeyer FP,
Moscarello MA. International Altschul Symposium on Cell Biology and Pathology of Myelin: Evolving Biological Concepts and Therapeutic Approaches. 1996. **Coauthor or Collaborator.**


**Publication Details:**


**Publication Details:**


**Publication Details:**
Ottensmeyer FP, **Czarnota GJ**, Chiba L, Farrow NA. 3D Reconstruction from Projection Images of Molecules at Random Unknown Orientations: SRP54, Nucleosomes, Transcriptionally Active Nucleosomes, Ribosomes, and Lambda Terminase. Gordon Research Conferences: Three-Dimensional Electron Microscopy of Macromolecules. **Coauthor or Collaborator.**


**Publication Details:**
Beniac DR, **Czarnota GJ**, Ottensmeyer FP, Harauz GH. Reconstructing Eukaryotic and Prokaryotic Ribosome Structures. Gordon Research Conferences: Three-Dimensional Electron Microscopy of Macromolecules. **Coauthor or Collaborator.**


**Publication Details:**
**Czarnota GJ**, Bazett-Jones DP, Ottensmeyer FP. Nucleosome Structure: Conformational Changes and Gene Expression. The Keystone Symposium on Molecular and Cell Biology: Epigenetic Regulation of Transcription. **Principal Author.**


**Publication Details:**


**Publication Details:**
**Czarnota GJ**, Ottensmeyer FP. Nucleosome Structure: Conformational States and Structural Transitions.
The Keystone Symposium on Molecular and Cell Biology: The Eukaryotic Nucleus/Nucleic Acid Binding Proteins. **Principal Author.**

1994


**Publication Details:**
Ottensmeyer FP, **Czarnota GJ**, Andrews DW, Farrow NA. Three-dimensional Reconstruction of the 54 kDa Signal Recognition Protein from STEM Dark Field Images of the Molecule at Random Orientations. International Congress on Electron Microscopy Annual Meeting. **Coauthor or Collaborator.**

1994


**Publication Details:**
**Czarnota GJ**, Ottensmeyer FP. Chromatin Substructure: Structural States and Conformational Transitions of the Nucleosome. International Congress on Electron Microscopy Annual Meeting. **Principal Author.**

1994


**Publication Details:**
**Czarnota GJ**. Nucleosome Structure: A Macromolecular Shape-shifter. American Crystallographic Association (ACA) Annual Crystallographer’s Meeting. **Principal Author.**

1994


**Publication Details:**
Ottensmeyer FP, **Czarnota GJ**, Andrews DW, Farrow NA. Three-dimensional Reconstruction of the 54 kDa Signal Recognition Protein from STEM Dark Field Images of the Molecule at Random Orientations. International Congress on Electron Microscopy Annual Meeting. **Coauthor or Collaborator.**

1993


**Publication Details:**
Ottensmeyer FP, **Czarnota GJ**, Farrow NA, Andrews DW. 3D Reconstruction from Projection Images of Molecules at Random Unknown Orientations: DNA Polymerase and the Signal-sequence Binding Protein of SRP. Gordon Research Conferences: Three-Dimensional Electron Microscopy of Macromolecules. **Coauthor or Collaborator.**

2. NATIONAL

**Invited Lectures and Presentations**


2013 **Invited Professor.** Personalized Medicine: Novel Methods for Tumour Response Monitoring. CIHR Strategic Training Program in Cancer Research and Technology Transfer. London, Ontario, Canada. Presenter(s): **Czarnota GJ**.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2011 Power Doppler Ultrasound Analysis of Tumor Vasculature Changes Due to Ultrasound Mediated Microbubble Enhancement of Radiation. American Association of Ultrasound in Medicine Annual Symposium. (Trainee Presentation)

Publication Details:

Publication Details:

2011 Investigating the Effects of Intensity Threshold on High-frequency 3D Power Doppler Ultrasound. American Association of Ultrasound in Medicine Annual Symposium. (Trainee Presentation)

Publication Details:


Publication Details:


Publication Details:

2009 Five Year Review of the Non Melanoma Skin Cancer Clinic at the Odette Cancer Centre. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Quebec City, Canada.

Publication Details:


Publication Details:


Publication Details:


Publication Details:
Karshafian R, Samac S, Williams R, Giles A, Bevan PD, Czarnota GJ, Burns PN. Cancer Therapy
2007 High-frequency Ultrasound Analysis of Photodynamic Therapy Treatment Effectiveness in vivo. London Health Sciences Centre and University of Western Ontario Annual Canadian Student Conference on Biomedical Computing (CSCBC). London, Canada.

*Publication Details:*
Debeljevic B, Papanicolau N, Sadeghian A, Czarnota GJ. High-frequency Ultrasound Analysis of Photodynamic Therapy Treatment Effectiveness in vivo. London Health Sciences Centre and University of Western Ontario Annual Canadian Student Conference on Biomedical Computing (CSCBC). *Coauthor or Collaborator.*


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*


*Publication Details:*

Publication Details:


Publication Details:


Publication Details:


Publication Details:

1998 Family and Parenting Issues When One Parent has Leukemia. Canadian Association of Psychosocial Oncology (CAPO) Annual Conference. Toronto, Canada.

Publication Details:
Czarnota GJ, Elliott M, Bunston T, Fitch M. Family and Parenting Issues When One Parent has Leukemia. Canadian Association of Psychosocial Oncology (CAPO) Annual Conference. Principal Author.


Publication Details:


Publication Details:

1995 Reconstructing Eukaryotic and Prokaryotic Ribosomal RNA. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Saskatoon, Canada.

Publication Details:
Beniac DR, Czarnota GJ, Ottensmeyer FP, Harauz GH. Reconstructing Eukaryotic and Prokaryotic Ribosomal RNA. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Coauthor or Collaborator.
Collaborator.

1995

3D Structure Determination of Non-crystalline Proteins by STEM Imaging and IQAD: Signal Recognition Protein SRP54. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Saskatoon, Canada.

Publication Details:

1995

Chromatin Substructure: Structural States of the Nucleosome and Gene Expression. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Saskatoon, Canada.

Publication Details:

1995


Publication Details:

1995


Publication Details:

1995


Publication Details:

1995

Novel Conformations and Structural Changes of the Nucleosome. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Saskatoon, Canada.

Publication Details:
Czarnota GJ, Ottensmeyer FP. Novel Conformations and Structural Changes of the Nucleosome. Canadian Federation of Biological Sciences (CFBS) Annual Meeting. Principal Author.

1993


Publication Details:
Ottensmeyer FP, Farrow NA, Andrews DW, Czarnota GJ. Image Analysis, Molecules and Three-dimensions. Microscopical Society of Canada (MSC) Annual Meeting. Coauthor or Collaborator.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2013  Presenter. Why 50 Years of Radiobiology is Wrong. University of Toronto, Department of Medical Biophysics, Annual Retreat. Orillia, Canada. Presenter(s): Czarnota GJ.

2012  Presenter. Translational Oncology Research. CIHR Strategic Training Program in Cancer Research and Technology Transfer and the Panel Greenaway-Kohlmeier Translational Breast Cancer Research Unit, Western University. Ontario, Canada. Presenter(s): Czarnota GJ.


2002  Presenter. Ultrasound Imaging of Cancer Therapy Effects - Updated. University of Ottawa, Department of Radiation Oncology and Ottawa Regional Cancer Centre. Ottawa, Canada. Presenter(s): Czarnota GJ.

2002  Presenter. Ultrasound Imaging of Cancer Therapy Effects. University of Ottawa, Department of Radiation Oncology and Ottawa Regional Cancer Centre. Canada. Presenter(s): Czarnota GJ.

Presented and Published Abstracts

2016

In Vivo Measurements of Cest MRI Signal in Breast Cancer Xenografts at 7T. Terry Fox Research Institute’s (TFRI) Annual Scientific Meeting. Vancouver, Canada. (Trainee Presentation)

*Publication Details:*

2016

Cancer Therapy Assessment Using Multiview Learning and Quantitative Ultrasound Methods. Terry Fox Research Institute’s (TFRI) Annual Scientific Meeting. Vancouver, Canada. (Trainee Presentation)

*Publication Details:*

2015

State-of-the-Art Texture Methods in Clinical Cancer Response Monitoring. Terry Fox Research Institute’s (TFRI) Annual Scientific Meeting. St. John’s, Canada. (Trainee Presentation)

*Publication Details:*

2015

Early Detection of Ultimate Response to Chemotherapy in Breast Cancer Patients using a Multi-modal Imaging Strategy. Terry Fox Research Institute’s (TFRI) Annual Scientific Meeting. St. John’s, Canada. (Trainee Presentation)

*Publication Details:*

2015


*Publication Details:*

2015


*Publication Details:*

2013

Quantitative Ultrasound Monitoring of Breast Cancer Cell Death In-vivo Using the Gaussian Form Factor - A Preclinical Study. Imaging Network Ontario Meeting (IMNO) Symposium. Toronto, Canada. (Trainee Presentation)

*Publication Details:*

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**
El Kaffas A, Giles A, Czarnota GJ. Investigating Tumour Vascular Radiosensitization with 3D Power Ultrasound. Imaging Network Ontario Meeting (IMNO) Symposium. **Senior Responsible Author.**


**Publication Details:**

2010 Ultrasound and Microbubble Potentiated Enhancement of Chemotherapy in Vitro: Effect of Cell Line and...
Acoustic Pressure. 2010 Canadian Association of Physicists Meeting.

Publication Details:

2009
Spectroscopic Optical Coherence Tomography Techniques for Monitoring Cell Death. Canadian Optical Coherence Tomography Symposium. Toronto, Canada. (Trainee Presentation)

Publication Details:

2009
Low Frequency Ultrasound: Detection and Differentiation of Apoptosis and Necrosis During Cancer Therapy. Queens Health Sciences Research Competition. Kingston, Canada. (Trainee Presentation)

Publication Details:
Kim HC, Ranieri S, Czarnota GJ. Low Frequency Ultrasound: Detection and Differentiation of Apoptosis and Necrosis During Cancer Therapy. Queens Health Sciences Research Competition. Senior Responsible Author.

2008
Combining High Frequency Ultrasound and Optical Coherence Tomography for Monitoring Cell Death. Imaging Network Ontario Meeting (IMNO) Symposium. Toronto, Canada. (Trainee Presentation)

Publication Details:

2007

Publication Details:

2007

Publication Details:

2004

Publication Details:

2000
Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

4. LOCAL

Invited Lectures and Presentations


2015 Lecturer. MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.


2014 Lecturer. MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2013 Lecturer. MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.
2013 **Presenter.** Novel Therapies for Radiation Enhancement. Target Insight VII. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2012 **Presenter.** Personalized Medicine: Imaging-based Biomarkers of Tumour Response for Customizing Cancer Therapy. HICT Program Annual Scientific Meeting. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2012 **Presenter.** Novel Therapies for Radiation Enhancement. Target Insight VII. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2012 **Lecturer.** MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2011 **Lecturer.** MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2011 **Presenter.** Non-invasive Monitoring of Neoadjuvant Chemotherapy for Locally Advanced Breast Cancer. Toronto Cancer. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2011 **Presenter.** Changes in and Changing the Biological Target During Cancer Therapy. IMRT Insight: On Target, On Track. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2010 **Presenter.** Imaging and Manipulating the Tumour Microenvironment with Ultrasound. International Conference on the Tumor Microenvironment: Hypoxia, Angiogenesis, and Vasculature. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2010 **Coordinator and Lecturer.** MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2009 **Coordinator and Lecturer.** MBP 1018Y. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.


2009 **Presenter.** Novel Anti-vascular and Radiation Cancer Treatment. Target Insight III, University of Toronto. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2008 **Presenter.** Novel Ultrasound Enhanced Anti-vascular Therapy. Odette Cancer Center and Sunnybrook Research Institute - Annual Cancer Research Day. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2008 **Presenter.** Novel Ultrasound Therapy and Imaging in Locally Advanced Breast Cancer. Sunnybrook Health Sciences Centre, Radiation Oncology Research Rounds. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2008 **Presenter.** Novel Ultrasound Therapy and Imaging in Locally Advanced Breast Cancer. Toronto Breast Cancer Symposium. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2008 **Lecturer.** Molecular Oncology and Basic Sciences Review. Department of Medicine, Division of Medical Oncology. Niagara on the Lake, Ontario, Canada.

2007 **Presenter.** Ultrasound Detection of Apoptosis at High- and Low-frequencies: Role of the Cell Nucleus. Ontario Consortium for Small Animal Imaging (OCSAI) Third Annual High-Frequency Ultrasound Workshop. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2007 **Presenter.** One Millimeter Challenge/Imaging and Intervention Workshop. Ontario Institute for Cancer Research (OICR) Workshop. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2007 **Presenter.** Ultrasound and Radiation Effects on Tumours. Odette Cancer Centre and Sunnybrook Research Institute - Annual Cancer Research Day. Toronto, Canada. Presenter(s): **Czarnota GJ.**
2006 **Presenter.** Ultrasound Imaging and Spectroscopy of Cancer Therapy Effects. Ontario Consortium for Small Animal Imaging (OCSAI) Annual High-Frequency Ultrasound Workshop. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2006 **Lecturer.** PBL - Brain and Behaviour BRB 111S. Department of Medicine, University of Toronto. Toronto, Ontario, Canada.

2006 **Lecturer.** Frontiers of Radiation Medicine Research MSC1501H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.


2004 **Presenter.** Ultrasound Imaging of Cancer Therapy Effects: Assessing Radiosensitivity and Monitoring Radio Response. Toronto Sunnybrook Regional Cancer Centre and Sunnybrook and Women’s College Research Institute. Toronto, Canada. Presenter(s): **Czarnota GJ.**


2001 **Presenter.** Ultrasound Imaging of Cancer Therapy. Radiation Oncology Medicine Programme Rounds, Princess Margaret Hospital University Health Network. Ontario, Canada. Presenter(s): **Czarnota GJ.**

2001 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2000 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

2000 **Presenter.** Ultrasound Imaging of Apoptosis: Biological Implications. Ryerson Polytechnic University. Toronto, Canada. Presenter(s): **Czarnota GJ.**

2000 **Presenter.** Ultrasound Imaging of Apoptosis: Detection of Cancer Therapy effect in vitro, in situ, and in vivo. Protein Engineering Network of Centres of Excellence Seminar Series Presentation, University of Toronto. Toronto, Canada. Presenter(s): **Czarnota GJ.**

1999 **Presenter.** Ultrasound Imaging of Apoptosis: Clinical Evaluation and Perspectives. Lymphoma Rounds, Princess Margaret Hospital. Toronto, Canada. Presenter(s): **Czarnota GJ.**

1999 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

1998 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

1997 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

1996 **Lecturer.** Fundamentals in Molecular and Cellular Biology II: Chromosome Biology MBP 1008H. Department of Medical Biophysics, University of Toronto. Toronto, Ontario, Canada.

1996 **Presenter.** Three-dimensional Imaging of Biological Macromolecules. Protein Engineering Network of Centres of Excellence Seminar Series Presentation, University of Toronto. Toronto, Canada. Presenter(s): **Czarnota GJ.**

1991 **Teaching Assistant.** General Introductory Chemistry. Department of Chemistry, McMaster University.
Hamilton, Ontario, Canada.

1990 **Teaching Assistant.** General Introductory Chemistry. Department of Chemistry, McMaster University. Hamilton, Ontario, Canada.

**Presented and Published Abstracts**

2016 A New Large Animal Model to Assess Secondary Tumour Cell Death After Ultrasound Microbubble Activation to Enhance External Beam Radiotherapy. RTi3, University of Toronto Radiation Therapy Conference. Toronto, Canada. (Trainee Presentation)

Publication Details:
Law NR, Tarapacki C, McKay S, Al-Mahrouki A, Tran W, Cumnal A, **Czarnota GJ.** A New Large Animal Model to Assess Secondary Tumour Cell Death After Ultrasound Microbubble Activation to Enhance External Beam Radiotherapy. RTi3, University of Toronto Radiation Therapy Conference. **Senior Responsible Author.**

2016 Disruption of the Tumor Vasculature Using Combined Radiation and Ultrasound-stimulated Microbubbles: Preliminary Preclinical Results in Human Prostate Xenografts. RTi3, University of Toronto Radiation Therapy Conference. Toronto, Canada. (Trainee Presentation)

Publication Details:
Cumal A, Tarapacki C, McKay S, Law N, Tran W, **Czarnota GJ.** Disruption of the Tumor Vasculature Using Combined Radiation and Ultrasound-stimulated Microbubbles: Preliminary Preclinical Results in Human Prostate Xenografts. RTi3, University of Toronto Radiation Therapy Conference. **Senior Responsible Author.**

2014 Design and Characterization of Gold Nanoparticle Brachytherapy Seeds for PBSI. University of Toronto Department of Radiation Oncology (UT DRO) Research Day. Toronto, Canada. (Trainee Presentation)

Publication Details:


Publication Details:
Tran WT, Kim Christina, Gorjizadeh A, El Kaffas A, **Czarnota GJ.** Evaluation of Tumor Cell Heterogeneity and Modulation Using Spectral Ultrasound Parameters: Assessing the Effects of a Vascular Disrupting Agent and Radiation. RTi3, University of Toronto Radiation Therapy Conference. **Senior Responsible Author.**

2012 Effects of Biophysical Parameters in Radiosensitizing Prostate Tumours with Ultrasound-stimulated Microbubbles. James Lepock Memorial Student Research Symposium: Princess Margaret Hospital. Toronto, Canada. (Trainee Presentation)

Publication Details:
Kim C, Al-Mahrouki A, Gorjizadeh A, Karhsfian R, **Czarnota GJ.** Effects of Biophysical Parameters in Radiosensitizing Prostate Tumours with Ultrasound-stimulated Microbubbles. James Lepock Memorial Student Research Symposium: Princess Margaret Hospital. **Senior Responsible Author.**

2011 Optimization of Experimental Parameters in Radiosensitizing Prostate Tumours with Microbubbles. Medical Biophysics Student Seminar of University of Toronto. Toronto, Canada. (Trainee Presentation)

Publication Details:
Kim HC, Al-Mahrouki A, Karshafian R, Gorjizadeh A, **Czarnota GJ**. Optimization of Experimental Parameters in Radiosensitizing Prostate Tumours with Microbubbles. Medical Biophysics Student Seminar of University of Toronto. **Senior Responsible Author.**

2011

Changes in and Changing the Biological Target During Cancer Therapy. Target Insight III. Toronto, Canada.

**Publication Details:**
**Czarnota GJ.** Changes in and Changing the Biological Target During Cancer Therapy. Target Insight III. **Principal Author.**

2010

Ultrasound Microbubble Enhancement of Bladder Cancer Treatment. RTi3, University of Toronto Radiation Therapy Conference. Toronto, Canada. (Trainee Presentation)

**Publication Details:**
Tran WT, Irdaji S, **Czarnota GJ.** Ultrasound Microbubble Enhancement of Bladder Cancer Treatment. J Med Imaging Radiat Sci. **Senior Responsible Author.**

2009

Detecting of Breast Cancer Cell Death in Cancer Therapy with Low Frequency Ultrasound (LFUS). Summer Research Project Competition at Sunnybrook Health Science Center. Toronto, Canada. (Trainee Presentation)

**Publication Details:**
Kim HC, Ranieri S, Doss L, **Czarnota GJ.** Detecting of Breast Cancer Cell Death in Cancer Therapy with Low Frequency Ultrasound (LFUS). Summer Research Project Competition at Sunnybrook Health Science Center. **Senior Responsible Author.**

2008


**Publication Details:**
Soliman H, Clarke G, Gunasekara A, Rycroft M, Yaffe M, **Czarnota GJ.** Monitoring Treatment Response in Locally Advanced Breast Cancer Using Pulsed Time-domain Diffuse Optical Spectroscopy. University of Toronto Department of Radiation Oncology Research Day (UTDRO) Annual Symposium. **Senior Responsible Author.**

2008


**Publication Details:**
Lee J, Karshafian R, Banihashemi B, Caissie A, **Czarnota GJ.** Ultrasound Microbubble Potentiated Enhancement of Tumour Response to Radiation: Preliminary Results. University of Toronto Department of Radiation Oncology Research Day (UTDRO) Annual Symposium. **Senior Responsible Author.**

2006

High- and Conventional-frequency Spectroscopic Ultrasound Imaging of Apoptotic Tumour Cell Responses to Cancer Therapy. Target Insight II: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio Conference. Toronto, Canada.

**Publication Details:**
**Czarnota GJ.** High- and Conventional-frequency Spectroscopic Ultrasound Imaging of Apoptotic Tumour Cell Responses to Cancer Therapy. Target Insight II: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio Conference. **Principal Author.**

2006

Ultrasound Imaging and Spectroscopy of Cancer Therapy Effects. University of Toronto Department of Radiation Oncology Research Day (UTDRO) Annual Symposium. Toronto, Canada. (Trainee Presentation)
Gregory Jan CZARNOTA

Publication Details:

2003

Publication Details:

2002
Ultrasound Imaging of Cancer Therapy Effects: Role of the Cell Nucleus and Membrane. Innovative Technology in Radiation Medicine Meeting, ESTRO. Toronto, Canada.

Publication Details:

2001

Publication Details:

2000
Ultrasound Imaging of Cancer Therapy Effects. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. Toronto, Canada.

Publication Details:

2000
Ultrasound Imaging for Predicting and Monitoring Radiation Responses. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. Toronto, Canada.

Publication Details:
Czarnota GJ. Ultrasound Imaging for Predicting and Monitoring Radiation Responses. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. Principal Author.

2000
Ultrasound Imaging of Apoptosis: Role of Cell Nucleus and Membrane. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. Toronto, Canada.

Publication Details:
Czarnota GJ. Ultrasound Imaging of Apoptosis: Role of Cell Nucleus and Membrane. University of Toronto Department of Radiation Oncology and Princess Margaret Hospital (UTDRO/PMH) Annual Research Day. Principal Author.

1993
The Nucleosome as Shape Shifter. Annual Gull Lake Meeting, Department of Medical Biophysics at the University of Toronto. Toronto, Canada.
Publication Details:
Czarnota GJ. The Nucleosome as Shape Shifter. Annual Gull Lake Meeting, Department of Medical Biophysics at the University of Toronto. Principal Author.

Academic Retreat
2015 Department of Radiation Oncology, Site Group Leaders Retreat. Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.
2015 Department of Radiation Oncology. Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.
2014 Department of Radiation Oncology. Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.
2013 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
2010 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
2009 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
2008 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
2006 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
1994 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Geneva Park, Orillia, Ontario, Canada.
1993 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Gull Lake, Haliburton, Ontario, Canada.
1992 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Gull Lake, Haliburton, Ontario, Canada.
1991 Department of Medical Biophysics Retreat. Department of Medical Biophysics, University of Toronto. Gull Lake, Haliburton, Ontario, Canada.

Scientific Workshop
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2016  **Primary Supervisor.** Robert Thompson. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, University of Waterloo.

2016  **Primary Supervisor.** Marcus Diemand. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Engineering, University of Waterloo.

2016  **Primary Supervisor.** Robert Thompson. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Mathematics, University of Waterloo.

2015 - 2016  **Primary Supervisor.** Priya Bhargava. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Engineering, University of Waterloo.

2015  **Primary Supervisor.** Andrew Harris. Supervisee Institution: Department of Physics, Ryerson University. Non-thesis Project. Awards: NSERC Undergraduate Student Research Award.

2015  **Primary Supervisor.** Simon Liu. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Engineering, University of Waterloo.

2015  **Primary Supervisor.** Priya Bhargava. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Engineering, University of Waterloo.

2015  **Primary Supervisor.** Juliana Sebastini. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.

2015  **Primary Supervisor.** Suhier Seif. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.

2015  **Primary Supervisor.** Marwan Shahid. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.

2015  **Primary Supervisor.** Brandon Fung. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Engineering, University of Waterloo.

2015  **Primary Supervisor.** Abdul Raheem. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Engineering, University of Waterloo.

2015  **Primary Supervisor.** Aparna Jain. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Engineering, University of Waterloo.

2015  **Primary Supervisor.** Sean Watkins. Supervisee Institution: Department of Sport Management, Brock University.

2015  **Primary Supervisor.** Alexander Koven. Supervisee Institution: Faculty of Medicine, University of Toronto. Non-thesis Project.


2014 - 2015  **Primary Supervisor.** Jaswinder Taank. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.

2013 - 2014  **Primary Supervisor.** Jason Fernandes.

2012 - 2014  **Primary Supervisor.** Emily Wong. Supervisee Institution: Department of Biology, Queens University.

2012  **Primary Supervisor.** Sai Bala. Supervisee Institution: Department of Computer Science, Queens University.

2012  **Primary Supervisor.** Stephanie Zhou. Supervisee Institution: Faculty of Science, Queens University.

2012  **Primary Supervisor.** Ian Leith. Supervisee Institution: Department of Physics, Cambridge University, UK.
2012  **Primary Supervisor.** Judy Duan. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.

2011  **Primary Supervisor.** Alborz Gorjizadeh. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.

2011  **Primary Supervisor.** Sameera Prematilake. Supervisee Position: Coop Student, Supervisee Institution: Faculty of Science, McMaster University.


2009 - 2010  **Primary Supervisor.** Firas Almasri. Supervisee Institution: Department of Physics, Ryerson University.  *Non-thesis Project.*

2009  **Primary Supervisor.** Christina Kim. Supervisee Institution: Department of Medical Biophysics, University of Toronto.  *Non-thesis Project.* Awards: NSERC Undergraduate Student Research Award.

2008 - 2010  **Primary Supervisor.** Joris Nofiele. Supervisee Institution: Department of Physics, Ryerson University.  *Non-thesis Project.*


2008  **Primary Supervisor.** Christina Kim. Supervisee Institution: Department of Medical Biophysics, University of Toronto.  *Non-thesis Project.*

2008  **Primary Supervisor.** Melissa Furukawa. Supervisee Institution: Faculty of Science, McMaster University.  *Non-thesis Project.*

2008  **Primary Supervisor.** Shawn Ranieri. Supervisee Institution: Department of Medical Biophysics, University of Toronto.  *Non-thesis Project.* Awards: NSERC Undergraduate Student Research Award.

2006 - 2007  **Primary Supervisor.** Lillian Doss. Supervisee Institution: Institute of Medical Sciences, University of Toronto.

2006 - 2007  **Primary Supervisor.** Shawn Ranieri. Supervisee Institution: Department of Medical Biophysics, University of Toronto.  *Non-thesis Project.*


**Graduate Education**

2015 - present  **Primary Supervisor.** MSc. Jonathan Klein. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014 - present  **Co-Supervisor.** MSc. Maurice Pasternak. Supervisee Institution: Department of Laboratory Medicine and Pathology, University of Toronto.

2013 - present  **Co-Supervisor.** PhD. William Tran. Supervisee Institution: Sheffield Hallam University, UK.
2007 - present  **Primary Supervisor.** PhD. Golnaz Farhat. Supervisee Institution: Department of Medical Biophysics, University of Toronto. (2 pregnancies with extended leave).

2013  **Primary Supervisor.** MSc. Ahmad El Falou (withdrawn to pursue employment in industry). Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2012 - 2015  **Co-Supervisor.** MSc. Priscilla Lai. Supervisee Institution: Department of Medical Biophysics, University of Toronto. (switched laboratories due to the departure of primary supervisor).

2011 - 2012  **Co-Supervisor.** MSc. William Tran. Supervisee Institution: Sheffield Hallam University, UK.

2010 - 2015  **Primary Supervisor.** PhD. Hadi Tadayyon. Supervisee Institution: Department of Medical Biophysics, University of Toronto. Awards: NSERC CGS D Award (May 2012 - May 2014).

2010 - 2012  **Primary Supervisor.** PhD. Naum Papanicolau (withdrawn to pursue employment in industry). Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2009  **Co-Supervisor.** PhD. Shawn Stapleton. Supervisee Institution: Department of Medical Biophysics, University of Toronto (withdrawn to pursue other research interests in alignment with career goals - see letter in supporting documentation).

2008 - 2013  **Primary Supervisor.** PhD. Ahmed El-Kaffas. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2008 - 2009  **Primary Supervisor.** MSc. Christina Kim. Supervisee Institution: Department of Medical Biophysics, University of Toronto (changed research focus to gold nanoparticle work to align with career goals - see letter in supporting documentation).

2007 - 2010  **Primary Supervisor.** MSc. Ervis Sofroni. Supervisee Institution: Department of Computer Science, Ryerson University.

2007 - 2010  **Primary Supervisor.** MSc. Justin Lee. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2007 - 2009  **Primary Supervisor.** MSc. Clinton Hupple. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2006 - 2010  **Primary Supervisor.** MSc. Naum Papanicolau. Supervisee Institution: Department of Computer Science, Ryerson University.

2006 - 2008  **Primary Supervisor.** MSc. Branislaw Debeljevic (withdrawn to pursue employment in industry). Supervisee Institution: Department of Computer Science, Ryerson University.

2005 - 2008  **Primary Supervisor.** PhD. Roxana Vlad. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

**Undergraduate MD**

2015  **Primary Supervisor.** McKenzie Lim. Supervisee Institution: Royal College of Surgeons, Ireland.

2015  **Primary Supervisor.** Kristin Engeland. Supervisee Institution: Faculty of Medicine, Western University.

2012  **Primary Supervisor.** Kaleigh Briggs. Supervisee Institution: Royal College of Surgeons, Ireland.

2001 - 2002  **Primary Supervisor.** Matthew Butler. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

2001  **Primary Supervisor.** David Spurrell. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

2001  **Primary Supervisor.** David McAlduff. Supervisee Institution: Faculty of Medicine, University of Western Ontario. *Non-thesis Project.*

2000 - 2001  **Primary Supervisor.** Michael Levesque. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

2000 - 2001  **Primary Supervisor.** Peter Darby. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

2000  **Primary Supervisor.** Mohammed Hussain. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*
2000  **Primary Supervisor**: James Warrington. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

1999  **Primary Supervisor**: C. Tam. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

1999  **Primary Supervisor**: A. Xuan. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

1999  **Primary Supervisor**: Lana Tan. Supervisee Institution: Faculty of Medicine, University of Toronto. *Non-thesis Project.*

**Postgraduate MD**

2014 - present  **Primary Supervisor**: Vivian Yau. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

2008 - 2010  **Primary Supervisor**: Hany Soliman. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*

2007 - 2010  **Primary Supervisor**: Amanda Caissie. Supervisee Institution: Department of Radiation Oncology, University of Toronto. *Non-thesis Project.*


**Postdoctoral Research Fellow (PhD)**

2013 - present  **Primary Supervisor**: Lakshmanan Sannachi. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013 - present  **Primary Supervisor**: Mehrdad Gangeh. Supervisee Institution: Department of Medical Biophysics, University of Toronto. Awards: NSERC Postdoctoral Fellowship Award.

2015  **Primary Supervisor**: Deepa Sharma. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014  **Primary Supervisor**: Ahmed El-Kaffas. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2012 - 2015  **Primary Supervisor**: Ali Sadeghi-Naini. Supervisee Institution: Department of Medical Biophysics, University of Toronto. Awards: CIHR Banting Fellow.

2011 - 2012  **Primary Supervisor**: Omar Falou. Supervisee Institution: Department of Medical Biophysics, University of Toronto. Awards: CBCF Fellowship Award.

2004 - 2006  **Co-Supervisor**: Sebastian Brand. Supervisee Institution: Ryerson University.

**Clinical Research Fellow (MD)**

2015 - present  **Primary Supervisor**: Jonathan Klein. Supervisee Institution: Department of Radiation Oncology, University of Toronto.

2013 - 2015  **Primary Supervisor**: Tomas Merino. Supervisee Institution: Department of Radiation Oncology, University of Toronto.

2011 - 2012  **Primary Supervisor**: Margriet Sattler. Supervisee Institution: Department of Radiation Oncology, University of Toronto.

2010 - 2011  **Primary Supervisor**: Hany Soliman. Supervisee Institution: Department of Radiation Oncology, University of Toronto.
2. OTHER SUPERVISION

Graduate Education

Secondary Supervisor
2008 - 2010 MSc. Shawn Ranieri. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

Thesis Committee Member
2011 - present MSc. Mohammad Peikari. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2011 - 2014 PhD. Nicholas Ellens. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2011 - 2013 MSc. Joris Nofiele. Supervisee Institution: Department of Physics, Ryerson University.
2011 - 2013 MSc. Laxman Subedi. Supervisee Institution: Department of Physics, Ryerson University.
2011 - 2013 MSc. Amanda Tran. Supervisee Institution: Department of Physics, Ryerson University.
2010 - 2013 MSc. Nicole Fichtner. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2010 - 2013 MSc. Carolyn Latimer. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2010 - 2013 MSc. Anna Maeva. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2010 - 2011 MSc. Nicholas Ellens. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2009 - 2012 MSc. Firas Moosvi. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2008 - 2015 PhD. Mike Sattarivand. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2008 - 2013 PhD. Melissa Hill (Nock). Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2008 - 2011 PhD. Colleen Bailey. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2008 - 2010 MSc. Jelena Drazic. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2006 - 2014 PhD. Huan Yu. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2006 - 2007 MSc. Colleen Bailey. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
2006 - 2007 MSc. Melissa Nock. Supervisee Institution: Department of Medical Biophysics, University of Toronto.
Thesis Examiner

2015  PhD. Hadi Tadayyon. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014  PhD. Nicholas Ellens. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014  PhD. Ahmed El-Kaffas. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2014  MSc. Christina Kim. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013  PhD. Melissa Hill (Nock). Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013  MSc. Nicole Fichtner. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013  MSc. Anna Maeva. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2013  MSc. Joris Nofiele. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2012  MSc. William Tran. Supervisee Institution: Sheffield Hallam University, UK.

2011  MSc. Anthony Lausch. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2010  PhD. Deanna Langer. Supervisee Institution: Institute of Medical Science, University of Toronto.

2010  MSc. Jelena Drazic. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2010  MSc. Shawn Ranieri. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2010  MSc. Ervis Sofroni. Supervisee Institution: Department of Computer Science, Ryerson University.

2010  MSc. Justin Lee. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2009  PhD. Roxana Vlad. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2009  PhD. Adam Smith. Supervisee Institution: Institute of Medical Science, University of Toronto.

2009  PhD. Kristin McLarty. Supervisee Institution: Department of Pharmacy, University of Toronto.

2009  MSc. Eric Strohm. Supervisee Institution: Department of Physics, Ryerson University.

2009  MSc. Clinton Hupple. Supervisee Institution: Department of Medical Biophysics, University of Toronto.


2007  PhD. Kevin Graham. Supervisee Institution: Department of Medical Biophysics, University of Western Ontario.

2007  MSc. Toby Lam. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2007  MSc. Sherman Yin. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2007  MSc. Shawn Stapleton. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2006  MSc. Kevin Cheung. Supervisee Institution: Department of Medical Biophysics, University of Toronto.

2006  MSc. Alina Mihai. Supervisee Institution: Institute of Medical Science, University of Toronto.
I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

ULTRASOUND IMAGING.
I discovered (along with Dr. Michael Kolios) that high-frequency ultrasound can be used to detect apoptotic cell death. This research has been extensively evaluated in vitro, and in animal models of cancer. Further, this discovery has now been adapted to clinically used low-frequency ultrasound, and is in clinical trials in breast cancer patients working towards its use in customizing cancer chemotherapy. For instance, women with locally advanced breast cancer receive many months of chemotherapy that may be ineffective, as no quantitative methods are routinely used to evaluate chemotherapy efficacy. This research has the potential to permit changes in chemotherapy, to be made as early as one to four weeks, after the start of therapy from an ineffective treatment to one that is efficacious. This research represents a conceptual leap in which ultrasound can be used to detect biologically active forms of cell death. This is a clear world first achievement in ultrasound and cancer research. Evidence of impact are grants totaling over $171,000,00 over the past
10 years, as PI or co-PI in addition to publications in high impact journals. The research efforts in my laboratory have received international reputation with international grants, and a history of over $7,000,000 of currently active research funding as principal investigator per annum from the Canadian Institutes of Health Research, Canadian Cancer Society and the Terry Fox Foundation and others, and a lifetime of $21,000,000 of total research funding as PI. Participation in a number of international grants panels has also resulted. There are also invited visiting professorships at the University of Illinois, numerous invited talks (86 invited, 292 peer reviewed proffered) and the research has been the topic of several invited book chapters (9). We have also recently expanded this research to optics using diffuse optical spectroscopy as a complementary method.

ULTRASOUND THERAPY.
I discovered that microbubbles given intravenously and stimulated by ultrasound in vivo can radiosensitize tumours. This is new research which can result in over 70% of tumour volume being destroyed within 24 hours of a single low dose of radiation. This has the potential to make radiation treatments 50 to 100 fold more effective. Evidence of impact includes recently two subsequent Terry Fox/CIHR Programme Project Grants in Ultrasound and MRI for Cancer Therapy, invited presentations and work submitted for publication. Publication of the initial discovery was in P.N.A.S. U.S.A. Recent efforts have focussed on fine tuning the physical parameters related to this research, and scaling up the technology to larger animal models.

The method above has great potential to make radiation treatments more efficacious and improve cancer outcomes. In a second collaborative application, novel microbubble based cell permeation techniques is being used to deliver radiosensitizing gold-nanoparticles to cells and tissues. These are new radiosensitizers, whose effects can be potentially significantly enhanced by the improved delivery offered by such microbubble techniques. By spatially targeting the ultrasound treatment to tumours, we anticipate that normal tissues will be spared significant treatment-related side effects. We are coupling this research with quantitative ultrasound methods which may be used to monitor the response of such treatments. This research is in publication and discussions are taking place with Phillips Medical and Elekta towards commercializing this work.

RESEARCH CAPACITY BUILDING.
Research Training:
I have recruited research personnel into my laboratory to build capacity in this field (graduate student, residents) in addition to building a team of over 100 researchers in five laboratories as a team centred around our Terry Fox Programme Project Grants in Ultrasound and MRI for Cancer Therapy. Our research into cell death detection has lead to a resurgence in quantitative ultrasound with invited talks and collaborative research underway now with other pioneers in quantitative ultrasound.

Research Rounds:
Further, I was the first clinician scientist appointed in the Division of Imaging Research as a scientist at Sunnybrook Health Sciences Centre. Activities there include instituting R3 "Radiation Oncology, Radiation Biology and Radiation Physics rounds" which has created a weekly academic focus for the Department of Radiation Oncology and Imaging Research for the presentation and academic discussion of matters of research interest.

I have also mentored Dr. William Chu during his fellowship in hyperpolarized MRI MRI-imaging of Tumour Response and as supervisor for Dr. Justin Lee during his M.Sc. studies in Imaging Research at Sunnybrook and the Department of Medical Biophysics at the University of Toronto. Both Dr. Chu and Dr. Lee continue to carry out collaborative imaging studies in MRI and ultrasound respectively thus giving the Department of Radiation Oncology at Sunnybrook Health Sciences Centre a strong imaging presence. These individuals are among a strong cadre of students that Dr. Czarnota has mentored and who have received awards. Dr. Czarnota and Dr. Hynynen are also carrying out planned collaborative clinical trials in using high intensity focussed ultrasound to treat bone metastases (Czarnota PI),
breast metastases (Czarnota PI), head and neck tumours, liver tumours and brain tumours in conjunction with a team of radiation oncologists at Sunnybrook Health Sciences Centre. This will serve as a prelude to patient tests of our microbubble radiosensitization in patients. My more established research in imaging of apoptosis is already undergoing patient tests and we anticipate clinical trials demonstrating its use in customizing chemotherapy within one to two years. More recently though my role as Chief of the Department of Radiation Oncology and Head of the Radiation Treatment Programme we have established two scientist positions in Sunnybrook Research Institute which are funded through the Department. One position is in quantitative ultrasound and multi-modal imaging and the other in MRI methodology and oncologic applications. The former has been filled by Dr. Sadeghi-Naini who was a CIHR Banting Fellow in my laboratory. He and the other scientist will continue to be mentored.

Departmental Infrastructure Building:
As Chief, Department of Radiation Oncology and Head, Radiation Treatment Programme I have fostered along with Dr. Arjun Sahgal (Deputy Chief) a large $30,000,000 capital investment programme in image-guided ablative radiotherapy. This includes investments in a world first MRI-brachytherapy suite with full shielding for in-MR-device treatment, new Perfexion-plus gamma knife technology for CNS treatment, and an Elekta MRI-Linac. The latter will be one of the first units in Canada and presents a new opportunity for new treatment development with high-precision MRI-guided radiotherapy.

We have been recently building a research programme in MRI and image guided non-invasive treatments. This further expands what is already one of North America’s largest radiation oncology departments which is composed of 30 radiation oncologists, 25 medical physicists, and 140 radiation therapists served by 14 radiation treatment units and Canada’s largest brachytherapy programmes.

This research expansion has resulted in a $30M investment in the Department of Radiation Oncology in 2015. This will facilitate the acquisition and implementation of three new key technologies: (i) MR-Guided Brachytherapy and Radiation Planning, (ii) Image-Guided Gamma-Knife Treatments, and (iii) MR-Linac

MR-Guided Brachytherapy and Radiation Planning: We are constructing a world first MR-brachytherapy suite. This will double brachytherapy capacity at the Odette Cancer Centre, already Canada’s largest brachytherapy centre and provide a new imaging-based treatment programme with full in-suite lead shielding to permit real-time MRI imaging during therapy with full anaesthetic support.

Image-Guided Gamma-Knife Treatments: We have obtained a new Perfexion-plus gamma knife treatment unit. This is a first for Toronto with this imaging-enabled gamma-knife representing local technology implemented in a commercially available treatment device. This will facilitate a major expansion of the CNS oncology program in the department and in Toronto. We are planning major research and development into the use of this technology that spans software, hardware and clinical innovations.

MR-Linac: We are obtaining Canada’s first integrated MR-based linear accelerator in collaboration with Elekta. This device features an MRI with an integrated linear accelerator for real-time MR-based imaging, treatment guidance and therapy response monitoring. This technology represents a new paradigm of research and development in radiation response that can change fundamental concepts of dose fractionation. Real-time MR imaging will be able to provide feedback on radiation treatment efficacy and enable changes to conventional treatment to improve efficacy. These activities have increased the research capacity and output of the Department of Radiation Oncology at the Odette Cancer Centre, Sunnybrook Health Sciences Centre.

IDEA DISSEMINATION.
The ideas and methods we have generated have been widely disseminated through
publications in peer review journals, book chapters and abstracts. In addition, scientific talks and invited professorships and leadership committee positions have also aided in the dissemination of the ideas being pursued. There has also been media based attention of the work being conducted in imaging and therapy. The ideas and findings have been disseminated worldwide for adoption. The methods developed are being adopted and commercialized.

PROCESS INNOVATIONS.
The research being conducted is in the stages of initial adoption. Our imaging research has lead to ongoing clinical adaptations in the treatment in locally advanced breast cancer with every such patient at the Odette Cancer Centre, being offered participation in our imaging trials of therapy monitoring. The ongoing efforts will soon resolve in Phase-I/II evaluations of using this type of imaging technology, and methods to change clinical practice. In terms of our therapy research, we are also taking steps toward implementing it on clinically approved MRI-guided high-intensity focused ultrasound systems, to be able to offer it as a world-first clinical evaluation for patients with locally-advanced breast cancer, and other cancers where aggressive disease requires aggressive treatment. The ideas and findings have been disseminated worldwide for adoption. The methods developed are being adopted and commercialized.
Curriculum Vitae

Cyril E. Danjoux

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

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Department of Radiation Oncology
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Toronto, Ontario, Canada
M4N 3M5
Telephone (416) 480-4998
Fax (416) 480-6002
Email cyril.danjoux@sunnybrook.ca

1. EDUCATION

Degrees
1962 - 1970 MD, Hadassah Medical School, The Hebrew University of Jerusalem, Jerusalem, Israel, Supervisor(s): Dr. R. R. Stern (Thesis)

Postgraduate, Research and Specialty Training
1976 - 1977 Clinical Fellow, Radiation Oncology, Ottawa Civic Hospital, Ottawa, Ontario, Canada
1975 - 1976 Research Fellow, Radiation Oncology, (Half Body Radiotherapy), Princess Margaret Hospital, Toronto, Ontario, Canada, Supervisor(s): Dr. W. Rider, Dr. P. Fitzpatrick
1972 - 1975 Residency, Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1971 - 1972 Residency, Internal Medicine and Radiation Oncology, Dalhousie University, Halifax, Nova Scotia, Canada
1970 - 1971 Rotating Internship, Dalhousie University, Halifax, Nova Scotia, Canada
1969 - 1970 Rotating Internship, Asaf Harofe Hospital, Israel

Qualifications, Certifications and Licenses
1977 FRCPC, Royal College of Physicians and Surgeons of Canada, Canada, License / Membership #: 276
1975 DMRT, University of Toronto, Canada
1975 ABR, Therapeutic, American Board of Radiology, Canada
1975 Licence, CPSO, College of Physicians and Surgeons of Ontario, Canada, License / Membership #: 27801
1971 LMCC, Medical Council of Canada, Canada, License / Membership #: 32170
1969 ECFMG, Educational Council of Foreign Medical Graduates, License / Membership #: 117
2. EMPLOYMENT

Current Appointments

2004 - present  Associate Professor, Radiation Oncology, University of Toronto, Canada
1991 - present  Staff Radiation Oncologist, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

CONSULTING
1991 - 1997  Consultant, The Hospital for Sick Children, Toronto, Ontario, Canada

HOSPITAL
2008 - 2013  Staff Radiation Oncologist, Branson Site, North York General Hospital, Toronto, Ontario, Canada
1987 - 1991  Head, Radiation Oncology, Ottawa Regional Cancer Centre, Canada
1986 - 1991  Head, Radiation Oncology, Civic Division, Ottawa Regional Cancer Centre, Canada
1986 - 1989  Acting Chief, Department of Radiation Oncology, Ottawa Civic Hospital, Canada
1977 - 1991  Active Attending Staff Radiation Oncologist, Ottawa Regional Cancer Centre, Canada

UNIVERSITY - RANK
1990 - 1991  Associate Professor, Radiology, Faculty of Health Sciences, University of Ottawa, Canada
1983 - 1990  Assistant Professor, Radiology, Faculty of Health Sciences, University of Ottawa, Canada
1977 - 1983  Lecturer, Radiology, Faculty of Health Sciences, University of Ottawa, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
1962 - 1969  Fellowship, World Health Organization (Hadassah Medical School), Jerusalem, Israel. (Distinction)

PROVINCIAL / REGIONAL
Received
2008  Quality Award for the Rapid Response Radiotherapy Program, Cancer Care Ontario, Canada. (Distinction)
2007  Co-op Student of the Year Employer Award, Education at Work Ontario, Canada. (Distinction)
1972 - 1973  I. W. Killam Scholarship, Dalhousie University, Nova Scotia, Canada. (Distinction)
Teaching and Education Awards

LOCAL

Received

2006 - 2007  Teaching Award for Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, Peters-Boyd Academy, Canada
2004  DRO Continuing Medical Education Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada
2001 - 2002  Award for Excellence in Innovation in Continuing Education at the Sunnybrook and Women’s College Health Sciences Centre, Dept of Radiation Oncology, Faculty of Medicine, Peters-Boyd Academy Faculty, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society of Therapeutic Radiology and Oncology
Canadian Association of Radiation Oncologists
Canadian Medical Association
European Society for Therapeutic Radiology and Oncology
Ontario Medical Association

Administrative Activities

INTERNATIONAL

Eastern Cooperative Oncology Group
1982 - 1983  Co-Chair, Lung Committee Principal Investigator
1981 - 1983  Member, Radiation Oncology Committee
1981 - 1983  Member, Lung Protocol Committee
1981 - 1983  Member, Radiation Committee
1980 - 1983  Member, Clinical Trials Committee

MDS Nordion
2000  Member, Advisory panel on the future of Cobalt, Boston, United States.
1999  Co-Chair, Customer Advisory panel on the future of Cobalt Teletherapy, Ottawa, Ontario.

Radiation Therapy Oncology Group
1997 - 2005  Member, Principal Investigator TSRCC
1996 - 2005  Principal Investigator, Clinical Trials Committee

NATIONAL

Other Organizations
1999 - 2003  Member, Healing Arts Radiation Protection Commission
Cyril E. DANJOUX

**Canadian Association of Medical Radiation Technologists**

1988  **Chairman**, Accreditation Survey Team for Radiation Technology Program, Winnipeg, Regina, Saskatoon
1987  **Chairman**, Accreditation Survey Team for Radiation Technology Program, Montreal and Quebec City Cancer Centres
1986  **Chairman**, Accreditation Survey Team for Radiation Technology Program, Nova Scotia Cancer Treatment and Research Foundation New Brunswick Cancer Centre
1984 - 1992  **Member**, Radiation Technology Workload Committee
1983  **Chairman**, Accreditation Survey Team for Radiation Technology Program, Montreal Cancer Centre
1982  **Chairman**, Accreditation Survey Team for Radiation Technology Program, Manitoba Cancer Centre

**Canadian Association of Radiation Oncologists**

2000 - 2004  **Web Master**, CARO Board provincial member
1999 - 2003  **Ontario Director**, CARO Board provincial member
1989 - 1991  **Member**, CARO Board of Directors
1989 - 1991  **Co-Chair**, CARO Scientific Committee

**Canadian Cancer Society**

1980 - 1991  **Medical Advisor**, Eastern District

**Canadian Oncology Society**

1987 - 1993  **Member**, Advisory Board

**Canadian Prostate Cancer Research Foundation**

1997 - 1999  **Chair**, Medical Advisory Board

**Health Canada**


**National Cancer Institute of Canada**

1984 - 1991  **Member**, Radiation Oncology Committee
1984 - 1991  **Member**, Radiation Committee
1984 - 1988  **Member**, Ovarian Writing Committee

**Prostate Cancer Research Foundation of Canada**

1999 - 2002  **Member**, Grant review panel, Scientific and Advisory Committee
1997 - 1998  **Chair**, Scientific Committee

**Royal College of Physicians and Surgeons of Canada**

1997  **Chair**, Accreditation Survey of Residency program in Radiation Oncology (McGill University)
1997  **Chair**, CMA Accreditation Survey Radiation Therapy. Dawson College and McGill University, Department of Radiation Oncology
1993  **Chair**, Accreditation Survey of Residency program in Radiation Oncology and Neurosurgery (University of Montreal)
PROVINCIAL / REGIONAL

OCTRF (Ontario Cancer Treatment and Research Foundation)
1989 - 1990  Member, Ontario Commission on Radiation Oncology, Canada.

OCTRF Ontario Cancer Treatment and Research Foundation
1990 - 1991  Member, Professional Advisory Committee, Radiation Oncology, Canada.

Ottawa Civic Hospital
1982 - 1986  President, Research Club

Ottawa Regional Cancer Centre

LOCAL

Odette Cancer Centre
2007  Member, External Review Process for Psychosocial & Behaviour Research Unit
2007  Examiner, Medical Physics Board Examination, Ontario, Canada.
2002 - 2004  Secretary, Radiation Oncology Associates of TSRCC
1999 - 2007  Site Leader, Rapid Response Radiotherapy Program
1997  Chair, Medical staff
1996  Member, Medical and Radiation Oncology PSU Committee
1995  Member, Durham RCC Planning Committee
1995  Member, Process Review - Follow up and Discharge
1993  Member, Radiation Oncology - Therapist Liaison Committee
1993  Member, Radiotherapy Working Group - Strategic Planning
1993  Member, Preventive Oncology Strategic Planning Committee
1993  Member, CQI - Dept. Radiotherapy Analysis and Management
1992 - 1999  Deputy Head, Department of Radiation Oncology
1991 - 1996  Site Leader, Lung Site Committee

Ottawa Regional Cancer Centre
1983 - 1991  Chairman, Ottawa Regional Hyperthermia Committee, Ontario, Canada.
1982 - 1991  Member, Head and Neck Site Committee
1982 - 1991  Member, Urology Site Committee
1982 - 1991  Member, Gynaecology-Oncology Committee
1982 - 1986  Chairman, Clinical Trials Committee

Sunnybrook Health Sciences Centre
1991 - 1997  Member, Research Ethics Board

University of Toronto
2001 - 2004  Chair, Web Site Committee. Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2001 - 2004  Webmaster, DRO website, Faculty of Medicine, Dept of Radiation Oncology
Cyril E. DANJOUX

2000 - 2007  **Member**, CME Course - Pain and Symptom Management Annual Meeting, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2000 - 2006  **Member**, Educational Committee, Faculty of Medicine, Dept of Radiation Oncology
1999 - 2004  Chair of design and implementation committee, Toronto, Ontario, Canada.
1996  **Member**, CME Course: Clinical Aspects of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
1996  **Member**, CME Course: Paediatric Workshop, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
1992 - 1995  **Member**, Committee for Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology
1992  **Member**, Senior Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology
1992  **Member**, Organization Committee - Radiation Oncology Alumni Day, Faculty of Medicine, Dept of Radiation Oncology

**Peer Review Activities**

**EDITORIAL BOARDS**

**Editor**
1999 - present  HOT SPOT – Quarterly Palliative Newsletter of the Rapid Response Radiotherapy Program at TSRCC distributed to Community Referring physicians and Health Care professionals

**Reviewer**
1998 - 2007  Canadian Medical Association Journal
2004 - present  Oncology Exchange, Expert Advisory Panel

**MANUSCRIPT REVIEWS**

**Reviewer**
2014 Jan - 2014 Dec  Journal of Supportive Care in Cancer, Number of Reviews: 2
2014 Jan  Biomed Central Cancer, Number of Reviews: 2
2014 Jan  Expert Review of Anticancer Therapy, Number of Reviews: 4

**ADVISORY BOARD**

**Member**
2012  Cyprus Medical Journal

**OTHER**

**Member**
2013 - present  OCC aEMR Steering Committee
C. Academic Profile

1. RESEARCH STATEMENTS

1991 Jul - present

Research Interest at Odette Cancer Centre. GU Oncology
Involved in research and education in collaboration with the GU oncology site group. Special areas of interest include the side effects of radiotherapy and hormone therapy - fatigue, erectile function and changes in bone mineral density.

Palliative Radiation Oncology
As leader of the (RRRP) Rapid Response Radiotherapy Program 1999-2007, initiated the academic focus for the RRRP, the quarterly publication of the RRRP newsletter "HOT SPOT", monthly research video conference rounds with other Canadian centres, and participated in palliative radiotherapy studies and educational projects.

Multimedia Educational
Produced educational CR-ROMS to explain difficult concepts in radiotherapy such as cranio-spinal irradiation and prostate brachytherapy.

1984 - 1990

Hyperthermia Research.
In 1981 in collaboration with Dr. L. Gerig (Medical Physics) we initiated a proposal for Hyperthermia Research in Ottawa. We organized a National Conference and established a bench to bedside research program in Ottawa. The Hyperthermia Research received peer reviewed grant support (NCIC) and involved collaboration with the National Research Council, University of Ottawa, Carleton University, and Atomic Energy of Canada. For the development of computerized Thermometry System.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED

2015 Aug - 2017 Jul


2013 - 2014


2006

Co-Investigator. Effect of radiation for bone metastases in patients with prostate cancer on
urinary markers of osteoclast activity. Abott-CARO. Uro-Oncologic Radiation Award.
Collaborator(s): Chow E, Veith R, Danjoux C, Barnes E, Tsao M, Barbera L, Ko Y, Sinclair E. 20,605 CAD. [Grants]


2004 - 2004 **Co-Investigator.** Can 18FDG-PET images provide the 3D extent of lung tumour motion for individualized radiation targeting. National Cancer Institute of Canada (NCIC). Collaborator(s): Mah K, Caldwell C, Danjoux C. 125,124 CAD. [Grants]


1997 Co-Investigator. A phase III double blind randomized study to compare the effectiveness in pain control for bony metastasis using combined intravenous bolus and Bisphosphonates (Pamidronate) and radiotherapy versus radiotherapy and placebo. Toronto Sunnybrook Regional Cancer Centre. Department of Radiotherapy Oncology Research Fund. Collaborator(s): Wong R, Hoegler D, Danjoux C, Chow E, Szumacher E, Franssen E. 61,000 CAD. [Grants]


1996 Jun Co-Investigator. Watchful observation with delayed radical radiation therapy for T1b, Ts, N0, M0, favourable grade adenocarcinoma of prostate. Canadian Prostate Cancer Research Fund. Collaborator(s): Choo R, Danjoux C, Klotz L. 30,000 CAD. [Grants]


NON-PEER-REVIEWED GRANTS

Funded


1986 - 1987 **Collaborator.** Laboratory investigation of Lonidamine. De Sanctis. PI: Raaphorst G.  
Collaborator(s): Danjoux C. 2,500 CAD. [Industrial Grants]  
Grant from De Sanctis drug company for laboratory investigation of Lonidamine.

1985 - 1986 **Principal Investigator.** Hyperthermia research and clinical programme. OCTRF.  
Collaborator(s): Gerig L, Raaphorst G. 50,000 CAD. [Grants]

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**E. Publications**

1. **1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Cyril E. DANJOUX


Cyril E. DANJOUX


**Book Chapters**


**Editorials**


**Letters to Editor**


**Theses**


2. **NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**


Editorials

1. **Danjoux C**. Hot Spot editorial. Hot Spot newsletter. 2015 Nov 25;17(4):1. **Principal Author**.

Commentaries


Letters to Editor


Multimedia


3. SUBMITTED PUBLICATIONS

Journal Articles

Letters to Editor


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts

2011 Oct 2  Double-blinded, Placebo-controlled randomized study evaluating the efficacy of riseronate to prevent the loss of bone mineral density in non-metastatic prostate cancer patients undergoing radiotherapy plus 2-3 years of androgen ablation therapy. ASTRO. Miami, Florida. Lukka H, Kiss A, Danjoux C. October 2 – 6, 2011.


2004 Oct 4  Review of eight years experience with the Rapid Response Radiotherapy Program at Toronto Sunnybrook Regional Cancer Centre. ASTRO. Atlanta, United States. Danjoux C, Chow, E, Drossos A, Holden L.
Poster, October 4-7, 2004.


2004 Jun  Prospective assessment of quality of life following whole brain radiotherapy for brain metastases. MASC/ISOO 16th International Symposium Supportive Care in Cancer. Miami Beach, United States.


1988 Aug Randomization phase 3 study of radiotherapy with or without Lonidamine used as a radiopotentiator in stage 3 Non Small Cell Lung Cancer. International Lung Cancer Conference. Interlaken, Switzerland. Maroun J, **Danjoux C**.

1988 Aug Randomized phase III study of radiotherapy with or without Lonidamine used as a radiopotentiator in stage III non small cell lung cancer. 5th World Conference on Lung Cancer. Switzerland. Maroun J, **Danjoux C**.

1988 Aug Randomized phase 3 study of radiotherapy with or without Lonidamine used as a radiopotentiator in stage 3 non-small cell lung cancer. International Lung Cancer Conference. Interlaken, Switzerland. Maroun J, **Danjoux C**.


1986 Aug The use of catheters on in vivo temperature mapping. 14th International Cancer Congress. Budapest, Hungary. Presenter(s): Gerig LH, Raaphorst GP, Hauderowicz Z, **Danjoux C**.

Presented and Published Abstracts

2015 Jun

Publication Details:

2015 Jun
Fatigue scores in patients receiving palliative radiotherapy for painful bone metastases. MASCC/ISOO 2015 Annual Meeting. Copenhagen, Denmark.

Publication Details:

2014
Minimal clinically important differences in the brief pain inventory in patients with bone metastases.

Publication Details:

2008

Publication Details:

2008

Publication Details:

2000
Fusing18Fluorodeoxyglucose (FDG)-Hybrid PET to CT images significantly alters treatment planning in the radical treatment of non-small cell carcinoma of the lung. ASTRO.

Publication Details:

2000 Interobserver variation in contouring gross tumour volume in carcinoma of the lung: the impact of 18fdg-hybrid pet fusion: Toronto Sunnybrook. ASTRO.

**Publication Details:**

2000 New technology on radiation therapy treatment units... does it make a difference? ASTRO 2000.

**Publication Details:**
Pegler R, Robson S, Chow E, **Danjoux C**, Franssen E, Thomas G. New technology on radiation therapy treatment units... does it make a difference? Radiat Oncol. 2000;56(Supp 1):S 20. Poster # 789. **Coauthor or Collaborator.**


**Publication Details:**


**Publication Details:**


**Publication Details:**
Raaphorst GP, Feeley MM, DaSilva VF, **Danjoux C**, Gerig L. A comparison of radiosensitivity thermal-radiosensitization and repair inhibition in human glioma and other tumour cell lines. Clin Invest Med. 1988 Sep;11(4). **Coauthor or Collaborator.**


**Publication Details:**


**Publication Details:**
1988 Phase II study of Lonidamine and radiotherapy for advanced squamous cell cancers of the head and neck. AACR. New Orleans, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Poster presentation


2. NATIONAL

Invited Lectures and Presentations


2002 May 25 50th anniversary of Co60 Bomb: A Canadian contribution. Canadian Society of History of Medicine Scientific Meeting, University of Toronto.

1990 Apr Living with Cancer Education Program. Canadian Cancer Society: Radiotherapy and Surgery in Cancer Management.


1986 Apr Women and Cancer. Women’s Auxiliary of CHEO. Almonte.


Presented Abstracts


Hypofractionation using a concomitant intensity modulated radiotherapy (IMRT) boost for localized high risk prostate cancer: acute toxicity results. Canadian Association of Radiation Oncologists, 2005 Annual


1998 Sep Watchful observation of asymptomatic favourable grade, prostate carcinoma with selective delayed intervention based on the rate of PSA increase and/or clinical progression. CARO and Royal College


Presented and Published Abstracts


Publication Details:

2000 How does histologic grade change over time in untreated localized prostate cancer? Toronto Sunnybrook Regional Cancer Centre, University of Toronto, Toronto. CARO. Edmonton.

Publication Details:


Publication Details:

*Publication Details:*

1999 Impact of new technology on radiation therapy treatment deviations at TSRCC. CARO Annual Meeting. Montreal, Quebec.

*Publication Details:*


*Publication Details:*


*Publication Details:*

1999 Watchful observation of asymptomatic favourable grade, prostate carcinoma with selective delayed intervention based on PSA, histologic, and/or clinical progression. CARO Annual Meeting. Montreal, Quebec.

*Publication Details:*


*Publication Details:*

1987 A study of perfusional response to thermal insult in porcine muscle.

*Publication Details:*
**Poster presentation**


**Other Presentations**


3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**


2001 Apr  Who Took my Sim Out? CT Simulation for Palliative RT; CCO CT SIMposium, Holiday Inn. Toronto.


1999 Jul  Virtual Simulation for Prostate Cancer. Thunder Bay Regional Cancer Centre. Thunder Bay.


<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1986 Apr</td>
<td>Radiotherapy. Lecture to Surgical Residents University, University of Ottawa: Civic Hospital. Ottawa.</td>
</tr>
</tbody>
</table>


Presented Abstracts


2007  The effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for three-dimensional radiotherapy for prostate cancer (3D-CRT). 13th Ottawa Conference in Medical Education. Szumacher E, Crook J, Danjoux C, Barker R, Woo M, Mah K, Ackerman I, Dubrowski A, Harnett N, Kelly V, Rose S.


1987 Sep 28 The response of rodent cells and human cells to Lonidamine, radiation and hyperthermia. 11th Clinical


1987 Sep The modification of response to radiation and chemotherapeutic agents by hyperthermia in human malignant glioma cell lines. 11th Clinical Cancer Research Conference, OCTRF. Lake Couchiching. Raaphorst GP, DaSilva VF, Feeley MM, Danjoux C, Gerig LH.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Poster presentation

2011 Apr 10 Fatigue in advanced cancer patients attending an out-patient palliative radiotherapy clinic as screened by the edmonton symptom assessment system. Annual Hospice Palliative Care Conference. Toronto,


2009 Apr 19 The palliative performance scale: examining its inter-rater reliability in an outpatient palliative radiation oncology clinic. 19th Annual Ontario Provincial Conference on Palliative and End-of-Life Care
Cyril E. DANJOUX


4. LOCAL

Invited Lectures and Presentations


2014 Sep 2  Chair. RRRP Student Accomplishments: A Ten Year Review. RRRP/BMC Research Rounds. Toronto, Ontario, Canada. Presenter(s): Rachel McDonald.

2010 Mar 5  Prevalence of vitamin D insufficiency in prostate cancer patients. GU Rounds.


2002 Jun 18  Overview of Cancer Treatment. Pain Preceptorship Program, Toronto Sunnybrook Regional Cancer Centre.


2002 Jun 11  Retirement at 50: History of Cobalt 60 in Canada. DRO Rounds, TSRCC.

2002 May 22  What’s new in Radiotherapy. Palliative Care rounds, Scarborough Grace Hospital.


2000 Feb  Rapid Response Palliative Care Clinic. 6th Annual Palliative Awareness Day, Sunnybrook and Women's College Health Sciences Centre. Toronto.

1999 Nov  2nd RN/RT Collaborative Conference in Radiotherapy in Cancer Care, Rapid Response Radiotherapy Program. TSRCC. Toronto.


1999 Sep  Craniospinal Irradiation CD ROM. Palliative Rounds, TSRCC. Toronto.

1999 Aug  Internet for Radiation Technologists (Presentation and hands-on computer session for Radiation Technologists). TSRCC. Toronto.


1999 Mar  Surfing the Net for Cancer Information. Grand Rounds, TSRCC. Toronto.

1999 Mar  Creating a Supportive Mentoring Environment for Academic Activity. DRO Rounds, PMH. Toronto.


1996 Nov  Radiation Therapy Educators’ Workshop - Computers in Education. TSRCC.
1996 Feb  Results of TSRCC Survey. GU Rounds, TSRCC. Toronto.
1995 May  Paediatric Workshop for Residents. TSRCC. Toronto.
1994 Mar  Management of Pediatric Malignancies. RTT Pediatric Oncology Course.
1993 Feb  Management of Neuroblastoma - Medulloblastoma and Acute Leukaemia RTT Paediatric Oncology Course. Dept. Radiation Oncology.
1989 Jun  Hyperthermia. Continuing Nurses Education. (Continuing Education).

Presented Abstracts


Poster presentation


Cyril E. DANJOUX


5. OTHER

Presented and Published Abstracts

2014 Karnofsky performance status and change in overall survival over five years. 

Publication Details:

2014 Karnofsky performance status and change in overall survival over five years. 

Publication Details:


Publication Details:


Publication Details:

2013

Minimal important differences in the EORTC QLQ-C15-Pal to determine meaningful change in palliative advanced cancer patients.

Publication Details:

2013


Publication Details:

2013

Palliative radiotherapy in the treatment of lung metastases or advanced lung cancer.

Publication Details:

2013

Content validation of the brain symptom and impact questionnaire (BASIQ) in patients and health-care professionals to assess quality of life in patients with brain metastases.

Publication Details:

2007

A multidisciplinary bone metastases clinic at Toronto Sunnybrook Regional Cancer Centre - a review of the experience from 1999 to 2005.

Publication Details:

2007

Dexamethasone for the prophylaxis of radiation-induced pain flare following palliative radiotherapy for bone metastases: a pilot study.

Publication Details:

2005 Jun

Individualized tumor motion from PET for radiation therapy targeting.

Publication Details:
Individual target volume definition in NSCLC using PET.

**Publication Details:**

Can Positron Emission Tomography (PET) provide individualized Internal Target Volumes (ITV)?: a physiological phantom study and clinical validation.

**Publication Details:**

Efficacy of post-operative adjuvant radiotherapy (RT) for pathological T3 (PT3) and/or positive resection margin (RM) prostate adenocarcinoma with undetectable post-operative PSA following radical prostatectomy (RP).

**Publication Details:**

Patient’s decisional preferences in palliative radiotherapy for bone metastases (preliminary results).

**Publication Details:**

Defining internal target volume (ITV) of moving targets: Limitations of spiral CT and potential of PET imaging.

**Publication Details:**

Change in Gleason Score (GS) on repeat biopsy in untreated, low to intermediate grade, clinically localized prostate adenocarcinoma (CLPA).

**Publication Details:**

A randomized double blind placebo controlled trial of radiotherapy +/- single dose pamidronate for pain relief in patients with painful bone metastases.

**Publication Details:**

Feasibility of a watchful observation protocol with selective delayed intervention in localized, favorable grade, prostate adenocarcinoma.
Cyril E. DANJOUX

Publication Details:

2000 Is spiral CT Too fast for radiation therapy planning of thoracic neoplasms?

Publication Details:
Mak K, **Danjoux C**, Caldwell C. Is spiral CT Too fast for radiation therapy planning of thoracic neoplasms? Radiother Oncol. 2000;56(Suppl 1):S38. poster # 142. **Coauthor or Collaborator.**

2000 Exploring the information needs of patients living with advanced cancer.

Publication Details:


Publication Details:

1995 ICE chemotherapy in infants with brain tumours <36 months of age - results of a pilot study to delay or avert irradiation.

Publication Details:

1989 Aug Lymphoblastic radiosensitivity in cancer patients.

Publication Details:

1989 Aug Hyperthermia and radiation in repair of damage in human glioma cells.

Publication Details:
1981 Jun  Treatment of limited stage small cell carcinoma of the lung.

   Publication Details:

1981 Jun  Bone marrow reserve testing in patients following radiotherapy and/or chemotherapy.

   Publication Details:

G. Research Supervision

1. OTHER SUPERVISION

Undergraduate Education

Supervisor
Curriculum Vitae

Phillip Davey

A. Date Curriculum Vitae is Prepared: 2013 July 9

B. Biographical Information

Primary Office  Odette Cancer Centre, Department of Radiation Oncology
Sunnybrook Health Sciences Centre
2075 Bayview Avenue T2-164
Toronto, Ontario, Canada
M4N 3M5

Telephone  416-480-5329
Fax  416-480-6002
Email  phil.davey@sunnybrook.ca

1. EDUCATION

Degrees
1975  MB ChB, (Honours) Medicine, University of Manchester, Manchester, England, United Kingdom
1972  BSc, (Honours) Pharmacology, University of Manchester, Manchester, England, United Kingdom

Postgraduate, Research and Specialty Training
1987 - 1989  Clinical Fellow, Toronto Regional Cancer Centre (Odette Cancer Centre), North York, Ontario, Canada
1986 - 1987  Clinical Fellow, Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1979 - 1982  Registrar Radiotherapy, West Berkshire AHA, Royal Berkshire Hospital, Reading, United Kingdom
1979  SHO Otohinolaryngology, Liverpool AHA (T), Royal Liverpool Hospital, Liverpool, United Kingdom
1978 - 1979  SHO Neurosurgery, Wandsworth and East Merton Teaching District, Atkinson Morley’s Hospital, Wimbledon, London, United Kingdom
1978  SHO General Medicine, Cheshire AHA, Leighton Hospital, Crewe, United Kingdom
1976 - 1977  SHO Radiotherapy, Newcastele AHA (T), Regional Radiotherapy Centre, Newcastle-upon-Tyne, United Kingdom
1976  HO General Medicine, North West Durham Health District, Shotley Bridge General Hospital, Consett, United Kingdom

Qualifications, Certifications and Licenses
1990  Specialist Certification, American Board of Radiology
Phillip DAVEY

1990 FRCP(C), Royal College of Physicians
1987 LMCC, Medical Council of Canada
1983 FRCR, Royal College of Radiologists
1980 MRCP, Royal College of Physicians, United Kingdom
1975 ECFMG, Educational Commission for Foreign Medical Graduates

2. EMPLOYMENT

Previous Appointments

UNIVERSITY
1981 - 1985 Lecturer, Radiation Oncology, University of Edinburgh, Western General Hospital and Royal Infirmary, Edinburgh, United Kingdom
1977 - 1978 Assistant Lecturer, Medical Oncology, University of London, St. Bartholomew’s Hospital, London, United Kingdom

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL
Received
1975 Distinction in Community Medicine, University of Manchester. (Distinction)
1974 Prize ‘Cystic Fibrosis in Paediatrics, University of Manchester. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
1991 - present Member, American Society of Therapeutic Radiology and Oncology
1991 - present Member, Canadian Association of Radiation Oncologists
1981 - present Member, British Institute of Radiology

Administrative Activities

NATIONAL
Canadian Association of Radiation Oncologists
1998 Chair, Scientific Program Committee

LOCAL
University of Toronto
1992 - 1994 Organizer, Department of Radiation Oncology, Organization of Oncology Rounds
Phillip DAVEY

Peer Review Activities

PRESENTATION REVIEWS
Abstract reviewer
1997 - 1999 Canadian Association of Radiation Oncologists

C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Abstracts


6. Sahgal A, Miller HAB, Mihai A, Arenovich T, Q-L Yi, Davey P. What is the optimal number of nodes to be surgically sampled to predict pathologic nodal status following neoadjuvant concurrent chemotherapy and radiotherapy for operable esophageal cancer? Radiother Oncol. 2006; 80 (Suppl 1); pS31.


D. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers

1999 Borderline elevated CEA predicts for earlier relapse in patients with rectal cancer receiving post-operative therapy. American Radium Society, annual meeting. Authors: Dawson LA, Franssen E, Davey P.


2. NATIONAL

Other Lectures and Presentations


3. PROVINCIAL / REGIONAL

Abstracts and Other Papers


4. LOCAL

Other Lectures and Presentations


2006 Mar 10 ‘Radiobiology’. University of Toronto Neurosurgery Residency Training Program.

2004 Nov 26 ‘What is the Scientific Basis for the Radiosurgical Treatment of Brain Metastases?’. University of Toronto Neurosurgery Residency Training Program.


2001 Sep 14 ‘The role of radiosurgery in the management of brain metastases’. University of Toronto Neurosurgery Residency Training Program.

1997 May ‘This house believes that surgery is no longer essential in the primary management of carcinoma of the esophagus’. University of Toronto, Department of Radiation Oncology Annual Debate.


1994 May 12 Normal tissue complications and retreatment. University of Toronto, Department of Radiation Oncology. Refresher Course.


1993 Feb 10 The radiobiology of radiosurgery. University of Toronto, 1993 Keith Professorship meeting.

1992 Nov 20 Getting back to basics. University of Toronto, Department of Radiation Oncology Alumni Day.

Curriculum Vitae

Laura Ann Dawson

A. Date Curriculum Vitae is Prepared: 2016 August 9

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Hospital
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2127
Fax 416-946-4442
Email laura.dawson@rmp.uhn.on.ca

1. EDUCATION

Degrees
1989 Sep - 1993 May MD, Dept of Medicine, University of Toronto, Canada
1987 Sep - 1989 May BSc, Faculty of Science, University of Toronto, Canada

Postgraduate, Research and Specialty Training
1998 Jan - 1999 Dec Fellowship, Conformal Radiation, Department of Radiation Oncology, University of Michigan, Ann Arbor, Michigan, United States
1997 Jan - 1998 Dec Chief Resident, Department of Radiation Oncology, University of Toronto, Canada
1993 Jan - 1998 Dec Residency, Radiation Oncology, University of Toronto, Canada

Qualifications, Certifications and Licenses
2003 Jan - present Medical License, College of Physicians and Surgeons of Ontario, Canada
1998 Jan - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1999 Jan License, Therapy, American Board of Radiology, United States
1998 Sep - 2003 Apr Physician License, Board of Medicine, State of Michigan, Michigan, United States
1998 Jan - 2003 Dec Controlled Substance License, State of Michigan, Michigan, United States
USMLE I,II, United States Medical Licensure Examination, United States
USMLE III, United States Medical Licensure Examination, United States

2. EMPLOYMENT

Current Appointments
2010 Jan - present Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2005 Jan - present Associate Member, Institute of Medical Science, University of Toronto, Toronto, Ontario,
Laura Ann DAWSON  
Canada  
2003 Feb - present  
Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario, Canada  
2016 Sep  
ASTRO Fellow (FASTRO) inductee, American Society of Radiation Oncology (ASTRO), United States  

**Previous Appointments**  

**HOSPITAL**  
1999 Jan - 2003 Jan  
Staff Radiation Oncologist, University of Michigan Hospitals and Health System, Ann Arbor, Michigan, United States  
1999 Jan - 2003 Jan  
Staff Radiation Oncologist, The Veterans Administration Hospital, Ann Arbor, Michigan, United States  
1999 Jan - 2003 Jan  
Staff Radiation Oncologist, Foote Hospital, Jackson, Michigan, United States  
1999 Jan - 2003 Jan  
Staff Radiation Oncologist, Alpena General Hospital, Alpena, Michigan, United States  

**UNIVERSITY - RANK**  
2005 Jan - 2010 Dec  
Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada  
2003 Jan - 2005 Dec  
Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada  
2000 Jan - 2003 Jan  
Assistant Professor, Department of Radiation Oncology, University of Michigan, Ann Arbor, Michigan, United States  
1999 Jan - 2000 Dec  
Lecturer, Department of Radiation Oncology, University of Michigan, Ann Arbor, Michigan, United States  

**3. HONOURS AND CAREER AWARDS**  

**Distinctions and Research Awards**  

**INTERNATIONAL**  

**Received**  
2016  
**ASTRO Fellow Award**, American Society for Radiation Oncology (ASTRO). (Research Award)  
2008 Jan  
**RTOG Next Generation Investigator Award**, RTOG 40th year anniversary meeting. (Distinction)  
2007 Jan  
**Invited speaker, Presidential Symposium**, ASTRO annual meeting, United States. (Distinction)  
2006 Sep  
**Discussant for physics plenary presentation**, American Society for Therapeutic Radiology and Oncology (ASTRO) Meeting, United States. (Distinction)  
2006 Jan  
**Accuray Award and plenary presentation**, European Society for Therapeutic Radiation Oncology (ESTRO) Annual Meeting. (Research Award)  
2004 Jan  
**Travel Grant**, European Society for Therapeutic Radiation Oncology (ESTRO) Annual Meeting. (Distinction)  
2002 Jan  
**Basic Science Travel Grant**, 44th Annual American Society for Therapeutic Radiology and Oncology (ASTRO) Meeting, United States. (Distinction)  
2002 Jan  
**Clinical Research Career Development Award**, American Society of Clinical Oncology, United States. (Research Award)  
1997 Jan  
**Cancer Clinical Trials Workshop Scholarship**, American Society of Clinical Oncology/American Association of Clinical Research, United States. (Research Award)  
1991 May - 1991 Sep  
**International Health Summer Research Scholarship**, University of Toronto. (Research Award)  
1987 Jan - 1987 Dec  
**Scholarship to Dr. Bessie Lawrence Science Research Program**, Weizmann Institute of Science, Rehovot, Israel. (Distinction)
LOCAL

Received

2015 Oct  
RMP Adaptive Radiotherapy IDEAS Grants Competition Award, PMH
'Toxicity Prediction Using Delivered Dose Reconstruction to Enable Evidence-Based Adaptive SBRT.'

2015 Jul  
2015 Order of Mary Ward Award, LORETTO ALUMNAE ASSOCIATION. (Distinction)

2014 May  
Most Influential Research Publication, Princess Margaret Hospital, University of Toronto, Canada. (Research Award)
RMP Research Award.

2014  
Sustained Excellence in Research Award 2014, Department of Radiation Oncology, University of Toronto, Canada. (Research Award)

2014  
Till and McCulloch Paper of the Year 2013 (Clinical), Ontario Cancer Institute, Toronto, Ontario, Canada. (Research Award)

2011 Jan  
Research Productivity Award, Radiation Oncology/RMP Education and Research Awards, University of Toronto, Canada. (Research Award)

2009 Jan  
Most Influential Research Publication Award, Radiation Medicine Program, Princess Margaret Hospital, University of Toronto, Canada. (Research Award)

2004 Jan  
Outstanding Research Potential Award, Department of Radiation Oncology, University of Toronto, Canada. (Research Award)

1997 Jan  
W.J. Simpson Award for Academic Excellence in Resident Research, Department of Radiation Oncology, University of Toronto, Canada. (Research Award)

1989 Sep - 1990 May  
CL Burton Medical School Scholarship, University of Toronto, Canada. (Distinction)

Teaching and Education Awards

LOCAL

Received

2016 Jul  
RMP Education and Research Award, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Center. (Multilevel Education)

Highest Teaching Effectiveness Score. Accelerated Education Program (AEP) Award.

2015 Jun  
Accelerated Education Program (AEP) Award. Putting Innovation to Work, Dept of Radiation Oncology, Faculty of Medicine
Exceptional Contribution to the AEP Program: Laura Dawson, Alana Pellizzari.

2014 May  
Accelerated Education Program (AEP) Award. Putting Innovation to Work, Dept of Radiation Oncology, Faculty of Medicine, Radiation Medicine Program. Princess Margaret Hospital

Exceptional Contribution to the AEP Program.

2014 May  
Advance Education Practice (AEP) Award, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Ontario, Canada

Highest Overall Average Teaching Effectiveness Score.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2001 - present  
American Society for Clinical Oncology

1998 - present  
European Society for Therapeutic Radiology and Oncology
Laura Ann DAWSON

1997 - present  American Association for Women Radiologists
1996 - present  American Society for Therapeutic Radiology and Oncology
2007 - 2012    International Liver Cancer Association
2000 - 2003    Michigan Society for Therapeutic Radiation Oncology
1997 - 2004    Radiation Research Society
1995 - 2012    Canadian Association of Radiation Oncologists
1995 - 2003    American College of Radiologists

Administrative Activities

INTERNATIONAL

15th International Congress of Radiation Research

American Society of Therapeutic Radiation Oncology (ASTRO)

2017  Member, Gastrointestinal Cancers Symposium Steering Committee
2016 Sep - 2017 Sep  Member, Conflict of Interest Review Committee, Arlington, Virginia, United States.
2015 May 25 - 2015 Nov 30  Member, Conflict of Interest Review Committee, ASTRO, United States.
2015 - 2016  GI Resource Panel, Faculty of Medicine, Dept of Radiation Oncology, United States.
2015 - 2016  Member, Conflict of Interest Review Committee, United States.
2014 - 2016  GI Resource Panel-Member, ASTRO, United States.
2014 - 2015  Member, Steering Committee, 2015 Gastrointestinal Cancers Symposium
2013 - 2016  Member, Annual Meeting Track-GI
2012 - 2014  Member, Nominating Committee, United States.
2012 - 2013  Member, Clinical Affairs and Quality Committee, United States.
2012 - 2013  Member, Annual Meeting Sterring Committee, United States.
2011 - 2014  Chair, Education Council
2011 - 2014  Member, Annual Meeting Abstract Review Committee
2011 - 2013  Member, International Task Force, United States.
2011  Chair, ASTRO IGRT/IMRT/SBRT State of the Art Symposium
2010 - 2014  Member, ASTRO State of the Art Symposium
2010 - 2014  Member, Board of Directors
2010 - 2012  Vice Chair, Education Council
2010 - 2011  Member, IGRT Q/A White Paper, United States.
2009 - 2011  Member, International Conference on Metastases, United States.
2009 - 2010  Vice Chair, Practical Radiation Oncology Editor Selection Task Force
2008 - 2013  Member, ASCO/ASTRO 2011 GI Cancers Symposium Program Committee, San Francisco
2008 - 2010  Vice Chair, Annual Meeting Education Sessions, Education Council
2008 - 2010  Chair, ASTRO IGRT Symposium
2008 - 2010  Member, Emerging Technology Monitorying Subcommittee, United States.
2008  Co-Chair, ASCO/ASTRO GI Cancers Symposium Fellows Luncheon
2007 - 2010  Member, Monitoring Subcommittee for Emerging Technology, Health Policy Council
2007 - 2008  Member, ASCO/ASTRO 2008 GI Cancers Symposium Program Committee
2006 - 2011  Member, Membership Committee
2006 - 2008  Member, ASTRO IGRT Symposium Organizing Committee
<table>
<thead>
<tr>
<th>Year Range</th>
<th>Role</th>
<th>Organization</th>
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<tbody>
<tr>
<td>2004 - 2011</td>
<td>Member, Education Committee</td>
<td>Education Committee, ASTRO, United States.</td>
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<td>2004 - 2009</td>
<td>Annual Meeting Education Committee, ASTRO, United States.</td>
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<td>2004 - 2008</td>
<td>Member, Education Sessions Sub-Committee of the Education Council</td>
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<td>2003 - 2010</td>
<td>Vice Chair, Journal Committee, Education Council</td>
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<td>2003 - 2009</td>
<td>Member, Publications Committee</td>
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<td>2003 - 2006</td>
<td>Member, Scientific Committee, Annual Meeting</td>
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<tr>
<td>2003 - 2006</td>
<td>Member, Annual Meeting Abstract Review Committee</td>
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<td>American Society of Therapeutic Radiation Therapy</td>
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<td>2016 - 2017</td>
<td>Member, GI Resource Panel, Virginia, United States.</td>
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<td>International Atomic Energy Agency (IAEA)</td>
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<td>2014</td>
<td>Consultant, SBRT, Expert Mission to Brazil</td>
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<td>International Conference on Translational Research in Radiation Oncology (ICTR)</td>
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<tr>
<td>2009 - 2012</td>
<td>Member, Organizing Committee, Geneva, Switzerland.</td>
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<td>March 2009.</td>
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<td>2006</td>
<td>Member, Organizing Committee, Lugano, Switzerland.</td>
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<td>March 2009.</td>
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<td>National Cancer Institute (NCI)</td>
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<td>2006 - present</td>
<td>Member, RTOG Representative, GI Intergroup Hepatobiliary Task Force</td>
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<td>2008</td>
<td>Member, State of the Science Hepatocellular Carcinoma Workshop, Bethesda.</td>
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<tr>
<td>2006</td>
<td>Member, Biomedical Informatics Infrastructure for Clinical Trials Cooperative Cancer Group Imaging Workshop, Bethesda.</td>
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<td>National Cancer Institute (NCI)/ National Science Foundation (NSF)</td>
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<td>Radiation Therapy Oncology Group (RTOG)/NRG</td>
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<tr>
<td>2007 - present</td>
<td>Member, GI Translational Research Committee (TRP) Committee</td>
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<td>2006 - present</td>
<td>Member, GI Steering Committee</td>
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<td>2016 Jan - 2019 Jan</td>
<td>Member, GI Committee</td>
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<td>2016 Jan - 2019 Jan</td>
<td>Member, CRC Core Committee</td>
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<td>2016 Jan - 2019 Jan</td>
<td>Member, Non CRC Core Committee</td>
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<tr>
<td>2011 - 2013</td>
<td>Member, RTOG executive committee</td>
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<td>2006 - 2013</td>
<td>Member, Advanced Technology Integration (ATI) Steering Committee</td>
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<td>Canadian Association of Radiation Oncologists (CARO)</td>
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<tr>
<td>2009 - 2010</td>
<td>Member, Canadian Radiation Oncology Foundation (CROF) Research Advisory Council</td>
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</tbody>
</table>
Laura Ann DAWSON

2004 - 2006 Chair, History and Archives Committee
2003 - 2007 Member, History and Archives Committee

**Canadian Institutes of Health Research**

2006 - present Mentor, Excellence in Radiation Research for the 21stCentury (EIRR21), CIHR Strategic Training in Health Research

**National Cancer Institute of Canada/Clinical Trials Group (NCIC CTG)**

2006 - 2007 Member, Medical Physics Working Group
2005 - 2008 Member, Audit and Monitoring Executive Committee
2004 - 2007 Member, Radiation Oncology Quality Assurance Committee

**PROVINCIAL / REGIONAL**

**Cancer Care Ontario**

2015 Nov - 2017 Mar 31 Interventional Radiology Steering Committee, CCO Focal Committee Member, Canada.

**Cancer Care Ontario Clinical Council / Ontario PET Steering Committee Provincial Meeting**

2013 - 2014 Member, Focal Ablation for Liver cancer, Advisory Committee
2008 Member, Pancreas Cancer Subcommittee

**LOCAL**

**Princess Margaret Cancer Center**

2016 Jun - present Leader, Physician Super team 4, Toronto, Ontario, Canada.
2015 Dec - present Member, Research Committee, Ontario, Canada.

**University Health Network**

2004 - 2008 Member, Research Ethics Board (Oncology), Princess Margaret Hospital, Toronto, Toronto, Ontario, Canada.

**University of Michigan**

2002 - 2003 Member, Data and Safety Monitoring Committee for Multi-institutional Pancreas Cancer Study
2002 - 2003 Member, Intensity Modulated Radiotherapy (IMRT) Clinical Implementation Committee, Radiation Oncology
2001 - 2003 Member, Comprehensive Cancer Center Protocol Review Committee
2000 - 2003 Chair, Data and Safety Monitoring Committee for Liver Cancer
1999 - 2003 Member, Residency Selection Committee, Radiation Oncology
1999 - 2003 Member, Fellow Selection Committee, Head and Neck Oncology
1999 - 2003 Member, International Health Program, Medical School

**University of Toronto**

2014 Dec - present Reviewer, Medical School Candidate Review, Faculty of Medicine, Dept of Medicine
2016 Aug 24 Examiner - Year 2 Medical Physicists, Toronto, Ontario, Canada.
2015 - 2015 Jul 30 Medical School Admission Committee, Ontario, Canada.
2010 Examiner, Ontario Physics Residency oral exams, Ontario, Canada.
2009 - 2012 Chair, Radiation Medicine Program Quality Assurance Monitoring Committee
Laura Ann DAWSON

2009 - 2010  Member, Department of Radiation Oncology Strategic Plan Group, Faculty of Medicine, Dept of Radiation Oncology

2007 - 2008  Core Faculty Member, Master’s in Health Science, Medical Radiation Sciences for Radiation Therapists, Faculty of Medicine, Dept of Radiation Oncology

2004 - 2012  Member, Radiation Medicine Program Quality Assurance Monitoring Committee

2004 - 2006  Examiner, Physics Residency oral exams, Faculty of Medicine, Dept of Radiation Oncology

2004 - 2006  Member, Physics Residency Selection Committee, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology

2004 - 2005  Member, Radiation Medicine Program Partnership Executive Committee

2003 - 2006  Member, External Beam Process Committee, Faculty of Medicine, Dept of Radiation Oncology

2003 - 2005  Member, Residency Selection Committee, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology

2003 - 2004  Judge, Annual University of Toronto Radiation Oncology Resident, Fellow and Physics Research Rounds, Faculty of Medicine, Dept of Radiation Oncology

1997 - 1998  Chief Resident, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD

1997 - 1998  Chair, Radiation Oncology Resident Meetings, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD

1996 - 1998  Member, Education Committee, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD

1992 - 1993  Member, Student Advisory Committee, Faculty of Medicine, Undergraduate MD

1992 - 1993  Athletic Representative, Faculty of Medicine, Undergraduate MD

1992 - 1993  Advisor, Faculty of Medicine, Undergraduate MD

OTHER

Radiation Medicine Program - PMH

2015 Dec 15 - 2016  RMP Research Committee, Canada.

Peer Review Activities

EDITORIAL BOARDS

Member

2014 Jul - 2016 Jul  Journal of Clinical Oncology

Journal of GI Oncology

The Cancer Journal - The Journal of Principles and Practice of Oncology

World Journal of Gastrointestinal Surgery

GRANT REVIEWS

External Grant Reviewer


2014 Dec - 2015 Jan  National Medical Research Council (NMRC) - Ministry of Health, Singapore

2009  French National Research Agency

2009  National Health Institutes, American Recovery and Reinvestment Act (ARRA): NCI Clinical Trials and Translational Research Grant Opportunities (RC2) Panel

2008  Danish Council for Strategic Research

2008  Pancreatic Cancer Research Fund, United Kingdom
2006 Research Grants Council of Hong Kong
2006 Swiss Group for Clinical Cancer Research
2004 Dutch Cancer Society

Chair
2010 - 2011 Canadian Radiation Oncology Foundation / Sanofi – Aventis Research Innovation Award (CROF-CASARIA) for GI and GU research

Member
2009 - 2010 Advanced Clinical Research Award (ACRA) in Colorectal Cancer Review Subcommittee, ASCO
2009 - 2010 CROF-CASARIA grant review committee
2008 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Breast Cancer Program (Clinical and Experimental Therapeutics#5) – Concept Panel
2006 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Breast Cancer Program (Imaging) - Grant Review Committee, Washington, DC
2005 - 2006 National Health Institutes, Grant Review Panel - In Vivo Imaging and Bioengineering Research
2005 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Prostate Cancer Program (Imaging) - Grant Review Committee, Washington, DC
2003 - 2004 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Breast Cancer Program (Concept Applications) - Grant Review Committee
2003 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Prostate Cancer Program (Clinical and Experimental Therapeutics) - Grant Review Committee, Washington, DC
2001 - 2002 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Prostate Cancer Program (Imaging) - Grant Review Committee, Washington, DC
2001 Congressionally Directed Medical Research Programs, Peer Review Committee - Army Breast Cancer Program (Imaging) - Grant Review Committee, Washington, DC

MANUSCRIPT REVIEWS
Reviewer
2013 Jul - 2013 Jul 30 ASCO education book 2013, Number of Reviews: 2
Atca Oncologica
Biomedical Central- Cancer
British Journal of Cancer
British Journal of Radiology
Cancer
Cancer Control Journal
Cancer Treatment Reviews
Central European Journal of Biology
Clinical Cancer Research
Clinical Oncology
Expert Review of Anticancer Therapy
Gut
Hepatology
International Journal of Radiation Oncology Biology, Physics
Journal of Clinical Oncology
Journal of Interventional Radiology
C. Academic Profile

1. RESEARCH STATEMENTS

The application of high precision radiation for the treatment of liver cancer. 
Primary liver cancer is one of the top causes of cancer fatality globally (5 year survival < 10%), and it is the most rapidly increasing cancer in North America. Liver metastases are also a large source of global cancer morbidity. Radiation therapy has not traditionally been used to treat liver cancers due to the low whole liver tolerance to radiation and challenges associated with irradiating a moving liver tumor that is difficult to see at the time of radiation. My research has demonstrated that reduction in organ motion using breath hold radiation and image guided radiotherapy, in conjunction with high precision radiation therapy planning, permit far higher doses to be safely delivered to focal liver cancers then previously possible.

In 2003, I developed an active clinical research program at the University of Toronto where these technical advances were translated to the clinic. The active clinical liver research program involves use of a novel hypofractionated radiation schedule for the treatment of unresectable liver cancers, which allows potentially curative doses of radiation therapy to be delivered in few treatments to patients. This research program is the first in Canada to use radiation therapy to treat patients with liver cancers. In this program, the treatments are highly individualized, as the individual tumor characteristics, organ motion and underlying normal tissue function all contribute to the optimal individualized dose and plan for each patient. Patients with far larger tumors that those previously treated with stereotactic body radiation therapy are eligible for this novel individualized therapy, as these are the patients unsuitable for other possible therapies.

Phase I and phase II studies of individualized hypofractionated radiation therapy have been completed and my research team has shown that this strategy is safe for patients with both primary and metastatic liver cancer. Randomized trials of this treatment strategy are planned.

The translation of technological developments in high precision radiotherapy to the clinic. The application of advanced technologies to the clinic for liver cancer, made it clear that
novel roles and benefits of radiation therapy are possible, if such advances are implemented in a safe and careful manner. Thus, in addition to liver cancers, outcomes of patients with other cancers can be improved with such translation of technologies to the clinic. In general, with more accurate radiation delivery, local control, survival and quality of life are improved while the risks of complications following therapy are reduced. Technological developments also allow for more efficient treatment, as radiation therapy can now be delivered in fewer fractions, leading to improved patient access, convenience, resource utilization and potentially improved tumor control.

My technological research focus includes the study of organ motion and geometric uncertainties during radiotherapy, image guidance during radiotherapy to allow more accurate treatment, advanced precision radiation planning and avoidance of normal tissue toxicity following high precision radiotherapy. Implementation of efficient technological advances to the clinic has been a goal in all my research, applied to liver cancer, and across many tumor sites. Specifically, my involvement in the application of image guided radiation therapy, has been emulated internationally by many radiation oncology centers, to improve the accuracy of radiation therapy delivery.

In addition, I have studied the partial volume tolerance of normal tissues to radiation (e.g. liver, kidney, and parotid, prostate), as the full potential of high precision intensity modulated radiation will not be met until there is a better understanding of the dose-volume tolerances for normal tissue toxicity. My research has been pioneering in developing a much improved understanding of the tolerance of the liver to radiation. This liver partial volume tolerance understanding has allowed others to deliver higher dose upper abdominal radiation safely for many tumor types.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


2015 - 2018  **Principal Investigator.** A Phase III Study of Palliative Radiotherapy for Symptomatic Hepatocellular Carcinoma and Liver Metastases. Canadian Cancer Society Research

2015 - 2016
Principal Investigator. “Toxicity Prediction Using Delivered Dose Reconstruction to Enable Evidence-Based Adaptive SBRT”. Collaborator(s): Mike Velec, Tim Craig, Jean Pierre Bissonnette. 50,000. [Grants]
Adaptive Radiotherapy IDEAS Grant Recipients.

2011 - 2012

2009 - 2015
Strategic Training Initiative in Health Research Training Program.

2009 - 2013

2009 - 2012

2009 - 2010

2008 - 2012

2007 - 2010

2007 - 2008

2006 - 2010


2002 - 2005  **Principal Investigator.** Extracranial Stereotactic Radiotherapy for Unresectable Intrahepatic. American Society of Clinical Oncology. 170,000 USD. [Grants]


NON-PEER-REVIEVED GRANTS

Funded

2009 - present **Co-Investigator.** Randomized Phase III Study of Sorafenib followed by SBRT versus Sorafenib in Hepatocellular Carcinoma (in development). Radiation Therapy Oncology Group. RTOG#: 1112. Collaborator(s): Krishnan S, Guha C, Craig T, Winter K. [Clinical Trials]

2007 - present **Principal Investigator.** Phase II Trial of Highly Conformal Radiotherapy for Unresectable Colorectal Cancer Liver Metastases (COLD 3). National Cancer Institute of Canada (NCIC). REB#: 07-0348-C. Collaborator(s): Kim J, Dinniwell R, Ringash J, Eccles C, Bissonnette JP. [Clinical Trials]


2005 - 2010 **Principal Investigator.** IV Contrast Cone Beam CT for Liver Cancer Companion Study to REB protocol 03-0295-C (Phase I/II Trial of Highly Conformal Radiotherapy for Unresectable Liver Metastases and Hepatobiliary Carcinoma). University of Toronto. Radiation Medicine Program. REB#: 05-0499-CE. Collaborator(s): Jaffray D, Haider M. [Clinical Trials]


2003 - 2010 **Principal Investigator.** Phase I/II trial of Stereotactic Radiotherapy for Unresectable Colorectal Cancer Liver Metastases and Hepatobiliary Carcinoma. University of Toronto. [Clinical Trials]

2003 - 2008 **Principal Investigator.** Phase I/II Trial of Highly Conformal Radiotherapy for Unresectable Liver Metastases and Hepatobiliary Carcinoma. REB#: 03-0295-C. Collaborator(s): Ringash J, Kim J, Brierley J, Jaffray D, Haider M, Lockwood G. [Clinical Trials]
E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Laura Ann DAWSON


Laura Ann DAWS


160. Dawson LA, Franssen E, Davey P. Borderline elevated CEA predicts for earlier relapse in patients with rectal cancer receiving adjuvant postoperative therapy. Can J Scien Amer. 5(6); 374-379, 1999. **Principal Author.**


**Editorials**

1. Brade AM, Dawson L. To RCT or Not to RCT: How to Change Practice for Rare Cancers? J Clin Oncol. 2016 Jan 20;34(3):203-4. **Senior Responsible Author.**

Laura Ann DAWSON

Commentaries


Letters to Editor


2. Eccles C, Haider M, Dawson LA. In reply to letter to the editor by Dr Willems et al re: Change in diffusion weighted MRI during liver cancer radiotherapy: preliminary observations. Acta Oncol. 26: 1-10, by Eccles et al. Senior Responsible Author.


Magazine Entries


Invited Abstract


Invited Editorials


Invited Extended Abstract


Invited Grand Rounds


Invited Journals/Lay Media


Invited Publications


Journal Articles, Multicenter Study


Other Publications


2. NON-PEER-REVIEWED PUBLICATIONS

Books Edited


Book Chapters


Laura Ann DAWSON


Commentaries

Magazine Entries

Newspaper Articles

Online Resources

Invited Abstract

Invited Publications


**Newsletter**


**Web Manuscript**


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2015 Apr 22 Keynote Speaker. Stereotactic Body Radiation Therapy Safety and Quality. 11th Annual Scientific Meeting of Medical Imaging and Radiation Therapy (ASMMIRT). Brisbane, Australia.

2015 Apr 22 Keynote Speaker. Advances in Image Guided Radiation Therapy. 11th Annual Scientific Meeting of Medical Imaging and Radiation Therapy (ASMMIRT). Australia. Presenter(s): Dawson LA.


2015 Apr 15 Presenter. The idea is to present the result or possibilities of Radiation Therapy in Hepatocellular Carcinoma, palliative and “curative”. Simposio Latinoamericano de Gastroenterología Oncológica (SLAGO) 2015. Chile.


2014 Oct 24  Invited Speaker. IGRT and new practices in radiation oncology: what we should know and how to use it after a decade of investigation. XIV Course of Latest Developments in Radiation Oncology. Teaching and Research Institute of Sirio-Libanes Hospital. São Paulo, Brazil.


2013 Oct  **Invited Speaker.** Recent Advances in Radiation Oncology. JASCO. Kyoto, Japan. October 2013.


2012  **Invited Speaker.** Treatment of liver metastases with SBRT. Integration of New Radiation Technologies in the Multi-modality Treatment Approaches in Cancer Therapy, McGill University. Montreal, Ontario.


2012  **Invited Speaker.** Stereotactic body radiotherapy for liver, kidney and retroperitoneal upper abdominal malignancies. ASTRO IGRT Conference. Las Vegas, Nevada, United States.


2012  **Invited Speaker.** The evolving role of radiation therapy in hepatocellular carcinoma. Associazione Nazionale Di Interventistica E Chirurgia Ecoguidata. Amalfi Coast, Ravello, Italy.

2012  **Invited Speaker.** Status of body stereotactic RT. International Symposium on MRI in Radiotherapy. Geertekerk, Utrecht, Netherlands.


2012  **Invited Speaker.** Management Paradigms for Hepatocellular Carcinoma: Current and Future. Institute of Liver and Biliary Sciences. New Delhi, India.

2012 **Invited Speaker.** Highlights of GI Cancer Symposium 2012. ASCO Live Webinar.

2012 **Invited Speaker.** Stereotactic radiation therapy for hepatocellular carcinoma. ICTR meeting. Geneva, Switzerland.


2011 Sep 23 **Invited Speaker.** Stereotactic radiotherapy for liver metastases. 16th ECCO-36th ESMO Multidisciplinary Cancer Congress. Stockholms län [SE-01], Sweden.


2011 **Invited Panelist.** Fellows and Junior Faculty Networking Luncheon. ASCO/ASTRO 2011 Gastrointestinal Cancers Symposium. San Francisco, California, United States.


2011 **Program Chair.** State of the Art Techniques: IMRT, IGRT, and SBRT. ASTRO IGRT Conference. Las Vegas, Nevada.


2011 **Invited Speaker.** Modern Abdominal Treatment Planning and Delivery Paradigms in the Era of IMRT. American College of Radiation Oncology (ACRO). San Diego, California.


2011 **Invited Speaker.** Radiosurgery for Abdominal Tumours (Liver, Pancreas, etc.). LINAC Radiosurgery Meeting, Universities of Iowa and Florida. Orlando, Florida.


2011 **Visiting Professor.** Stereotactic Radiotherapy for Primary and Metastatic Liver – A New Treatment Option. UWCCC Grand Rounds, University of Wisconsin. Madison, United States.

2011 **Visiting Professor.** Stereotactic Radiotherapy for Primary and Metastatic Liver – A New Treatment Option? Tom Baker Centre Grand Rounds, University of Calgary. Calgary, Alberta.
2010  **Invited Speaker.** Liver Metastases Radiation Therapy. International Conference on Metastases, American Society of Therapeutic and Radiation Oncology (ASTRO). San Diego, California, United States.


2009  **Co-chair.** Multidisciplinary Treatment: Hepatobiliary Cancer. ASCO GI Meeting. San Francisco, California, United States.


2009  **Panelist.** Unresectable Hepatocellular Carcinoma. American Society of Clinical Oncology (ASCO) GI Meeting. San Francisco, United States.


2009  **Invited Speaker.** Evolving Role of Radiation Therapy for Hepatocellular Carcinoma. Fourth International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR). Geneva, Switzerland.


2009  **Invited Speaker.** Abdominal IGRT. American Society for Therapeutic and Radiation Oncology (ASTRO) Image Guided Radiation Therapy (IGRT) Symposium. Miami, United States.

2009  **Invited Speaker.** External and Internal Radiotherapy for Liver Metastases. ESMO Conference: 11th World Congress on Gastrointestinal Cancer. Barcelona, Spain.

2009  **Invited Speaker.** Image Guided Radiation Therapy in Hepatocellular Carcinoma. 4th International Symposium of Yonsei Liver Cancer Special Clinic. Seoul, Korea, Republic Of.

2009  **Invited Speaker.** Image Guided Radiotherapy-Clinical Perspective. CT / Nuclear Medicine / Radiotherapy Conference. Melbourne, Australia.

2009  **Visiting Professor.** Progress in Radiation Therapy for Hepatocellular Carcinoma. Montefiore Medical Center. New York, United States.


2009  **Invited Speaker.** Technical Advances in Liver Cancer SBRT. Mayo Clinic, Radiation Oncology Grand
Rounds. Rochester, United States.

2009  

2009  
**Invited Speaker.** IGRT for GI Cancers. Advances in Radiotherapy Planning and Delivery. The San Francisco Radiation Oncology Conference. San Francisco, United States.

2009  
**Chair, moderator.** Multiple sessions. American Society for Therapeutic and Radiation Oncology (ASTRO) Image Guided Radiation Therapy (IGRT) Symposium. Miami, United States.

2009  
**Invited Speaker.** Liver Cancer Radiotherapy. CT / Nuclear Medicine / Radiotherapy Conference. Melbourne, Australia.

2009  
**Invited Speaker.** Stereotactic Body Radiotherapy. CT / Nuclear Medicine / Radiotherapy Conference. Melbourne, Australia.

2009  
**Invited Speaker.** IGRT and Adaptive Radiotherapy for Head and Neck Cancer. CT / Nuclear Medicine / Radiotherapy Conference. Melbourne, Australia.

2009  

2009  
**Chair and panelist.** International Conference on Radiation Therapy for Liver Metastases Panel. Educational Course, American Society of Therapeutic and Radiation Oncology (ASTRO). Chicago, United States.

2009  
**Visiting Professor.** Advances in Head and Neck Cancer Radiotherapy. Grand Rounds, Department of Oncology, National Taiwan University Hospital. Taipei, Taiwan, Province Of China.

2009  
**Visiting Professor.** SBRT for Primary Liver Cancer and Liver Metastases. Alta Bates Comprehensive Cancer Center. Berkley, United States.

2009  
**Visiting Professor.** Radiation Therapy for Primary and Metastatic Liver Cancer. Tufts University. Boston, United States.

2009  

2008 Nov 8  
**Presenter.** Stereotactic Body Radiation Therapy (SBRT) for Liver Tumors. 3rd Annual Moffitt Interdisciplinary GI Tumor Conference. Clearwater Beach, Florida, United States.

2008  

2008  
**Invited Speaker.** IGRT debate: Volumetric IGRT is required for IGRT. Image Guided Radiation Therapy (IGRT) American Society for Therapeutic and Radiation Oncology (ASTRO) Symposium. Newport Beach, United States.

2008  
**Moderator.** Image Quality is the Limiting Factor in IGRT. Image Guided Radiation Therapy (IGRT) American Society for Therapeutic and Radiation Oncology (ASTRO) Symposium. Newport Beach, United States.

2008  
**Invited Speaker.** Hands on Teaching. IGRT for head and neck cancer. Image Guided Radiation Therapy (IGRT) American Society for Therapeutic and Radiation Oncology (ASTRO) Symposium. Newport Beach, United States.

2008  
**Invited Speaker.** Systemic Therapy for Hepatocellular Carcinoma. Sino-American Network for Therapeutic Radiology and Oncology (SANTRO). Beijing, China.

2008  **Invited Speaker.** Motion Management in IMRT Panel. American Society for Therapeutic and Radiation Oncology (ASTRO) IMRT Symposium. Orlando, United States.

2008  **Invited Speaker.** Liver Image Guided Radiation Therapy (IGRT) at PMH. Elekta Synergy Research Consortium Meeting. Crawley, United Kingdom.


2008  **Invited Speaker.** Image Registration Educational Session. American Society for Therapeutic and Radiation Oncology (ASTRO). Boston, United States.


2008  **Invited Speaker.** Advances in Imaging in Radiation Oncology. The Eli Glatstein, MD Transitional Research Conference: New Paradigms In Radiation Oncology, University of USA. United States.


2008  **Leader.** Regional Therapy Panel. Hepatocellular Carcinoma, State of the Science Meeting, NIH. Washington, United States.

2007  **Invited Speaker.** Image Guided Radiotherapy for Hepatocellular Carcinoma: Western Experience. Fifth International Meeting on Hepatocellular Carcinoma. Houston, United States.

2007  **Invited Speaker.** Technical Advances in High Precision Radiotherapy of Moving Tumors. Radiation Oncology Rounds, The Methodist Hospital and Baylor College of Medicine Grand Rounds. Houston, United States.


2007  **Keynote Speaker.** Evolution from IMRT to IGRT. ASTRO IMRT Symposium. San Francisco, United States.


2007  **Invited Speaker.** Highly Individualized SBRT for Primary and Metastatic Liver Cancer. Cleveland Clinic’s First International Symposium on Stereotactic Body Radiation Therapy and Stereotactic Body Radiosurgery. Orlando, United States.

2007  **Invited Speaker.** Transitioning from 3D/IMRT to 4D/IGRT: Thorax and Abdominal Malignancies. ASTRO Image Guided Radiotherapy Meeting II. Tampa, United States.

2007  **Invited Speaker.** Image Guided Radiotherapy. Chicago Radiological Society, Rush University Medical Center. Chicago, United States.


2007  **Invited Speaker.** Image Guidance in Liver Cancer. 3rd European Elekta Users Meeting. Sitges, Spain.


2007  **Invited Speaker.** High Precision Radiation Therapy in Hepatocellular Carcinoma. Radiation Oncology Grand Rounds, Department of Oncology, National Taiwan University Hospital. Taipei, Taiwan, Province Of China.

2007  **Chair.** Multidisciplinary Treatment: Esophageal and Gastric Cancer. ASCO GI Meeting. Orlando, United States.

2007  **Visiting Professor.** Iso-Toxicity based Stereotactic Radiotherapy for Primary and Metastatic Liver Cancer. The Methodist Hospital and Baylor College of Medicine Grand Rounds. Houston, United States.

2007  **Visiting Professor.** Individualized Stereotactic Radiotherapy for Primary and Metastatic Liver Cancer. MD Anderson. Houston, United States.

2007  **Visiting Professor.** Stereotactic Radiotherapy for Primary and Metastatic Liver Cancer. MD Anderson Orlando. Orlando, United States.

2007  **Visiting Professor.** Individualized Stereotactic Radiotherapy for Hepatic Malignancies. Yonsei University. Seoul, Korea, Republic Of.


2007  **Invited Speaker.** Technical Advances in Radiotherapy: The Liver Cancer Example. CT / Nuclear Medicine / Radiotherapy July 07 Conference. Gold Coast, Australia.

2007  **Invited Speaker.** Adaptive Radiotherapy for Head and Neck Cancer. CT / Nuclear Medicine / Radiotherapy July 07 Conference. Gold Coast, Australia.

2007  **Invited Speaker.** Motion Management in High Precision Radiotherapy. CT / Nuclear Medicine / Radiotherapy July 07 Conference. Gold Coast, Australia.
2007  **Invited Speaker.** Stereotactic Body Radiotherapy. CT / Nuclear Medicine / Radiotherapy July 07 Conference. Gold Coast, Australia.


2007  **Invited Speaker.** Motion Management in Radiotherapy. VII Last Generation Radiotherapy Course. São Paulo, Brazil.

2007  **Invited Speaker.** Stereotactic Body Radiotherapy. VII Last Generation Radiotherapy Course. São Paulo, Brazil.


2007  **Invited Speaker.** In Room CT Panel. American Society for Therapeutic and Radiation Oncology (ASTRO) Annual General Meeting. Los Angeles, United States.


2006  **Invited Speaker.** Liver animal Models for Radiation Toxicity. International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR) Pre-Meeting on New Tech and Normal Toxicity Primer. Lugano, Switzerland.

2006  **Invited Speaker.** Individualizing and Adapting Treatment Delivery: the Liver Model. Third International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR). Lugano, Switzerland.


2006  **Invited Speaker.** Liver Cancer Stereotactic Body Radiation Therapy. 5th International Symposium on Stereotactic Body Radiation Therapy. Dallas, United States.


2006 **Invited Speaker.** Clinical Outcomes Following SBRT. American Association of Medical Physicists (AAPM). Orlando, United States.


2006 **Invited Speaker.** The Clinical Rationale and Basis for IGRT in Liver Radiotherapy. International Image guided Radiation Therapy (IGRT) Symposium, ESTRO. Leipzig, Germany.


2006 **Invited Speaker.** Improving inter-and intra-fraction reproducibility. Third International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR). Lugano, Switzerland.

2006 **Co-Chair.** Adaptive Treatment. Third International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR). Lugano, Switzerland.


2006 **Invited Speaker.** Clinical Workshop in Radiotherapy for Hepatocellular Carcinoma. 1st Lui Hac Minh International Hepatoma Symposium in 2006. Hong Kong.


2006 **Invited Speaker.** Multimodality Imaging – Fusion and Registration (MRI/CT and PET/CT) Educational Symposium. American Society for Therapeutic Radiation and Oncology (ASTRO) Annual General Meeting. Philadelphia, United States.


2006 **Visiting Professor.** Hepatocellular Carcinoma Radiation Therapy: PMH Experience. Tung General Hospital. Taichung, Taiwan, Province Of China.
2006 **Visiting Professor.** Hepatocellular Carcinoma Radiation Therapy: North America Perspective. St. Mary's Hospital. Lo-Tung, Taiwan, Province Of China.

2006 **Visiting Professor.** Hepatocellular Carcinoma Radiation Therapy: North America Perspective. Grand Rounds, Fudan University Cancer Hospital. Shanghai, China.

2006 **Visiting Professor.** Highly Individualized, Image Guided, Iso-Toxicity Based Liver Cancer SBRT. University of South Western. Dallas, United States.


2006 **Visiting Professor.** Advances in Liver Cancer High Precision Radiotherapy. Montefiore Medical Center, The University Hospital for the Albert Einstein School of Medicine. New York, United States.

2005 **Visiting Professor.** Innovations in Liver Cancer Radiotherapy. NKI. Amsterdam, Netherlands.


2005 **Invited Speaker.** Transitioning from 3D to 4D: Image Guided Radiation Therapy in the Abdomen. American Society for Therapeutic Radiology and Oncology (ASTRO) Image Guided Radiotherapy Meeting. Las Vegas, United States.


2005 **Invited Speaker.** IMRT and Other Technical Issues related to Upper Abdominal Malignancies. 38th Annual San Francisco Radiation Oncology Conference. San Francisco, United States.


2004 **Invited Speaker.** Reducing Organ Motion. Seventh International Conference on Dose, Time and Fractionation in Radiation Oncology –Physical, Chemical and Biological Targeting in Radiation Oncology. Madison, United States.


2004  **Invited Speaker.** Cone Beam CT Guided Stereotactic Radiosurgery for Isolated Lung Cancers. Princess Margaret Hospital Proposal. Elekta Synergy Symposium. Crawley, United Kingdom.


2003  **Invited Speaker.** Liver Radiosurgery: Where we are and where do we need to go? 6th International Stereotactic Radiosurgery Congress. Kyoto, Japan.


2003  **Moderator.** “Head and Neck Cancer” Oral Presentations. American Society for Therapeutic Radiology and Oncology annual meeting. Salt Lake City, United States.


2002  **Invited Speaker.** High Precision Radiotherapy for Unresectable Liver Cancer. 27th American Association of Medical Dosimetrists. Dearborn, United States.

2002  **Invited Speaker.** Introduction to Contouring and Virtual Simulation. The First Asian Medical Center Workshop on Conformal Radiotherapy. Seoul, Korea, Republic Of.

2002  **Invited Speaker.** Clinical Importance of Setup Uncertainty in High Precision Radiotherapy. Treatment Verification Symposium, American Association of Medical Physicists (AAPM). Montreal, Quebec.


2002  **Discussant.** Prostate Cancer Contouring and Virtual Simulation. The First Asian Medical Center Workshop on Conformal Radiotherapy. Seoul, Korea, Republic Of.


2001 Invited Speaker. Vignettes in Organ Motion During Radiotherapy. Department of Radiology, Hokkaido University School of Medicine. Sapporo, Japan.


2000 Visiting Professor. Re-irradiation of Head and Neck Recurrent or Second Primary Cancers. Visiting Professor Lecture, Head and Neck Tumor Board Conference. South Bend, United States.


Presented Abstracts


2012 Phase I Study of Sorafenib and SBRT for Advanced Hepatocellular Carcinoma. American Society for


2005 Image guidance for liver cancer stereotactic radiotherapy. Proceedings for the fourth annual conference on stereotactic body radiotherapy. Dallas, United States. Dawson LA.


Presented and Published Abstracts

2014 Sep Treatment Dilemmas for Synchronous and Metachronous Prostate and Rectal Cancers. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

Publication Details:

2014 Sep Prospective Longitudinal Assessment of Quality of Life for Liver Cancer Patients Treated With Stereotactic Body Radiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

Publication Details:


Publication Details:
2014 Sep  

*Publication Details:*  

2013 Sep 23  
A Randomized Controlled Trial of Lorazepam to Reduce Organ Motion in Patients Receiving Upper Abdominal Radiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO) 55th Annual Meeting. Atlanta, Georgia, United States.

*Publication Details:*  

2013 Sep 23  
Interobserver Variability in Target Definition for Hepatocellular Carcinoma (hcc) with and without Portal Vein Thrombus: Radiation Therapy Oncology Group (rtog) Hcc Consensus Panel. American Society for Therapeutic Radiology and Oncology (ASTRO) 55th Annual Meeting. Atlanta, Georgia, United States.

*Publication Details:*  

**Abstract Presentations**

2004  
Three Dimensional Motion of Liver Tumors using Cine MRI Compared to Liver Motion Assessed at Fluoroscopy. European Society for Therapeutic Radiation Oncology (estro). Amsterdam, Netherlands.

2003  
Differences between MRI and CT to Define Gross Tumor Volumes to be Used for Radiation Planning of Unresectable Intrahepatic Malignancies. American Society for Clinical Oncology Annual Meeting. Salt Lake City, United States.

2002  

2001  
Lyman and Damage Injury Model Parameters for Radiation Induced Liver Disease. American Society for Therapeutic Radiology and Oncology. San Francisco, United States.

2000  

2000  

1999  

1999  

1999  
Patterns of Local-Regional Failure Following Parotid Sparing Conformal and Multisegmental Intensity Modulated Radiotherapy for Head and Neck Cancer. American Society for Therapeutic Radiology and
Laura Ann DAWSON

Oncology. San Antonio, United States.


2. NATIONAL

Invited Lectures and Presentations


2014 Jun Invited Speaker. “Palliative Radiation Therapy: When does it become curative?”. Annual Meeting of the Quebec Association of Radiation Oncologists (AROQ). Quebec City, Quebec, Canada.

2014 Apr Speaker. Stereotactic Body Radiation Therapy (SBRT) for Hepatocellular Carcinoma and Liver Metastases. 6ième Symposium sur la personnalisation du traitement des cancers digestifs. Montreal, Quebec, Canada.


2013 Oct Invited Speaker. Radiation Treatment of Liver Mets from Colorectal Cancer. Eastern Canada Colorectal Cancer Consensus Conference. Montreal, Quebec, Canada. Presenter(s): Dawson L.


2013 Apr Visiting Professor. The Why’s and How’s of Stereotactic Body Radiotherapy for Treatment of Liver Cancer, Grand Rounds (combined with Dr Tim Craig). Cross Cancer Institute, University of Alberta. Edmonton, Alberta, Canada.


Laura Ann DAWSON


Presented Abstracts


2002 Principal Author. High precision radiotherapy for unresectable liver cancer. American Association of Medical Dosimetrists. Dawson LA.

2002 Principal Author. Parotid-sparing radiation for head and neck cancer – What have we learned? 27th American Association of Medical Dosimetrists. Dawson LA.


Presented and Published Abstracts


Publication Details:

Coauthor or Collaborator.


Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

2012 Oct 28 Invited Speaker. Outcomes of intensity-modulated radiotherapy versus conventional radiotherapy for hypopharyngeal cancer. 54th Annual American Society for Therapeutic Radiation Oncology (ASTRO) meeting.and the 26th Annual Canadian Association of Radiation Oncology meeting. Ottawa, Ontario, Canada.

Publication Details:

4. LOCAL

Invited Lectures and Presentations


2016 Apr 7  **Presenter.** Session 1: Setting the Scene. Introduction to Liver Cancer, Liver Radiation Therapy & the Course. Accelerated Education Program (AEP), Image Guided Radiation Therapy (IGRT) Princess Margaret Cancer Center. Toronto, Ontario, Canada.


2016 Mar 21  **Presenter.** Hepatobiliary Radiation Therapy. Princess Margaret Cancer Center. Ontario, Canada.


2015 Nov 20  **Speaker.** “Hepatocellular carcinoma – Optimizing the therapeutic ratio.”. Ontario Cancer Institute, University Health Network Research-Princess Margaret Cancer Centre.


2015 Mar 11  **Invited Lecturer.** The Cancer Clinical Research Unit (CCRU) Investigator Retreat. Princess Margaret Cancer Centre. Toronto, Ontario, Canada.


Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Dawson LA, Seco P, Stanescu T.

2015 Mar 5 **Presenter.** Session 1: Setting the Scene. Introduction to Liver Cancer & the Course. Accelerated Education Program (AEP), Image Guided Radiation Therapy (IGRT) Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Dawson LA.


2014 Dec 12 **Invited Speaker.** Stereotactic body radiation therapy (SBRT) in liver disease. The Cancer Clinical Research Unit (CCRU).

2014 May 26 **Invited Speaker.** Stereotactic body radiation therapy for Hepatocellular Carcinoma (HCC) and liver metastases. Huntsville, Ontario, Canada. 5th Annual Faculty Retreat Deerhurst Resort.

2014 Feb **Invited Speaker.** Stereotactic body radiation therapy (SBRT) for hepatocellular carcinoma and liver metastases. Regional Cancer Program. New Market, Ontario, Canada. Stronach Regional Cancer Centre Oncology Rounds.


2013 Nov 7 **Presenter.** Session 1: Setting the Scene. Overview of Liver Cancer Radiation Therapy (RT). Accelerated Education Program (AEP), Image Guided Radiation Therapy (IGRT) Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Dawson LA.

2013 Sep 16 **Invited Speaker.** Hepatocellular Carcinoma (HCC) Radiation Therapy – The Need for Evidence. University of Toronto. Toronto, Ontario, Canada. Presenter(s): Dr. Laura Dawson. (Trainee Presentation).


2011 **Invited Speaker.** The Moving Liver Target. IMRT Insight: On Target on Track, Metropolitan Hotel. Toronto.

2011 **Invited Speaker.** Role of Radiation Therapy in Metastatic Colorectal Carcinoma. Toronto Cancer Education Conference. Toronto.

2011 **Chair.** Program Scientific. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.

2011 **Moderator.** Multiple sessions. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.
Laura Ann DAWSO


2011  Liver Planning and Interactive Demonstration. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.

2011  Simulation in Liver IGRT. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.


2011  Overview of Liver Cancer RT. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.

2011  Liver Planning and Interactive Demonstration. IGRT Focus. Image-Guided Liver Radiotherapy Educational Course, Princess Margaret Hospital. Toronto.


2003  Stereotactic Radiation for Unresectable Primary and Metastatic Liver Cancer. Toronto-Sunnybrook Regional Cancer Center, University of Toronto. Ontario.

2002  Invited Speaker. Partial Volume Effects in Radiotherapy. Princess Margaret Hospital, University of Toronto. Toronto, Ontario.

2000  The Past, Present and Future of High Precision Radiotherapy. Princess Margaret Hospital, University of Toronto. Toronto, Ontario.
Presented Abstracts


5. OTHER

Web Manuscript

2011 May  **Invited Speaker.** e-grand rounds and e-oncoreviews. European School of Oncology.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

2009  **Primary Supervisor.** MSc candidate. A. Swaminath. *Dose Response Relationship for Liver Metastases Radiotherapy Tumor Control Probability*.


2006  **Primary Supervisor.** MSc candidate. R. Case. *Respiratory sorted cone beam CT for liver cancer radiotherapy*.

2. OTHER SUPERVISION

Graduate Education

**Thesis Examiner**


2009  **MSc.** K. Ottolino-Perry. *Tumour Efficacy of a Double Deleted Vaccinia Virus*.


**Committee Member**


2005  **MSc candidate.** K. Franks. *Lung Stereotactic Body Radiotherapy: Optimizing Radiation Planning and Delivery to Improve Outcomes*. 
Other

Thesis Examiner

2015 Sep

2015 Sep
Luis Alberto De La Maza Borja, Medical Science. Supervisee Institution: University of Toronto. The Immunogenic effect of Local Radiation Therapy in a mouse model of Mesothelioma.

2015 Jul
Matthew Wu, Medical Science. HMGB-1 Release and the CD8+ T Cell response Elicited by Radiation Treatment in Malignant Pleural Mesothelioma.
Curriculum Vitae

Robert Edward Dinniwell

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office  Radiation Medicine Program
                Princess Margaret Hospital/University Health Network
                610 University Avenue
                Toronto, Ontario, Canada
                M5G 2M9

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Email             rob.dinniwell@rmp.uhn.on.ca

1. EDUCATION

Degrees

2014 - present MEd, Leadership, Higher and Adult Education, Ontario Institute for Studies in Education, University of Toronto, Toronto, Canada
2012 - 2014 MScCH, Health Practitioner Teacher Education, Dalla Lana School of Public Health, University of Toronto, Toronto, Canada
2010            MSc, Institute of Medical Science, University of Toronto, Toronto, Canada
1998            MD, Queen’s University at Kingston, Kingston, Canada
1993            BA, Psychology, McMaster University, Hamilton, Canada
1992            Honours BSc, Biology, McMaster University, Hamilton, Canada

Postgraduate, Research and Specialty Training

2014 - present Fundamentals in Leadership and Management in Education (FLAME), Certificate in Medical Education, Association for Medical Education in Europe
2012 Aug - present Diagnostic Medical Ultrasound, Sonography Principles and Instrumentation, The Burwin Institute, Ontario, Canada
2012 May - present Health Professional Teacher Education, Dalla Lana School of Public Health, University of Toronto, Ontario, Canada
2012            Essential Skills in Computer-Enhanced Learning, Certificate in Medical Education, Association for Medical Education in Europe, Lyon, France
2010 - 2012     Education Scholars Program, University of Toronto, Ontario, Canada
2006            Royal College Clinician Investigator Program, University of Toronto, Toronto, Canada
2003 - 2005     Radiation Oncology Research Fellow in Gynecologic Oncology, Princess Margaret Hospital/University of Toronto, Toronto, Canada
2003 - 2004     Magnetic Resonance Imaging Theory Advanced Diploma, Michener Institute for Applied Health Sciences, Toronto, Canada
2001 - 2003     Resident in Radiation Oncology, University of Toronto, Toronto, Canada
1999 - 2001  Resident in Internal Medicine, Western University, London, Canada
1999 - 2001  Resident in Radiation Oncology, McMaster University, Hamilton, Canada
1998 - 1999  Internal Medicine Residency, McMaster University, Hamilton, Canada

Qualifications, Certifications and Licenses
2003  Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2000  Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2011 - present  Staff Physician, Sunnybrook Health Sciences Centre, Toronto, Canada
2009 - present  Staff Physician, St. Michael's Hospital, Toronto, Canada
2005 - present  Assistant Professor, Radiation Oncology, University of Toronto
2005 - present  Staff Physician, Dept of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2006  Cum Laude, Radiological Society of North America. (Distinction)
      *Awarded at 2006 Annual Meeting.*

2005  Certificate of Merit with an Award for Excellence in Design, Radiological Society of North
      America. (Distinction)
      *Awarded at 2005 Annual Meeting.*

2004  Excellence in Design Citation, Radiological Society of North America. (Distinction)
      *Awarded at 2004 Annual Meeting.*

1994  Summer Medical Student Scholarship Award, American Society of Hematology.
      (Distinction)

PROVINCIAL / REGIONAL

Received

2002  Chief Resident, University of Toronto. (Distinction, Specialty: Radiation Oncology)

2000  Chief Resident, McMaster University. (Distinction, Specialty: Radiation Oncology)

1995  Ivan H. Smith Memorial Studentship Scholarship in Oncology. (Distinction)

1991  Ontario Scholar, Ontario Ministry of Education. (Distinction)

LOCAL

Received

2005  Chair’s Award, University of Toronto. (Distinction)
      *For Academic Excellence in Research by a Postgraduate Trainee.*

2005  Honourable Mention, Institute of Medical Science’s Scientific Day, University of Toronto.
      (Distinction)

2003  Chief Fellow, University of Toronto. (Distinction, Specialty: Radiation Oncology)
2003 Chief's Award, Princess Margaret Hospital. (Distinction)
For best rounds in the PMH Radiation Medicine Program.

1991 Varey Scholarship, McMaster University. (Distinction)

1988 Canada Scholarship, McMaster University. (Distinction)

1988 McMaster University Chancellor's Scholarship, McMaster University. (Distinction)

Teaching and Education Awards

LOCAL

Received

2012 Educational Innovation, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto, Ontario, Canada. (Multilevel Education)
In recognition of his leadership within the Radiation Medicine Program.

2012 Postgraduate Mentorship, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. (Multilevel Education)

2010 Teaching Activity Award, PMH Radiation Medicine Program, Princess Margaret Hospital

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Therapeutic Radiology and Oncology
Association for Medical Education in Europe
Canadian Association of Radiation Oncology
Canadian Medical Association
European Society of Therapeutic Radiology and Oncology
National Lymphedema Network
Ontario Medical Association
Radiological Society of North America
Royal College of Physicians and Surgeons of Canada

Administrative Activities

LOCAL

Centre for the Evaluation of Health Professionals Educated Abroad (CEHPEA)
2014 - present Advisor in education program for specialty trainees

Ministry of Health / Ontario Association of Radiation Oncologists
2013 - present Provincial Oncology AFP (POAFP) Working Group

Ministry of Health / Ontario Medical Association
2014 - present OMA/MOH Virtual Healthcare Working Group

Ontario Association of Radiation Oncologists
2012 - present Secretary / Treasurer
Ontario Medical Association
2012 - present  
Section Vice-Chair, Radiation Oncology

University Health Network / Princess Margaret Hospital
2013 - present  
Chairman, Radiation Oncology Partners
2013 - present  
UHN Research Ethics Board, Oncology REB Review Panel Member
2010 - present  
Imaging Committee, PMH Radiation Medicine Program
2009 - present  
Protocol Review Committee, PMH Radiation Medicine Program
2012 - 2013  
Vice-Chairman, Radiation Oncology Partners
2011 - 2012  
Treasurer, Radiation Oncology Partners

University of Toronto
2012 - present  
Department of Radiation Oncology Residency Program Committee, Postgraduate Medical Education
2011 - present  
Medical Oncology Program Co-ordinator for Radiation Oncology, Postgraduate Medical Education
2005 - 2007  
Member, External Relations Committee, Department of Radiation Oncology
2003 - 2004  
Chief Fellow in Radiation Oncology, Department of Radiation Oncology
2002 - 2003  
Chief Resident in Radiation Oncology, Department of Radiation Oncology

Peer Review Activities
Reviewer

Annals of Surgical Oncology
Canadian Breast Cancer Foundation
Clinical Breast Cancer
Clinical Oncology
Nature Oncology
Radiotherapy and Oncology

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2009 Jul - present  

2012 Jul - 2013 Jun  
Principal Investigator. A double-blind, placebo-controlled, two way, cross over study of topical phenylephrine for passive fecal incontinence following radiotherapy in men with prostate cancer. Abbott ACURA Uro-Oncologic Radiation Award. Collaborator(s): Wilfred, L. 20,000 CAD. [Grants]

A double-blind, placebo-controlled, two way, cross over study of topical
Robert Edward DINNIWELL

Phenylephrine for passive fecal incontinence following radiotherapy in men with prostate cancer.
Abbott ACURA Uro-Oncologic Radiation Award. $20,000 2012.

2011 - 2013

2010

2004

2003 Jul - 2005 Jun
Principal Investigator. Strategic Training Career Award - Fellow in Excellence in Radiation Research for the 21st Century (EIRR21st) Program. Canadian Institutes of Health Research (CIHR). 100,000. [Grants]

Principal Investigator. Locally Advanced Breast Cancer Imaging Fund. Princess Margaret Hospital Foundation (The). 75,000. [Grants]

NON-PEER-REVIEWED GRANTS

FUNDED
2010 - present  Principal Investigator. Impact of Magnetic Resonance Imaging on Consistency of Seroma Delineation in Post Operative Breast Irradiation. REB#: 10-0040-CE. [Clinical Trials]

2009 Jul - present  Principal Investigator. A Feasibility Study of MRI in Assessment of Primary Tumor During Chemoradiation for Anal Canal and Perianal Cancer. [Clinical Trials]


2008 Jul - present  Principal Investigator. A Pilot Study of Diffusion Weighted Imaging (DWI) and Dynamic Contrast Enhanced (DCE) MR imaging as Early Indicators of Response in Women with Locally-Advanced Breast Cancer Treated with Neoadjuvant Therapy. REB#: 07-0709-CE. Collaborator(s): RMP Co-Investigators: Czarnota G, Clemons M, Fitzgerald B, Levin W, Manchul L, Sharpe M. [Clinical Trials]

2008 Jul - present  Principal Investigator. Optimization of Target Volume Delineation and Radiotherapy Treatment Planning in Women with Locally Advanced Breast Cancer Receiving Neoadjuvant or Primary Radiotherapy. REB#: 07-0772-CE. Collaborator(s): RMP Co-Investigators: Lee G. [Clinical Trials]

2008 Jul - present  **Principal Investigator.** Optimization of Lymphatic Target Volume Delineation in Carcinoma of the Anal Canal. REB#: 08-0177-CE. Collaborator(s): RMP Co-Investigators: Kim J. [Clinical Trials]

2004 Jul - present  **Principal Investigator.** A Pilot Study of MR Imaging with Ultra-Small Superparamagnetic Iron Oxide for Pelvic Lymph Node Target Definition. REB#: 03-0838-C. [Clinical Trials]

2009 Jul - 2010 Jun  **Principal Investigator.** Multimodal imaging for response assessment in locally advanced breast cancer. Princess Margaret Hospital. Locally Advanced Breast Cancer Pilot Grant. 8,500. [Grants]


2005 Jul - 2008 Jun  **Principal Investigator.** Non-Invasive Assessment of Lymph Circulation Disorders with Three-Dimensional Magnetic Resonance Imaging and Mid-to-High Frequency Ultrasound: A Pilot Study. REB#: 05-0486-CE. [Clinical Trials]


**D. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


5. Lee G, Rosewall T, Fyles A, Harnett N, **Dinniwell RE.** Anatomic features of interest in women at risk of cardiac exposure from whole breast radiotherapy. Radiother Oncol. 2015 Jun 1;115(3):355-60. **Senior Responsible Author.**


Letters to Editor

Evaluation Studies, Journal Articles

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

In Preparation

2. Lee G, Clemons M, Czarnota GJC, Dinniwell R. Nodal clinical target volume delineation in women with locally advanced breast cancer receiving neoadjuvant or primary radiotherapy. Senior Responsible Author.


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

2013 Oct  Incidence and Factors Associated With the Development of Extremity and Truncal Lymphedema in a Prospective Cohort of Women With Locally-Advanced Breast Cancer Receiving Multimodality Therapy. ASTRO Annual Meeting. Atlanta, Georgia, United States.

Publication Details:


Publication Details:
Purdie TG, Jaffray DA, Dinniwell RE, Sharpe MB. Clinical Implementation of Automated Tangential

2013 Sep Feasibility of an IR camera system for surface mapping and volume measurements in lymphedema of the head and neck, torso and extremity. 24th I.S.L. Congress. Rome, Roma, Italy.

Publication Details:

Other Lectures and Presentations


2. NATIONAL

Invited Lectures and Presentations

2009 Inguinal nodal clinical target volume delineation: Validation of a class solution for precision radiotherapy. 22nd Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Montreal. Presenter(s): Dinniwell, Robert Edward.


2002 Abdomino-pelvic radiotherapy (APRT) following surgery and carboplatin/paclitaxel chemotherapy for epithelial ovarian cancer. 16th Annual Scientific Meeting of the Canadian Association of Radiation Oncology.
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2006 Magnetic Resonance Lymphography. Target Insight II Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio, Imaging the Lymph Nodes. Toronto, Canada. Presenter(s): Dinniwell, Robert Edward.


4. LOCAL

Invited Lectures and Presentations


5. OTHER

Presented and Published Abstracts


*Publication Details:*

2014 Jun Characteristics of Women Requiring Active Breathing Control for Heart Sparing in Whole Breast Radiotherapy.
Robert Edward DINNIWELL

**Publication Details:**

2013 May  

**Publication Details:**

2013 Mar  
The Relationship between Patterns of Recurrence and Radiotherapy Field Design in Women with Locally Advanced Breast Cancer.

**Publication Details:**

2013 Feb  
Development of quantitative parameters to assess in-vivo optical coherence tomography images of late oral radiation toxicity patients. SPIE BIOS. San Francisco, United States.

**Publication Details:**

---

**F. Research Supervision**

**1. PRIMARY OR CO-SUPERVISION**

**Postgraduate MD**

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Supervisor</th>
<th>Position</th>
<th>Title</th>
</tr>
</thead>
</table>

**Postdoctoral Research Fellow (PhD)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Supervisor</th>
<th>Position</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>O. McArdle.</td>
<td></td>
<td>CT/MRI Fusion Significantly Reduces the Risk of Geographic Miss During Radiotherapeutic Ovarian Ablation.</td>
</tr>
</tbody>
</table>

**Other**

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Supervisor</th>
<th>Position</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>G. Lee.</td>
<td>Optimization of Target Volume Delineation in Women with Locally Advanced Breast Cancer Receiving Neoadjuvant Radiotherapy.</td>
<td>Awards: George Reason Memorial Award, 2010 AGC CAMRT Exhibit Competition. This award is presented for the most outstanding technical or scientific exhibit on procedures in radiography, radiation therapy, or nuclear medicine.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Supervisor</th>
<th>Position</th>
<th>Title</th>
</tr>
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<tr>
<th>Year</th>
<th>Primary Supervisor</th>
<th>Position</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>G. Lee.</td>
<td>Optimization of Nodal Target Volume Delineation in Breast</td>
<td></td>
</tr>
</tbody>
</table>
Radiotherapy.
Curriculum Vitae

Mary Doherty

A. Date Curriculum Vitae is Prepared: 2016 August 4

B. Biographical Information

Primary Office  Odette Cancer Centre
                 Sunnybrook Hospital
                 2075 Bayview Avenue
                 Toronto, Ontario, Canada
                 M4N 3M5
Telephone       416-480-4834
Fax             416-480-6002
Email           mary.doherty@sunnybrook.ca

1. EDUCATION

Degrees

1981  D.M.R.T. Medical Radiotherapy, Royal Infirmary of Edinburgh, Edinburgh, Scotland, United Kingdom
1977  M.B. Queen’s University of Belfast, Belfast, North Ireland, United Kingdom
1977  B.Ch, Queen’s University of Belfast, Belfast, North Ireland, United Kingdom
1977  B.A.O, Queen’s University of Belfast, Belfast, North Ireland, United Kingdom

Postgraduate, Research and Specialty Training

1986 - 1987  Clinical Fellow, Paediatric Oncology, Toronto-Bayview Regional Cancer Centre, Toronto
1985 - 1986  Clinical Fellow, Head and Neck, Breast, Genitourinary and Lung Cancer, Princess Margaret Hospital, Toronto
1983 - 1984  Senior Registrar, Radiation Oncology Department, Western General Hospital and Royal Infirmary, Edinburgh, Scotland, United Kingdom
1981 - 1983  Establishment Registrar, Radiation Oncology Department, Western General Hospital and Royal Infirmary, Edinburgh, Scotland, United Kingdom
1979 - 1981  Trainee Registrar, Radiation Oncology Department, Western General Hospital and Royal Infirmary, Edinburgh, Scotland, United Kingdom
1978 - 1979  Senior House Officer, Medicine, Royal Infirmary, Perth, Scotland, United Kingdom
1978        House Officer, General Surgery and Urology, Royal Infirmary, Edinburgh, Scotland, United Kingdom
1977 - 1978  House Officer, General Medicine and Toxicology, Royal Infirmary, Edinburgh, Scotland, United Kingdom
Qualifications, Certifications and Licenses

1986  Fellow, F.R.C.P.(C), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Toronto, Ontario, Canada, License / Membership #: 353547
1986  Licentiate, L.M.C.C, Medical Council of Canada, Toronto, Ontario, Canada
1983  Fellow F.R.C.R, Royal College of Radiology, London, England, United Kingdom

2. EMPLOYMENT

Current Appointments

1987 - present  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1987 - present  Staff Radiation Oncologist, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Disease Sites: Breast, Lymphoma, Melanoma

C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


D. Presentations and Special Lectures

Presented and Published Abstracts


Publication Details:


Publication Details:
Acute Toxicity and Quality of Life of Hypofractionated Radiation Therapy for Breast Cancer. Coauthor or Collaborator.

E. Creative Professional Activities

1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2013 Nov 7 ESOR ASKLEPIOS Course. Multidisciplinary Approach to Cancer Imaging. ESOR (European School of Radiology).
CURRICULUM VITAE

Name Dr. Louis L. Fenkell

Business Address Stronach Regional Cancer Centre at Southlake Regional Health Centre
596 Davis Drive, Newmarket, Ontario L3Y 2P9

Business Telephone 905 895 4521 ext. 6595
Business Fax 905 952 2818
Email lfenkell@southlakeregional.org

Last Updated 19 October 2015

EDUCATION

Degrees and College Membership
2009 Fellow of the Royal College of Physicians and Surgeons of Canada (FRCPC) - Radiation Oncology
2006 Licentiate of the Medical Council of Canada
2000 B.Sc.

Postgraduate Radiation Oncology Education
2005 – 2009 Resident, Department of Radiation Oncology
University of Toronto, Toronto, Ontario

Postgraduate Surgical Education
2004 – 2005 Resident, Department of General Surgery
University of Toronto, Toronto, Ontario

Medical Education
2000 – 2004 Doctor of Medicine
Queen’s University, Kingston, Ontario

Undergraduate Education
1996 – 2000 Bachelor of Science
McGill University, Montreal, Quebec

Professional Affiliations
• Canadian Association of Radiation Oncologists
• American Society for Radiation Oncology

Licensures
• College of Physicians and Surgeons of Ontario
CURRENT APPOINTMENTS:

08/2009 - Present  Staff Radiation Oncologist, Stronach Regional Cancer Centre at Southlake Regional Health Centre, Newmarket, Ontario
08/2009 - Present  Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario

Administration and Committee Appointments
3/2012-Present  Stronach Regional Cancer Centre Prostate Cancer Patterns of Care Project, Cancer Care Ontario: Project Co-Lead
2009 - Present  Radiation Oncology Prostate Cancer Champion, Cancer Care Ontario
07/2008 – 06/2009  Resident Representative, Postgraduate Medical Education Committee, University of Toronto
01/2007 – 03/2007  Resident Representative, Radiation Oncology Residency Program, University of Toronto, Admissions Committee
03/2001 – 04/2001  Queen’s University School of Medicine, Kingston, Admissions Committee

SCHOLARSHIPS AND AWARDS

1996/97/99  St. Michael’s Hospital Summer Student Scholarship

1999  JW McConnell Award, McGill University – awarded to students ranking in the top 5% of their faculty.

1999  Dorothy Osborne Xanthaky Scholarship, McGill University – awarded on the basis of distinguished academic standing.


1998-2000  Dean’s Honour List, McGill University.

2002  Ivan Smith Memorial Scholarship in Oncology, Cancer Care Ontario.

2002  Murphy Memorial Scholarship, Queen’s University – awarded for the highest overall standing at the end of the first medical year.

2002  Sylvanus Joy Scholarship, Queen’s University – awarded for the highest standing in Pharmacology.

2002  Isaac Cohen Scholarship, Queen’s University – awarded for the highest standing in Microbiology and Immunology.

2002/03  Franklin and Helene Bracken Scholarship in Medicine, Queen’s University – awarded on the basis of academic excellence.

2002/03/04  Edgar Forrester Scholarship, Queen’s University – awarded for the highest overall standing in each year of medical studies.
2003  Sir John C. Schultz Memorial Scholarship, Queen’s University – awarded for the highest overall standing in the second and third medical years.

2003  Victor Lyall Goodwill Memorial Scholarship in Internal Medicine, Queen’s University – awarded at the end of the third medical year for the highest standing in Internal Medicine.

2003  Thomas Gibson Scholarship, Queen’s University – awarded for the highest overall standing in Pharmacology.

2003  Stanley F. Leavine Scholarship, Queen’s University – awarded for the highest standing in Pathology.

2003  MDS Prize in Laboratory Medicine, Queen’s University – awarded for the highest aggregate standing in Pathology and Microbiology and Immunology.

2003  Rattray Scholarship in Special Pathology, Queen’s University – awarded for the highest standing in the evaluation of Special Pathology.

2003  Canadian Association for Ileitis and Colitis Book Prize, Queen’s University – awarded for the highest standing in Gastroenterology.

2004  W.W. Near and Susan Near Prize, Queen’s University – awarded for the highest overall standing throughout four years of medical studies.

2004  Dean Fowler Prize, Queen’s University – awarded for the highest standing in the final year of medical studies.

2004  University Medal in Surgery, Queen’s University – awarded for the highest overall standing in Surgery.

2004  Professor’s Prize in Surgery, Queen’s University – awarded for the highest standing in surgical subjects in the final year of medical studies.

2004  Austin-Roberts Award, Queen’s University – awarded in the final year to the Medalist in Surgery.

2004  Hannah Washburn Polson Prize, Queen’s University – awarded for the highest overall standing in the final year in Medicine, Surgery, and Obstetrics.

2008  PSI Resident Research Award, University of Toronto – awarded for excellence for papers written by residents on clinically related subjects.

**CLINICAL TRIALS**

2010-present  A Randomized Trial of a Shorter Radiation Fractionation Schedule for the Treatment of Localized Prostate Cancer (PROFIT)
Sponsor: Ontario Clinical Oncology Group (OCOG)
Principal Investigators:  Catton C, Lukka H
Local Investigator (Stronach Regional Cancer Centre):  Fenkell, L
REB # 280-2011 (SRHC)
2011-present Survey of Anti-cancer and non Anti-cancer Drug cost and Adherence: Multi-centre Study between UHN, St Michaels Hospital, and SRHC
   Principal Investigator: Kassam, Z
   REB # 0011-1112 (SRHC)

2011-present Patient Preferences for Completing Epidemiology Questionnaires Incorporated into Cancer Clinical Trials
   (Collaboration between UHN, St Michaels Hospital, and SRHC)
   Principal Investigator: Kassam, Z
   REB # 0022-1213 (SRHC)

2012-present The Influence of Social Determinants of Health, Physical Activity, and Supplement Use on Smoking Cessation and Recidivism in Cancer Patients (Collaboration between UHN and SRHC)
   Principal Investigator: Kassam, Z
   REB # 0022-1213 (SRHC)

2013-present Ontario Health Study
   Principal Investigator: Kassam, Z
   REB # 0039-1314 (SRHC)

2013-present Complementary and Alternate Medicine for Patients undergoing treatment at SRCC
   Principal Investigator: Kassam, Z
   REB # 0018-1314 (SRHC)

2014-present Patient Preferences for Research Access to Administrative Data In Ontario
   Principal Investigator: Kassam, Z
   REB # 0020-1415 (SRHC)

2014-present Prospective Evaluation and Data mining to predict and minimize Individual Clinical Toxicity in Breast cancer radiotherapy (PREDICT – Bre)
   Principal Investigator: Ruschin M
   Local Principal Investigator: Fenkell L
   REB # 0012-1415 (SRHC)

2015-present A Multicentre Randomized Controlled Clinical Trial for the Reduction of Acute Skin Reaction in Adjuvant Breast Radiation in Large Breasted Women using a Prone Technique
   Principal Investigators: Vesprini D
   Local Principal Investigators: Fenkell L and Comsa D
   REB # 0005-1516 (SRHC)
PUBLICATIONS

Peer-Reviewed Publications


Published Abstracts


PRESENTATIONS:

Peer Reviewed Abstracts (Podium Presentations at Scientific Meetings)

Study involving Treatment Planning and Assessment of Patients Receiving Palliative Radiotherapy for Bone Metastases. RTi3 2014

Peer Reviewed Abstracts (Poster Presentations at Scientific Meetings)


Curriculum Vitae

Marisa Finlay

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

1. EDUCATION

Degrees
2000 MD, Dept of Medicine, Queen’s University at Kingston, Kingston, Ontario

Postgraduate, Research and Specialty Training
2006 May Resident, Radiation Oncology, University of Toronto, Toronto, Ontario

Qualifications, Certifications and Licenses
2006 May Fellow (FRCPSC), Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2007 Jun 1 - present Staff Radiation Oncologist, Credit Valley Hospital
Lecturer (Adjunct), Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2004 Best Oral Presentation, Canadian Association of Radiation Oncologists. (Distinction)

PROVINCIAL / REGIONAL
Received
1997 Summer Medical Student Scholarship, Heart and Stroke Foundation of Ontario. (Distinction)
LOCAL

Received

2005  Chief Resident, Radiation Oncology, University of Toronto. (Distinction)
1996 - 1997 Award of Merit, Aesculapian Society. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Therapeutic Radiology and Oncology

Administrative Activities

NATIONAL

Royal College of Physicians and Surgeons of Canada

2006  Member, Scholars Advisory Committee
2005  Member, Maintenance of Certification/CanMEDS Working Group for Sections 4 & 6

LOCAL

Other Organizations

Member, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology
Member, Education Awards Committee, Faculty of Medicine, Dept of Radiation Oncology
Member, CME Committee, Faculty of Medicine, Dept of Radiation Oncology

Credit Valley Hospital

Leader, Lung Cancer Team
Radiation Oncologist Lead, Palliative Group
Member, Peel Radiation Oncologists

C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


D. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


2. NATIONAL

Presented Abstracts


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts

Other Lectures and Presentations


2009 The Sun, Superhero or Villain. Jennifer Harper’s Grade 1 Class, Upper Canada College (UCC). Toronto.


2007 Long Term Follow-up of the Cancer Patient. Regional Oncology Day. Mississauga.

4. LOCAL

Presented Abstracts


Other Lectures and Presentations

2008 Grays and Anatomy; What is Radiation and why does it work? Credit Valley Hospital, Nursing Lunch and Learn. Mississauga.
Curriculum Vitae

Anthony William Fyles

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
Department of Radiation Oncology
610 University Avenue, Room 5-984
Toronto, Ontario, Canada
M5G 2M9

Telephone  (416) 946-6522
Email  anthony.fyles@rmp.uhn.on.ca

1. EDUCATION

Degrees
1975 - 1979 MD, University of Toronto

Postgraduate, Research and Specialty Training
1987 Jan - 1987 Sep Clinical Fellow, Department of Radiotherapy and Oncology, The Royal Marsden Hospital, Surrey, United Kingdom
1986 Jul - 1986 Dec Clinical Assistant Fellow, Princess Margaret Hospital, Toronto, Ontario
1983 - 1986 Resident, Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
1980 - 1981 Resident, Internal Medicine, Winnipeg Health Sciences Centre, Manitoba
1979 - 1980 Straight Internship in Medicine, Winnipeg Health Sciences Centre, Manitoba

Qualifications, Certifications and Licenses
1986 Diplomate, American Board of Radiology
1986 Fellow, Royal College of Physicians, Canada
1980 Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2015 Jul - present Consulting Physician, St. Michael's Hospital, Canada
2004 - present Professor, Obstetrics and Gynaecology, University of Toronto (cross appointment)
2004 - present Professor, Radiation Oncology, University of Toronto
1987 - present Staff Physician, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
Previous Appointments

HOSPITAL
2006 - 2014  Breast Site Group Leader, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
1997 - 2000  Breast Site Group Leader, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario
1996 - 2008  Gynecologic Cancer Site Group Leader, Princess Margaret Hospital, Toronto, Ontario
1992 - 1997  Gynecologic Cancer Site Group Leader, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario

UNIVERSITY
2002 - 2013  Associate Member, Institute of Medical Science, Graduate Faculty, University of Toronto
2002 - 2009  Director of Research, Radiation Oncology, University of Toronto

UNIVERSITY - CROSS APPOINTMENT
1998 - 2003  Associate Professor, Obstetrics and Gynaecology, University of Toronto
1994 - 1998  Assistant Professor, Obstetrics and Gynaecology, University of Toronto

UNIVERSITY - RANK
1998 - 2003  Associate Professor, Radiation Oncology, University of Toronto
1991 - 1998  Assistant Professor, Radiation Oncology, University of Toronto
1988 - 1990  Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2013 Nov  Annual Meeting Best of ASTRO Award, American Society for Radiation Oncology, San Diego, United States. (Research Award)


2004  Excellence in Design Award, The Radiological Society of North America. (Research Award)
   With Dr. R. Dinniwell, Dr. M. Haider, Dr. P. Chan, Dr. M. Milosevic, Dr. D. Jaffray. RSNA Scientific Assembly and Annual Meeting.

NATIONAL
Received

2003  Best Abstract, Canadian Association of Radiation Oncologists. (Research Award)
   In the category of Clinical and Population-based Oncology, CARO Annual Scientific Meeting, Montreal.

2001  Best Abstract, Canadian Association of Radiation Oncologists. (Research Award)
In the category of Basic Science & Applied Technology Research, CARO Annual Scientific Meeting, Quebec City.

1986 - 1987
Gordon Richards Fellowship, Canadian Cancer Society. (Research Award)

PROVINCIAL / REGIONAL
Received

2004 - present
Clinician-Scientist Award, Ontario Association of Radiation Oncologists. (Research Award)

2013
Innovation Award, Cancer Quality Council of Ontario (CQCO). (Research Award)
“QuickStart Program: Same-Day Radiotherapy for Early Stage Breast Cancer.” Dr. Anthony Fyles (Radiation Oncology Breast Site Leader), Dr. Tom Purdie (Clinical Physicist), Grace Lee (Clinical Specialist Radiation Therapist).

LOCAL
Received

2014 Jul - 2015 Jun
Postgraduate Research Supervision Award, University of Toronto - Department of Radiation Oncology. (Research Award)

2004
Research Leadership Award, University of Toronto. (Distinction)
Dept of Radiation Oncology.

Teaching and Education Awards
LOCAL
Received

2007
Postgraduate Research Supervision Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

Student/Trainee Awards
LOCAL
Received

2011
Whiteside Award, Awardee Name: Dr. Karen Lim. University of Toronto
From the Institute of Medical Science to a graduating IMS Master of Science student for outstanding scholarly contribution.

2008
Whiteside Award, Awardee Name: Dr. Barbara Bachtiary. University of Toronto
From the Institute of Medical Science to a graduating IMS Master of Science student for outstanding scholarly contribution.

1998
R. S. Bush Award for Academic Excellence in Research by a Fellow, Awardee Name: Dr. Katrien De Jaeger. University of Toronto
“Does hypoxia predict for metastatic potential?”.

1997
R. S. Bush Award for Academic Excellence in Research by a Fellow, Awardee Name: Dr. R. Wong. University of Toronto
“Interstitial fluid pressure measurements in lymph node metastases from head and neck cancers”.

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CONFIDENTIAL DOCUMENT
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Brachytherapy Society
American Society of Clinical Oncology
American Society of Therapeutic Radiology and Oncology
Canadian Association of Radiation Oncologists
Canadian Medical Association
European Society of Therapeutic Radiology and Oncology
International Gynecologic Cancer Society
Ontario Medical Association
Radiation Research Society
Royal College of Physicians and Surgeons of Canada

Administrative Activities

INTERNATIONAL

American Board of Radiology
2001 - 2003 Examiner, Radiation Oncology Board

International Union Against Cancer (UICC)
2002 - present Member, Expert Advisory Panel on Gynecologic Tumours

National Cancer Institute
2007 - 2014 Member, Gynecologic Cancer Steering Committee, Cervical Cancer Task Force

National Institutes of Health
2009 Reviewer, NCI P01 Clinical Studies Special Emphasis Panel
2000 Reviewer, Radiation Study Section

NRG Oncology
2013 - present Member, Cervix Committee

Radiation Therapy Oncology Group (RTOG)
2008 - 2014 Member, Gyn Working Group Executive

NATIONAL

Alberta Cancer Board
2006 - 2008 Member, Breast Cancer Review Committee

Canadian Association of Radiation Oncologists
2005 Member, Translational Radiobiology Advisory Committee

National Cancer Institute of Canada/Clinical Trials Group
2008 - present Member, Gynecologic Site Group Executive Committee
2008 - present Representative, GCIG Site Group
1991 - present Member, Gynecologic Cancer Site Committee
2008 - 2014 Co-Chair, Cervix Cancer Working Group
2006 - 2008 Member, Grant Review Panel I, Clinical Trials
2001 - 2007 Member, Cervix Cancer Working Group
2001 - 2007 Member, Investigational New Drug Committee
2001 - 2005 Member, Grant Review Panel E, Biophysics, Imaging and Radiobiology
1998 - 2006 Member, Endometrial Cancer Working Group

Society of Gynecologic Oncology of Canada
2009 - 2011 Member, Executive Council

PROVINCIAL / REGIONAL
Cancer Care Ontario
2016 - present Member, Endometrial Cancer Pathways Group, Ontario, Canada.
1996 - present Member, Gynecologic Cancer Provincial Practice Guidelines Committee
2004 Member, Ovarian Cancer Surgery Indicator Panel
1999 Member, Translational Research Committee

Ontario Association of Radiation Oncology
2005 Representative, PMH Executive Committee
2001 Member, Academic Funding Committee

LOCAL
Princess Margaret Hospital
2016 Mar - present Member, External Bean Committee, Toronto, Ontario, Canada.
2016 - present Chair, RMP Cancer Research Program, Ontario, Canada.
2015 - present Member, Research Ethics Board, Ontario, Canada.
2015 - present Lead, Global Health and Capacity Building, Ontario, Canada.
2007 - present Member, Surgical Services Committee
2005 - 2010 Chair, Radiation Medicine Program Quality Committee

University of Toronto
2001 - present Member, Academic Promotions Committee, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development
2002 - 2009 Member, EIRR Executive Committee, Faculty of Medicine, Dept of Radiation Oncology
2002 - 2009 Chair, Research Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology
2001 - 2015 Member, Fellowship Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1997 - 2009 Member, Postgraduate Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
Subspecialty Program in Gynecologic Oncology.
1996 - 2002 Member, Research Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology
Peer Review Activities

GRANT REVIEWS

External Grant Reviewer

2005 National Cancer Institute, CTEP Concept Reviews
Reviewer
2005 Cancer Research UK
2004 Alberta Cancer Board
2004 British Columbia Cancer Agency
2004 Canadian Institutes of Health Research

MANUSCRIPT REVIEWS

Reviewer

BMC Cancer
Clinical Cancer Research
Gynecologic Oncology
International Journal of Radiation Oncology Biology and Physics
Journal of Clinical Oncology
Journal of the National Cancer Institute
New England Journal of Medicine
Radiation Research
Radiotherapy Oncology

Associate Editor

2010 BMC Cancer

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2013 Co-Principal Investigator. OCOG LUMINA Trial. Ontario Clinical Oncology Group. [Clinical Trials]

2013 Co-Principal Investigator. NRG Oncology OUTBACK Trial. NRG Oncology. [Clinical Trials]

To determine if simple hysterectomy is non-inferior to radical hysterectomy with respect to pelvic relapse-free survival in patients with previously untreated, low-risk, early-stage cervical cancer.

2012 Jul - 2013 Jun

Co-Principal Investigator. Optimizing MRI-guided brachytherapy in cervical cancer: target delineation, accessibility, and clinical efficacy. RSNA. RSNA Research Fellowship Program. PI: Kathy Han, M. Milosevic, A. Fyles. 75,000. [Research Fellowships]

2012 - 2015


2012

Co-Principal Investigator. NCIC CX.5. National Cancer Institute of Canada (NCIC). [Clinical Trials]

2011 - 2016


Goals: To determine if APBI using 3D CRT is as effective as whole breast irradiation following breast conserving surgery in women with ductal carcinoma in situ or invasive breast cancer with axillary lymph nodes.

2011 - 2014


The goal of this project is to identify a micro-RNA signature predictive of outcome for cervix cancer.

2011


This project will explore the importance of Hedgehog signaling in cervical cancer, and the potential role of Hedgehog inhibition as a modulator of radiation response.

2010 - 2013

Principal Site Investigator. Vulvar Carcinoma: A Population Based Analysis. Canadian Cancer Society. PI: Gien, Lilian. Collaborator(s): Barbera, Lisa; Elit, Laurie; Covens, Al; Rakovitch, Eileen; Thomas, Gillian; Khalifa, Mahmoud, Fyles A. 352,243 CAD. [Grants]

2010

Co-Principal Investigator. RTOG 0918 Phase II IMRT for Cervix Cancer. National Cancer Institute of Canada/Clinical Trials Group. [Clinical Trials]

2010

Study Co-Chair. OCOG PETLACE PET Staging in Cervical Cancer. Ontario Clinical Oncology Group. [Clinical Trials]

2009 - 2015


200301STP Competition.

Co-Investigator. Early Clinical Trials of New Anti-Cancer Agents with Phase I Emphasis (U01). National Cancer Institute (USA). U01 CA132123-01. PI: Siu, Lillian. Collaborator(s): Fyles A (investigator) et.al. 3,141,916 USD. [Clinical Trials]

NCIC Co-Chair. EN7 Concurrent Chemo-RT in Endo Ca. National Cancer Institute of Canada (NCIC). [Clinical Trials]

PMH Principal Investigator. TARGIT IORT in Early Breast Cancer. [Clinical Trials]

PMH Principal Investigator. RTOG 0418 Phase 2 IMRT Post-operative Trial in Gynecologic Cancer. [Clinical Trials]


The objective of this award is to investigate novel strategies for using high-precision, image-guided radiotherapy to treat women with cervix cancer, through a combination of anatomic and biologic tumor targeting. $250,000 annually for 3 years.


200301STP Competition, $300,000/yr.


Principal Investigator. A Feasibility Study of the Use of Magnetic Resonance Imaging in the Analyses of Treatment Volume, Biologic, and Dose Homogeneity Parameters of Cervical Cancers. [Clinical Trials]

Principal Investigator. Optimizing Conformal Radiotherapy Boost for Cervical Cancer and Dose Homogeneity of Cervical Brachytherapy. [Clinical Trials]

Co-Principal Investigator. IND 148. A Phase II Study of OSI-774 In Patients With Locally Advanced And/Or Metastatic Carcinoma Of The Endometrium. NCIC Clinical Trials Group. [Clinical Trials]

Co-Principal Investigator. A Phase I-II trial of the Cyclooxygenase-2 inhibitor Celecoxib in patients with locally advanced carcinoma of the cervix. [Clinical Trials]
2000 - 2004 **Principal Investigator.** Clinical and molecular studies of the tumour suppressor gene PTEN in endometrial cancer. [Clinical Trials]


1999 - 2004 **Principal Investigator.** IND 126 Phase II Study of Letrozole in Patients with Endometrial Cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials]

1999 - 2001 **Principal Investigator.** A Phase I trial of the hypoxia detection agent EF5 (NSC 684681) in patients with cervix, breast and prostate carcinomas, and high grade soft tissue sarcomas. [Clinical Trials]

1999 - 2001 **Co-Investigator.** A Phase I-II trial of prolonged administration of Lovastatin in patients with recurrent or metastatic squamous cell carcinoma of the head and neck (HNSCC) or of the cervix. [Clinical Trials]


1996 - 2004 **Member, Trial Committee.** EN5 Phase III randomized trial comparing TAH BSO versus TAH BSO plus adjuvant pelvic irradiation in Stage I intermediate risk carcinoma of the endometrium. National Cancer Institute of Canada (NCIC). [Clinical Trials]


1995 - 2003 **PMH Principal Investigator.** EN4 Phase III randomized study of pelvic radiation therapy as
adjuvant treatment in uterine sarcomas. National Cancer Institute of Canada Clinical Trials Group. [Clinical Trials]

1995

Principal Investigator. Predictive assays in cervix cancer: assessment of hypoxia, interstitial fluid pressure and GSH levels. Princess Margaret Hospital Foundation (The). Collaborator(s): Milosevic M, Hedley D, Hill R. 45,460 CAD. [Grants]

1993 - 2002

Principal Investigator. A randomized controlled trial to assess the need for breast radiation in addition to Tamoxifen in women 50 years of age and over with node negative breast cancer. Ontario Ministry of Health and Long-Term Care. Collaborator(s): Manchul L, McCreary D, and Trudeau M. 475,356 CAD. [Clinical Trials]

NON-PEER-REVIEWED GRANTS

FUNDED

2012 Jul - 2014 Jun


To prognosticate local relapse risk and predict response to RT as a function of breast cancer molecular subtypes.

2002 - 2003

Principal Investigator. Hypoxia-Induced Gene Expression and its Correlation to Human Papillomavirus. GlaxoSmithKline. 69,000 CAD. [Industrial Grants]

1992

Principal Investigator. A phase II trial to assess the effect of recombinant human granulocyte colony stimulating factor (R-METHUG-CSF) on neutropenia induced by whole abdominal radiation therapy. Amgen Canada Inc (Mississauga, ON). Collaborator(s): Manchul L. 60,000 CAD. [Clinical Trials]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Anthony William FYLES


64. Lunt SJ, **Fyles A**, Hill RP, Milosevic M. Interstitial fluid pressure in tumors: Therapeutic barrier and biomarker of angiogenesis. Future Oncol. 2008 Dec;4(6):793-802 (Trainee publication). **Coauthor or Collaborator**.


66. Herrera FG, Vidal, L, Oza M, Milosevic M, **Fyles A**. Molecular targeted agents combined with chemo-radiation in the treatment of locally advanced cervix cancer. Rev Recent Clin Trials. 2008 May;3(2):111-120 (Trainee publication, Dr. Fernanda Herrera). **Senior Responsible Author**.


73. Iakovlev V, Pintilie M, Morrison A, **Fyles A**, Hill R, and Hedley D. Effect of distributional heterogeneity on the analysis of tumor hypoxia based on carbonic anhydrase IX. Lab Invest. 2007 Dec;87(12):1206-17. **Coauthor or Collaborator**.


75. de Groot JM, Mah K, **Fyles A**, Winton S, Greenwood S, DePetrillo D, Devins GM. Do single and partnered women with gynecologic cancer differ in types and intensities of illness- and treatment-related psychosocial concerns? A pilot study. J Psychosom Res. 2007 Sep;63(3):241-245. **Coauthor or Collaborator**.
Anthony William FYLES


123. Wong CS, Tsang RW, Cummings BJ, **Fyles AW**, Couture J, Brierley JD, Pintilie M. Proliferation parameters in epidermoid carcinomas of the anal canal. Radiother Oncol. 2000;56:349-53. **Coauthor or Collaborator**.


130. Irwin C, Levin W, **Fyles A**, Pintilie M, Manchul L, Kirkbride P. The role of adjuvant radiotherapy in carcinoma of the endometrium – results in 550 patients with pathologic stage I disease. Gyn Oncol. 1998;70(2):247-254 (Trainee publication, Dr. C. Irwin). **Senior Responsible Author**.


Comment, Letters to Editor


Conferences


Journal Articles, Multicenter Study, Randomized Controlled Trial


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Anthony William FYLES


**Commentaries**


**Multimedia**


**3. SUBMITTED PUBLICATIONS**

**Journal Articles**


**E. Presentations and Special Lectures**

**1. INTERNATIONAL**

**Invited Lectures and Presentations**


2013 Nov | **Invited Lecturer**. Cardiac Sparing for Breast Patients. Kuwait Cancer Control Center. Kuwait, Kuwait. Presenter(s): Dr. **Anthony Fyles**.


2013 Sep  Invited Speaker. Biologic Subtyping in Early-Stage Disease. ASCO Breast Cancer Symposium. San Francisco, California, United States. Presenter(s): Dr. Anthony Fyles.


2012 Nov  Invited Lecturer. Role of locoregional irradiation in metastatic breast cancer cases. Kuwait Cancer Control Centre. Kuwait, Kuwait. Presenter(s): Dr. Anthony Fyles.


2010 Nov 3 "Variability in Clinical Target Volume Delineation for Intensity Modulated Radiotherapy in Three Challenging Cervix Cancer Scenarios". Scientific Session Presentation at the 52nd Annual ASTRO Meeting. San Diego, California.


Manchester, United Kingdom.


2006 Nov 6 A Randomized Trial of Tamoxifen With or Without Radiation in Women Over 50 Years of Age With T1/2 N0 Breast Cancer. American Society for Therapeutic Radiology and Oncology 48th Annual Meeting.

2006 Oct 16 A Randomized Trial of Tamoxifen With or Without Radiation in Women Over 50 Years of Age With T1/2 N0 Breast Cancer. 11th Biennial International Gynecologic Cancer Society Meeting. Santa Monica, California.

2006 Mar 14 Long-Term Performance Of Hypoxia And IFP as Prognostic Factors In Cervix Cancer. International Conference on Translational Research. Lugano, Switzerland.


2006 Jan 18 Early Breast Cancer. ASTRO Teaching Course Current Standards and Future Directions in Radiation Oncology. Manila, Philippines.

2006 Jan 18 Gynecological Cancer, Cases and Issues. ASTRO Teaching Course Current Standards and Future Directions in Radiation Oncology. Manila, Philippines.

2006 Jan 17 Uterine Cancer. ASTRO Teaching Course Current Standards and Future Directions in Radiation Oncology. Manila, Philippines.


Presented Abstracts

2012 Nov  


2010 Oct 23  

2010 Oct 23  

2007 Dec 13  

2007 Nov  

2007 Nov  

2007 Oct  

2007 Oct  

2007 Jul  

2007 Jun  

2006 Mar 14  
Long-Term Performance Of Hypoxia And IFP as Prognostic Factors In Cervix Cancer. International Conference on Translational Research. Lugano, Switzerland. Fyles A.

2005 Nov  
Radiotherapy treatment Planning Atlas forIntensity Modulated Radiotherapy Treatment Planning in Genitourinary and Gynecological Malignancies: Three-dimensional Renderings of Nodal Topography and

2005 Nov

2003 Aug

2003 Aug

2003 Aug
A randomized trial of Tamoxifen with or without breast radiation in women over 50 years of age with T1/2N0 disease. 12th International Congress of Radiation Research Meeting. Brisbane, Australia. Fyles A.

2003

2003

2003

2002 May

2002

2001 May

2001 Apr

2000 Oct
Tumor Oxygenation is an independent predictor of radiation treatment outcome in node negative patients with cervix cancer. 11th International Conference of Tumor Physiology and Cancer Treatment. Banff, Alberta. Fyles A, Milosevic M, Pitsong G, Pintilie M, Syed A, Manchul L, Levin W, Hill RP.

1999 Jul
The relationship between IFP, oxygen tension, and survival following radiation in cervix cancer. 11th International Congress of Radiation Research. Dublin, Ireland. Milosevic M, Fyles A, Hill R.

1999
The influence of tumor-to-tumor heterogeneity on the relationship between interstitial fluid pressure (IFP) and blood flow (poster). International Congress of Radiation Research. Belfast, United Kingdom. Milosevic

Anthony William FYLES
Anthony William FYLES

MF, Kavanagh M-C, **Fyles AW**, Hill RP.


**1997 May** Proliferation assays in cancer of the uterine cervix. Radiation Research Society. Providence, Rhode Island. Tsang RW, **Fyles AW**, Wong CS, Chapman W, Pintilie M.


**1992** Treatment time and pelvic control in cervix cancer - analysis of treatment interruptions. Radiation


1990 The effect of treatment time on local control in cervix cancer treated by radical radiation therapy. European Society of Therapeutic Radiology and Oncology Annual Meeting. Montecatini, Italy. Fyles A, Barton M, Gadalla F, Keane T.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

Anthony William FYLES

Publication Details:

2014 Sep  **Invited Speaker**. Vaginal Dose and Patient Reported Sexual Adjustment with MR-Guided Brachytherapy for Cervical Cancer. ASTRO Annual Meeting. California, United States.

Publication Details:


Publication Details:


Publication Details:

2014 Sep  **Invited Speaker**. A Phase 1/2 Study of the Angiogenesis Inhibitor Sorafenib in Cervical Cancer Patients Treated With Radiation Therapy. ASTRO Annual Meeting. California, United States.

Publication Details:


Publication Details:

2014 Sep  **Invited Speaker**. Predictors of breast radiotherapy plan modifications: quality assurance rounds in a large cancer centre. ASTRO Annual Meeting. California, United States.

Publication Details:
2. NATIONAL

Invited Lectures and Presentations

2013 Oct  

2009 May 1  

2008 Sep  

2007 Oct 24  

2007 Oct 13  

2006 Apr 28  

2005 Sep 23  
Can We Avoid Breast Radiotherapy in Some Patients? Western Canada Breast Cancer Consensus Conference. Banff, Alberta.

2005 Apr 1  
IND.148 results. NCIC Clinical Trials Group Meeting. Toronto, Ontario.

2004 Oct 16  
Phase II Study of OSI-774 (NSC 718781) in patients with locally advanced and/or metastatic carcinoma of the endometrium-IND.148. NCIC Clinical Trials Group Annual Fall Meeting. Toronto, Ontario.

1997 Sep  

Presented Abstracts

2013 Aug  

2013 Aug  

2007 Oct  

1999 Jun  

1996 Sep  

1989  

1985 Jun  
Radiation therapy in the management of thymomas. CARO Annual Meeting. Toronto, Ontario. Fyles AW, Simpson WJ.
Presented and Published Abstracts

2015 Sep  

*Publication Details:*
*Coauthor or Collaborator.*

2015 Sep  

*Publication Details:*
*Coauthor or Collaborator.*

2015 Sep  
**Invited Speaker.** The role of PET-CT in treatment decision making for women with locally advanced cervical cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. British Columbia, Canada.

*Publication Details:*
*Principal Author.*

2015 Sep  
**Invited Speaker.** Metformin use is associated with lower cervical cancer-specific mortality. Canadian Association of Radiation Oncology (CARO) Annual Meeting. British Columbia, Canada.

*Publication Details:*
*Principal Author.*

2015 Sep  
**Invited Speaker.** Measurement of tumour hypoxia in patients with locally advanced cervical cancer using positron emission tomography (PET) with 18F-Fluorozomycin Arabinoside (18F-FAZA). Canadian Association of Radiation Oncology (CARO) Annual Meeting. British Columbia, Canada.

*Publication Details:*
*Coauthor or Collaborator.*

2015 Sep  

*Publication Details:*
*Coauthor or Collaborator.*

2014 Aug  
**Invited Speaker.** Vaginal dose and patient reported sexual adjustment with MR-guided brachytherapy for

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

**Media Appearances**


**3. PROVINCIAL / REGIONAL**

**Invited Lectures and Presentations**


2011 Sep  Ontario Ride to Conquer Cancer Rider Recognition Event.

2011 Mar  Clinical disease management for breast patients, Contouring and clinical disease challenges. Sudbury Regional Hospital Site Visit to PMH.


4. LOCAL

Invited Lectures and Presentations


2005 Oct 21  **Moderator.** Ovarian Cancer Symposium, Princess Margaret Hospital. Toronto, Ontario.

2005 Sep 16 Intra vs. Intertreatment Movement in Gynae Cancer. IGRT Review Sessions, Princess Margaret Hospital. Toronto, Ontario.


1999 Jun Combined chemotherapy and radiation therapy: gynaecologic cancer. Future Directions in Radiation Oncology, University of Toronto. (Continuing Education).

1997 May Workshop: Treatment decisions in early stage ovarian cancer. Ovarian cancer: Prevention, genetics and treatment challenges, University of Toronto CME. (Continuing Education).
1996 Jan  The role of local regional radiation after surgery for primary breast cancer. The Toronto Hospital Breast Rounds.


1993 Sep 30  Radiation Through the Looking Glass. Spectrum Breast Cancer Symposium, University of Toronto CME. (Continuing Education).


1992  Treatment Time in Cervix Cancer. Princess Margaret Hospital Refresher Course in Radiation Oncology, University of Toronto CME. (Continuing Education).

1990  Controversies in Ovarian Cancer. Princess Margaret Hospital Post-Graduate Lecture Series.


1988 May  Controversies in Borderline Ovarian Cancer. Annual Review Course in Obstetrics and Gynecology, University of Toronto CME. (Continuing Education).

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2004 Jan - present  Frontiers in Radiation Medicine Research, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Dr. J. Siewerdsen and myself had major responsibility in course design and teaching.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


2003 - 2005  Primary Supervisor. MSc. Dr. Barbara Bachtiary. Hypoxia induced gene expression and its correlation to HPV in cervix cancer. Awards: Fellowship in the Research Excellence in Radiation Medicine Program ($50,000); CARO Trainee Travel Award (Annual Scientific Meeting, Halifax, NS - September 2004); Whiteside Award from the Institute of Medical Science for outstanding scholarly contribution to a graduating IMS Master of Science student.
### Postgraduate MD

**2014 Jul - 2015 Jun**  
**Co-Supervisor.** Abdul Dayyat and Julia Skliarenko. *Brachytherapy.*

**2013 - 2014**  
**Co-Supervisor.** Dr. Penny Mackenzie. *Advanced Radiotherapy Techniques for Breast Cancer to Minimize Cardiovascular Risk.*

**2013 - 2014**  
**Co-Supervisor.** Dr. Jenn Croke. *Radiotherapy QA.*

**2012 Jul - 2013 Jun**  
**Co-Supervisor.** Dr. Kathy Han. *MR-guided Brachytherapy.*

**2012 Jul - 2013 Jun**  
**Co-Supervisor.** Dr. Eric Leung. *Tumor Microenvironment.*

**2011 Jul - 2012 Jun**  
**Co-Supervisor.** Dr. Julie Cuartero. *Elective PA Nodal Radiation in Cervix Cancer.*

**2011 Jul - 2012 Jun**  
**Co-Supervisor.** Dr. Mei Yap. *MR-guided brachytherapy and HPV in Vulvar Cancer.*

**2010 - 2011**  
**Co-Supervisor.** Dr. Lorraine Walsh. *MR-guided Brachytherapy for Cervix Cancer; Concomitant Hypofractionated Breast Boost. Awards: Chairs Award for Academic Excellence in Research by a postgraduate trainee.*

**2010 - 2011**  
**Co-Supervisor.** Dr. Marita Morgia. *VMAT for Breast Boost; MR-guided Brachytherapy.*

**2009 - 2010**  
**Co-Supervisor.** Dr. Audrey Li. *MR-guided Brachytherapy for Cervix Cancer.*

**2009 - 2010**  
**Primary Supervisor.** Dr. Fleur Huang. *IMRT Boost for Gynecologic cancer; Cyp2D6 and Tamoxifen Metabolism.*

**2009 - 2010**  
**Primary Supervisor.** Dr. Tim Wang. *Active Breath Hold to Reduce Cardiac Dose from Breast Radiation; CT Breast Density and Breast Cancer Risk. Awards: Best Poster Prize PMH Conference.*

**2008 - 2009**  
**Primary Supervisor.** Dr. Amy Teh. *Phase II Trial of Concurrent Boost Breast Radiotherapy; CT Breast Density and Breast Cancer Risk. Awards: Weekend to End Breast Cancer Research Fellowship ($50,000).*

**2007 - 2008**  
**Co-Supervisor.** Dr. Debbie Williamson. *Comparison of adjuvant radiotherapy schedules following breast conserving surgery for ductal carcinoma in-situ (DCIS). Awards: Astra Zeneca Clinical Scholars Award in recognition of your meritorious proffered paper on translational breast cancer research at San Antonio Breast Cancer Symposium 2008. Collaborator(s): Dr. M. Milosevic.*

**2007 - 2008**  
**Primary Supervisor.** Dr. Debashis Biswas. *CT Breast Density and Breast Cancer Risk.*

**2005 - 2007**  
**Primary Supervisor.** Dr. Fernanda Herrera.

**2002 - 2003**  
**Primary Supervisor.** Dr. Carol McGibney.

**2001 - 2006**  
**Primary Supervisor.** Dr. Philip Chan.

**2000 - 2001**  
**Primary Supervisor.** Dr. Corinne Doll.

**1999 - 2000**  
**Primary Supervisor.** Dr. Graham Pitson.

**1998 - 1999**  
**Co-Supervisor.** Dr. James Wylie. Collaborator(s): Dr. B. O’Sullivan.

**1995 - 1997**  
**Primary Supervisor.** Dr. R. Wong. *Awards: 1997 Awardee of the R.S. Bush Award for Academic Excellence in Research by a Fellow for his paper, "Interstitial fluid pressure measurements in lymph node metastases from head and neck cancers".*

**1994 - 1995**  
**Primary Supervisor.** Dr. A. Sun.

**1994 - 1995**  
**Primary Supervisor.** Dr. E. Rakovitch.

**1993 - 1994**  
**Primary Supervisor.** Dr. C. Irwin.

**1991 - 1992**  
**Primary Supervisor.** Clinical Fellow. Dr. P. Kirkbride.
2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2016 May - present  PhD. Tori Sopik. Supervisor(s): S Narod.


Curriculum Vitae

Meredith Elana Giuliani

A. Date Curriculum Vitae is Prepared: 2016 July 29

B. Biographical Information

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Department of Radiation Oncology
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Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2983
Fax 416-946-6561
Email Meredith.Giuliani@rmp.uhn.on.ca

1. EDUCATION

Degrees
2008 - 2010 MEd, Education, Health Professional Specialization, University of Toronto, Ontario, Canada
2002 - 2007 MBBS, Medicine and Surgery, University of London, London, United Kingdom

Postgraduate, Research and Specialty Training
2012 - 2013 Core Foundations in Education Research Diploma, University of Toronto, Ontario, Canada
2012 Integrated Course in Clinical Epidemiology and Biostatistics, Harvard University, United States
2010 - 2011 Chief Resident, Department of Radiation Oncology, University of Toronto, Ontario, Canada
2009 - 2010 Senior Resident, Odette Cancer Centre, University of Toronto, Ontario, Canada
2007 - 2012 Resident in Radiation Oncology, University of Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2016 Jan - present CaRMS Interview Panel Member, University of Toronto, Ontario, Canada
2013 Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS 2: CORE), Tri-Council Policy Statement, Canada
2010 Clinical Trials Group Certificate in Good Clinical Practice, National Cancer Institute of Canada (NCIC), Canada
2010 Certificate in Protecting Human Research Participants, National Institutes of Health (NIH)

2. EMPLOYMENT

Current Appointments
2016 May - present Medical Director of Cancer Education, Princess Margaret Cancer Center/University Health Network, Toronto, Ontario, Canada
2014 - present  Director of Undergraduate Medical Education, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2014 - present  Associate Director, Postgraduate Medical Education, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2014 - present  Program Director, Personalized Learning Program, Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada
2014 - present  Program Director: UICC-CACA Fellowship Program, Princess Margaret Cancer Centre
2013 - present  Smoking Cessation Champion for Toronto Central South, Cancer Care Ontario, Toronto, Ontario, Canada
2013 - present  Associate Member, ELLICSR, Toronto, Ontario, Canada
2012 - present  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2011 - present  General Member, The Wilson Centre for Research in Education, Ontario, Canada
2016 Jul 1 - 2018 Jun 30  Specialty Committee Region 3 Representative, Adolescent and Young Adult (AYA) Oncology, Ontario, Canada
2014 - 2016  Interim Director, Cancer Education, Princess Margaret Cancer Centre, Toronto, Ontario, Canada

Previous Appointments

RESEARCH
2015 Sep - 2016 May  Course Co-Director, April 4-6 2016, 121 International participants. ESTRO-CARO Teaching Course on Image-guided cervix

OTHER
2013 - 2015  MCC Provincial Leadership Team Radiation Oncology representative, Cancer Care Ontario, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2015 Apr  ESTRO Best Clinical Poster Award, 3rd ESTRO Forum (24-28 April 2015, Barcelona, Spain), Barcelona, Spain. (Distinction)  ESTRO Best Clinical Poster Award for “Predictors and patterns of regional recurrence following lung SBRT: A report from the Elekta Lung Research Group”.
2011 Jun  OICR Fellowship Grant, Ontario Institute for Cancer Research, Waldhaus Flims, Switzerland. (Distinction)  Fellowship grant to attend 13th joint ECCO-AACR-EORTC-ESMO Workshop ‘Methods in Clinical Cancer Research’.

NATIONAL
Received
2016 Mar  Canadian Medical Association (CMA) Award for Young Leaders, Canadian Medical Association (CMA), Ontario, Canada. (Distinction)  This “Award for Young Leaders” goes to those who have demonstrated exemplary dedication, commitment and leadership in one of the following domains: political; clinical;

2014 Eli Hood Award, CAMRT. (Distinction) Team-based clinical simulation in Radiation Medicine: value to attitudes and perceptions of inter-professional collaboration.

2013 CCSRI Junior Investigator travel grant award. (Distinction)

2013 Future Leaders in Oncology Award. (Distinction)

2009 Best Poster Presentation, Canadian Association of Radiation Oncology. (Distinction) Award for Best Poster Presentation by a resident.

2007 Edinburgh EAR Congress Essay Prize, Royal College of Radiologists. (Distinction) For an essay on a topic relevant to clinical oncology.

2007 Student Prize, Royal College of Paediatrics and Child Health. (Distinction)

2006 Cancer Research UK Elective Bursary, Cancer Research UK. (Distinction) National award to one medical student in 2006 to promote research activities in oncology on elective. Total Amount: 1,000 GBP

PROVINCIAL / REGIONAL

Received


2010 Resident Research Prize, 5th Annual Ontario Thoracic Cancer Conference, Ontario, Canada. (Distinction) Awarded for the top abstract submitted by a resident.

2009 Resident Research Prize, 4th Annual Ontario Thoracic Cancer Conference. (Distinction) Awarded for the top abstract submitted by a resident.

LOCAL

Received

2016 Jun Top Clinical Trial Accrual Investigator, Radiation Medicine Program, Princess Margaret Cancer Centre. (Research Award)

2016 Novartis Oncology Young Canadian Investigator Awards (NOYCIA). (Research Award) Abstract: Cancer patients’ interest and preferences of an inpatient smoking cessation program (SCP). Co-supervisor with Geoffrey Liu.

2015 May Top Clinical Trial Accrual Investigator, Radiation Medicine Program, Princess Margaret Cancer Centre. (Research Award) Top Clinical Trial Accrual Investigator for 2014/15 within the Radiation Medicine Program.

2014 Best Academic Half Day Teaching Award, University of Toronto, Department of Radiation Oncology. (Distinction)

2013 Clinical Teaching Award, University of Toronto, Department of Radiation Oncology. (Distinction)

2011 Best poster award, University of Toronto, Department of Radiation Oncology. (Distinction) For annual departmental research day.

2010 Ellen Epstein Rykov Memorial Prize, University of Toronto. (Distinction) For excellence in postgraduate research.

2010 Joseph M. West Family Memorial Fund, University of Toronto. (Distinction)
For excellence in postgraduate research.

2010

**Timeposters Fellowship**, University of Toronto. (Distinction)

For excellence in postgraduate research.

2010

**W.J. Simpson Award**, University of Toronto, Department of Radiation Oncology.

( Distinction)

For Academic Excellence in Research by a Resident.

2009

**Postgraduate Medical Trainee Leadership Award**, University of Toronto. (Distinction)

2007

**Kate Charles Prize**, University of London, St. George’s, United Kingdom. (Distinction, Specialty: Obstetrics and Gynaecology)

For top mark in written examinations and OSCEs.

2007

**Kathleen Valles Prize**, University of London, St. George’s, United Kingdom. (Distinction, Specialty: Renal and Transplantation Medicine)

Awarded based on results of a special examination.

2007

**Reshmi Varma Prize**, University of London, St. George’s, United Kingdom. (Distinction, Specialty: Obstetrics and Gynaecology)

Awarded to top student based on an essay and viva voce examination.

2007

**Sir Theo Crawford Prize**, University of London, St. George’s, United Kingdom. (Distinction, Specialty: Pathology)

Awarded for top performance on written and viva voce examinations.

2006

**Elective prize**, University of London, St. George’s. (Distinction)

Awarded to 4 students in the final year to assist funding of elective. Total Amount: 450 GBP

2004

**William Brown and Devitt-Pendlebury Exhibition**, University of London, St. George’s, United Kingdom. (Distinction)

For outstanding achievement in second year MBBS examinations.

**OTHER**

Received

2006

**Convocation Trust Elective Award.** (Distinction)

To assist funding of research elective. Total Amount: 750 GBP

**Student/Trainee Awards**

**INTERNATIONAL**

Received

2016 Jan

**ASCO Merit Award (2016)**, Resident, Awardee Name: Lawson Eng, American Society of Clinical Oncology (ASCO) - Conquer Cancer Foundation, San Francisco, California, United States

Awarded for meritorious research in the form of high quality abstracts submitted to ASCO Annual and Thematic meetings; primarily awarded to senior residents and fellows. This is for the latest abstract “Elimination of second-hand smoke (SHS) exposure after a lung or head and neck (HN) cancer diagnosis and subsequent patient smoking cessation”.

2016 Jan

**Board of Directors Merit Scholarship Travel Award (2015)**, Resident, Awardee Name: Lawson Eng, International Society for Pharmacoepidemiology (ISPE), Boston, Massachusetts, United States

Awarded for meritorious research to be presented as an abstract at the ISPE 2015 Annual conference. This is for the abstract “Access to Drug Benefit Plans Among Canadian Cancer Survivors.”.

2015 May

**ASCO Merit Award (2015)**, Resident, Awardee Name: Lawson Eng. American Society of Clinical Oncology (ASCO) - Conquer Cancer Foundation, Chicago, Illinois, United States

Awarded for meritorious research in the form of high quality abstracts submitted to ASCO...
Annual and Thematic meetings; primarily awarded to senior residents and fellows. This is for the abstract “Cancer patients’ attitudes, knowledge, and preferences for smoking cessation (SC)”.

NATIONAL

Received

2014 Ontario Medical Students Association (OMSA) Conference Grant to attend CARO 2014, Awardee Name: Jennifer Kwan

Not Just an Add-on Subject: Integrating Oncology into the Heart of Undergraduate Medical Education.

2014 POPC and Survivorship Travel Grant, Awardee Name: Robin Milne


2013 Mach-Gaensslen Foundation Research Program, Awardee Name: Jennifer Kwan

For Determining Survivorship Needs of Lung Cancer Patients.

LOCAL

Received

2016 Comprehensive Research Experience for Medical Students (CREMS), Resident, Awardee Name: Steven Wang. University of Toronto – Department of Medicine, Toronto, Ontario, Canada

Survivorship care needs in patients with head and neck cancer: A prospective cohort study. Total Amount: 5,500 CAD

2016 W.J. Simpson Award For Academic Excellence in Research by a Resident., Resident, Awardee Name: Jenna Adleman. University of Toronto – Department of Medicine, Toronto, Ontario, Canada


2015 UHN/MSH Charles Hollenberg Competition, 3rd Place (2015), Resident, Awardee Name: Lawson Eng. University of Toronto – Department of Medicine, Toronto, Ontario, Canada

Awarded to residents and fellows supervised by a member of the Department of Medicine UHN/MSH for meritorious clinical epidemiology or clinical investigative projects.

This is for the manuscript “The Role of Second-Hand Smoke Exposure on Smoking Cessation in Non-Tobacco Related Cancers”. Total Amount: 250 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Society for Therapeutic Radiology and Oncology (ASTRO)

Member, Canadian Association of Radiation Oncology (CARO)

Administrative Activities

INTERNATIONAL

American Society of Radiation Oncology (ASTRO)

2013 - 2014 Member, Education Committee SAM Task Force

2012 - 2013 Member, Education Committee of the Education Council
NATIONAL

Canadian Association of Internes and Residents (CAIR)
2009 - 2011  Member, Education & Professionalism Committee
2009 - 2010  Member, Work hours working group committee

Canadian Association of Radiation Oncology (CARO)
2014 - present  Chair, CARO Resident Refresher Course Committee
2013 - present  Member, Annual Scientific Meeting Committee
2013 - present  Chair, Education Committee
2013 - 2014  Co-Chair, CARO Resident Refresher Course Committee
2007 - 2012  Resident representative, Education Committee

Canadian Oncology Education Working Group
2013 - present  Co-Lead, Undergraduate Medical Education

Canadian Partnership Against Cancer
2016 Jun - 2017 Jun  Member, Smoking Cessation in Cancer Settings Working Group, Ontario, Canada.

Centre for the Evaluation of Health Professionals Educated Abroad
2011 - present  OSCE Examiner

Lung Cancer Canada
2014 Jun - present  Radiation Oncology representative, Medical Advisory Committee

Pan Canadian Project
2014 - present  Member, Improving Patient Experience and Health Outcomes Collaborative (iPEHOC)

Royal College of Physicians and Surgeons of Canada
2011  Canadian Association of Internes and Residents (CAIR) representative, Education Committee
2010 - 2011  Canadian Association of Internes and Residents (CAIR) representative, Evaluation Committee
2009 - 2012  Canadian Association of Internes and Residents (CAIR) representative, External Reviewer

PROVINCIAL / REGIONAL

Cancer Care Ontario
2016 - present  Member, Thoracic Cancers Advisory committee, Ontario, Canada.

Ontario Cancer Research Ethics Board (OCREB)
2012 Jul - 2014  Member, Ontario, Canada. Radiation Oncology Representative.

Professional Association of Internes and Residents of Ontario (PAIRO)
2008 - 2011  Member, General Council
LOCAL
Other Organizations
2016 Jan 29 Member, CaRMS Interview Panel

Princess Margaret Cancer Centre
2013 - present Chair, Smoking Cessation Working Group
2015 - 2016 Princess Margaret Cancer Conference Planning Committee
2014 Education Representative, Princess Margaret Cancer Centre Cancer Committee

Princess Margaret Cancer Centre Executive Committee
2014 - present Education Representative, Princess Margaret Cancer Centre Executive Committee

Radiation Medicine Program
2014 Jun - present Member, iPEHOC Working Group
2014 Member, Bonus Metrics Working Group
2013 Member, Competency to Practice Exam Committee
2012 Exam Invigilator, Residency Program Planning, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2011 - 2012 Resident representative, Radiation Medicine Program External Beam Process Committee
2010 - 2012 Member, Postgraduate Medical Education Committee – Evaluation Subcommittee
Department of Radiation Oncology
2010 - 2012 Member, Postgraduate Medical Education Committee – Curriculum Subcommittee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2010 - 2011 Member, Postgraduate Medical Education Committee – Resident Research Subcommittee, Department of Radiation Oncology
2010 - 2011 Member, Academic Communications Committee – Department of Radiation Oncology
2010 - 2011 Chief Resident, Department of Radiation Oncology
2010 Member, CaRMS Interview Panel, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2009 - 2010 Senior Resident representative, Postgraduate Medical Education Committee - Department of Radiation Oncology
2008 - 2009 PAIRO representative, Postgraduate Medical Education Committee - Department of Radiation Oncology
2007 - 2009 PG-CorEd website coordinator, Department of Radiation Oncology
2007 - 2008 PGY1 resident representative, Postgraduate Medical Education Committee - Department of Radiation Oncology

Sunnybrook Health Sciences Centre
2009 - 2010 Member, Resident Liaison Committee
2009 - 2010 Senior Resident, Sunnybrook Odette Cancer Center

Toronto Cancer Conference
2012 Mar 1 - 2012 Nov 23 Member, Executive Planning Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
University Health Network
2016 May - present  Member, Interprofessional Care and Education Leader-Search Committee, Ontario, Canada.

University Health Network
2015 Nov - present  Co-Chair, Smoking Cessation Executive Committee, Toronto, Ontario, Canada.
2015 - present  Education Leadership Council, Toronto, Ontario, Canada.
2014 - present  Princess Margaret Cancer Centre Representative, UHN Education Leadership Council

University of Toronto
2016 Feb 27 - present  Medical School Admissions Interviewer, Radiation Oncology, Toronto, Ontario, Canada.
2015 Jan - present  Chair, Postgraduate Medical Education Committee - Evaluation Subcommittee Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2015 - present  Member, Undergraduate Medical Education Admissions File Reviewer, Toronto, Ontario, Canada.
2014 Jun - present  Member, Postgraduate Board of Examiners, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 Jun - present  Member, Postgraduate Internal Review Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 - present  Member, Undergraduate Medical Electives Committee
2014 - present  Member, Executive Committee, Department of Radiation Oncology
2014 - present  Member, Medical Education Transition to Residency Committee
2015 Apr 18 - 2015 Apr 2015 Feb  Coordinator, Competency to Practice Exam Co-Organizer, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 Dec  Coordinator, Competency to Practice Exam Co-Organizer, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 Oct 31  Exam Co-Organizer, OSCE, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2014 Mar 1  Competency to Practice Exam Co-Organizer, Competency to Practice Exam Committee
2014 Co-Chair, Education Awards Committee, Faculty of Medicine, Dept of Radiation Oncology
2014 Leader, CaRMS Interview Panel, Department of Radiation Oncology
2014 Member, UT-DRO Roadmap to 2017 - Strategic Planning Committee
2013 - 2015  Member, Faculty Council Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2012 Nov 3  Examiner, OSCE, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2012 Member, Medical Physics Residency Program interview panel, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2012 Member, Medical Radiation Sciences, Nuclear Medicine Curriculum Redesign Committee
2012 Exam Co-Organizer with Dr. BA Millar, OSCE Co-Organizer, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2012 Member, CaRMS Interview Panel, Department of Radiation Oncology
2012 Member, Nuclear Medicine Curriculum Redesign Committee, Medical Radiation Sciences
2011 - 2012  Resident Participant, Search committee for Chair of Department of Radiation Oncology
2011  Resident Participant, Search committee for Associate Dean, Postgraduate Medical Education, Admissions and Evaluation
2010  Resident Participant, Faculty of Medicine’s External Review
Meredith Elana GIULIANI

2009 - 2012  Internal Reviewer
2008 - 2012  Resident representative, Internal Review Committee
2008 - 2011  Resident representative, Postgraduate Medical Education Advisory Committee

OTHER
University of Toronto
2015 Jan - present  UTDRO Fellowship Application Committee Member
2015 Jun 19  Member, UTDRO Physics Residency Interview Panel
2012 Nov 13  UTDRO Physics Residency Interview Panel

Peer Review Activities

EDITORIAL BOARDS
Resident Member
2010  Canadian Association of Medical Education

GRANT REVIEWS
Reviewer
2014  CARO Radiation Oncology Fellowship position, $75,000.00 annual award to a postgraduate trainee to support further training.

Co-Chair
2014 - present  CARO-CROF Summer Studentship Grant Committee, This grant provides 7 $2,100.00 studentships to Canadian Undergraduate Medical Students to undertake clinical placements in Radiation Oncology across the country.

2015  Radiation Medicine Program Summer Studentship Grant Committee, This grant provides 4 $5,000.00 studentships to students to undertake a summer research project in the radiation medicine program at Princess Margaret Cancer Centre.

2014  Radiation Medicine Program Summer Studentship Grant Committee, This grant provides 4 $5,000.00 studentships to students to undertake a summer research project in the radiation medicine program at Princess Margaret Cancer Centre.

2013 - 2014  CARO-CROF Summer Studentship Grant Committee, This grant provides 5 $4,000.00 studentships to Canadian Undergraduate Medical Students to undertake clinical placements in Radiation Oncology across the country.

2013  Radiation Medicine Program Summer Studentship Grant Committee, This grant provides 4 $5,000.00 studentships to students to undertake a summer research project in the radiation medicine program at Princess Margaret Cancer Centre.

MANUSCRIPT REVIEWS
Reviewer
2016 Feb - present  CARO Annual Scientific Meeting Abstract Reviewer, Canadian Association of Radiation Oncology (CARO)
2012 - present  Clinical Oncology
2012 - present  International Journal of Radiation Oncology Biology and Physics
2012 - present  Journal of Thoracic Oncology
2012 - present  The Oncologist
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


In this project, we propose to perform dose accumulation for selected HNC patients to explore the dosimetric impact on both toxicity and disease control and to use these data to develop a prospective trial on adaptive radiotherapy in HNC. Use of the actual delivered radiation dose (accumulated dose based on daily imaging) compared with the planned dose will allow more accurate estimates of the correlations between radiation dose and treatment outcomes for oropharynx, hypopharynx and larynx patients. This information will directly inform the design of prospective adaptive treatment protocols to maximize treatment outcome (HPV-) and minimize toxicity (HPV+) in radiation treatment for HNC.


Cancer Care Ontario has mandated that all new cancer patients be screened for smoking status, advised to quit, and assisted with quitting. However, routine screening and referral to smoking cessation treatment has not been widely implemented in the cancer setting. This project aims to implement and evaluate the adoption and impact of a patient-driven decision support system (Smoking Cessation e-referral System or CEASE) to promote smoking
screening and referral. CEASE is an innovative tool, consisting of three key elements, to improve smoking screening and allows for implementation in both a time- and cost-effective manner which promotes sustainability. This intervention could have significant impact on patient’s immediate and long term outcomes.


NON-PEER-REVIEWED GRANTS

FUNDED
2014 Jul Principal Investigator. Piloting the Feasibility of FLT-PET/CT Non-Small Cell Lung Cancer Managed with SBRT. [Clinical Trials]

2014 Principal Investigator. VOLUMES: Treatment of Larger Tumor Volumes or 2 Lung Tumors Simultaneously in Lung Cancer Patients using SBRT in a Mean-Lung Dose Escalation Study. [Clinical Trials]

2013 Principal Investigator. EORTC 1219. [Clinical Trials]
1) EORTC 1219: A blind comparison multicenter study of accelerated fractionated chemoradiation with or without the hypoxic radiosensitizer nimorazole (Nimoral), using a 15 gene signature for hypoxia in the treatment of HPV/P16 negative squamous cell carcinoma of the head and neck.

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


24. Huang S, Xu W; Waldron J; Siu L; Shen X; Tong L; Ringash J; Bayley A; Kim J; Hope A; Cho J; Giuliani M; Hansen A; Irish J; Gilbert R; Gullane P; Perez-Ordonez B; Weinreb I; Liu F; O’Sullivan B. Refining American Joint Committee on Cancer/Union for International Cancer Control TNM Stage and Prognostic Groups for Human Papillomavirus–Related Oropharyngeal Carcinomas. J Clin Oncol. 2015 Mar 10;33(8):836-845. **Coauthor or Collaborator.**


Manuscript


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Guidelines


3. SUBMITTED PUBLICATIONS

Journal Articles


Book Chapters


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2014 Mar 20 Thyroid Carcinoma Treatment Planning and Delivery: Oncologist’s perspective. Kuwait Cancer Control Centre. Kuwait.


2014 Mar 20 Laryngeal Carcinoma Treatment Planning and Delivery: Oncologist’s perspective. Kuwait Cancer Control Centre. Kuwait.


2014 Mar 19 Problem Based Learning Session: Issues from the front lines. Kuwait Cancer Control Centre. Kuwait. Presenter(s): Giuliani M, McNiven A, Holwell M.


2014 Mar 18 Nasopharyngeal Carcinoma Treatment Planning and Delivery: Oncologist’s perspective. Kuwait Cancer
Presented Abstracts


2015 Jun 29 Developing Canadian Oncology Goals and Objectives for Medical Students: A National Delphi Study. American Society of Clinical Oncology (ASCO). Chicago, Illinois, United States. Presenter(s): Tam,VC; Ingleedew,P; Berry,S; Verma,S; Giuliani,ME.


2015 Jun Prediction models of smoking cessation in lung and head and neck cancer patients: Role of second-hand

2015 Jan Prediction Models of Smoking Cessation in Lung and Head and Neck Cancer Patients: Role of Second-Hand Smoke (SHS) Exposure. American Society of Clinical Oncology (ASCO). Chicago, Illinois, United States. Presenter(s): Liu G; Song Y; Alton D; Yoannidis T; Milne RA; Sarabia S; Merali Z; Murphy L; Brown MC; Vennettilli A; Hope AJ; Howell DS; Jones JM; Selby P; Goldstein DP; Giuliani ME; Xu W; Eng L.

2015 Jan Cancer Patients’ Attitudes, Knowledge, and Preferences for Smoking Cessation (SC). American Society of Clinical Oncology (ASCO). Chicago, Illinois, United States. Presenter(s): Eng L; Alton D; Yoannidis T; Kong QQ; Milne RA; Sarabia S; Merali Z; Murphy L; Brown MC; Vennettilli A; Pierre A; Bezjak A; Hope AJ; Howell DS; Jones JM; Selby P; Xu W; Goldstein DP; Giuliani ME; Liu G.

2015 Jan Cessation of Second-Hand Smoke Exposure After A Lung and Head and Neck Cancer Diagnosis and Subsequent Patient Smoking Cessation. American Society of Clinical Oncology (ASCO). Chicago, Illinois, United States. Presenter(s): Eng L; Alton D; Yoannidis T; Song Y; Milne RA; Sarabia S; Merali Z; Habbous S; Brown MC; Vennettilli A; Shepherd F; Leiligh N; Hope AJ; Howell DS; Jones JM; Selby P; Xu W; Goldstein DP; Giuliani ME; Liu G.

2015 Jan Outcomes Following Unilateral Neck Irradiation for Oropharyngeal Cancer Stratified by HPV Status. Presenter(s): Waldron J; Huang SH; Kim J; Bayley A; Ringash J; Hope AJ; Giuliani ME; Cho J; Tong L; O’Sullivan B.

2015 Jan ‘Cure’ is a Realistic Goal in HPV-related Oropharyngeal Cancer with Oligometastasis. Presenter(s): Huang SH; Waldron J; Xu W; Ringash J; Bayley A; Hope AJ; Kim J; Cho J; Giuliani ME; Tong L; O’Sullivan B.

2015 Jan Refining UICC TNM Stage and Prognostic Groups for Non-metastatic HPV-related Oropharyngeal Carcinomas. Presenter(s): O’Sullivan B; Huang SH; Waldron J; Ringash J; Bayley A; Kim J; Hope AJ; Cho J; Giuliani ME; Xu W.

2014 Oct Second-Hand Smoke (SHS) and Smoking Cessation in Non-Tobacco Related Cancers. American Association of Cancer Research. Chicago, Illinois, United States. Presenter(s): Eng L; Qiu X; Su J; Brown MC; Irwin M; Pringle D; Niu C; Mahler M; Naik H; Hon H; Tiessen K; Charow R; Thai H; Ho V; Pat V; Herzog L; Ho A; Jones JM; Howell DS; Goldstein DP; Giuliani ME; Xu W; Selby P; Liu G.


Presented and Published Abstracts

2016 Apr 29  **Invited Speaker.** Impact of Comorbidity, Polypharmacy and HPV status in Elderly Patient with Oropharyngeal Cancer. ESTRO - European Society for Radiotherapy & Oncology. Turin, Piemonte, Italy. Presenter(s): Caparrotti F.


2016 Apr 29  **Invited Speaker.** The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. Poster (PO-0631). 2016 European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Turin, Italy. Presenter(s): Huang SH.


*Publication Details:* Risk Stratification for Relapse in Human Papillomavirus-unrelated Oropharyngeal Carcinoma Treated with Definitive Radiation Therapy with or without Chemotherapy. Int J Radiat Oncol Bio Phys. 93(3S):S130. **Coauthor or Collaborator.**


*Publication Details:* Reaffirming Metastatic Risk Profiles in Human Papillomavirus-related Oropharyngeal Cancer Following Definitive Radiation Therapy with or without Chemotherapy. Int J Radiat Oncol Bio Phys. 93(3S):S172. **Coauthor or Collaborator.**

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2015 May 29
Developing oncology goals and objectives for medical students: A national Delphi process. American Society of Clinical Oncology (ASCO).

Publication Details:
Developing oncology goals and objectives for medical students: A national Delphi process. 2015 May 29. Coauthor or Collaborator.

2015 Apr 25

Publication Details:
Predictors and patterns of regional recurrence following lung SBRT: A report from the Elekta Lung Research Group.

2015 Feb
Refining UICC TNM stage and prognostic groups for non-metastatic HPV-related oropharyngeal carcinomas. International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:

2015 Feb
Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status. International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:

2015 Feb
‘Cure’ is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis. International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO). Nice, France.

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
2014 Sep  
Elderly Patients With Advanced Head and Neck Cancer Less Likely to Receive Radiation Therapy. 

*Publication Details:*  

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2013 Nov  
Incidental prophylactic nodal irradiation and patterns of nodal relapse in inoperable early stage NSCLC patients treated with SBRT: A case-matched analysis. 

*Publication Details:*  

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2013 Nov  
Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT). 

*Publication Details:*  

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2013 Nov  

*Publication Details:*  

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2013 Nov  
Late radiographic changes after lung stereotactic body radiotherapy: Piloting a recurrence scale and synoptic reporting scale. 

*Publication Details:*  

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2013 Oct  

*Publication Details:*  

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2013  
Phase I Trial of Dacomitinib (D) Concomitant with Radiotherapy (RT) with and without Cisplatin (C) in patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN) (XDC-001). American Society of Clinical Oncology (ASCO). ASCO Annual Meeting 2013. 

*Publication Details:*

2013 Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT).

Publication Details:

2013 Stereotactic lung radiotherapy in patients with previous pneumonectomy: Safety and efficacy.

Publication Details:

2013 Clinical outcomes of T4 larynx cancer treated with primary radiotherapy compared to primary laryngectomy.

Publication Details:

2011 Oct Clinical outcomes in stage I non-small cell lung cancer patients managed with accelerated hypofractionated radiotherapy.

Publication Details:

2011 Jun Correlation of dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma.

Publication Details:

2011 Jun Cost-effectiveness analysis comparing conventional versus stereotactic body radiotherapy for surgically ineligible stage I non-small cell lung cancer.

Publication Details:

2011 Cost-effectiveness analysis comparing conventional versus stereotactic body radiotherapy for surgically ineligible stage I non-small cell lung cancer.

Publication Details:
Mitera G, Swaminath A, Rudoler D, Seereeram C, Giuliani M, Leighl N, Warde P, Gutierrez E, Coyte P,

2011 Correlation of dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma.

Publication Details:

2011 Clinical outcomes in stage I non-small cell lung cancer patients managed with accelerated hypofractionated radiotherapy.

Publication Details:

2010 Dec Outcomes of salvage therapy in patients with limited-stage small cell lung carcinoma with isolated locoregional failure.

Publication Details:

2010 Nov Automated tools to facilitate lung cancer outcomes data-mining.

Publication Details:

2010 Nov Patterns of failure in patients with limited-stage small cell lung carcinoma.

Publication Details:

2010 Incorporating multi-source feedback into a radiation oncology resident assessment system.

Publication Details:

2010 Patterns of failure in patients with limited-stage small cell lung carcinoma.

Publication Details:

2009 Nov Dosimetric and clinical parameters contributing to esophagitis and radiation pneumonitis following treatment for small-cell lung carcinoma.

Publication Details:
2009 Nov
Survival impact of prophylactic cranial irradiation in limited-stage small-cell lung cancer.

Publication Details:

2009
Prophylactic cranial irradiation rates in limited-stage small cell lung cancer.

Publication Details:

2009
Factors influencing prophylactic cranial irradiation utilization in limited stage small cell lung cancer.

Publication Details:

2009
Assessing radiation oncology residents in the CanMEDS era: Developing a multi-source feedback program.

Publication Details:

2005 Jun
Should surveillance be considered the standard of care in stage I seminoma?

Publication Details:

2005 Apr
Outcome in stage I seminoma managed by radiation therapy and surveillance.

Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2016 Jul 22

2016 Jun 17
Invited Speaker. Results of SBRT for Lung Metastases. Toronto Thoracic Cancer Surgery Refresher Course.

2016 Apr 10
Invited Speaker. Radiation Pneumonitis: Current Approaches. Mcmaster University Health Sciences. Hamilton, Ontario, Canada. Presenter(s): Giuliani, ME.

2015 Oct 23
Invited Speaker. An Oncology Patient’s Journey… A PA’s Perspective. Canadian Association of Physician Assistants Annual Meeting. Toronto, Ontario, Canada. Presenter(s): Giuliani, ME; Patel, M.
2015 Sep 12  **Invited Speaker.** Competency-Based Education in Radiation Medicine. CARO. Canada. Presenter(s): Meredith Giuliani, Caitlin Gillan, Emily Milne, Paris-Ann Ingledew, Andrea McNiven, Nicole Harnett.

2013 Sep 18  **Visiting Professor.** CARO Resident Refresher Course Career Panel Member. CARO - Canadian Association of Radiation Oncology. Montreal, Quebec, Canada.


**Presented Abstracts**


Presented and Published Abstracts

2015 Sep  
Post-radiotherapy cervical lymph node calcification on its own is not predictive for neck recurrence in oropharyngeal carcinoma. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

*Publication Details:*  

2015 Sep  
Metastatic risk groups in human papillomavirus-related oropharyngeal cancer treated with definitive radiotherapy with or without chemotherapy. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

*Publication Details:*  

2015 Sep  
Risk of relapse profile in human papillomavirus-unrelated oropharyngeal carcinoma treated with definitive radiotherapy with or without chemotherapy. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

*Publication Details:*  

2015 Sep  
Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

*Publication Details:*  

2015 Sep  
Outcome following definitive radiotherapy for squamous cell carcinoma of the nasal vestibule. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

*Publication Details:*  

2015 Sep  

*Publication Details:*  

2015 Sep  
Major salivary gland carcinoma: independent prognostic factors for distant metastasis and survival. CARO
2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

**Publication Details:**

2015 Sep
Clinical outcomes following re-irradiation in head and neck cancers. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

**Publication Details:**

2015 Sep
Prognostic Value of Pretreatment Circulating Neutrophils, Monocytes, and Lymphocytes on Outcomes in Lung SBRT. CARO 2015 Annual Scientific Meeting. Kelowna, British Columbia, Canada.

**Publication Details:**
**Giuliani ME**, Wong O, Gay J, Le L, Brade A, Cho J, Sun A, Bezjak A, Hope A. Prognostic Value of Pretreatment Circulating Neutrophils, Monocytes, and Lymphocytes on Outcomes in Lung SBRT. Radiother Oncol. 116(Suppl):S64. **Senior Responsible Author.**

2015 Sep

**Publication Details:**

2014 Aug
The prevalence and nature of survivorship needs in head and neck cancer patients. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

2014 Aug

**Publication Details:**

2014 Aug
Not Just an Add-On Subject: Integrating Oncology into the Heart of Undergraduate Medical Education. CARO 2014 Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

2014 Aug
Team-Based Clinical Simulation in Radiation Medicine: Value to Attitudes and Perceptions of Interprofessional Collaboration. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and
Labrador, Canada.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2014 Aug Elderly patients with advanced head and neck cancer less likely to receive radiation therapy. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

Publication Details:

2014 Aug Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.
Publication Details:


Publication Details:


Publication Details:

2013 Sep  Late radiographic changes after lung stereotactic body radiotherapy: Piloting a synoptic reporting and recurrence predication scale. CARO-COMP Joint Scientific Meeting. Montreal, Quebec, Canada.

Publication Details:

Presentation Reviews


Other Presentations


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2014 May 26  Lung and Liver SBRT: Exploring the Next Frontier. Sault Area Hospital.

Presented Abstracts

2014 Sep 23  Not Just an Add-On Subject: Integrating Oncology into the Heart of Undergraduate Medical Education. 3rd Annual Queen’s University Medical Student Research Showcase. Kingston, Ontario, Canada. Kwan JYY, Nyhof-Young J, Catton P, Giuliani ME.


4. LOCAL

Invited Lectures and Presentations


Co-organizer. Toronto Regional Cancer Program Community of Practice Event on Smoking Cessation. Toronto Regional Cancer Program. Toronto, Ontario, Canada.

Invited Lecturer. Medical and Radiation Oncology for Surgeons. University of Toronto. Toronto, Ontario, Canada. Surgical Foundations Course (100 PGY1&2 Toronto surgical residents).

2015 May 8 **Organizer.** Princess Margaret Cancer Centre Education Strategic Planning Workshop. Princess Margaret Cancer Centre. Toronto, Ontario, Canada.


2014 Nov 6 **Speaker.** Undergraduate Oncology Curriculum Review. University of Toronto, Toronto, Ontario, Canada. Presenter(s): Giuliani, M. Curriculum Review of the Undergraduate Medical Education Curriculum Committee.


2014 May 27 Smoking Cessation. LUNG RAMP Update, UHN. Toronto, Ontario, Canada.

2014 Apr 29 Introduction to Lung Cancer. Princess Margaret Cancer Centre Radiation Oncology Academic Block. Toronto, Ontario, Canada.


2014 Jan 14 Cancer Care Ontario Smoking Cessation Program. Cancer Committee, Princess Margaret Cancer Centre. Toronto, Ontario, Canada.


2013 Jun 5 **Facilitator.** EIRR21 Trainee Research Presentation Judge. Princess Margaret Cancer Centre. Toronto, Ontario, Canada.

2013 Apr 10 Oncology Interest Group. University of Toronto. Toronto, Ontario, Canada.

2013 Apr 4 Contouring Exercise. Head and Neck IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada. April 4-6, 2013.

2013 Apr 4 Course Recap. Head and Neck IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada. April 4-6, 2013.

2013 Apr 4 Problem-Based Learning Session: Issues from the Front Lines. Head and Neck IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada. April 4-6, 2013.
Meredith Elana GIULIANI

2013 Mar 1  Graduate Studies During and After Residency Training. Princess Margaret Hospital. Toronto, Ontario, Canada. To Radiation Oncology Residents.

2013 Jan 18  Target Delineation. Lung IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada.

2013 Jan 18  Putting Lung IGRT Into Action. Lung IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada.


2011 Sep 27  Introduction to the Department of Radiation Oncology. Presentation to Excellence in Radiation Research for the 21st Century (EIRR21) training program students. Toronto, Ontario, Canada.


2011 Apr 1  Stereotactic Body Radiotherapy (SBRT) for Early Stage Lung Carcinoma. Department of Radiation Oncology Resident Academic Half-Day. Toronto, Ontario, Canada.


2010 Jun 30  Resident speaker to incoming PGY1 residents. Orientation to Radiation Oncology Residency Program at the University of Toronto. Toronto, Ontario, Canada.

2010 Mar 23  Resident speaker to University of Toronto medical students. Medical Oncology & Radiation Oncology Career Night, Medical Sciences Building, University of Toronto. Toronto, Ontario, Canada.

2009 Jun 29  Resident speaker to incoming PGY1 residents. Orientation to Radiation Oncology Residency Program at the University of Toronto. Toronto, Ontario, Canada.

2008 Dec 10  Resident speaker to University of Toronto medical students. Medical Oncology & Radiation Oncology Career Night, Princess Margaret Hospital. Toronto, Ontario, Canada.


Presented Abstracts


2013 May 2  Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT). Target Insight VII: Rethinking Radiation Therapy for Metastatic Cancer.
Meredith Elana GIULIANI


5. OTHER

Invited Lectures and Presentations


F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2015 - present Cancer Trainee Professional Enrichment Program (CTPEP), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Centre
A 2-year interprofessional curriculum designed for cancer program trainees at Princess Margaret Cancer Centre. It focuses on 5 program domains: Research, Education, Cancer Systems, Global Cancer & Leadership/Management.

2014 - present Adolescent and Young Adult Area of Focused Competence Development Committee, Royal College of Physicians and Surgeons of Canada
Radiation Oncology representative on Adolescent and Young Adult Diploma Committee for the Royal College of Physicians and Surgeons of Canada.
This diploma is a novel program to address a growing gap in clinical care for adolescent and young adults with cancer.

2013 - present CARO-CROF Summer Studentship, Undergraduate MD, CARO-CROF, CARO-CROF
Starting in 2013 this program offers 7 national summer placements for second year medical students to give them the opportunity to explore radiation oncology as a career. The program is administered through the CARO Education Committee. It involves a competitive application process and placement matching.
12 students in 2 years have experienced placement in radiation oncology with another 7 starting in 2015.

2012 Nov 1 - present PMH Head and Neck IGRT course, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
Co-director.
Remarkable advances in imaging technology can now be harnessed to enhance target
Image-Guided Radiation Therapy (IGRT) is rapidly revolutionizing the planning and delivery of radiation therapy in the treatment of cancer.

These unique education programs offer the opportunity to acquire the skills, knowledge and strategies that will learners successfully apply and implement the principles of image guidance. At the conclusion of any course, participants can:

- Adopt innovative IGRT approaches in clinical practice
- Expand opportunities for image guided radiotherapy practice
- Make informed decisions in the context of IGRT.

Participants will be encouraged to learn in a collaborative environment by participating in interprofessional teams consisting of oncologists, physicists, dosimetrists and therapists.

2016 Feb 27
University of Toronto Medical School Admissions Interviewer, Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

2014 Jul 1 - 2015 Jun 30
CARO Resident Refresher Course, Postgraduate MD, CARO
Organization of the resident refresher course at the Canadian Association of Radiation Oncology Annual Scientific Meeting

Objectives: Upon completion of this refresher course, attendees should be able to:

- Review the principles of management of common cancers.
- Understand the technology that underpins cone-beam CT and common misconceptions about CBCT.
- Review and practice volume generation in compliance with the GEC-ESTRO guidelines.

Provides teaching to approximately 75 residents from across Canada.

2014 Jul 1 - 2015 Jun 30
Defining Oncology Competencies for Canadian Undergraduate Medical Students, Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology
Working with Vincent Tam (Medical Oncologist) and a national working group to define the minimum competencies for Undergraduate Medical Students with respect to Oncology. This work has involved a national delphi process.
An abstract was submitted to American Society of Clinical Oncology 2015 Annual Scientific Meeting and the results will be published for access by all Canadian Medical Schools.

2014 Mar - 2014 Mar 20
Head and Neck IMRT course, Continuing Education, Kuwait Cancer Control Centre, Princess Margaret Hospital
Director.

2014 - 2015
Undergraduate Oncology Curriculum Review, Undergraduate MD
Lead oncology curriculum review at University of Toronto with Medical Student Jennifer Kwan and Dr Joyce Nyhof-Young to make recommendations on undergraduate oncology content and teaching delivery.
Published in the International Journal of Radiation Oncology, Biology & Physics and presented to the Curriculum Committee, Undergraduate Medical Education at University of Toronto.

2014
VERO - Virtual Experience in Radiation Oncology, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Updating the virtual experience in radiation oncology (VERO) website to serve as a resource for the new longitudinal integrated curriculum for medical students at University of Toronto during their oncology case.

2014
CORE Curriculum in radiation Oncology, University of Toronto, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology
Designed curriculum change for PGY2/3 to the core site based rotations including syllabus designs and new ITERs/assessments.
Improved resident performance on in-training examinations.

2014
Curriculum Design: Quality and Safety in Radiation Medicine, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Radiation Medicine Program
Conducting a national curriculum design project in collaboration with Canadian Partnership
for Quality Radiotherapy (CPQR).
This curriculum will assist Radiation Oncology residency programs with the Quality and Safety aspects of CanMEDS 2015 implementation.

2013 Jul - 2015 Jun 30 Imaging Literacy Curriculum Design, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology
Co-led with Dr. Pam Catton. Development of an imaging literacy curriculum at the request of the Royal College of Physician and Surgeons of Canada Radiation Oncology Specialty Committee.
Curriculum has been published in the International Journal of Radiation Oncology Biology & Physics and has underpinned curriculum reform at the University of Toronto Radiation Oncology Program. Curriculum is being discussed at other international societies including RANZCR and the UK.

2013 Apr 19 Early Larynx Cancer, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Centre
Half day teaching session geared towards the Radiation Oncology Residency Program.

2012 Jul 1 - 2013 Getting Back on Track after Head and Neck Cancer, Patient and Public Education, Faculty of Medicine, Dept of Radiation Oncology, ELLICSR
Two hour lecture series to patients monthly to discuss rehabilitation and care following cancer therapy.

2009 - 2011 Academic Half-Day curriculum, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology
Design and organize the academic half-day for the Department of Radiation Oncology residency program.

2009 Developed and implemented a PGY1 orientation program for the incoming PGY1 residents in radiation oncology, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2015 - present Primary Supervisor. Lorna Sampson. Educational Preferences for Smoking Cessation in Cancer Patients.

2016 May - 2016 Aug Primary Supervisor. Leah Brach. Educational Preferences for Smoking Cessation in Cancer Patients. Supervisor(s): Guiliani, ME.


Graduate Education


Undergraduate MD

2012 - present Primary Supervisor. Natalie Jewitt. Determinants of Community Health 2 (DOCH 2) research supervisor: Resource development and assessment project of lung SBRT patient educational material.


2016 Jun - 2016 Jul Primary Supervisor. LEAD Student Placement. Kirby Ding. Outpatient Smoking Cessation
Resource Plan Development for UHN.

2014 Jul - 2015 Jun **Primary Supervisor.** Devon Alton. *Predictors of SMoking Cessation in Cancer Survivors (DOCH2).*

2013 Jul - 2014 Nov **Primary Supervisor.** Robin Milne. *Predictors of High eHealth Literacy in Primary Lung Cancer Survivors.*

2013 - 2014 **Primary Supervisor.** Jennifer Kwan. *Mapping the Future: Towards Oncology Curriculum Reform in Undergraduate Medical Education at a Canadian Medical School.*

2010 - 2011 **Co-Supervisor.** Kalvin Lung. *Determinants of Community Health 2 (DOCH 2) research supervisor: Resource development project for an electronic interface to collect lung cancer patient reported outcomes. Collaborator(s): Co-supervisor with Dr Andrew Hope.*

2010 **Co-Supervisor.** Terence Yung. *Outcomes for early stage non-small cell lung cancer patients treated with conventional factionation. Collaborator(s): Co-supervisor with Dr Andrew Hope.*

2009 - 2010 **Co-Supervisor.** Gur Chandhoke. *Determinants of Community Health 2 (DOCH 2) research supervisor: Resource development project for assessing the acute toxicity of thoracic radiotherapy. Collaborator(s): Co-supervisor with Dr Andrew Hope.*

2009 **Co-Supervisor.** Carey Chan, Michener Institute Medical Radiation Science Student. *Toxicity of Thoracic Radiotherapy in Patients with Extensive-Stage Small Cell Lung Cancer. Collaborator(s): Co-supervisor with Dr Andrew Hope.*

**Postgraduate MD**

2015 - present **Primary Supervisor.** Daniel Glick, Radiation Oncology Clinical Fellow. *Clinical Outcomes in Lung SBRT.*

2015 - present **Primary Supervisor.** Jenna Adleman, Radiation Oncology Resident. *Development of Radiation Oncology Quality and Safety.*

2015 - present **Primary Supervisor.** Horia Vulpe, Radiation Oncology Resident. *Patterns of Failure Following External Beam Radiation in Thyroid Carcinoma.*


2014 - 2015 **Primary Supervisor.** Abdul Dayyat, Radiation Oncology Fellow. *SBRT Retreatment Clinical Outcomes.*


2013 - 2014 **Primary Supervisor.** Irene Karam, Radiation Oncology Fellow. *ReIrradiation of Nasopharyngeal Carcinoma.*

2012 - 2015 **Co-Supervisor.** Hamid Raziee, Radiation Oncology Resident. *SBRT Fibrosis scoring validation project. Collaborator(s): Co-supervisor with Dr Andrew Hope.*

2012 - 2015 **Primary Supervisor.** Salil Vengalil, Radiation Oncology Fellow. *Clinical and Dosimetric Predictors of Functional Outcome in T4 Glottic Cancer Patients.*

2012 - 2014 **Co-Supervisor.** Salman Faruqi, Radiation Oncology Resident. *SBRT Fibrosis scoring validation project. Collaborator(s): Co-supervisor with Dr Andrew Hope.*
Curriculum Vitae

Mary Gospodarowicz
MD

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
610 University Ave
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-4421
Fax 416-946-2038
Email mary.gospodarowicz@rmp.uhn.on.ca

1. EDUCATION

Degrees
1971 MD, University of Toronto

Qualifications, Certifications and Licenses
1977 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1977 Diplomate, American Board of Medical Oncology
1975 Fellow, Internal Medicine, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2005 - present Medical Director, Princess Margaret Cancer Program
2005 - present Regional Vice President, Cancer Care Ontario, Toronto
1996 - present Professor, Radiation Oncology, University of Toronto
1977 - present Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital

Previous Appointments
HOSPITAL
2001 - 2012 Chief, Radiation Medicine Program, Princess Margaret Hospital
1996 - 1999 Director of Clinical Programs, Department of Radiation Oncology, Princess Margaret Hospital
1989 - 1990 Deputy Head, Department of Radiation Oncology, Princess Margaret Hospital

UNIVERSITY - RANK
2001 - 2012 Chair, Radiation Oncology, University of Toronto
1992 - 1996 Associate Professor, Radiation Oncology, University of Toronto
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2014 Gold Medal Award, American Society of Therapeutic Radiology and Oncology (ASTRO). (Distinction)
2014 Honorary Member, DEGRO, German Radiation Oncology Society. (Distinction)
2013 2013 Janeway Medal and Lecture, American Radium Society. (Distinction)
2013 Honorary Member, Scientific Association of Swiss Radiation Oncology (SASRO). (Distinction)
2013 Keynote Speaker, National Cancer Congress, Turkey. (Distinction)
2013 Lifetime Achievement Award, European Society of Therapeutic Radiology and Oncology. (Distinction)
2013 Samuel C. Harvey Memorial Lectures, American Association for Cancer Education, Seattle, Washington. (Distinction)
2013 Theodore L. Phillips Lecture, Annual Conference, Radiation Oncology, Helen Diller Family Comprehensive Cancer Center, San Francisco. (Distinction)
2012 Sep Honorary Fellow, Royal College of Surgeons of Ireland, Faculty of Radiologists, Ireland. (Distinction)
2008 Schiffer Exchange Visiting Professor, Israel. (Distinction)
2007 Annual Hospital Oration, Tata Memorial Hospital, India. (Distinction)
2007 Fellow, American Society of Therapeutic Radiology and Oncology. (Distinction)
2005 Simon Kramer Lectureship, Thomas Jefferson University, Philadelphia. (Distinction)
2004 Ira Spiro Visiting Lecturer 2004, Massachusetts General Hospital. (Distinction)
2003 Honorary Fellow, European Society of Therapeutic Radiology and Oncology. (Distinction)
2001 Honorary Fellow, Royal College of Radiologists, United Kingdom. (Distinction)

NATIONAL

Received

2012 Aug May Cohen Award for Women Mentors, Canadian Medical Association. (Distinction)
2010 Gordon Richards Lecture, Canadian Association of Radiation Oncology. (Distinction)

LOCAL

Received

2016 Dr. W. Gerald Cosbie Leadership Award, Canadian Cancer Trials Group. (Distinction)
2016 Harold Warwick Prize., Canadian Cancer Society Research Institute CCSRI. (Research Award)
In recognition of outstanding research achievements in cancer control.
2015 Officer of the Order of Canada. (Distinction)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

**Member, Alpha Omega Alpha Honours Medical Society**
**Member, American Association for Cancer Research**
**Member, American Society of Clinical Oncology**
**Member, American Society of Therapeutic Radiology and Oncology**
**Member, Canadian Association of Radiation Oncology**
**Member, Canadian Oncology Society**
**Member, Canadian Urologic Oncology Group**
**Member, European Society for Therapeutic Radiology and Oncology**
**Member, Royal College of Physicians and Surgeons of Canada**
**Member, Society of Urologic Oncology**

Administrative Activities

**INTERNATIONAL**

**ACORRN**
2005 - 2007  **Member, International Advisory Committee**

**American Joint Commission on Cancer: American College of Surgeons, College of Pathologists**
2000 - present  **Member, AJCC - Task Force on Lymphomas**
2000 - present  **Member, AJCC - Task Force on GU Cancers**
2000 - 2006  **Member, American College of Surgeons, Commission on Cancer**
1994  **Member, AJCC - Task Force on Testis Tumors**
1992 - 1995  **Member, American Joint Committee on Cancer (AJCC)**
1992 - 1993  **Member, AJCC - Task Force on Prognostic Factors**

**American Society of Clinical Oncology**
2006 - 2007  **Member, International Affairs Committee-Steering Committee**
2005 - 2008  **Member, International Affairs Committee**
1997  **Member, Advanced Prostate Cancer Guidelines Panel**
1995  **Member, Scientific Program Committee**

**American Society of Radiation Oncology**
2010  **Member, Strategic Planning Task Force**
1994 - 1999  **Member, ASTRO – Scientific Program Committee**
1986  **Member, ASTRO - Program Committee**

**Dutch Cancer Society**
2013 - present  **Program Reviewer**

**International Commission on Radiation Units and Measurements (ICRU)**
2003 - 2007  **Member**
International Consensus Development Conference on Guidelines for Clinical Research in Bladder Cancer

1993  
Chair, 4th Conference, TNM Staging Working Party

1993  
Member, 4th Conference, Radiation Therapy Working Party

1990  
Member, 3rd Conference, TNM Working Party

1987  
Member, 2nd Conference, Radiotherapy Working Party, Japan.

1984  
Member, 1st Conference, Radiotherapy Party, Antwerp.

International Extranodal Lymphoma Study Group

2004 - present  
Member, Board of Directors

2000 - 2004  
Member, Scientific Advisory Board

National Cancer Institute

2013  
Reviewer, Loan Repayment Program (IAR)

2012 - 2013  
Invited Participant, Centre for Global Health

1998 - 2002  
Member, CTEP, Concept Evaluation – GU Panel

1998 - 2002  
Member, Subcommittee H

1997  
Member, RTOG Site Visit

1996  
Member, Program Review Group - Prostate Cancer

1990  
Member, Site Visit review of the Southwest Oncology Group

1988  
Member, Cancer Clinical Investigation Review Committee

National Cancer Research Network – Medical Research Council UK

2009 - present  
Member, MRC, Data Safety Monitoring Committee, RADICALS MRC Trial

2009  
Member, United Kingdom.

2008  
Member, Quinquennial Review Committee, Royal Marsden Hospital, Institute for Cancer Research, United Kingdom.

2008  
Member, Department of Health, NIHR Program Grant reviews, United Kingdom.

2007  
Reviewer, Program Grants

UICC - Union for International Cancer Control

2012 - present  
Chair, TNM Project

2014 - 2016  
Immediate Past President

2012 - 2014  
President

2010 - 2012  
President-Elect

2010  
Member, Workshop on Prognostic Factors in Cancer, Royal Society of Medicine, United Kingdom.

2008 - 2012  
Member, Policy Committee

2008 - 2012  
Member, Advisory Panel on Congresses

2008 - 2010  
Chair, Membership Committee

2006 - 2012  
Member, Board of Directors

2006 - 2010  
Member, Finance Committee

2006 - 2009  
Member, International Cancer Foundation, Board

2006 - 2008  
Treasurer, Finance Committee

2005 - 2011  
Chair, TNM Project, TNM Process and Prognostic Factors Task Force

2005 - 2011  
Chair, Prognostic Factors Task Force

2002 - 2004  
Chair, Task Force on Membership and Governance
Mary GOSPODAROWICZ

2000 - 2006 Member, Executive Committee
2000 - 2005 Member, TNM Prognostic Factors Program
1990 - 1995 Member, TNM Project Committee, Geneva.

World Health Organization
1996 Member, WHO Consensus Conf on Study Design and Evaluation of Clinical Trials on Prostate Cancer, Stockholm.

World Health Organization & Union for International Cancer Control (UICC)
2011 Member, ICUD Editorial Group, Localized Prostate Cancer
2005 Co-Chair, 6th International Consultation on Prostate Cancer, Committee on Localized Treatment, Paris.
2004 Member, WHO/ICUD/SIU Consultation on Bladder Cancer; Radiotherapy
2002 Co-Chair, 3rd International Consultation on Prostate Cancer, Committee on Prognostic Factors and Markers, Paris.
1999 Chair, 2nd International Consultation on Prostate Cancer, Committee on Treatment of Regional Disease, Paris.
1996 Member, 1st International Consultation on Prostate Cancer, Monaco.

NATIONAL

Canadian Association of Radiation Oncology
2003 - 2005 Chair, Nominating Committee
2003 - 2005 Past President
2001 - 2003 President
2000 - 2003 Member, Annual Scientific Meeting Committee
1999 - 2005 Member, Board of Directors
1999 - 2001 President Elect
1990 - 1992 Member, Manpower Committee
1986 - 1987 Member, Steering Committee

National Cancer Institute of Canada/Clinical Trials Group
2007 - present Member, Clinical Trials Committee
2000 - 2003 Member, Canadian Prostate Cancer Research Initiative – Management Committee
2000 Member, Nominating Committee
1998 - 2000 Member of the Institute
1998 - 1999 Executive, Genito-Urinary Committee
1997 Member, National Consultation on Cancer Staging
1995 - 1996 Co-Chair, National Forum on Prostate Cancer Treatment
1993 - 1999 Executive, Hematology Committee
1992 - 1998 NCIC CTG Representative, Global GU Clinical Trials Group
1992 - 1998 Chair, Genitourinary Site Committee
1992 - 1995 Chair, Canadian Committee on Cancer Staging
1991 - 1992 Chair, Ad-Hoc Committee on Staging
1990 - 1995 NCIC representative to the UICC / TNM Committee - Geneva
1985 - 1989 Member, Advisory Committee on the TNM Classification of Tumours
Mary GOSPODAROWICZ

Royal College of Physicians and Surgeons of Canada
1995 - 2000  Member, Examination Board for Certification in Radiation Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
2008 - present  Member, Toronto Central Local Health Integration Network
2005 - present  Member, Provincial Leadership Council
2001 - 2012  Member, Radiation Oncology Provincial Advisory Committee
2001 - 2005  Member, Radiation Treatment Advisory Committee (RTAC)

Ontario Ministry of Health
2001  Member, Cancer Human Resources Committee
1996  Consultant, Workers Compensation Board
1990  Consultant, Drug Benefit Program
1989  Referee, Ontario MOH Research Programs

LOCAL

University of Toronto
2009 - 2012  Member, Council of Health Sciences
2005 - 2012  Member, Clinical Relations Committee
2003 - 2006  Member, Hospital/University Education Committee
2003 - 2005  Member, Dean’s Executive Committee
2001 - 2012  Member, Clinical Chairs Committee
2001 - 2012  Member, Clinical and Basic Science Chairs Committee
1995 - 2000  Member, Senior Advisory Group Committee, Faculty of Medicine, Dept of Radiation Oncology
1995  Chair, Toronto Lymphoma Group
1988  Executive, Toronto Genitourinary Oncology Group
1987 - 1992  Chair, Toronto Lymphoma Group, Radiation Oncology Section

Peer Review Activities

EDITORIAL BOARDS

Associate Editor-in-Chief
2015 - present  Journal of Global Oncology
2014 - present  Cancer Biology & Medicine
Member
2010 - present  ASCO Post – Editorial Advisory Board
1993 - present  Cancer - Advisory Editorial Board
1993 - present  Urologic Oncology
2008 - 2009  OncologySTAT
1999 - 2010  Int Journal of Radiation Oncology, Biology, Physics
1999 - 2010  Uro Oncology
1997 - 2001  Prostate Journal
1997 - 2000  The Prostate
Mary GOSPODAROWICZ

North American Editor
2000 - 2006 Clinical Oncology

MANUSCRIPT REVIEWS

Reviewer

Annals of Oncology
British Journal of Cancer
Cancer
Diagnostic Oncology
European Journal of Cancer
International Journal of Cancer
International Journal of Radiation Oncology, Biology, Physics
JAMA
Journal of Clinical Oncology
Journal of the National Cancer Institute
Lancet Oncology
Radiotherapy and Oncology
The Cancer Journal
The Prostate
Uro Oncology
Urologic Oncology
Urology

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2004 **Co-Principal Investigator.** National Hospital Staging Survey. National Cancer Institute of
Canada (NCIC). Collaborator(s): Brierley J, Wiljer D, Gospodarowicz M. 20,000. [Grants]


1999 **Phase III trial of chemotherapy in high risk stage I seminoma. National Cancer Institute of Canada (NCIC). [Clinical Trials]**

1998 Phase III trial of intermittent vs. continuous hormonal therapy in patients with prostate cancer and failure following radiation therapy. National Cancer Institute of Canada (NCIC). [Clinical Trials]

1997 **Principal Investigator.** Study of second primary breast cancer following Hodgkin’s disease. NCI US and CCO Epidemiology Division. Collaborator(s): Dr. L.Travis (Co-Investigator). [Clinical Trials]

1996 **Principal Investigator.** Study of second primary lung malignancies following Hodgkin’s disease. NCI US and OCTRF Epidemiology Division. Collaborator(s): Dr. L.Travis (Co-Investigator). [Clinical Trials]

1995 Jul **Principal Investigator.** Study of second malignancies in testis and ovarian cancer. NCI US and OCTRF Epidemiology Division. Collaborator(s): Dr. L.Travis (Co-Investigator). [Clinical Trials]

1994 Jul A randomized trial of a shorter radiation fractionation schedule for the treatment of localized prostate cancer. Ontario Clinical Trials Group and National Cancer Institute of Canada Clinical Trials Group. [Clinical Trials]

1993 Jul **Phase III trial of chemotherapy alone in stage I and II Hodgkin’s disease. National Cancer Institute of Canada (NCIC). [Clinical Trials]**

1993 Jul **Phase III trial of hormonal therapy in locally advanced prostate cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials]**


NON-PEER-REVIEWED GRANTS

Funded


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Mary GOSPODAROWICZ


Editorials

Clinical Trial, Journal Articles

Comment, Journal Articles

Historical Article, Journal Articles

Journal Articles, Randomized Controlled Trial

Journal Articles, Review

Review
2. NON-PEER-REVIEWED PUBLICATIONS

Books Edited

Book Chapters


Editorials


**Letters to Editor**


**E. Presentations and Special Lectures**

1. **INTERNATIONAL**

**Invited Lectures and Presentations**

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td><strong>Presenter.</strong> Phillips Lecture: Radiotherapy as part of global challenge. UCSF Radiation Oncology Update: Cross-Platform Radiation Therapy in an Evidence-Based World. San Francisco.</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td><strong>Presenter.</strong> Role of radiotherapy in marginal zone lymphomas. Comprehensive Seminar on “Marginal Zone B-cell Lymphomas,” Athens Medical Center and IELSG 16th Annual Meeting. Athens, Greece.</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td><strong>Keynote Speaker.</strong> Global fight against cancer: The role of UICC. 20th National Congress of Cancer. Antalya, Turkey.</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td><strong>Presenter.</strong> Primary extranodal lymphomas. 20th National Congress of Cancer. Antalya, Turkey.</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Radiotherapy remains the standard component of treatment in early stage Hodgkin Lymphoma? (debate). 12th International Conference on Malignant Lymphoma. Lugano, Switzerland.</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td><strong>Presenter.</strong> Cancer in the World - the Equity Imperative. Scientific Association of Swiss Radiation Oncology. Davos, Switzerland.</td>
<td></td>
</tr>
</tbody>
</table>
2013 **Presenter.** Cancer in the world and in Asia - the equity imperative. Asia Pacific Cancer Control Leaders’ Summit. Shanghai, China.

2013 **Presenter.** Cancer staging: A fundamental element of cancer control. 9th AORTIC International Conference on Cancer in Africa. Durban, South Africa.

2013 **Presenter.** Quality assurance in radiation therapy. 9th AORTIC International Conference on Cancer in Africa. Durban, South Africa.

2013 **Presenter.** Radiotherapy in non-Hodgkin lymphomas. 9th AORTIC International Conference on Cancer in Africa. Durban, South Africa.

2013 **Keynote Speaker.** Strategy on Cancer Control: International Perspective. Symposium on Cancer Control: Challenges and Opportunities. Hong Kong.


2012 Mar **Presenter.** Human resource planning. Setting Priorities for Global Cancer Research, National Cancer Institute. Bethesda, Maryland, United States.


2012 Mar **Presenter.** How can a health system provide integrated care to improve outcomes? The Economist Conference on Healthcare in Asia 2012. Singapore.

2012 Feb **Presenter.** The impact of prospective randomized trials on the management of prostate Cancer. Liverpool Hospital. Liverpool, New South Wales, Australia.


2012 **Presenter.** UICC: Radiation therapy in the world. European Society for Therapeutic Radiation Oncology, World Congress of Brachytherapy. Barcelona, Spain.

2012 **Presenter.** UICC Vision and Programs. 8th International Jordan Oncology Society Conference. Amman, Jordan.

2012 **Presenter.** Locally-advanced prostate cancer. 8th International Jordan Oncology Society Conference. Amman, Jordan.

2012 **Presenter.** UICC efforts in cancer control. 34th International Association of Cancer Registries. Cork, Ireland.

2012 **Presenter.** Radiation medicine: Quo vadis? Faculty of the Royal College of Surgeons of Ireland Annual Scientific Meeting. Dublin, Ireland.

2012 **Session Chair.** What can we learn from the fight against AIDS, TB and malaria? World Oncology Forum. Geneva, Switzerland.

2012 **Visiting Professor.** Locally advanced prostate cancer - impact of clinical trials. Management of stage I/II
Mary GOSPODAROWICZ

folicular and marginal zone lymphomas. Department of Radiation Oncology, St. Luke’s Hospital. Dublin, Ireland.


2011 Sep Presenter. UICC – Global Cancer Control. First Symposium on Cancer Staging and prognostication in China, Hong Kong Academy of Medicine. Hong Kong.

2011 Sep Presenter. TNM Classification – Development and Overall Perspectives. First Symposium on Cancer Staging and prognostication in China, Hong Kong Academy of Medicine. Hong Kong.


2011 Jun Presenter. Role of the civil society in improving access to cancer care in LMIC. GTF.CCC Session, American Society of Clinical Oncology Annual Meeting. Chicago.


2010 World Cancer Day – Cancer can be prevented, too. 59th IFMSA General Assembly. Montreal.

2010 The World Cancer Declaration – A call to action from the global community. UICC World Cancer Congress. Shenzhen, China.

2010 Session Chair. Internet applications and cancer. UICC World Cancer Congress. Shenzhen, China.

2010 Session Chair. Can we make high technology radiotherapy affordable? UICC World Cancer Congress. Shenzhen, China.


2010 Radiation therapy for stage I seminoma, game on or game over? ASTRO Annual Meeting. Boston.


2010 Cancer staging and prognosis. NCRI Cancer Conference. Liverpool.


2010 Cancer staging and prognosis in the era of personalized medicine. Excellence in Oncology – Cutting Edge Findings into Clinical Practice. Athens.

2009  **Lymphoma Session Chair.** Molecular Pathology of B cell lymphomas. Highlights in Oncology, Aviano Cancer Center 25th Anniversary. Pordenone, Italy.


2008  Radiotherapy or chemotherapy for stage II A/B seminoma. European Society for Medical Oncology.

2008  Communicating risk management of late effects. ASCO Annual Meeting. Chicago.


2008  Masters in radiation oncology. ASTRO Annual Meeting.

2008  The role of radiotherapy in localized MZL. Danish Lymphoma Group 11th Plenary Meeting. Copenhagen.


2007  **Visiting Professor.** Prognosis and Prognostic Factors in Cancer. Annual Hospital Oration, Tata Memorial Hospital. India.

2007  **Visiting Professor.** Role of radiation therapy in non-Hodgkin lymphoma. Department of Radiation
Oncology, University of Florida. Gainesville.

2007  
International Extranodal Lymphoma Group – 10 years of progress. IELSG Annual Scientific Meeting. Lugano.

2007  
Therapy for Stage I Seminoma. ASCO Annual Meeting. Chicago.

2007  
**Discussant.** GU Cancer Session, ASCO Annual Meeting. Chicago.

2007  
**Session Chair.** Treatment of diffuse of large B-cell lymphoma. Workshop on Aggressive Lymphomas. Germany.

2007  
TNM and Staging. ECCO Annual Meeting. Barcelona.

2007  

2007  

2007  
Bladder Cancer, Session VIII. ASCO GU Cancers Symposium.

2006  

2006  

2006  
This house believes that TNM is a waste of time (debate). 5th European Breast Cancer Conference. Nice, French Guiana.

2006  

2006  
**Co-Chair.** Clinical Science symposium – Survivorship issues in genitourinary malignancy. ASCO/MASCC, American Society of Clinical Oncology. Atlanta, Georgia. (with Larry Einhorn).

2006  
How to interpret and communicate the risks of therapy related complications. American Society of Clinical Oncology. Atlanta, Georgia.

2006  

2006  

2006  

2006  

2005  
**Visiting Professor.** Prognosis and Prognostic Factors in Cancer. Department of Radiation Oncology, MD Anderson Cancer Center.

2005  

2005  
**Visiting Professor.** Radiation Therapy in Follicular and MALT Lymphoma. Department of Radiation Oncology, MD Anderson Cancer Center.

2005  
Gastric MALT Lymphoma: A Retrospective Study. IELSG Annual Meeting. Ascona.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
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<tbody>
<tr>
<td>2005</td>
<td>Radiation Medicine Program at Princess Margaret Hospital. Elekta Synergy Meeting. Wurzburg, Germany.</td>
</tr>
<tr>
<td>2004</td>
<td><strong>Visiting Professor.</strong> Prognosis and prognostic factors in cancer. Department of Radiation Oncology, Mayo Clinic. Rochester, Minnesota.</td>
</tr>
<tr>
<td>2004</td>
<td><strong>Visiting Professor.</strong> Role of Radiation therapy in Lymphomas. Department of Oncology, Mayo Clinic. Minnesota.</td>
</tr>
<tr>
<td>2004</td>
<td><strong>Visiting Professor.</strong> Extranodal Lymphomas – Role of Radiation Therapy. Department of Radiation Oncology, Cleveland Clinic. Ohio.</td>
</tr>
<tr>
<td>2004</td>
<td><strong>Visiting Professor.</strong> Role of radiation therapy in MALT and follicular lymphomas. Department of Radiation Oncology, Henry Ford Hospital. Detroit.</td>
</tr>
<tr>
<td>2004</td>
<td><strong>Visiting Professor.</strong> Future role of radiation therapy in malignant lymphoma. Department of Radiation Oncology, Massachusetts General Hospital, Ira Spiro Visiting Lecturer 2004.</td>
</tr>
<tr>
<td>2004</td>
<td><strong>Visiting Professor.</strong> The role of radiotherapy in lymphomas. Wisconsin Society of Radiation Oncologists.</td>
</tr>
<tr>
<td>2004</td>
<td><strong>Visiting Professor.</strong> Extranodal lymphoma – A distinct disease entity? Department of Radiation Oncology, Mayo Clinic. Rochester, Minnesota.</td>
</tr>
</tbody>
</table>


2003 Localized mucosa-associated lymphoid tissue (MALT) lymphoma treated with radiation therapy has excellent clinical outcome. ECCO12 – The European Cancer Conference. Copenhagen.


2002 Primary Testis Lymphoma. Meet the Professor Session. VIII International Lymphoma Conference. Lugano.


2002 Role of integrated volumetric imaging and delivery. Elekta Symposium at 44th ASTRO Annual Meeting.


2001  From Denoix to Neural Networks. TNM and Prognostic Factors in Cancer. 3rd UICC Cancer Management Meeting. Singapore.


2001  Prostate cancer and Radiation therapy. 96th Annual Meeting of AUA, Takeda Evening Seminar for Japanese Urologists. Prostate Cancer - What is the most optimal treatment modality?.


2001  Extranodal Lymphoma, Refresher Course. 43rd ASTRO Annual Meeting. San Francisco.

2001  Extranodal Lymphomas. Annual Conference on Hematological Malignancies. Scripps Cancer Center. La Jolla, California.


2000 The Role of Radiotherapy in Bladder Cancer. 3rd International Galician Urological Meeting. Krakow, Poland.


2000 Biochemical Relapse Following Radical Prostatectomy and Radiation Therapy (Round Table Discussion). 3rd International Galician Urological Meeting. Krakow, Poland.


1999 GU Malignancies other than prostate cancer. ASTRO Spring Refresher Course Videoconference. New Orleans.


1999 Prostate Cancer – Visiting Speaker. 29th Congress of Polish Urological Association. Warsaw, Poland.


1998 Meet the Professor Session, Primary Extranodal Lymphomas. American Society of Clinical Oncology.


1998 Prospective randomized trials in locally advanced prostate cancer. ASTRO – Leader of the Panel on Locally Advanced Prostate Cancer – didactic and case based discussion.

1998 Educational Session – Germ Cell Tumors, Staging and Prognosis in Germ Cell Testis Tumors. American
1998 Gastric MALT lymphoma. Toronto International Lymphoma Conference.
1998 **Visiting Professor.** Definitive radiation therapy in bladder cancer. MD Anderson Cancer Center. Houston, Texas.
1998 **Visiting Professor.** Evolution of the prognostic factor based management of clinical stage I and II HD. MD Anderson Cancer Center. Houston, Texas.
1997 **Keynote Speaker.** Palliative radiotherapy in prostate and bladder cancer. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.
1997 **Keynote Speaker.** The value of prognostic factors in cancer. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.
1997 **Keynote Speaker.** Role of definitive radiation therapy in the management of locally advanced bladder cancer. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.
1997 **Keynote Speaker.** Optimum management of early stage testicular tumours. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.
1997 Optimum management of early stage seminoma. 4th International Testis Cancer Conference. Leeds, United Kingdom.
1997 **Keynote Speaker.** Combined modality approach in the management of locally advanced prostate cancer. XXII Biennial Congress of the Urological Association of South Africa. Cape Town, South Africa.
1996 Prognostic factor based management of stage I and II Hodgkin’s disease. Nebraska Lymphoma Study Group, Department of Hematology/Oncology, University of Nebraska. Omaha, Nebraska.


1996 Radical prostatectomy vs. radiation therapy in early stage prostate cancer. 2nd Urological Meeting of the Americas. Mexico.


1996 Controversial topics in Urologic Neoplasia. 2nd Urological Meeting of the Americas. Mexico.


1996 Visiting Professor. Bladder conservation with radiation therapy. University of Lausanne, Department of Radiation Oncology. Switzerland.


1995 Visiting Professor. Management of stage I seminoma. University of Zurich, Switzerland. Department of Radiation Oncology.


<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
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<tbody>
<tr>
<td>1994</td>
<td>Management of locally advanced prostate cancer - the role of RT and post-op RT. V Curso Português de Oncologia Urológica, European School of Oncology. Portugal.</td>
</tr>
<tr>
<td>1993</td>
<td>The overview of treatment of primary gastrointestinal lymphoma. 5th International Conference on Malignant Lymphoma. Workshop on Gastrointestinal Lymphoma. Lugano.</td>
</tr>
<tr>
<td>1991</td>
<td>Clinical definition of the high risk patient. Mini-symposium: Controversies in the management of high risk</td>
</tr>
</tbody>
</table>

1991
TNM Staging Classification for carcinoma of the prostate. First International Conference of the Dutch Urological Association / Progress and Controversies in Urological Oncology Meeting. Rotterdam. (Panel discussion).

1991

1991

1991

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1990

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1990
Visiting Professor. Management of localized lymphomas. University of Cincinnati College of Medicine, Department of Radiation Oncology. Cincinnati, Ohio.

1990

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1986
Role of radiation therapy and adjuvants in the treatment of infiltrating bladder cancer. 38th Annual meeting of the Northeastern Section of the American Urological Association. Toronto.

1984

1981
Treatment of malignant lymphomas. XV International Congress of Radiology, Scientific Program Section
II. Brussels, Belgium.


1979 Treatment of cancer of the ovary - Princess Margaret Hospital Study. Stanford University.

1979 Malignant lymphomas - Princess Margaret Hospital experience. Stanford University.

Presented Abstracts


2008 The continuous review process of the TNM classification. UICC World Cancer Congress. Groome PA, Gospodarowicz MK, Sobin LH, Greene FL, Keller S.


1999

1999

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1996
Stage I testicular seminoma managed by surveillance alone: Is flow cytometric DNA analysis of predictive value for relapse? American and Canadian Academy of Pathology. Banerjee D, Warde PR,
Gospodarowicz MK, Koekebakker M, Webster LA, Panzarella T, Sugar L, Catton CN, Sturgeon JFG, Moore M, Jewett MAS.

1995

1995

1995

1994

1994

1994

1994
Late relapse in patients on surveillance for stage I testicular seminoma. 3rd International Germ Cell Tumour Conference.

1987

1984

1983

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1983

1983

1982


2. NATIONAL

Invited Lectures and Presentations


2011 Jan Understanding the long term risks of cancer and its treatment. Foster the Partnership: Canadian GU Cancers Survivorship Workshop. King City.


1990 Role of radiation therapy in management of non-Hodgkin’s Lymphoma. Annual meeting of the Royal
Mary GOSPODAROWICZ

College of Physicians and Surgeons of Canada. Toronto. Joint symposium of the Canadian Hematology Society, Canadian Oncology Society, Canadian Association of Medical Oncology and Canadian Association of Radiation Oncology.


1985 The role of RT in the management of localized lymphomas. Royal Victoria Hospital, McGill University. Montreal.


Other Lectures and Presentations


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


1995 Chemoradiation in the management of locally advanced bladder cancer. Multidisciplinary Oncology Rounds, Hamilton Regional Cancer Centre.


Other Lectures and Presentations

(Presentation to Patients/Public).

2005 May  
SUSO Meeting. Intercontinental Hotel. (Presentation to Patients/Public).

2002  

1998  

1998  
Clinical trials in prostate cancer. US TOO Prostate Support Group, Brampton, Ontario chapter. (Presentation to Patients/Public).

1998  

1998  

1997  
Prostate Cancer Research at the Princess Margaret Hospital. US TOO, Brampton Chapter. Brampton, Ontario. (Presentation to Patients/Public).

1997  

1996  
Combined hormone and radiation therapy in the management of prostate cancer. Peel and Toronto Urology Community Group. Toronto. (Presentation to Patients/Public).

1996  
Understanding lymphoma; a general overview. Lymphoma Foundation Family Information Forum. Toronto. (Presentation to Patients/Public).

4. LOCAL

Invited Lectures and Presentations

2016 Feb 1  

2008  
The current role of radiation therapy in the treatment of lymphoma. PMH 50th Anniversary. The 8th Princess Margaret Hospital Conference. Toronto.

2003  

2002  

1997  

1997  
Radical prostatectomy vs.radiation therapy in early stage prostate cancer. Controversies in Urologic Oncology. Toronto.

1995  
Observation in early stage prostate cancer. Prostate Cancer Workshop, University of Toronto.

1994  
Chemo-radiotherapy in bladder cancer. Clinical Aspects of Radiation Biology, University of Toronto Department of Radiation Oncology CME Course. Toronto. (Continuing Education).

1994  

1993  
Mary GOSPODAROWICZ

1992 Results of involved field radiotherapy in clinical stage I and II low grade lymphoma. Radiation Oncology 25 years later. University of Toronto - Department of Radiation Oncology, Alumni Day. Toronto.


Other Lectures and Presentations

2006 Dec Accelerating transformation of cancer research and practice at PMH. PMH Foundation/TD Waterhouse Evening. (Presentation to Patients/Public).
Curriculum Vitae

Kathy Han

A. Date Curriculum Vitae is Prepared: 2016 August 9

B. Biographical Information

Primary Office
Princess Margaret Cancer Centre, University Health Network
Department of Radiation Oncology
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946-2919
Fax (416) 946-6561
Email Kathy.Han@rmp.uhn.on.ca

1. EDUCATION

Degrees
2012 Jul - 2014 Mar MSc, Epidemiology, Harvard School of Public Health, Boston, Massachusetts, United States
2002 Aug - 2006 May MD, Medicine, Faculty of, McGill University, Montreal, Quebec, Canada
1998 Sep - 2002 Apr BSc, Immunology, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
2012 Jul 1 - 2012 Dec 31 Fellow, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2006 Jul 1 - 2012 Jun 30 Resident, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2012 Jun - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2008 Jan - present Diplomate, US Medical Licensing Exam, United States
2007 Nov - present Licentiate (LMCC), Medical Council of Canada
2006 Jul - present College of Physicians and Surgeons of Ontario, License / Membership #: 84467
2012 Jan Certificate in Protecting Human Research Participants, National Institutes of Health
2008 Sep Certificate in Principles of Clinical Research Practice, University Health Network

2. EMPLOYMENT

Current Appointments
2013 Jul 1 - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Canada
2013 Jan 1 - present Staff Physician, Radiation Medicine Program, Princess Margaret Cancer Centre, University Health Network.
2016 Mar 1 - 2021 Feb 28 Associate Member, Institute of Medical Science, University of Toronto, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2011 Sep  
Resident Training Fellowship, Radiation Therapy Oncology Group (RTOG), American College of Radiology. (Distinction)
Selected for a funded 5-day fellowship to attend RTOG study chair education and training session at RTOG headquarters, and to finalize research focus.

1998 Sep - 2002 May  
Honour List, Golden Key International Honour Society. (Distinction)
Recognized as the top 15% of the students.

NATIONAL

Received

2013 Nov  
Cancer Research Development Program, Canadian Cancer Research Conference, Canadian Institutes for Health Research (CIHR) and Canadian Cancer Society Research Institute (CCSRI). (Distinction)
Funded to attend training program for new principal investigators.

2013 Aug  
New Investigator Clinical Trials Course, National Cancer Institute of Canada/Clinical Trials Group. (Distinction)
Chosen to learn the essentials of clinical trial conduct in the Canadian research environment.

2013 May  
Junior Investigator Travel Grant Award, Canadian Cancer Society. (Research Award)
Selected to gain knowledge and understanding of peer review process for research grants.

2012 Jul - 2012 Dec  
CARO-Elekta Fellowship Award, Canadian Association of Radiation Oncologists (CARO)-Elekta, Canada. (Research Award)
Won in competition with residents across Canada for fellowship funding. Total Amount: 37,500 CAD

2002 Jun  
Student Research Award, Canadian Institutes of Health Research. (Research Award)
Awarded for research interest and academic excellence. Total Amount: 2,700

PROVINCIAL / REGIONAL

Received

2016 Jan  
Ontario Association of Radiation Oncologists (OARO) Clinician Scientist Award, OARO. (Distinction)

2002 Jun  
Ontario Graduate Scholarship (OGS), Ontario Ministry of Training, Colleges, and Universities. (Distinction)
Awarded based on academic excellence. (Declined). Total Amount: 5,000

1998 Jun  
Governor General’s Academic Medal, Governor General of Canada. (Distinction)
Presented to the student graduating with the highest average from secondary school.

LOCAL

Received

2014 Nov  
Outstanding Research Potential Award, University of Toronto Department of Radiation Oncology. (Distinction)

2012 Jul - 2012 Dec  
Excellence in Radiation Research for the 21st Century (EIRR21) Research Training Award, Canadian Institutes of Health Research/Terry Fox Foundation. (Research Award)
Chosen for award based on the proposed research project and previous accomplishments. 
Total Amount: 15,000

2006 May

**McGill Alumni Society Convocation Prize**, McGill University Faculty of Medicine. (Distinction)
Presented upon graduation to a distinguished medical student for excellence and high academic standing. Total Amount: 150

2004 Jan

**J.W. McConnell Award**, McGill University Faculty of Medicine. (Distinction)
Awarded for ranking in top 5% of the class. Total Amount: 1,500

2003 Aug

**Samuel Rosenfield Prize**, McGill University Faculty of Medicine. (Distinction)
Awarded to the student with highest standing in Host Defense unit, first year medical school. Total Amount: 150

2002 Aug - 2006 May

**Dean’s Honour List**, McGill University Faculty of Medicine. (Distinction)
Awarded to the top 10% of the graduating medical class.

2002 May - 2002 Aug

**Summer Research Studentship Award**, Sunnybrook Health Sciences Centre. (Distinction)
Awarded for research interest and academic excellence. Total Amount: 4,200

2002 May - 2002 Aug

**Summer Undergraduate Scholarship**, University of Toronto. (Distinction)
Awarded to the top students in the Department Medical Biophysics research program. Total Amount: 1,500

2002 May

**Provost's Scholar**, University of Toronto. (Distinction)
Presented to the top 27 graduating students from Trinity College. Total Amount: 200

2001 May - 2001 Aug

**Summer Undergraduate Scholarship**, University of Toronto. (Distinction)
Awarded to the top students in the Department Medical Biophysics research program. Total Amount: 1,500

2001 May

**Chancellor’s Scholarship**, University of Toronto. (Distinction)
Granted for strong academic achievement. Total Amount: 500

1998 Sep - 2002 Apr

**Dean’s Honour List**, University of Toronto. (Distinction)
Awarded for high academic standing.

---

**Teaching and Education Awards**

**LOCAL**

Received

2016 Jun

**Best RMP Rounds for 2015/2016**, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Center. (Multilevel Education)
Awarded for presentation: “Personalizing Cervix Cancer Treatment: Seeing is Believing.”.

**Student/Trainee Awards**

**INTERNATIONAL**

Received

2014 Sep

**RSNA Trainee Research Prize, Resident Category**, Supervisor, Awardee Name: Dr. Adam Gladwish. Radiological Society of North America (RSNA)
Chosen for award based on research project titled “Does the Apparent Diffusion Coefficient Value Predict Disease Recurrence in Patients with Locally Advanced Cervical Cancer Treated with Radical Chemoradiation?”. Total Amount: 1,000

2014 May

**American Society for Radiation Oncology (ASTRO) Resident Digital Poster Discussion Award, Physics Category**, Supervisor, Awardee Name: Dr. Adam Gladwish. ASTRO Annual Meeting
Selected as the highest-rated abstract submitted by a resident and accepted as a Digital Poster Discussion for the work titled: “Technical Factors affecting Apparent Diffusion
"Coefficient in Women with Locally Advanced Cervical Cancer".

PROVINCIAL / REGIONAL

Received

2013 Sep - 2014 Jun Excellence in Radiation Research for the 21st Century (EIRR21) Resident Research Training Award, Awardee Name: Dr. Adam Gladwish. Canadian Institutes for Health Research (CIHR)-Terry Fox Foundation
Chosen for award based on the proposed research project titled “Diffusion weighted imaging as a non-invasive biomarker for outcome in locally advanced cervical cancer”.

LOCAL

Received

2014 Jun Chair’s Award for Academic Excellence in Research, Awardee Name: Dr. Adam Gladwish. University of Toronto Department of Radiation Oncology
Chosen as the best oral presentation delivered by a resident at the UTDRO Research Day for his work titled “Does the apparent diffusion coefficient value predict disease recurrence in patients with locally advanced cervical cancer treated with radical chemoradiation?”.

2014 Jun W.J. Simpson Award, Supervisor, Awardee Name: Dr. Adam Gladwish. University of Toronto Department of Radiation Oncology (UTDRO)
Chosen as the best oral presentation delivered by a resident at the UTDRO Research Day for his work titled “Does the apparent diffusion coefficient value predict disease recurrence in patients with locally advanced cervical cancer treated with radical chemoradiation?”.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2013 Dec 1 - present Member, American Society of Clinical Oncology
2011 Dec 1 - present Member, Radiological Society of North America
2008 Feb 1 - present Member, Canadian Association of Radiation Oncology
2008 Jan 1 - present Member, American Society for Radiation Oncology

Administrative Activities

INTERNATIONAL
RSNA Headquarters, Oak Brook

NATIONAL
National Cancer Institute of Canada Clinical Trials Group
2014 May - present Member, Endometrial Cancer Working Group

PROVINCIAL / REGIONAL
Cancer Care Ontario
2014 Sep - present Member, Cervical Cancer Pathway Working Group
LOCAL

**Princess Margaret Cancer Centre**

2015 Feb - present **Organizer**, Radiation Medicine Program Research Rounds

2014 May - present **Member**, Protocol Review Committee, Radiation Medicine Program

**Techna Institute**

2014 May - present **Liason**, Gynecology Site Group, Cancer Informatics Platform

**University of Toronto**

2015 Feb - 2015 Mar **Reviewer**, Faculty of Medicine Admissions

2014 Dec **Examiner**, Department of Radiation Oncology PGY5 Resident Planning Exam

2013 Nov - 2013 Dec **Reviewer**, Canadian Resident Matching Service (CaRMS), Department of Radiation Oncology

2011 - 2012 **PGY-5 Resident Representative**, Evaluation Subcommittee, Postgraduate Medical Education (PGME), Department of Radiation Oncology

2006 - 2007 **PGY-1 Resident Representative**, Postgraduate Medical Education (PGME) Committee, Department of Radiation Oncology

**Peer Review Activities**

**EDITORIAL BOARDS**

**Editor**

2002 Sep 1 - 2003 Jun 30 McGill University, McGill Journal of Medicine

2003 Jul 1 - 2004 Jun 30 McGill University, McGill Journal of Medicine

**GRANT REVIEWS**

**Internal Grant Reviewer**

2016 Jan 20 RMP Regenerative Medicine Grants Competition, Number of Reviews: 1

**MANUSCRIPT REVIEWS**

**Reviewer**

2016 May - present Oncotarget, Number of Reviews: 1

2016 Jan - present Radiotherapy and Oncology, Number of Reviews: 1

2015 Jul - present Journal of Global Oncology, Number of Reviews: 1

2012 - present International Journal of Radiation Oncology*Biology*Physics, Number of Reviews: 8

2012 - present Technology in Cancer Research and Treatment, Number of Reviews: 1

2011 Brachytherapy, Number of Reviews: 2

**ABSTRACT REVIEWS**

**Reviewer**

2014 - present Canadian Association of Radiation Oncology Annual Meeting
C. Academic Profile

1. RESEARCH STATEMENTS

Research Statements.
My research primarily focuses on improving the therapeutic ratio and better individualizing radiation treatment through the development and application of molecular imaging and biology-based approaches:
1) Improving geometric performance and clinical application of diffusion-weighted imaging in radiation treatment planning by using segmented echo-planar imaging (vs. standard single-shot echo-planar imaging);
2) Refining target delineation in MR-guided cervix brachytherapy by using multiparametric MR (T2-weighted, dynamic contrast-enhanced, and diffusion-weighted sequences) and FDG-PET imaging;
3) Investigating the potential of metformin to decrease tumor hypoxia and improve radiation response in locally advanced cervical cancer in a hypoxia-directed trial using fluoroazomycin arabinoside (FAZA)-PET imaging; and
4) Investigating plasma HPV DNA as a biomarker in locally advanced cervical cancer.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

To improve patient outcome by reducing tumor hypoxia in patients with locally advanced cervix cancer.

2014 Nov - 2016 Oct  Co-Principal Investigator. FDG-PET and Circulating HPV in Patients with Cervical Cancer Treated with Definitive Chemoradiation. University of Toronto Department of Radiation Oncology Collaborative Research Seed Grant. PI: Han K, Bratman S, Leung E. 50,000 CAD. [Grants]
Goal: To determine if plasma HPV DNA predates clinical recurrence and/or improves the accuracy of metabolic response on FDG-PET scan at 3 months post completion of radical chemoradiation in patients with locally advanced cervical cancer.

Goal: To improve patient outcome by targeting or exploiting hypoxic cell phenotypes in tumors. The program consists of 5 projects: novel mechanistic studies to understand how
hypoxia influences protein expression relevant to metastasis (P1), identification of new therapeutic targets and development of new biologics (P2), understanding the relationship between hypoxia and genetic changes (P3), evaluating proposed new therapies in models (P4), and implementing personalized medicine approaches in active, hypoxia-directed clinical trials (P5). One of the funded P5 studies is a Phase II Metformin Trial to reduce tumor hypoxia in locally advanced cervix cancer (PI: Han, K).

2012 Jul - 2015 Jun  
**Principal Investigator.** A Prospective Pilot Study of the Utility of DWI, DCE-MRI and FDG PET-CT imaging in T2W MRI-Guided Brachytherapy for Cervical Cancer. Radiological Society of North America. Research Fellow Grant. 50,000 USD. [Grants]  
**Goal:** To evaluate the feasibility and utility of diffusion-weighted MRI, dynamic contrast-enhanced MRI and FDG PET imaging for target delineation in MRI-guided brachytherapy for cervical cancer.

**E. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


F. Presentations and Special Lectures

1. INTERNATIONAL

Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2014 Sep  Predictors of breast radiation therapy plan modifications: quality assurance rounds in a large cancer center. ASTRO Annual Meeting. San Francisco, California, United States.

Publication Details:


Publication Details:

2014 Sep  Technical factors affecting apparent diffusion coefficient in women with locally advanced cervical cancer. ASTRO Annual Meeting. San Francisco, California, United States. (Trainee Presentation)

Publication Details:

2014 Sep  Presenter. The relationship between circulating CD34+ cells with mental fatigue and insomnia during

Publication Details:

2014 Sep  
**Presenter**. What is the optimal treatment for patients with sentinel node-positive vulvar cancer? ASTRO Annual Meeting. San Francisco, California, United States. (Poster Presentation).

Publication Details:

2013 Oct  

Publication Details:

2012 May  

Publication Details:

2011 Oct  

Publication Details:

2010 Oct  
**Presenter**. IMRT and concurrent chemotherapy for anal and perianal cancer: the Princess Margaret Hospital Experience. ASTRO Annual Meeting. San Diego, California, United States. (Poster Presentation).

Publication Details:

2009 Nov  

Publication Details:

2004 May  
**Presenter**. Preoperative alpha-fetoprotein slope is predictive of hepatocellular carcinoma recurrence after

Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2016 Apr 4 Presenter. Canadian experience with implementation of MRI guided brachytherapy. ESTRO-CARO Teaching Course on Image-Guided cervic radiotherapy - with a special focus on adaptive brachytherapy. ESTRO-CARO. Toronto, Ontario, Canada. Presenter(s): Han K.

Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Han K, Metser U, Yeung I, Shek T, Detsky J, Levin W, Manchul L, Vines D, Fyles A, Milosevic M. Measurement of tumour hypoxia in patients with locally advanced cervical cancer using positron emission tomography (PET) with 18F-fluorooazomycin arabinoside (18F-FAZA) (Poster Presentation). Radiother Oncol. 2015 Sep 1;116(1):S67. **Principal Author.**

**2014 Aug** Predictors of breast radiotherapy plan modifications: quality assurance rounds in a large cancer centre. CARO Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.


**2014 Aug** Neutrophils modulate response to radiation and chemotherapy in locally advanced cervical cancer. CARO Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.


**2014 Aug** Vaginal dose and patient reported sexual adjustment with MR-guided brachytherapy for cervical cancer. CARO Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.


**2013 Sep** **Presenter.** Phase I/II study of palliative radiation and sorafenib for patients with metastatic renal cell carcinoma and painful bone metastases. CARO Annual Meeting. Montreal, Quebec, Canada. (Oral Presentation).


**2013 Sep** **Presenter.** Trends in utilization of brachytherapy in cervical cancer in the United States. CARO Annual Meeting. Montreal, Quebec, Canada. (Oral Presentation).


**2012 Sep** Adjuvant radiotherapy improves local control and survival in patients with uterine leiomyosarcoma. CARO Annual Meeting. Ottawa, Ontario, Canada.

*Publication Details:*

2010 Sep Presenter. Intensity-modulated radiotherapy (IMRT) and concurrent chemotherapy for anal and perianal cancer: the Princess Margaret Hospital Experience. CARO Annual Meeting. Vancouver, British Columbia, Canada. (Oral Presentation).

Publication Details:

2009 Sep Presenter. Comparison of helical, slow and average CT for radiation treatment planning and normal tissue contouring in stereotactic body radiotherapy of lung tumours. CARO Annual Meeting. Quebec City, Quebec, Canada. (Poster presentation).

Publication Details:
Han K, Cheung P, Basran P. Comparison of helical, slow and average CT for radiation treatment planning and normal tissue contouring in stereotactic body radiotherapy of lung tumours. Radiother Oncol. 2009 Sep;92(Suppl 2):S5-6. Principal Author.


Publication Details:

2009 Sep Presenter. Intensity-modulated radiotherapy (IMRT) and concurrent chemotherapy for anal and perianal cancer: preliminary report of acute toxicity. CARO Annual Meeting. Quebec City, Quebec, Canada. (Poster Presentation).

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Presented Abstracts


2009 May Presenter. Comparison of helical, slow and average CT for radiation treatment planning and normal
tissue contouring in stereotactic body radiotherapy of lung tumours. Department of Radiation Oncology Research Day, University of Toronto. Toronto. (Poster presentation).

2009 May Presenter. Intensity-modulated radiotherapy (IMRT) and concurrent chemotherapy (ChT) for anal and perianal cancer: preliminary report of acute toxicity. Department of Radiation Oncology Research Day, University of Toronto. Toronto. (Poster presentation).


Departmental Rounds

2016 Apr 18 Presenter. MRI guided adaptive brachytherapy for cervical cancer. Gynecological Site group Rounds. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Han K.

2015 Dec 10 Presenter. Personalizing Cervix Cancer Treatment: Seeing is Believing. RMP Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Han K.


2013 Apr 4 Presenter. Improving Cervix Cancer Outcomes: From Technology to Pharmacology. RMP Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Han K and Fyles A.

Other Speaking Engagements


2015 Sep 28 Invited Speaker. Ovarian Cancer Peer Support Network GTA. Toronto, Ontario, Canada. Presenter(s): Han K.

G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2016 Question writer for breast cancer, Radiation Oncology written exam, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, PGY 2/3

2016 UME curriculum renewal, week 5 breast cancer case development, Postgraduate MD,
Faculty of Medicine, Dept of Radiation Oncology

Provided details on radiation treatment for breast cancer.
Enriched learning for medical students.

2015
Question writer for gynecological cancer, Radiation Oncology written exam, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, PGY 2/3

2014
Question writer for gynecological cancer contouring case, Radiation Oncology planning exam, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, PGY 4/5

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2016 Jun - 2016 Aug  
Primary Supervisor. Year 2. Rachel Gerber. Supervisee Position: Second Year Medical Student - Radiation Medicine Program Summer Research, Supervisee Institution: Royal College of Surgeons Ireland. Outcomes and late toxicity for cervical cancer patients receiving personalized MR-guided brachytherapy. Supervisor(s): Han, K.

Postgraduate MD

2013 Feb - 2015 Oct  
Co-Supervisor. Dr. Adam Gladwish. Supervisee Position: PGY4 radiation oncology resident, Supervisee Institution: University of Toronto. Diffusion weighted imaging as a non-invasive biomarker for outcome in locally advanced cervical cancer, Non-thesis Project. Awards: RSNA Trainee Research Prize EIRR21 Resident Research Training Award ASTRO Resident Digital Poster Discussion Award Chair’s Award for Academic Excellence in Research W.J. Simpson Award. Supervisor(s): Drs. Han K and Foltz W.

Clinical Research Fellow (MD)

2015 Feb - present  
Primary Supervisor. Dr. Reem Ujaimi. Supervisee Position: Radiation oncology fellow, Supervisee Institution: Princess Margaret Cancer Centre. Correlation between intermediate dosimetric parameters and late rectal toxicity in magnetic resonance image-guided cervix cancer brachytherapy, Non-thesis Project. Supervisor(s): Han K.

2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2016 Mar - present  
MSc. Dr. Magali Lecavalier-Borsum, Medical Science. Improving the effectiveness of radiotherapy in cervical cancer: Targeting the CXCL12 pathway and myeloid cells to improve tumor control and reduce metastases. Supervisor(s): Dr. Michael Milosevic.

Clinical Internship Supervisor

2015 Jan - 2015 Aug  
CURRICULUM VITAE

CHARLES ROBERT RUSSELL HAYTER

15 Maitland Place
Toronto, Ontario, Canada M4Y 2X3
Tel: 647-449-7476
E-mail address: chayter@rogers.com

Date of Birth: April 17th, 1952
Citizenship: Canadian and British

Updated April 14, 2016

EDUCATION

MD Queen's University, Kingston, Canada 1984
MA Drama, University of Calgary, Canada 1976
BA (Hons) English and Drama, Queen's University 1974

SPECIALIST QUALIFICATIONS

1988 FRCPC Radiation Oncology

MEDICAL LICENSES

1985 Licentiate of Medical Council of Canada (LMCC #59973)
1985 Province of Ontario General Medical License (Licence 54415)
1989 Province of New Brunswick Medical License

CURRENT APPOINTMENT

Since 2007 Radiation Oncologist
Peel Regional Cancer Centre
Credit Valley Hospital, Ontario
Mississauga, Ontario
Adjunct Associate Professor,  
Department of Radiation Oncology,  
University of Toronto

**PREVIOUS APPOINTMENTS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2007</td>
<td>Radiation Oncologist</td>
<td>Grand River Cancer Centre, Kitchener, Ontario</td>
</tr>
<tr>
<td>2005-2006</td>
<td>Palliative Care Physician</td>
<td>Temmy Letner Centre for Palliative Care, Mount Sinai Hospital, Toronto</td>
</tr>
<tr>
<td>1999-2005</td>
<td>Associate Professor</td>
<td>Department of Radiation Oncology, University of Toronto</td>
</tr>
<tr>
<td>1999-2005</td>
<td>Radiation Oncologist</td>
<td>Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario</td>
</tr>
<tr>
<td>1997-1999</td>
<td>Associate Professor</td>
<td>Department of Oncology, Queen’s University</td>
</tr>
<tr>
<td>1991-1997</td>
<td>Assistant Professor</td>
<td>Department of Oncology, Queen's University, Kingston, Ontario</td>
</tr>
<tr>
<td>1989-1991</td>
<td>Radiation Oncologist</td>
<td>Saint John Regional Hospital, Saint John, New Brunswick</td>
</tr>
<tr>
<td>1989-1991</td>
<td>Lecturer</td>
<td>Department of Radiation Oncology, Dalhousie University, Halifax, Nova Scotia</td>
</tr>
<tr>
<td>1989</td>
<td>Honorary Senior Registrar</td>
<td>Department of Radiotherapy and Oncology, Royal Marsden Hospital, London, U.K.</td>
</tr>
<tr>
<td>1985-1988</td>
<td>Resident</td>
<td>Department of Radiation Oncology, Queen's University</td>
</tr>
</tbody>
</table>

Including two months of training in paediatric radiotherapy at the Cancer Control Agency of
1984 - 1985 Intern Department of Medicine Queen's University One year of specialty internship training in internal medicine

1977 - 1979 Assistant Professor Department of Drama Queen’s University

AWARDS AND DISTINCTIONS

Medical

2014 Gordon Richards Lectureship, Canadian Association for Radiation Oncology

2001 John B. Neilson Award Associated Medical Services, Inc.

(The Award shall be offered to a Canadian (not a professional medical historian) who has made a significant continuing, long-standing contribution to the history of health care in Canada. It will be made on the basis of contributions of high quality to the discipline, in the form of noteworthy historical publications, teaching, research, and service to the community or other significant endeavours)

1988 McEachern Award Canadian Cancer Society

1984 Neil Currie Polson Memorial Prize

1982 Alice Waddington Scholarship in Psychosocial Aspects of Medicine

1982 Ivan Smith Summer Studentship Ontario Cancer Foundation, Kingston Clinic

1981 Summer Studentship Department of Medicine (Neurology) Queen's University
1981 Daniel McTavish Daniel Baker Scholarship
1980 Roberta McCullough Entrance Scholarship

Non-Medical

1975 Province of Alberta Graduate Scholarship
1974 Queen's University Medal in Drama
1972 Bogart Prize in Greek
1971 McIver Scholarship in English
1971 W. Near Prize in Classics
1970 Queen's University Entrance Scholarship
1970 Governor-General's Medal (high school graduation)

MEMBERSHIPS AND PROFESSIONAL ACTIVITIES

Canadian Association of Radiation Oncologists - served as Atlantic Director 1990-1991
American Society for Therapeutic Radiology and Oncology
Canadian Society for the History of Medicine
American Association for the History of Medicine
Canadian Society for Clinical Hypnosis – Ontario Division
Canadian Medical Association
Ontario Medical Association
Southern Ontario Gay and Lesbian Association of Doctors

Committees Chaired:

Undergraduate Education, Dept of Radiation Oncology, University of Toronto, 2000-2004
Archives and History Committee, Canadian Association of Radiation Oncologists, 1997-2003
Admissions Committee, Faculty of Medicine, Queen's University, 1995-1999
GU Site Group, Kingston Regional Cancer Centre, 1995-1999
50th Anniversary Committee, Kingston Regional Cancer Centre, 1996
Undergraduate Education Committee, Department of Oncology, 1991-1995
Co-chair, Oncology Inpatient Unit Management Committee, 1991-1993

Offices held:

Director of Education, TSRCC Radiation Program, 2002 - 2005
President, Toronto Medical History Club, 2003 - 4
President, Canadian Association for the History of Medicine, 2001-2003
Secretary, Medical Staff Committee, Kingston Regional Cancer Centre, 1992-1993
Prosector, Department of Anatomy, Queen’s University, 1981-1982

Committee Memberships:

Royal College of Physicians and Surgeons of Canada History and Heritage Advisory Committee, 2008-
U of T Faculty of Medicine Electives Committee, 2001-2004
American Association for the History of Medicine Annual Meeting Committee, 2001-04
Cancer Care Ontario Working Group on Unconventional Therapies, 1998-2002
Member of the Board, Canadian Society for the History of Medicine, 1997-2004
Member of the Board, Museum of Health Care for Eastern Ontario, 1997-1999
Member of the Board, John Austin Society, 1996-1999
Chronic Pain Management Committee, Kingston General Hospital, 1996-1999
Admissions Committee, Faculty of Medicine, 1992-1999
Queen's University Ban Righ Board, 1992-1995
Andrina McCullough Public Speaking Award, 1992-1993
Canadian Association of Radiation Oncologists Ad Hoc Centenary Committee, 1993-1996
Kingston Regional Cancer Centre Patient Care Advisory Committee
Kingston Regional Cancer Centre Oncology Training Program Committee
Saint John Regional Hospital Ethical Review Board, 1990-1991
Saint John Regional Hospital CME Committee, 1990-1991

Other Positions held:

Off Campus Student Advisor, Queen's University, 1991-1992
Sessional Instructor, Division of Humanities, University of N.B. at Saint John, N.B., 1990
Don, Men's and Co-ed Residences, Queen's University, 1979-1982
Assistant Professor, Department of Drama, Queen's University, 1977-1979
Graduate Teaching Assistant, Department of Drama, University of Calgary, 1974-1976
EDUCATIONAL ACTIVITIES

University of Toronto – Undergraduate

Ongoing Mentor CHOICES program

February 2000 Group Facilitator Diversity in Medicine Program

2000 - 2002 Tutor Determinants of Community Health course (year 1)

Seminars / Lectures (Number of Hours):

- DOCH-2 Independent Learning Project (ILP) Supervisor 2001-2: Anita Chakraborty, Aiden Mokhtassi, Kelly Williams, Carol Zimbalatti, Hin Hin Ko, Andrea Molckovsky

- DOCH-2 ILP Supervisor 2002-3: Allan Lee, Connie Chiu, Michael Ordon, Garfield Miller, Chia Yee Hong

- Lecture “The History of the Medical Profession,” DOCH-1 course, September 18th, 2003; September 9, 2004

Medical Students Assigned:

Jon-Paul Voroney (4th year elective, March 18-28, 2002)
Malcolm Gibson (4th year elective, Queen’s, April 8-May 3rd 2002)
Allan Lee (2nd year observer, August 19-30, 2002)
Yongjin Wang (IMG observer, October 10, 2002)
Kevin Lai (2nd year observer, October 21, Nov 6, 15, 2002)
Susan Russell (4th year elective, Memorial, October 7-November 1st, 2002)
Alwin Cunje (4th year elective, McMaster, January 6-29, 2003)
Stacey Grossman (4th year ACE), March 13, 2003
Philip Buckler (4th Year ACE), April 15, 2003
Tim Hanna (3rd year elective, June 11 & 18, 2003)
Jane Lea (Ivan Smith student, June 9-July 25, 2003)
Mark Lomaga (3rd year elective, September 15-28, 2003)
Anand Swaminath (elective) Jan 19 – 30, 2004
Ratna Appasani (IMG observer) Apr 14 - May 14, 2004
Stephen Chin (Ivan Smith student) May 3 - Jun 11, 2004
Nisha Mistry Ivan Smith student) Jul 12-Aug 20, 2004
Perry Choi (4th year ACE) Oct 4 – 29, 2004
David Bowes (4th year elective) Nov 15 - Dec 3, 2004
Susan James (4th year Arts and Medicine elective) April 11-May 6, 2005
Caroline Liau (4th year clerk), January 10th, 2006

Herman Tang (mentor), 2015

**University of Toronto- Postgraduate**

Mentorship Dr Ewa Szumacher

Dr. Anoo Tamber (Palliative Medicine Fellow, Dec 2-30, 2003)
Dr. Justin Lee (Radiation Oncology Resident, July 1st-September 30, 2004)

**Queen's University (1991-1997) - Undergraduate**

Instructor Clinical Skills Program

Mentor Death and Dying Elective

Lecturer Phase IIA Principles of Oncology and Phase IIE Principles of Dermatology Courses

Lecturer Haematology/Oncology In-patient Unit Core Tutorial Program

Supervisor Undergraduate Oncology elective students (Ivan Smith Scholars and Clinical Clerks)

Mentor Undergraduate Mentor Programme, Faculty of Medicine

**Queen’s University (1991-1997) - Postgraduate**

Instructor Radiation Oncology Training Program Core Program

Instructor Radiation Therapy Training Program Tutorials

Lecturer General Surgery Residents' Core Program

Supervisor Radiation Oncology Resident Clinical Rotations
Co-Editor Cancer Therapy Handbook, Department of Oncology

**Continuing Education and Community Presentations**

October 30, 2014  “From Fegrus to conformal: A Brief History of Radiation Therapy,” Oncology Grand Rounds, Grand River Regional Cancer Centre, Kitchener

January 25, 2013  “Doctors as supporting characters in the trials of the Kamloops Kid,” Toronto Medical History Club


October 8, 2009  “Beyond HIV: Palliative Care for the GLBT Community” Workshop on Palliative Care & Bereavement Services for Lesbian, Gay, Bisexual & Transgender People Durham Hospice, Ajax, Ontario

November 28, 2008  “The Radium Institute of Toronto” Toronto Medical History Club

November 8, 2008  Prostate Cancer Update
Man to Man Support Group
519 Community Centre
Toronto, Ontario

April 30, 2008  “The History of Ontario’s Cancer System: Part 2” Oncology Grand Rounds, Credit Valley Hospital

February 20, 2008  “Back to the Future: The History of Ontario’s Cancer System” Oncology Grand Rounds, Credit Valley Hospital, Mississauga, Ontario

October 27, 2007  “Screening and Diagnosis of Prostate Cancer” Man to Man Prostate Cancer Support Group, 519 Community Centre, Toronto, Ontario

January 13, 2007  “Cancer Concerns for Gay and Bisexual Men” Canadian Cancer Society Special Forum on GLBT Cancer Issues, 519 Community Centre Toronto, Ontario

June 3rd, 2006  “Screening and Diagnosis of Prostate Cancer” Forum on Prostate Cancer
March 28, 2006  “Basics of Cancer,”  
Wellspring Cancer Support Centre,  
Toronto, Ontario

March 23, 2006  “The Medical Student Show: A History,”  
John Austin Society,  
Queen’s University, Kingston

October 20, 2005  “Hypnosis for Cancer pain: Myths and Realities”  
Wellspring Cancer Support Centre, Toronto

May 7, 2005  “Prostate Cancer Basics”  
Forum at 519 Community Centre, Toronto

May 3, 2005  “A Survey to Assess Cancer Patient’s Awareness and Interest in Hypnosis,”  
PROG-O Rounds Teleconference

November 9, 2004  “Development of a Virtual Elective in Radiation Oncology,”  
Progress in Pathology Rounds, S&W

September 14, 2004  Round Table Discussant: Using the Internet to optimize cancer care,  
2nd international conference on Cancer on the Internet,  
NYC, USA

May 16, 2003  “Country Tales from the Early Years of Radiotherapy”  
TSRCC Nurses’ Week Luncheon

November 28, 2002  “Hypnosis for Symptom Control: Current Knowledge and Future Opportunities,”  
Radiation Oncology Palliative Rounds, TSRCC

October 5, 2002  “A Backward Glance: the History of Radiation Therapy”  
OAMRT Central Section Education Day

September 26, 2002  “Get ‘em while they’re fresh: Radiation Oncology in the Undergraduate Curriculum”  
University of Toronto DRO Rounds

February 11, 2002  “Hypnosis for Cancer Pain: Myths and Realities”  
8th Annual Palliative Care Awareness Day  
Sunnybrook and Women’s College Health Sciences Centre

November 22, 2001  “The History of Pedoscopy”  
John Austin Society  
Queen’s University

November 17, 2001  Workshop presenter
“Impending Spinal Cord Compression”
8th Annual Art and Science of Pain and Symptom Management Conference,
University of Toronto

September 22, 2001
Facilitator
Symposium on Teaching Medical History in Canadian Medical Schools
Royal College Annual Meeting
Ottawa, Ontario

June, 2001
Member of Abstract Review Panel
History of Medicine
RCPSC Annual Meeting 2001

April 20, 2001
“Medical History on CD-ROM”
Luncheon Workshop
American Association for the History of Medicine
Charleston, SC, USA

April 5, 2001
“Name That Artefact”
Museum of Health Care
Kingston, Ontario

March 14, 2001
“History of Radiation Oncology in Toronto”
Canadian Museum of Health & Medicine
Toronto General Hospital

November 28, 2000-11-24
“From Hypocrates to Hospice: A Historical Perspective on Palliative Medicine”
Radiation Oncology Palliative Rounds
T-SRCC

November 18, 2000
Interactive Palliative Workshop for RTTs
University of Toronto
“What is s/he thinking?: Approaching a palliative patient”

November 17, 2000
7th Annual Conference on Science & Art of Pain and Symptom Management
University of Toronto
“Management of Pain and Symptoms with Palliative Radiotherapy”

March 24, 2000
T-SRCC RN/MRT Conference
“History of Radiation Therapy”

February 24, 2000
“The History of Radiation Oncology: Warp and Woof”
University of Toronto DRO Rounds

May 1999
Padre Laverty Dinner, Queen’s Alumni Association
“Dr. Ronald Burr: A Tribute”

March 25, 1999
Queen’s CME, Kingston
“Palliative Radiotherapy for Family Physicians”

November 1998
Queen’s CME, Kingston
“Palliative Radiotherapy for Family Physicians”

September 1998
Friends of the History of Medicine, Kingston
“Saving Edward’s Nose: the Introduction of Radium to Medicine”

May 1998
Cancer Learning and Awareness Forum, Kingston
“Hypnosis for Cancer Pain”

April 1998
Kingston Prostate Cancer Support Group, Kingston
“Update on Prostate Cancer Clinical Trials”

March 1998
Queen’s CME, Kingston
“Palliative Radiotherapy for Family Physicians”

November 29, 1997
OAMRT Eastern Conference
“Radiotherapy Case Studies”

November 28, 1997
Queen’s CME
“Palliative Radiotherapy”

May 1, 1997
Queen’s University Continuing Medical Education
“Palliative Radiotherapy”

April 1997
Canadian Cancer Society, Brockville
“Cancer: Its Treatment and Cure”

April 1997
John Austen Society and Medical History Society of Ottawa
Dr. Moir and the Huron Springs Sanatorium

March 1, 1997
OAMRT, Eastern Conference
“Radiotherapy Case Studies”

October 20, 1996
Informathon ’96, CKWS Television Special
Kingston Regional Cancer Centre
“Prostate Cancer”

October 19, 1996
Kingston Whig-Standard Newspaper
Informathon ’96 - Supplement
“History of the Kingston Regional Cancer Centre”

September 19, 1996
Kingston Historical Society
“A Soldier, A Singer and Shadowgraph: The Advent of X-Rays in Kingston”

May 22, 1996
Kingston Whig-Standard
“The First Use of X-Rays in Kingston”

May 23, 1996
Museum of Health Care for Eastern Ontario
"The Advent of X-Rays in Kingston"

May 8, 1996  Continuing Medical Education, Picton, Ontario
           Isaiah Tubbs Resort
           “Management of Skin Cancer”

April 26, 1996  Later Life Learning
              "History of the X-Ray: Stories of its Early Use in Kingston"

April 24, 1996  2nd Annual Volunteer Appreciation Day Tea
                Kingston Regional Cancer Centre
                "A Soldier, A Singer, and a Shadowgraph: The Arrival of X-Rays in Kingston"

April 12, 1996  School Cancer Conference
               "Cancer Therapies"

April 1, 1996  Kingston Cablenet ‘Seniorscope’
               "Update on Cancer"

March 29, 1996  Palliative Care Conference
                Continuing Medical Education, Queen's University
                "Radiotherapy"

November 23, 1995  John Austin Society, Kingston
                    "J.K. Robertson and the Teaching of Radiological Physics to Undergraduate Medical Students"

November 22, 1995  Canadian Cancer Society Kingston
                    "Prostate Cancer"

November 18, 1995  Discovery Channel, Toronto
                    "Centenary of X-rays"

November 1, 1995  Cancer ’95, Kingston Regional Cancer Centre
                   "From Roentgen to Rads: 100 Years of Radiation Therapy in Canada"

August 1995  CKWS Television, Kingston
            "Prostate Cancer"

June 27, 1995  OAMRT Eastern Conference
               "Rectal Cancer"

May 12, 1995  OAMRT Annual Conference, Kingston
              "Radiation Therapy"

May 10, 1995  Prostate Support Group, Kingston
              "The History of Radiation Therapy"

April 10, 1995  Canadian Cancer Society, Kingston
"Therapy of Prostate Cancer"

February 13, 1995 Cancer Presentation in Schools, Kingston
"The Side Effects of Radiotherapy"

January 9, 1995 John Austin Society, Kingston
"Soldier, Singer and a Shadowgraph - The early history of x-rays in Kingston"

Other Educational Activities

September 1998 Judge, Boyd Upper Prize, School of Medicine

Department of History, Queen’s University

February 2001 Facilitator
Accountability & Reporting Workshop
Canadian Strategy for Cancer Control Consultation Conference
Ottawa, On

October 2006 Preceptor – Dr. Chris Lund (family physician)

RESEARCH ACTIVITIES

Grants Awarded:

2003: With Joyce Nyhof-Young, et al
Radiological Society of North America
WWW-based Educational Program Grant
“Development of a Virtual Elective in Radiation Oncology”
US $74,725

2003 With Joyce Nyhof-Young
Dean’s Excellence Fund
“Development of a Virtual Experience in Radiation Oncology”
$9,000 with match from PMH, SWCHSC, and DRO

2002 With Joyce Nyhof-Young et al
Dean’s Excellence Fund for Medical Education
“Concept Testing and Preliminary Development of a Virtual Elective in Radiation Oncology”
$9,000 with match from PMH, SSCHSC, and DRO

1996 - 1998 Hannah Institute Grant-in-Aid
"The Magic Element: Radium in Canada, 1909-40"
$12,500

1996 - 1997 With Deborah Feldman-Stewart et. al.
Determining the information to include in an information supplement for patients with curable prostate cancer.
National Cancer Institute of Canada
$52,140

1995 - 1998 With Himu Lukka et. al.
A Randomized Trial of a Shorter Fractionation Scheme of Localized Prostate Cancer
Ministry of Health to OCOG
Accrual: 900 patients
$900,000

Clinical Trials

1. Co-chair, Ontario Clinical Oncology Group/NCIC PR5 trial, "A Randomized Trial of a Shorter Fractionation Scheme for Localized Prostate Cancer."

2. Real-time Reviewer, NCIC PR3 trial, "A Randomized Trial Comparing Total Androgen Blockade versus Total Androgen Blockade Plus Pelvic Irradiation in Clinical Stage T3-4, NO, MO, Adenocarcinoma of the Prostate".
   Study activated: February 1995. Target accrual: 600 patients

   Study activated: December 1993. Target accrual: 20 patients (accrual complete, 1997)

4. Co-investigator, Rapid Response Radiotherapy Program and University of Toronto Palliative Radiation Oncology Group

Publications (Peer-Reviewed)
Published and In Press


13. Hayter C. Historical origins of current problems in cancer control. *CMAJ*, 158:1735-40,


25. **Hayter C**, Huff-Winters C, Paszat L, Youssef, Y, Shelley WE, Schulze K. A Prospective


44. Lomaga MA, **Hayter C**. Priapism as a possible acute side effect of radical radiotherapy for prostate cancer. *Can J Urol*. 2004 Apr;11(2):2205-6


**Submitted/In Press**

1. Hayter C. “Advent of X-Rays”. Chapter 29.2 c in *History of Science (Instituto della Enciclopedia Italiana)* (accepted and in press)


**GUEST EDITORSHIPS**


**PUBLICATIONS (NON PEER-REVIEWED)**


ABSTRACTS

Published and Accepted


15. Feldman-Stewart D, Brundage MD, **Hayter C**, Davidson JR, Groome P, Nickel JC.


**ELECTRONIC PUBLICATIONS**


**OTHER PODIUM PRESENTATIONS**


2. Feldman-Stewart, D., Chammas, S., Hayter, C., Pater, J. and Mackillop W.J. "Predicting


poster presentation and website demonstration at the University of Toronto’s Faculty of Medicine Educational Achievement Event, April 12-16, 2004. Ontario, Canada


17. Holden L, Hayter C. A Survey to Assess Cancer Patients' Awareness of and Interest in Hypnosis for Pain and Distressing Procedures. (podium) Canadian Association for Psychosocial Oncology annual meeting, Victoria B.C. April 20


INVITED LECTURES


13. “History of Cancer Control in Ontario,” Workshop Conference on Cancer Therapies in Historical and Sociological Perspective, Centre for the History of Science, Technology & Medicine, University of Manchester, October 7-8, 2005


16. “Thespis Meets Hippocrates: Transforming Dr. Vera Peters’ Fight against the Radical Mastectomy into Drama,” Annual Nigel Rusted Lecture in Medical Humanities, Faculty of Medicine, Memorial University, November 13, 2015.
CURATORIAL ACTIVITIES (EXHIBITS)


OTHER PUBLICATIONS


Curriculum Vitae

David C. Hodgson

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Hospital
610 University Ave., Rm 5-986
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-2121
Fax 416-946-2111
Email david.hodgson@rmp.uhn.on.ca

1. EDUCATION

Degrees
2000 Master of Public Health, Harvard School of Public Health, Cambridge, Massachusetts, United States
1993 MD, University of Toronto, Toronto, Ontario, Canada
1989 BSc, Genetics, Western University, London, Ontario, Canada

Postgraduate, Research and Specialty Training
2000 - 2002 Fellowship, Health services research, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada
1998 - 2000 Fellowship, Medicine, Boston Children’s Hospital, Boston, Massachusetts, United States
1996 - 1997 Chief Resident, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1993 - 1998 Residency, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2000 Fellow, Radiation Oncology, American College of Radiology, United States
1998 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1993 Licensure, College of Physicians and Surgeons of Ontario, Ontario, Canada
1992 Licensure, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2015 Jul 1 - present Professor, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2007 - present Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
David C. HODGSON

2007 - present  Associate Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

2002 - present  Adjunct Scientist, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada

2000 - present  Staff Radiation Oncologist, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada

2000 - present  Associate Staff, Hematology/Oncology, The Hospital for Sick Children, Toronto, Ontario, Canada

**Previous Appointments**

**UNIVERSITY - CROSS APPOINTMENT**

2000 - 2007  Assistant Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

**UNIVERSITY - RANK**

2000 - 2007  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

**3. HONOURS AND CAREER AWARDS**

**Distinctions and Research Awards**

**INTERNATIONAL**

**Received**

2004  Karl-Musshoff Award for Outstanding Scientific Merit, 6th International Symposium on Hodgkin’s Lymphoma, Cologne, Germany. (Award)

1997  Cancer Clinical Trials Workshop Scholarship, American Society of Clinical Oncology (ASCO), United States. (Distinction)

1997  Cancer Clinical Trials Workshop Scholarship, American Association of Clinical Research (AACR), United States. (Distinction)

**NATIONAL**

**Received**

1998 - 2000  Fellowship, McLaughlin Foundation, Canada. (Credential, Specialty: Medicine)

*Total Amount: 60,000*

**PROVINCIAL / REGIONAL**

**Received**

2002 - 2007  Career Scientist Award, Ontario Ministry of Health and Long Term Care, Ontario, Canada. (Distinction)

*Total Amount: 298,750*

**LOCAL**

**Received**

2000 - 2002  Adam Linton Fellowship, Institute for Clinical Evaluative Sciences, Toronto, Ontario, Canada. (Credential, Specialty: Health services research)

*Total Amount: 104,000*

1993  Ivan H. Smith Award, University of Toronto, Toronto, Ontario, Canada. (Distinction, Specialty: Clinical Oncology)
1991 Walter F. Wadkins Memorial Scholarship for Academic Performance, University of Toronto, Toronto, Ontario, Canada. (Distinction)
1990 Walter F. Wadkins Memorial Scholarship for Academic Performance, University of Toronto, Toronto, Ontario, Canada. (Distinction)
1989 Gold Medallist, Western University, London, Ontario, Canada. (Distinction)
1989 Honours B.Sc., Western University, London, Ontario, Canada. (Distinction, Specialty: Genetics)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2011 - present Member, American Society of Hematology
2011 - present Founding Member, International Lymphoma Radiation Oncology Group
2001 - present Member, American Society of Clinical Oncology
2001 - present Member, Children’s Oncology Group
2000 - present Member, American Society of Therapeutic Radiology and Oncology
1998 - present Member, Canadian Association of Radiation Oncology
1998 - present Member, Royal College of Physicians and Surgeons
1993 - present Member, Alpha Omega Alpha Medical Honours Society
1993 - present Member, Ontario Medical Association

Administrative Activities

INTERNATIONAL

American Board of Radiology
2012 May Board Examiner, Lymphoma, Louisville, Kentucky, United States.
         May 23 - 26.
2010 May Board Examiner, Lymphoma, Louisville, Kentucky, United States.
         May 22 - 25.
2007 Jun Board Examiner, Lymphoma, Louisville, Kentucky, United States.
         June 1 - 5.
2005 May Board Examiner, Lymphoma, Louisville, Kentucky, United States.
         May 26 - 29.

American College of Radiology
2011 - present Vice Chair, Appropriateness Guidelines Lymphoma Committee
2008 - present Member, Hodgkin Lymphoma Expert Panel, Appropriateness Guidelines, United States.

American Society for Therapeutic Radiology and Oncology
2014 Jan - present Member, Education Committee, United States.
2001 - present Member, Health Services Research Committee

Children’s Oncology Group
2010 - present Vice Chair, Hodgkin Lymphoma Steering Committee
         (Radiation Oncology).
David C. HODGSON

**Education Panel Abstract review subcommittee, American Society for Therapeutic Radiology and Oncology**
2015 Jan 12  Education Commitee, United States.

**International Lymphoma Radiation Oncology Group**
2014 Apr - present  **Member**, Research Committee
  *Review research project proposals for ILROG.*
2012 - present  **Founding Member**, Steering Committee

**International Symposium on Childhood, Adolescent and Young Adult Hodgkin Lymphoma**
2013 - 2014  **Member**, International Program Committee, Second International Symposium
2010 - 2011  **Member**, International Program Committee, First International Symposium

**Paediatric Radiation Oncology Society**
2009 - 2010  **Member**, Scientific Organizing Committee for radiation oncology, 42nd Congress of the International Society of Paediatric Oncology, 21-24 October 2010, Boston, Massachusetts, United States.

**St. Jude’s Children’s Research Hospital**
2011 - present  **Member**, External Advisory Board, Childhood Cancer Survivor Study, Memphis, Tennessee, United States.
2009  **Expert Reviewer/Participant**, Childhood Cancer Survivor Study Strategic Planning Workshop, Memphis, Tennessee, United States.

**US Children’s Oncology Group**
2004 - present  **Member**, Cardiovascular Toxicity Guidelines Task Force

**NATIONAL**

**Canadian Association of Radiation Oncologists**
2004 - 2010  **Chair**, Health Services Research Network, Canada.

**Canadian Institutes of Health Research**

**Canadian Partnership Against Cancer: High Impact Practices in Cancer Control Initiative**
2011 Jan 21  **Member**, Expert Panel, Toronto, Ontario, Canada.

**Institute for Clinical Evaluative Science (Advisory Group to Ministry of Health and Long Term Care)**
2003 - 2004  **Member**, Positron Emission Tomography Health Technology Assessment Working Group, Canada.

**PROVINCIAL / REGIONAL**

**Cancer Care Ontario**
2002 - present  **Member**, Program in Evidence Based Care: Hematology Disease Site Group Committee, Ontario, Canada.
2015 Jan - present  Clinician Scientist Selection Committee, Toronto, Ontario, Canada.

**Pediatric Oncology Group of Ontario**

2013  **Applicant interviewer**, Ontario, Canada.
      *Medical Director position.*
2012  **Member**, Aftercare Education Day Planning Committee, Toronto, Canada.
2011  **Member**, AfterCare Education Day Planning Committee, Canada.
2008  **Applicant interviewer**, Ontario, Canada.
      *Research Scientist position.*
2008  **Member**, Organizing Committee, Educational Symposium, Faculty of Medicine, Dept of Radiation Oncology

**LOCAL**

**Princess Margaret Cancer Centre**

2013 - present  **Medical Director**, Pediatric Aftercare Program, Radiation Medicine Program, Toronto, Ontario, Canada.
2006 - present  **Member**, Cancer Registry and Data Access Committee, Toronto, Ontario, Canada.
2007  **Member**, Quality Taskforce, Toronto, Ontario, Canada.
      *development of Informatics Platform of University Health Network Scientific Strategic Plan.*
2004  **Examiner**, Radiation Therapy Physics Residency, Faculty of Medicine, Department of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2002 - 2004  **Member**, Research Ethics Board, Toronto, Ontario, Canada.
2002  **Member**, Strategic Planning Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.

**The Hospital for Sick Children**

2014 Oct - present  **Member**, Clinical Advisory Council, Toronto, Ontario, Canada.

**University of Toronto**

2012 Jul 1 - 2013 Jun 30  **Chair**, Admissions Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology and Health Care Research, Graduate Education, Toronto, Canada.
2012 Jul 1 - 2013 Jun 30  **Member**, Curriculum Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology and Health Care Research, Toronto, Ontario, Canada.
2012 Jul 1 - 2013 Jun 30  **Associate Director**, Clinical Epidemiology and Health Care Research, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology and Health Care Research, Graduate Education, Toronto, Ontario, Canada.
2012 Jul - 2013 Jun 30  **Member**, Executive Committee, Clinical Epidemiology and Health Care Research, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education, Toronto, Ontario, Canada.
2010  **Member**, Admissions Committee, MSc Program in Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education, Toronto, Ontario, Canada.
2008  **Member**, Admissions Committee, MSc Program in Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education, Toronto, Ontario,
2008  **Research Day Judge**, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Research Day Judge, Clinical Epidemiology and Health Care Research, Toronto, Ontario, Canada.

2004  **Applicant interviewer**, MSc Program in Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education, Toronto, Ontario, Canada.

1996 - 1997  **Member**, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

1996 - 1997  **Member**, Postgraduate Radiation Oncology Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

### Peer Review Activities

#### EDITORIAL BOARDS

**Member**

- 2011 - present  US National Cancer Institute, PDQ Pediatric Treatment Editorial Board

- 2006 - 2008  Pediatric Oncology Group of Ontario (POGO), Practice Atlas of Pediatric Oncology in Ontario

#### GRANT REVIEWS

**External Grant Reviewer**

- 2014  Dutch Digestive Foundation

- 2011  Dutch Cancer Society

- 2011  Kika Children's Cancer Fund

- 2008  Ontario Ministry of Health and Long Term Care Health, Research Personnel Development Program

- 2007  Canadian Institutes for Health Research

- 2005  Canadian Institutes for Health Research

- 2003  Canadian Breast Cancer Foundation, Alberta Heritage Fund

#### MANUSCRIPT REVIEWS

**Ad hoc reviewer**

- 2014 - present  New England Journal of Medicine

- 2012 - present  Blood

- 2010 - present  Journal of the National Cancer Institute

- 2004 - present  European Journal of Cancer

- 2002 - present  Annals of Family Medicine

- 2002 - present  Clinical Oncology

- 2002 - present  International Journal of Radiation Oncology, Biology and Physics

- 2002 - present  Journal of Clinical Oncology

- 2002 - present  Lancet Oncology

- 2002 - present  Leukaemia and Lymphoma

- 2002 - present  Radiation Research

#### PRESENTATION REVIEWS

**Abstract Reviewer**

- 2014  American Society of Therapeutic Radiology and Oncology, Annual Scientific Meeting
C. Academic Profile

1. RESEARCH STATEMENTS

Hematologic malignancy is relatively uncommon, and the use of radiotherapy in the curative management of these patients, especially children, is less common still. In this context, oncologists who have less opportunity than I have had to develop subspecialized expertise can benefit from expert guidance to deliver optimal treatment. I have contributed to numerous continuing professional development activities at the regional, national and international levels, with the goal of disseminating best practice to radiation oncologists involved in the treatment of pediatric and hematologic malignancies.

As the vice-Chair of the expert lymphoma Panel of the American College of Radiology and a member of Cancer Care Ontario’s Hematologic Disease Site Group, and the Canadian Lymphoma Society guideline panel, I have been co-author on multiple practice guidelines regarding the management of patients with hematologic cancers. I was the lead author on Guidelines of the International Lymphoma Radiation Oncology Group describing the implementation of modern radiotherapy techniques for the treatment of pediatric HL, and am on the Editorial Board of the US National Institutes of Health Physician Data Query (PDQ) for pediatric lymphoma management. In addition, I have been presented invited updates on radiotherapy for lymphoma and the management of pediatric lymphoma at conferences organized by the American Hematology Society, the British Society for Haematology, the American Society of Therapeutic Radiology and Oncology, the Texas Radiological Society, the US Children’s Oncology Group, the Canadian Hematology Conference, and the Pediatric Oncology Group of Ontario.

Guidelines have been published in oncology journals with international impact. My lead-author ILROG guidelines are the basis for RT treatments to be employed in the upcoming international COG high risk HL trial, will likely become the standard of radiotherapy care for children with high risk disease across North America. My research has also been highlighted in the media emphasizing the importance of young cancer survivors receiving
appropriate screening interventions to reduce the risk of secondary malignancies. I have been invited to speak at CME events in Canada, the United States and Europe regarding modern concepts in the management of children and adults with lymphoma, including at the American Society for Hematology and the British Haematology Society.

2013 Jul 1 - 2014 Jun 30

Improving Outcomes of Young Lymphoma Patients and Cancer Survivors. My goal is to improve the outcome of lymphoma patients by refining criteria for selecting patients for radiation therapy, reducing the normal tissue radiation exposure among those who receive RT, and optimizing the follow-up strategies of survivors to limit the toxicity of treatment. My research group, independently and in collaboration with international investigators has developed novel analytic methods to evaluate the long-term risks of second malignancy and cardiac toxicity among long-term survivors, created new techniques to use modern imaging and intensity modulated RT to reduce the heart and lung dose received by young patients undergoing mediastinal RT for lymphoma, and conducted studies that improve the post-treatment screening for treatment-related breast cancer, lung cancer, and heart disease.

A major challenge in evaluating and reducing the late effects of treatment arises from the long interval between treatment and the outcomes of interest. As a result, observed toxicity risks often apply to treatments that are long outdated, and are hard to interpret in the context of modern therapy. To address this challenge, we have developed novel methods to reconstruct the detailed normal tissue dosimetry of historically treated lymphoma patients for whom long-term outcomes are available. In collaboration with investigators from the US Childhood Cancer Survivor Study, and mathematicians from Columbia University, and the University of Waterloo, we are developing robust dose-risk models that could be used to better estimate the risks associated with modern therapy.

I am a founding Steering Committee member of the International Lymphoma Radiation Oncology Group (ILROG), and the principal author of the ILROG guidelines to reduce normal tissue exposure in pediatric Hodgkin Lymphoma patients by employing involved-sited radiation therapy (ISRT) techniques, which employ modern image guidance to more accurately delineate radiation target volumes and reduce normal tissue exposure. I am also the vice-Chair of the US Children’s Oncology Group (COG) Hodgkin Lymphoma Steering Committee. In this capacity I have led the implementation of modern RT techniques in the management of children with HL treated on COG trials.

In 2012, I was invited to be a member of the external advisory board of the US Childhood Cancer Survivor Study (CCSS). Funded by the US NCI, the CCSS is a cohort of 20,346 childhood cancer survivors and 4,000 siblings of survivors assembled through the efforts of 27 participating centers in the United States and Canada. I am also the vice-Chair of the lymphoma expert panel of the American College of Radiology and have served on the Editorial Board of the US National Cancer Institute Physician Data Query (PDQ) for Pediatric Treatment.

Under my direction as vice-Chair of the HL Steering committee of the COG, normal tissue radiation will decrease significantly compared to prior protocols. In collaboration with other Steering Committee members, we led the effort to define and implement criteria for selecting patients for RT in the upcoming high-risk COG HL trial (AHOD 1331, approved by CTEP in 2014) and involved-site RT is being employed for the first time in any international pediatric Hodgkin lymphoma trial. The COG, which is funded by the US National Cancer Institute, is the largest pediatric clinical trials organization in the world. COG trials are open over 200 hospitals across North America, Europe, and Australia. This work will define the standard of care for children with high risk HL in North America. In addition, under my lead, the Princess Margaret Cancer Centre is the first Canadian cancer centre to adapt the concept of “active breathing control” to the treatment of lymphoma patients in order to reduce the heart and lung exposure of young patients, and this approach has been subsequently adopted in other Canadian and European centres.
Optimizing Utilization and Outcomes of Cancer Treatments in Real World Settings.

Although clinical trials are the gold standard by which cancer treatments are evaluated, there are critical clinical issues that cannot be answered in clinical trials. I have been involved in the conduct and dissemination of research relating to the utilization and outcome of new cancer treatments across Ontario and Canada.

With collaborators throughout Canada, I led a study sponsored by the Canadian Association for Radiation Oncology that was the first to quantify the significant variation in the uptake of intensity modulated radiation therapy across the country, which left Canadians in several provinces without access to this treatment which had been demonstrated to spare normal tissues and reduce toxicity, particularly for patients with head and neck cancers. Similarly, I led a study sponsored by the Pediatric Oncology Group of Ontario that demonstrated significant variation in the 5-year survival of children with medulloblastoma treated at different hospitals in Ontario. These results were reported to the POGO executive, and spurred the development of Provincial Pediatric CNS tumour boards, in which case discussions are tele/videoconferenced between the Hospital for Sick Children and other pediatric cancer centres. Likewise, other work, reported to CCO, has shown that radiosurgery is massively underutilized for patients with brain metastases in Ontario. In addition, I have contributed to work that has informed the policies of Cancer Care Ontario, the Ontario Wait Times Strategy, the American Society for Therapeutic Radiology and Oncology, and the Canadian Partnership Against Cancer.
2. TEACHING PHILOSOPHY

I have the privilege to work in an environment in which I have been able to develop expertise in a few specific areas of oncology: the use of radiation therapy in the management of lymphoma and paediatric malignancies; and also the late toxicities experienced by survivors. My approach to medical education has been influenced accordingly when teaching at different levels.

In the residency program, trainees in radiation oncology will commonly never see another pediatric malignancy after their rotation on my service. Consequently, I work to teach them not only the basic knowledge that they will need for Royal College exams etc, but emphasize the principles of oncologic management that apply to all cases: understanding treatment intent and devising an appropriate management plan, considering dose and treatment schedules that take into consideration curative vs palliative intent and anticipated toxicities, understanding relevant anatomy, patterns of tumour spread, and the implications for radiotherapy planning. More disease-specific knowledge is emphasized in more common lymphomas, and resident knowledge should reflect the fact that they are being trained at Canada’s largest centre for both pediatrics and lymphoma.

I have the benefit of training fellows seeking extra clinical experience in pediatric malignancies and/or lymphoma after their residency training. These fellows are taught beyond core knowledge, to be familiar with the most up to date clinical evidence and how to apply it to individual cases, so that upon completing their fellowship they can function independently to make sophisticated evidence-based judgements about treatment and interact with clinical competence in multidisciplinary settings.

Much of my teaching involves continuing medical education. In the context of a general oncology practice, many oncologists would have limited exposure to lymphoma and would rely on CME resources to keep up to date with contemporary developments in lymphoma management. I have lectured widely in North America, Europe and Asia, and written CME pieces that have had international influence.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2008 - present
Cancer Care Ontario. 1,000,000 CAD. [Grants]
*Research Chair in Health Services Research.*

2004 - present

2011 Jun - 2012 May

2011 Apr - 2014 Mar
Co-Investigator. Effective Estimation of Second Cancer Risks and Resultant Possible Improvements of Treatment Protocols. Canadian Institutes of Health Research – NSERC CHRP. PI: Sivaloganathan Siv. Collaborator(s): Mohammad Kohandel, David Hodgson,
Michael Sharpe (Co-Investigators). 468,819 CAD. [Grants]

**2010 Mar - 2011 Apr**


**2008 - 2011**


**2007 - 2010**

**Principal Investigator.** Looking in Pandora’s Box: Predicting the Uptake, Cost and Outcome of New Cancer Drugs in Ontario. Green Shield Canada Foundation. Collaborator(s): Jeffrey Hoch, Murray Krahn, Maureen Trudeau, Dr. Monika Krzyzanowska, David Henry (Co-Investigators). 134,183 CAD. [Grants]

**2007**

**Co-Investigator.** The cost-effectiveness of cancer drugs: Providing evidence of the value of medicines in delivering expected outcomes. Drug Innovation Fund. PI: Hoch, J. Collaborator(s): Peacock, S; Sawka, C; Woodward, G; Gauvura, S; Bell, C; Sullivan, T; Djalalova, D; Mamdani, M; Trudeau, M; Grootendorst; P. (Co-Investigators). 468,471 CAD. [Grants]

**2006 - 2013**


**2006 - 2009**


**2006 - 2008**


**2005 - 2010**


**2005 - 2008**

2003 - 2006  Principal Site Investigator. A Randomized Phase III Trial of ABVD Versus Stanford V ± Radiation Therapy in Locally Extensive and Advanced Stage Hodgkin’s Disease With 0 - 2 Risk Factors. NCIC HD7, ECOG/SWOG E2496. [Clinical Trials]

             (Career Scientist Award).


NON-PEER-REVIEWED GRANTS

FUNDED

2006 - 2008  Principal Investigator. Late Effects Among Testicular Cancer Survivors. Princess Margaret Hospital Foundation Testicular Cancer Research Fund. Collaborator(s): Warde P. 20,000 CAD. [Grants]


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


Female survivors of pediatric Hodgkin Lymphoma (HL) who have received chest radiotherapy (RT) are at increased risk of breast cancer. Guidelines for early breast cancer screening among these survivors are based on little data regarding clinical outcomes.

This is the largest study to evaluate the outcome of breast cancer screening among a cohort of at-risk survivors of pediatric HL, and the only study in which MRI was employed for screening among all patients studied. Screening survivors with MRI and mammography detected tumors at significantly earlier stages compared to mammography alone (none with involved lymph nodes vs. 50% with involved lymph nodes), although MRI caused a substantial proportion of women to undergo additional tests for benign imaging findings. The 5-year cumulative incidence of invasive or pre-invasive tumors after initiating screening was 10.8%. This study illustrated for the first time the potential benefits and caveats of MRI breast screening for young female survivors following HL treatment.


In vivo murine experiments have shown that radiation therapy can induce the disruption of established atherosclerotic plaques through the precipitation of an intravascular inflammatory cascade. The potential clinical implication is that the mechanism of radiation-induced cardiac toxicity likely differs between the pristine coronary arteries of young patients and older patients with established coronary artery disease. Further, one would expect the latency between radiation exposure and the emergence of cardiac toxicity to differ in these groups.

We abstracted clinical data on a random sample (N = 1096) derived from a population-based cohort of HL patients diagnosed in Ontario (N = 3964). From this random sample, we compared the risk of cardiac hospitalization following treatment with doxorubicin-based chemotherapy alone, mediastinal RT alone or both. Among those experiencing post-treatment cardiac toxicity, the median time to this adverse outcome was significantly shorter among those with pre-existing heart disease than among the source cohort as a whole (1.8 years vs. 3.5 years), with approximately 40% of women and >50% of men with pre-existing heart disease requiring hospitalization after mediastinal RT.

These results are consistent with the murine models, suggesting that disruption of pre-existing plaques and/or the acceleration of established coronary artery disease may be influential in the development of the relatively rapid onset of cardiac morbidity among some older patients receiving mediastinal RT. The results are clinically significant insofar as patients with cardiac pathology are typically considered for chemotherapy (anthracycline) dose reduction, whereas it is apparent that radiotherapy dose reduction, and certainly vigilant post treatment cardiac evaluation, should also be considered for these patients.

Most females diagnosed with HL are of reproductive age, and as the average maternal age in many industrialized countries rises, the proportion of women who are diagnosed with HL before having children will increase. ABVD (doxorubicin, bleomycin, vinblastine, dacarbazine) is the chemotherapy regimen most commonly used for HL, although studies examining its impact on ovarian function have produced variable results, and no study had reported the pregnancy rates among women attempting pregnancy following ABVD.

This was the first study to specifically estimate the pregnancy rate among female HL survivors attempting pregnancy. The 12-month pregnancy rates were 70% and 75%, respectively (p = 0.84) indicating that modern ABVD chemotherapy did not significantly impair the fertility of young females attempting pregnancy following treatment.

The results were uniquely useful for female survivors seeking information about the probability of successful pregnancy following ABVD. Other strengths of this study included its relevance to modern treatment, and the evaluation of fertility among controls using the same measure.


Numerous studies have demonstrated increased risk of second malignancy among young cancer survivors, largely attributed to RT. However, because of the long latency required to observe second solid cancers and the rapid evolution of RT techniques, many estimates of radiation-related second cancer risk reflect outcomes of treatment no longer in use. Ideally, patient-specific radiation exposure data could be used to prospectively estimate RT-related second cancer risk. This would have the advantages of being patient-specific and also providing second cancer risk estimates to newly diagnosed patients undergoing treatment, thereby facilitating risk counseling and treatment decisions.

This was the first study to apply a contemporary radiobiological model to develop individualized prospective estimates of second cancer risk following modern involved-field RT for patients with Hodgkin lymphoma. Compared to historical RT treatments, modern RT techniques and doses were predicted to reduce the 20-year excess relative risks of breast and lung cancer of up to 77% and 57%, respectively. Moreover, patient-specific differences in normal tissue dose led to 11-fold and 3.6-fold variations among individual’s estimates of breast and lung cancer risks, illustrating the limitations of using “one size fits all” risk estimates and the potential benefits for personalizing second cancer risk estimates.


Risk estimates of second cancers among Hodgkin lymphoma survivors often group together survivors of considerably different ages and do not reveal the significant age-related differences in the excess incidence of solid cancers. Evaluation of long-term site-specific risks and changes in risk beyond 20 years of follow-up are sparse, due to the constraints of sample sizes in most series.

This was the second largest cohort study of second cancer risk in HL survivors and the first study to use multivariable modeling to describe the effects of age at HL diagnosis and attained age on both the relative risk and excess absolute risk of second cancer among HL survivors. After adjusting for age at diagnosis, the excess absolute risk of both breast and non-breast SC increased significantly with attained age, with a significant decline in the latter noted among elderly patients, a finding that has not been demonstrated previously. It was also the first study to identify a significantly increased risk of cancer of the pleura following treatment for HL. Previously, only case reports have documented mesothelioma diagnoses, typically more than 10 years after RT for HL.
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


41. Ng A, Hodgson DC, Moseley JL, Nguyen T-N C, Sharpe MB, Brock KK. Navigator channel adaptation to reconstruct three dimensional heart volumes from two dimensional radiotherapy planning data. BMC Medical Physics. 2012 Jan 18;12:1. **Co-Principal Author.**


Case Reports


Letters to Editor


Clinical Care Guidelines


12. Members of the Hematology Disease Site Group. The Role of Bisphosphonates in the Management of Skeletal Complications for Patients with Multiple Myeloma. Toronto; 2012 Oct. Evidence-Based Series 6-4. A Quality Initiative of the Program in Evidence-Based Care (PEBC), Cancer Care Ontario (CCO). In Review. Coauthor or Collaborator.


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


**Book Chapters**


Editorials


Commentaries


Monographs


Online Resources


Other Publications


### F. Presentations and Special Lectures

#### 1. INTERNATIONAL

**Invited Lectures and Presentations**

- **2015 Oct 2**  

- **2014 Dec 1**  

- **2014 Oct 24**  

- **2014 Jul 21**  
  *Invited Speaker.* Pediatric Treatment Planning II: The PENTEC Report on Normal Tissue Complications. American Association of Physics in Medicine. Austin, Texas, United States. A CME educational session at the Annual meeting of the AAPM describing a collaborative international effort (PENTEC) to summarize existing knowledge and guide the development of new knowledge regarding the relationship between normal tissue radiation dose and toxicity among childhood cancer patients. (Continuing Education).

- **2014 May 9**  

- **2014 Apr 3**  

- **2014 Feb 12**  
  *Visiting Professor.* Towards an Uncomplicated Cure for Hodgkin Lymphoma. MD Anderson Cancer Center. Houston, Texas, United States. (Continuing Education).

- **2014 Feb 12**  
  *Visiting Professor.* Late Effects of Radiation Therapy: Biology and Physics. Department of Radiation Oncology, MD Anderson Cancer Center. Houston, Texas, United States.

- **2014 Feb 12**  
  *Visiting Professor.* Modern lymphoma management: the “basics”. Department of Radiation Oncology, MD Anderson Cancer Center. Houston, Texas, United States.

- **2014 Feb 8**  
  *Visiting Professor.* As Simple as Possible, but not Simpler: _New Concepts in Radiation Therapy for Hodgkin Lymphoma._ Wayne State University, Department of Radiation Oncology. Detroit, Michigan, United States.

- **2014 Jan 16**  

- **2013 Oct 12**  

- **2013 Oct 12**  
  *Invited Speaker.* Differences in Hodgkin Lymphoma Management Between Major Pediatric Groups: Highlights and Controversies. EURONET and Children’s Oncology Group Workshop at German Hodgkin Study Group 9th International Symposium on Hodgkin Lymphoma. Cologne, Germany. (Continuing


2013 Jan 10 Visiting Professor. The Einstein Principle of Lymphoma Management: Selecting Patients for Combined Modality Therapy. Baltimore, Maryland, United States. Presentation to the Radiation Oncology Department, University of Maryland. (Continuing Education).

2013 Jan 10 Visiting Professor. "Best of Lymphoma - ASTRO and ASH 2012". University of Maryland School of Medicine. Baltimore, Maryland, United States. (Continuing Education).


2011 Dec 10  **Invited Speaker.** Late Effects of Modern Radiation Therapy for Hodgkin Lymphoma. Annual Meeting of the American Society of Hematology. San Diego, California, United States. (Continuing Education).


2011 Mar 4  **Invited Speaker.** Towards Personalized Medicine for Young Cancer Patients: Modifying Treatment for an Uncomplicated Cure. RTi3 Radiation Therapy Conference. Toronto, Ontario, Canada.

2010 Nov 3  **Invited Speaker.** Management of Early Stage Follicular Lymphoma. Annual Scientific Meeting, American Society of Therapeutic Radiology and Oncology. San Diego, California, United States. (Continuing Education).


2010 Sep 23  **Invited Speaker.** Update of Pediatric Hodgkin Lymphoma Trials. Annual Meeting, Children’s Oncology Group. Dallas, Texas, United States.


2010  **Invited Speaker.** Role of Radiation Therapy in Extranodal Aggressive Non-Hodgkin Lymphoma. Eighth Annual Evidence Based Management of Cancers,Tata Memorial Hospital. India. (Continuing Education).


2008 Oct  **Speaker.** Cardiac Screening Among Hodgkin Lymphoma Survivors. Eighth Princess Margaret Conference: New Developments in Cancer Management: Conquering Cancer in our Lifetime. Toronto, Ontario, Canada. (Continuing Education).

2008 Sep 23  **Invited Speaker.** The Management of Extranodal Aggressive Histology Non-Hodgkin Lymphoma. Annual Scientific Meeting, American Society of Therapeutic Radiology and Oncology. Boston, Massachusetts, United States. (Continuing Education).

2007 Oct  **Invited Speaker.** Radiation Therapy for Aggressive Histology Lymphoma: Appropriate Selection of RT. Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Los Angeles, California, United States. (Continuing Education).


2007 May  **Invited Speaker.** Screening for Gastrointestinal Cancer Following Abdominal Radiation Therapy. CURED II: International working group meeting, James P. Wilmot Cancer Center, University of Rochester Medical School. Rochester, New York, United States.

2007 May  **Invited Speaker.** Screening for Colorectal Cancer Following Abdominal Radiation Therapy: A Phase II Study. CURED III: International working group meeting, University of Rochester Medical School. Rochester, New York, United States.


2006 Apr  **Invited Speaker.** Cardiac Toxicity Among Hodgkin Lymphoma Survivors: Impact of Recent Changes in Treatment and Opportunities for Improvement. International Workshop on Second Malignancy and Cardiovascular Disease After Treatment for Cancer in Adults. Christie Hospital NHS Trust Cancer Center. Manchester, United Kingdom.


2003 Oct  **Invited Speaker.** Radiation therapy of mucosa-associated lymphoid tissue (MALT) lymphomas. Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Salt Lake City, Utah, United States. Refresher course. (Continuing Education).

2003 Jul  **Invited Speaker.** Cardiac morbidity following treatment for Hodgkin’s Disease in the ABVD era. International Workshop on the Late Effects of Treatment for Hodgkin’s Disease. Bellagio, Italy. (Continuing Education).

2003 Jul  **Invited Speaker.** Pulmonary morbidity following treatment for Hodgkin’s Disease in the ABVD era. International Workshop on the Late Effects of Treatment for Hodgkin’s Disease. Bellagio, Italy. (Continuing Education).

2003 Jul  **Invited Speaker.** Using population-based data to examine the outcomes of cancer treatment. International Workshop on the Late Effects of Treatment for Hodgkin’s Disease. Bellagio, Italy. (Continuing Education).

2003 Jul  **Invited Speaker.** Variation in cancer treatment: implications for the management of patients with Hodgkin’s Disease. International Workshop on the Late Effects of Treatment for Hodgkin’s Disease. Bellagio, Italy. (Continuing Education).


**Presented Abstracts**

2014 Oct 22  **Presenter.** Colorectal Cancer Screening Among Cancer Survivors following Abdominal Radiation Therapy. Pediatric Radiation Oncology Society Congress/Annual Scientific Meeting of the International Society of Pediatric Oncology. Toronto, Ontario, Canada.


2012 May 9  **Presenter.** Under-utilization of Stereotactic Radiosurgery for Brain Metastases: Results of a Population-based Study. 31st Annual Meeting of the European Society of Therapeutic Radiology and Oncology. Barcelona, Spain.

2011 Oct 2  

2011 May 11  
Moderator. Scientific Session on Quality of Life and Late Effects of Therapy. First International Symposium on Childhood, Adolescent and Young Adult Hodgkin Lymphoma. Arlington, Virginia, United States. May 11-14, 2011.

2010 Oct  

2010 Oct  

2008 Oct  

2007 Nov  
Moderator. Lymphoma Scientific Session. Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Los Angeles, California, United States.

2006 Nov  

2006 Nov  

2005 Oct  
A Dosimetric Study of Mantle vs. Involved-field Radiotherapy for Hodgkin’s Lymphoma: Implications for Second Cancer Risk and Cardiac Toxicity. Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Denver, Colorado, United States. Presenter(s): Dr. Eng-Siew Koh. (SRA - Presented by Dr. Eng-Siew Koh, Radiation Oncology Fellow, Princess Margaret Hospital).

2005 Jun  

2004 Oct  
Moderator. Lymphoma Scientific Session. Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Atlanta, Georgia, United States.

2004 Oct  
Presenter. Cardiac toxicity following modern treatment for Hodgkin’s disease: Impact of combined modality treatment with Doxorubicin and Mediastinal radiation therapy. Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Atlanta, Georgia, United States.

2004 Oct  
Does Chemotherapy Intensification Facilitate Surgical Resection and Avoidance of Radiation Therapy for Children with Non-Metastatic Rhabdomyosarcoma: the Experience of The Hospital for Sick Children. Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Atlanta, Georgia, United States. (SRA – Presented by Dr. Isabelle Vallieres, Radiation Oncology Fellow, Princess Margaret Hospital).

2004 Sep  

2004 Sep  
Presenter. Increased risk of clinically significant cardiac toxicity following modern treatment for Hodgkin's disease. Sixth International Symposium on Hodgkin’s Lymphoma. Cologne, Germany.


2002 Oct **Allied Health Research Trainee presentation (Supervisor).** Radiation Therapy Errors: Results of a Quality Assurance Review. Annual Meeting of the American Society for Therapeutic Radiology and Oncology. New Orleans, Louisiana, United States. Presenter(s): Grace Huang. (SRA – Presented by Grace Huang, student in University of Toronto BSc Program in Medical Radiation Sciences Program).

2001 **Presenter.** The Role of Stereotactic Radiosurgery (SRS) in the Management of Pediatric Brain Tumours. Annual Meeting of the American Society for Therapeutic Radiology and Oncology. San Francisco, California, United States.


**Educational Session**


2013 Apr 15 **Invited Speaker.** Hodgkin Lymphoma Across the Age Spectrum. British Society of Haematology. Liverpool, United Kingdom. A CME session for hematologists emphasizing how differences in age among Hodgkin lymphoma patients can affect appropriate treatment selection and outcome. (Continuing Education).

2011 Dec 10  **Invited Speaker.** Long-term Late Effects of Hodgkin Lymphoma Therapy in the Modern Era. 54th Annual General Meeting of the American Society of Hematology. San Diego, California, United States. Educational session at the Annual General Meeting of the American Society of Hematology. (Continuing Education).


**Medscape CME Online Panel Discussion**


2. NATIONAL

**Invited Lectures and Presentations**


2006 Sep  **Invited Speaker.** Utilization of Advanced Radiation Therapy Technology in Canada: Results of the CARO National Survey of Canadian Cancer Centers. Annual Meeting of the Canadian Association of Radiation Oncology. Calgary, Alberta, Canada.

2005 Sep  **Presenter.** Regional Supply of Radiation Therapy Equipment in Canada: Results of the CARO National Survey of Canadian Cancer Centers. Annual Meeting of the Canadian Association of Radiation Oncology. Victoria, British Columbia, Canada.

**Presented Abstracts**


2002  Adoption complex radiotherapy planning: implications for treatment error rates. Annual meeting of the Canadian Association of Radiation Oncologists. Toronto, Ontario, Canada. Presenter(s): Dr. Eng-Siew Koh. (SRA – Presented by Dr. Eng-Siew Koh, Radiation Oncology Fellow, Princess Margaret Hospital). (Trainee Presentation).

2000  **Presenter.** The impact of extranodal involvement on outcome of stage I & II Hodgkin’s disease treated with combined modality therapy. Annual Meeting of the Canadian Association of Radiation Oncologists. Edmonton, Alberta, Canada.

1999  **Presenter.** The significance of elevated PSA levels in patients “disease free” by ASTRO consensus guidelines. Annual Meeting of the Canadian Association of Radiation Oncologists. Toronto, Ontario, Canada.


**Media Appearances**


**3. PROVINCIAL / REGIONAL**

**Invited Lectures and Presentations**

2014 May 1  **Facilitator.** Pediatric Panel Case Discussion- Particle Therapy vs Current Therapies. Department of Radiation Oncology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Dr. Danny Indelicato, Dr. Anita Mahajan. Case-based discussion of the optimal selection of patients for proton therapy. Presented at Target Insight VIII.


2004 Jul  **Invited Speaker.** Defining Quality of Care in Pediatric Medulloblastoma. Board of the Pediatric Oncology Group of Ontario. Toronto, Ontario, Canada.


2001 Jan  **Invited Speaker.** Health services research: is the audience listening? Radiation Oncology Research Unit, Queen’s University. Kingston, Ontario, Canada.

**Moderator**

2012 Feb 3  **Facilitator.** Continuing Education Panel on Neurocognitive Late Effects of Pediatric Cancer Treatment. Pediatric Oncology Group of Ontario. Toronto, Ontario, Canada.

### 4. LOCAL

**Invited Lectures and Presentations**


2016 May 26  **Presenter.** A.I. – Assisted Tumor Boards. RMP Research Rounds. Department of Radiation Oncology, Princess Margaret Cancer Center. Ontario, Canada.


2016 Jan 8  **Presenter.** Hodgkin Lymphoma stage I/II. Princess Margaret Cancer Center. Toronto, Ontario, Canada.


2012 Feb 17  **Invited Speaker.** Radiation-induced Second Malignancies. University of Toronto Department of Radiation Oncology Clinical and Experimental Radiobiology Course. Toronto, Ontario, Canada. (Continuing


2008 Apr 12  **Invited Speaker.** Innovations in Radiation Therapy for Childhood Brain Tumours. b.r.a.i.n.child Foundation Educational Event. Toronto, Ontario, Canada. Public education event for families affected by childhood cancer. (Presentation to Patients/Public).


5. OTHER

**Invited Lectures and Presentations**


**G. Teaching and Design**

I have participated actively and effectively in clinical and methodological teaching at the local, national and international levels.

1. Locally
   a. supervised numerous clinical fellows doing elective fellowships in pediatric radiation oncology, lymphoma and survivorship aftercare.
   b. taught for several years in interdisciplinary courses in oncology at the Michener Institute.
   c. supervised MSc candidates in Health Policy, Management and Evaluation, and the Institute for Medical Sciences.
   d. supervised numerous undergraduate MD elective students in clinical rotations
   e. served as Associate Director, Clinical Epidemiology and Health Care Research Program, Institute for Clinical Evaluative Sciences.

Nationally
   a. Lectured at numerous CME events, organized by Cancer Care Ontario, the Pediatric Oncology Group of Ontario, the Canadian Association of Ontario
   b. co-authored several clinical practice guidelines with members of the Hematology Disease Site Group of Cancer Care Ontario

Internationally
   a. Lectured at CME events for the American Society of Hematology, the British Society of Haematology, the American Society of Therapeutic Radiology and Oncology (ASTRO), and lymphoma conferences in Europe and Asia.
   b. Current Chair of the Lymphoma Education Committee for the ASTRO.
   c. authored and co-authored several international clinical practice guidelines with the American College of Radiology, and Children’s Oncology Group, American Society of Hematology etc, that have been widely cited.
   d. co-authored numerous textbook chapters on the treatment of hematologic malignancies and/or late effects of therapy,
including in the Oxford Textbook of Oncology and Principals and Practice of Oncology ("DeVita").

**H. Research Supervision**

### 1. PRIMARY OR CO-SUPERVISION

**Postgraduate MD**

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**Clinical Research Fellow (MD)**

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### 2. OTHER SUPERVISION

**Clinical Research Fellow (MD)**

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CONFIDENTIAL DOCUMENT
I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

My goal is to improve the outcome of lymphoma patients by refining criteria for selecting patients for radiation therapy, reducing the normal tissue radiation exposure among those who receive RT, and optimizing the follow-up strategies of survivors to limit the toxicity of treatment. My research group, independently and in collaboration with international investigators has developed novel analytic methods to evaluate the long-term risks of second malignancy and cardiac toxicity among long-term survivors, created new techniques to use modern imaging and intensity modulated RT to reduce the heart and lung dose received by young patients undergoing mediastinal RT for lymphoma, and conducted studies that improve the post-treatment screening for treatment-related breast cancer, lung cancer, and heart disease.

A major challenge in evaluating and reducing the late effects of treatment arises from the long interval between treatment and the outcomes of interest. As a result, observed toxicity risks often apply to treatments that are long outdated, and are hard to interpret in the context of modern therapy. To address this challenge, we have developed novel methods to reconstruct the detailed normal tissue dosimetry of historically treated lymphoma patients for whom long-term outcomes are available. In collaboration with investigators from the US Childhood Cancer Survivor Study, and mathematicians from Columbia University, and the University of Waterloo, we are developing robust dose-risk models that could be used to better estimate the risks associated with modern therapy.

I am a founding Steering Committee member of the International Lymphoma Radiation Oncology Group (ILROG), and the principal author of the ILROG guidelines to reduce normal tissue exposure in pediatric Hodgkin Lymphoma patients by employing involved-sited radiation therapy (ISRT) techniques, which employ modern image guidance to more accurately delineate radiation target volumes and reduce normal tissue exposure. I am also the vice-Chair of the US Children’s Oncology Group (COG) Hodgkin Lymphoma Steering Committee. In this capacity I have led the implementation of modern RT techniques in the management of children with HL treated on COG trials.

In 2012, I was invited to be a member of the external advisory board of the US Childhood Cancer Survivor Study (CCSS). Funded by the US NCI, the CCSS is a cohort of 20,346 childhood cancer survivors and 4,000 siblings of survivors assembled through the efforts of 27 participating centers in the United States and Canada. I am also the vice-Chair of the lymphoma expert panel of the American College of Radiology and have served on the Editorial Board of the US National Cancer Institute Physician Data Query (PDQ) for Pediatric Treatment.

Under my direction as vice-Chair of the HL Steering committee of the COG, normal tissue radiation will decrease significantly compared to prior protocols. In collaboration with other Steering Committee members, we led the effort to define and implement criteria for selecting patients for RT in the upcoming high-risk COG HL trial (AHOD 1331, approved by CTEP in 2014) and involved-site RT is being employed for the first time in any international pediatric Hodgkin lymphoma trial. The COG, which is funded by the US National Cancer Institute, is the largest pediatric clinical trials organization in the world. COG trials are open over 200 hospitals across North America, Europe, and Australia. This work will define the standard of care for children with high risk HL in North America. In addition, under my lead, the Princess Margaret Cancer Centre is the first Canadian cancer centre to adapt the concept of “active breathing control” to the treatment of lymphoma patients in order to reduce the heart and lung exposure of young patients, and this approach has been subsequently adopted in other Canadian and European centres.
I have been co-author of COG guidelines regarding the optimal follow-up of pediatric cancer survivors, and, recognizing the limited evidence on which these consensus guidelines were based, my group has created new knowledge that informs the rational development of evidence-based guidelines for the follow-up of survivors.

2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2007 Jul - present Knowledge Translation - Improving the Appropriate Treatment of Patients with Lymphoma. Hematologic malignancy is relatively uncommon, and the use of radiotherapy in the curative management of these patients, especially children, is less common still. In this context, oncologists who have less opportunity than I have had to develop subspecialized expertise can benefit from expert guidance to deliver optimal treatment. I have contributed to numerous continuing professional development activities at the regional, national and international levels, with the goal of disseminating best practice to radiation oncologists involved in the treatment of pediatric and hematologic malignancies.

As the vice-Chair of the expert lymphoma Panel of the American College of Radiology and a member of Cancer Care Ontario's Hematologic Disease Site Group, and the Canadian Lymphoma Society guideline panel, I have been co-author on multiple practice guidelines regarding the management of patients with hematologic cancers. I was the lead author on Guidelines of the International Lymphoma Radiation Oncology Group describing the implementation of modern radiotherapy techniques for the treatment of pediatric HL, and am on the Editorial Board of the US National Institutes of Health Physician Data Query (PDQ) for pediatric lymphoma management. In addition, I have been presented invited updates on radiotherapy for lymphoma and the management of pediatric lymphoma at conferences organized by the American Hematology Society, the British Society for Haematology, the American Society of Therapeutic Radiology and Oncology, the Texas Radiological Society, the US Children’s Oncology Group, the Canadian Hematology Conference, and the Pediatric Oncology Group of Ontario.

Guidelines have been published in oncology journals with international impact. My lead-author ILROG guidelines are the basis for RT treatments to be employed in the upcoming international COG high risk HL trial, will likely become the standard of radiotherapy care for children with high risk disease across North America. My research has also been highlighted in the media emphasizing the importance of young cancer survivors receiving appropriate screening interventions to reduce the risk of secondary malignancies. I have been invited to speak at CME events in Canada, the United States and Europe regarding modern concepts in the management of children and adults with lymphoma, including at the American Society for Hematology and the British Haematology Society.

2007 Jul - 2014 Jun 30 Optimizing Utilization and Outcomes of Cancer Treatments in Real World Settings. Although clinical trials are the gold standard by which cancer treatments are evaluated, there are critical clinical issues that cannot be answered in clinical trials. I have been involved in the conduct and dissemination of research relating to the utilization and outcome of new cancer treatments across Ontario and Canada.

With collaborators throughout Canada, I led a study sponsored by the Canadian Association for Radiation Oncology that was the first to quantify the significant variation in the uptake of intensity modulated radiation therapy across the country, which left Canadians in several provinces without access to this treatment which had been demonstrated to spare normal tissues and reduce toxicity, particularly for patients with head and neck cancers. Similarly, I led a study sponsored by the Pediatric Oncology Group of Ontario that demonstrated significant variation in the 5-year survival of children with medulloblastoma treated at different hospitals in Ontario. These results were reported to the POGO executive, and spurred the development of Provincial Pediatric CNS tumour boards, in which case discussions are tele/videoconferenced between the Hospital for Sick Children and other pediatric cancer centres. Likewise, other work, reported to CCO, has shown that radiosurgery is massively
underutilized for patients with brain metastases in Ontario. In addition, I have contributed to work that has informed the policies of Cancer Care Ontario, the Ontario Wait Times Strategy, the American Society for Therapeutic Radiology and Oncology, and the Canadian Partnership Against Cancer.
Curriculum Vitae

Andrew J. Hope
Assistant Professor

A. Date Curriculum Vitae is Prepared: 2016 July 20

B. Biographical Information

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5th floor, 6-505
Department of Radiation Oncology
Princess Margaret Hospital
610 University Ave.
Toronto, Ontario
M5G 2M9

Telephone
416-946-2124
Fax
416-946-6566
Email
andrew.hope@rmp.uhn.on.ca

1. EDUCATION

Degrees
1998 - 2002 MD, Medical School, University of Wisconsin - Madison, Madison, Wisconsin
1993 - 1997 BSc, Biochemistry/Philosophy, University of Wisconsin - Madison, Madison, Wisconsin

Postgraduate, Research and Specialty Training
2006 - 2007 Chief Resident, Department of Radiation Oncology, Washington University Medical School, St. Louis, Missouri
2005 - 2006 Assistant Chief Resident, Department of Radiation Oncology, Washington University Medical School, St. Louis, Missouri
2003 - 2005 Resident, Department of Radiation Oncology, Washington University Medical School, St. Louis, Missouri
2002 - 2003 Transitional Resident, Aurora St. Luke’s Hospital, Milwaukee, Wisconsin

Qualifications, Certifications and Licenses
2008 - present Board Certification, Radiation Oncology, American Board of Radiology, United States
2008 - present Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada, License / Membership #: 711302
2007 - present Medical Licensure, Radiation Oncology, College of Physicians and Surgeons of Ontario, Ontario, Canada, License / Membership #: 87585

2. EMPLOYMENT

Current Appointments
2007 - present Staff Radiation Oncologist (Clinician Researcher), Princess Margaret Hospital, Toronto, Ontario
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2006
Roentgen Resident/Fellow Research Award, RSNA. (Research Award)

NATIONAL
Received
2010
Films Fellowship, CARO-CROF. (Research Award)
2005
Young Oncologist Essay Award, Radium Society. (Distinction)

LOCAL
Received
2010
Outstanding Research Potential, University of Toronto. (Research Award)
1993 - 1997
Medical Scholars Program, University of Wisconsin - Madison. (Distinction)

OTHER
Received
1993 - 1997
Science Scholar, Borg Foundation. (Distinction)

Teaching and Education Awards

LOCAL
Received
2015 May
RMP Education Awards: Accelerated Education Program (AEP) Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD) Highest Overall Average Teaching Effectiveness Score.
2014
Postgraduate Medical Education - Excellence in Research Supervision Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
2010
Best Clinical Teacher, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD, Core Program)
2010
Best Half-day Lecture, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto
2010
Chief’s Choice, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Continuing Education) For 2009-2010 RMP Grand Rounds.
2009
Best Research Project Mentor, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto
Student/Trainee Awards

INTERNATIONAL
Received

2011
Young Investigator Award, Awardee Name: Gunila Mitera (Clinical Epidemiology student). 12th Annual World Conference on Lung Cancer, Amsterdam, Netherlands

NATIONAL
Received

2009
Best Poster Presentation, Awardee Name: Meredith Giuliani (Radiation Oncology Resident). Canadian Association of Radiation Oncology Award for Best Poster Presentation by a resident.

PROVINCIAL / REGIONAL
Received

2010
Resident Research Prize, Awardee Name: Meredith Giuliani (Radiation Oncology Resident). 5th Annual Ontario Thoracic Cancer Conference Awarded for the top abstract submitted by a resident.

2009
Resident Research Prize, Awardee Name: Meredith Giuliani (Radiation Oncology Resident). 4th Annual Ontario Thoracic Cancer Conference Awarded for the top abstract submitted by a resident.

LOCAL
Received

2011
Best poster award, Department of Radiation Oncology, Awardee Name: Meredith Giuliani (Radiation Oncology Resident). University of Toronto For annual departmental research day.

2010
Ellen Epstein Rykov Memorial Prize, Awardee Name: Meredith Giuliani (Radiation Oncology Resident). University of Toronto For excellence in postgraduate research.

2010
Joseph M. West Family Memorial Fund, Awardee Name: Meredith Giuliani (Radiation Oncology Resident). University of Toronto For excellence in postgraduate research.

2010
Timeposters Fellowship, Awardee Name: Meredith Giuliani (Radiation Oncology Resident). University of Toronto For excellence in postgraduate research.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2010 - present  American Association for Cancer Research (AACR)
2009 - present  International Association for the Study of Lung Cancer (IASLC)
2008 - present  Canadian Association of Radiation Oncologists (CARO)
2008 - present  European Society of Therapeutic Radiology and Oncology (ESTRO)
American Society of Therapeutic Radiology and Oncology (ASRO)

Administrative Activities

PROVINCIAL / REGIONAL
Cancer Care Ontario
2009 - 2010  Member, IMRT Expert Panel – Lung

LOCAL
University Health Network
2012 - present  Member, Advanced Clinical Documentation Committee, Ontario, Canada.

University of Toronto
2013 - present  RMP Information and Data Committee
2011 - present  Member, Electronic Health Record, Clinical Advisory Committee
2010 - present  Coordinator, Academic Half Day
2010 - present  Member, Health Informatics Research Steering Committee
2010 - present  Member, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2010 - present  Member, Postgraduate Medical Education Committee, subcommittee on Curriculum, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2010 - present  Faculty Coordinator, Resident Half-Day Education Coordinator
2010 - present  Chair, RMP Information and Data Committee

University of Wisconsin Medical School
2001 - 2002  Member, Human Subjects Committee (IRB), Madison, Wisconsin.

Peer Review Activities

GRANT REVIEWS
External Grant Reviewer
2013 Nov  Dutch Cancer Society
2009  National Cancer Institute of Canada

MANUSCRIPT REVIEWS
Reviewer
Biology of Blood and Marrow
Cancer
Clinical Oncology
International Journal of Radiation Oncology Biology and Physics
Medical Physics
Radiation Oncology
Radiation Research
Radiotherapy and Oncology
PRESENTATION REVIEWS
Reviewer
2010    ASTRO, Abstract Reviewer, Lung abstracts
2009    ASTRO, Abstract Reviewer, Lung abstracts
2008    ASTRO, Abstract Reviewer, Lung abstracts

C. Academic Profile

1. RESEARCH STATEMENTS

Research Interests.
On-going research projects focus on normal tissue toxicity following radiation therapy, development of small animal models of radiation toxicity, discovery and evaluation of biomarkers predictive of such toxicity, and outcomes research for patients undergoing treatment for lung and/or head and neck malignancies. My laboratory develops and utilizes animal models of conformal radiation treatment to assist in the discovery and translation of both biologic and imaging biomarkers. Current technology development activity includes advanced clinical documentation systems and guided therapeutics for improved radiotherapy targeting.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2008 - 2012   Principal Investigator. Improved Radiation Induced Lung Toxicity Prediction with Linked Preclinical/Clinical Models and Biomarkers. National Cancer Institute of Canada (NCIC).

**2008 - 2009**


**NON-PEER-REVIEWED GRANTS**

**FUNDED**

**2010 - 2011**


**2009 - 2010**

**Co-Investigator.** Identification of lung cancer mutations that contribute to treatment response: A pilot study. Princess Margaret Hospital. Invest in Research Grant. Collaborator(s): Wouters B, **Hope A**, Bristow R, Tsao M. 100,000 CAD. [Grants]

**2005 - 2006**

**Principal Investigator.** Mesenchymal stem cell modulation of radiation injury. Siteman Cancer Center. Fellow Development Award. Collaborator(s): **Hope A**, Nolta J, Deasy J, Powell SN. 25,000 CAD. [Grants]

**2004 - 2005**

**Co-Investigator.** Mesenchymal stem cells in radiation pneumonitis. Washington University Department of Radiation Oncology. Seed Grant. Collaborator(s): Deasy, Joe, **Hope A**. 7,500 USD. [Grants]

**Co-Investigator.** Lung Stereotactic Radiation Therapy for Patients with Non-small Cell Lung Cancer and Other Cancers. PI: Bezjak, Andrea. [Clinical Trials]

**Co-Investigator.** Prospective Study of CT and PET Imaging during a course of Radical Radiotherapy to determine the Dosimetric Benefits of Replanning in Non-Small Cell Lung Cancer. PI: Bissonnette, JP., Bezjak, A. [Clinical Trials]

**E. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


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Case Reports


Letters to Editor

Comment, Letter


Journal Article


Journal Articles, Review


Letter


Other Publications

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Letters to Editor


F. Intellectual Property

1. PATENTS


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2009 Translational research with small animal IGRT. American Association of Physicists in medicine (AAPM). Anaheim, California.

2008 Models of lung and CNS injury using modern small animal conformal RT. FOREM. St. Louis, Missouri, United States.

2007 Small animal models. QUANTEC. Madison, Wisconsin.

Presented Abstracts


2012 Nov Creation of ON-PROST: The Ontario patient-reported outcomes of symptoms and toxicity applied clinical research unit. ASCO’s Quality Care Symposium. Boston, Massachusetts. Presenter(s): Geoffrey Liu, Andrea Perez Cosio, Monika K. Krzyzanowska, Madeline Li, Gary Rodin, Michael Donald Brundage, Andrew J. Hope, Doris Howell, Ontario Patient Reported Outcomes of Symptoms and Toxicity Applied Cancer Research Unit.


2012 Jun Pre-treatment neurocognitive function (NCF) evaluation in head and neck cancer (HNC) patients (pts) with comparison to healthy control participants. ASCO Annual Meeting. Chicago, Illinois. Presenter(s): Razak AA, Gan HK, Pond G, Tirona K, Chen EX, Chan K, Hope A, Kim J, Siu LL, Bernstein LJ.

2012 Feb 28 Presenter. Increased acute pneumonitis in a murine model of fractionated radiotherapy with/without
Andrew J. HOPE

Presenter(s): Andrew Hope.

2011 Oct

2011 Jul

2011 Jun

2011 Mar

2011

2010 Nov

2010 Nov

2010 Jun

2010

2010

2010

2009 Jan 11

2009


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2015 Oct 18 Tumor size as Prognostic Factors in Squamous Cell Carcinoma of the Nasal Vestibule. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United
Andrew J. HOPE


**Publication Details:**

2015 Oct 18

**Publication Details:**

2015 Oct 18

**Publication Details:**

2015 Oct 18

**Publication Details:**

2015 Oct 18

**Publication Details:**

**Publication Details:**

2015 Sep 8  **Presenter.** Tumor Location is Associated with Recurrence Pattern and Survival after SBRT in Early Stage NSCLC Patients. 16th World Conference on Lung Cancer. Denver, Colorado, United States. Presenter(s): Stam B, Peulen H, Belderbos J, Guckenberger M, Mantel F, Grills I, **Hope A**, O'Connell N, Sonke J.

**Publication Details:**
Tumor Location is Associated with Recurrence Pattern and Survival after SBRT in Early Stage NSCLC Patients. Journal of Thoracic Oncology. 10(9(S)):S211.


**Publication Details:**
Stereotactic Body Radiotherapy is Safe and Effective in Octo-and Nonagenarians for the Treatment of Early Stage Lung Cancer. Journal of Thoracic Oncology. 10(9(2)):S326.


**Publication Details:**


**Publication Details:**

Publication Details:


Publication Details:


Publication Details:

Impact of Comorbidity and Age on Radiotherapy Delivery to Elderly Patients with Head and Neck Cancer. ASTRO.

Publication Details:

Incidental prophylactic nodal irradiation and patterns of nodal relapse in inoperable early stage NSCLC patients treated with SBRT: A case-matched analysis.

Publication Details:


Publication Details:

Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body irradiation.
radiation therapy (SBRT).

Publication Details:

2013 Nov
Late radiographic changes after lung stereotactic body radiotherapy: Pilot ing a recurrence scale and synoptic reporting scale.

Publication Details:

2013 Nov
Improved Modeling of Radiation Pneumonitis Risk in Lung Sbrr by Incorporating a Local Dose Effect Relation for Perfusion Reduction.

Publication Details:

2013 Oct 28

Publication Details:

2013 Sep 30
Phase I trial of nab-paclitaxel (A), cisplatin (P) and 5-fluorouracil (F) induction chemotherapy (IC) followed by concurrent chemoradiotherapy (CCRT) in patients (pts) with locoregionally advanced squamous cell carcinoma of head and neck (LA-SCCHN): final results.

Publication Details:

2012 Dec 1
Creation of ON-PROST: The Ontario patient-reported outcomes of symptoms and toxicity applied clinical research unit.

Publication Details:

2012 Nov 1
Impact of Pretreatment Growth Rate on Outcome of Stage I Non-small Cell Lung Cancer. After
Stereotactic Body Radiation Therapy.

**Publication Details:**

**2012 Nov 1**
Role of FDG-PET as an Early Imaging Biomarker of Esophagitis and Pneumonitis During the Course of Radiation Therapy for Lung Cancer.

**Publication Details:**

**2012 Jan 26**
Pre-treatment neurocognitive function (NCF) evaluation in head and neck cancer (HNC) patients (pts) with comparison to healthy control participants.

**Publication Details:**

**2011 Oct**
Comparison of Two NTCP Models in Terms of Impact on the Maximum Prescription Dose which can be Prescribed in NSCLC Dose Escalation Protocols.

**Publication Details:**

**2011 Sep**
The characteristics of tumor and involved lymph node in HPV-related oropharyngeal carcinoma determined by "intent-to-treat" GTVs. European Multidisciplinary Cancer Congress (ECCO 16). Stockholm, Sweden.

**Publication Details:**

**2011 Jun 9**
Neurocognitive function (NCF) in patients (pts) treated with chemo/bio-radiotherapy (C/B-RT) for head and neck cancers (HNC).

**Publication Details:**

**2011**
Phase I Trial of Albumin-bound Paclitaxel (A), Cisplatin (P) and 5-Fluorouracil (F) as Induction Chemotherapy (IC) Followed by Concurrent Chemotherapy (CRT) with Carboplatin (Cb) in Patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN). ECCO Annual Meeting. Stockholm, Sweden.

**Publication Details:**

Andrew J. HOPE

Diaz-Padilla I, Waldron J, **Hope A**, Chen EX, Chan K, Kim J, O’Sullivan B, Abdul Razak AR, Chin SF, Siu LL. Phase I Trial of Albumin-bound Paclitaxel (A), Cisplatin (P) and 5-Fluorouracil (F) as Induction Chemotherapy (IC) Followed by Concurrent Chemotherapy (CRT) with Carboplatin (Cb) in Patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN). Eur J Cancer. 2011 Sep;47(S1):A8511. **Coauthor or Collaborator.**

2011

Clinical outcomes in stage I non-small cell lung cancer patients managed with accelerated hypofractionated radiotherapy. ASTRO Annual Meeting. Miami Beach, Florida. Presenter(s): Meredith Giuliani. (Trainee Presentation)

**Publication Details:**

2011


**Publication Details:**

2011


**Publication Details:**

2011


**Publication Details:**

2011


**Publication Details:**

2011

Infraction Variation of Target Position During Cone-beam CT Image-guided Stereotactic Body Radiotherapy (SBRT) for Early-stage Non-small Cell Lung Cancer: A Collaborative Analysis. ASTRO Annual Meeting. Miami Beach, Florida.

**Publication Details:**
Grills IS, Kestin L, Sonke J, Bissonnette JP, **Hope A**, Beidarbos J, Guckenberger M, Ionascu D, Yan D. Infraction Variation of Target Position During Cone-beam CT Image-guided Stereotactic Body


Publication Details:


Publication Details:

2010 Nov Patterns of Failure in Patients with Limited-Stage Small Cell Lung Carcinoma. ASTRO Annual Meeting. San Diego, California.

Publication Details:

2010 Nov Radiation-induced Mandibular Toxicity (RIMT) following Intensity Modulated Radiation Therapy (IMRT) for Head and Neck Malignancy. ASTRO Annual Meeting. San Diego, California.

Publication Details:


Publication Details:

2010 Nov Radiotherapy Induced Bone Injury (RIBI) as a Late Side Effects in Patients Treated with Stereotactic Lung Radiotherapy. ASTRO Annual Meeting. San Diego, California.

Publication Details:


Publication Details:
Kestin LL, Grills IS, Guckenberger M, Belderbos J, **Hope AJ**, Werner-Wasik M, Sonke J, Bissonnette J, Xiao Y, Yan D. Substantial Dose-response Relationship with Clinical Outcome for Lung Stereotactic Body

2010 Nov

**Publication Details:**

2010 Nov
Poor Pulmonary function is not Associated with Increased Rates of Toxicity or Decreased Overall Survival after Stereotactic Body Radiotherapy for Early Stage Non-small Cell Lung Cancer: Results of a Multi-Institutional Analysis. ASTRO Annual Meeting. San Diego, California.

**Publication Details:**

2010 Nov
Time Interval between Staging FDG Positron Emission Tomography (PET) and Initiation of Stereotactic Lung Radiotherapy (SBRT) Impacts the Risk of recurrence and Metastasis in Non-small Cell Lung Cancer (NSCLC). ASTRO Annual Meeting. San Diego, California.

**Publication Details:**

2010 Nov
Stereotactic Body Radiotherapy (SBRT) for Non-small Lung Cancer (NSCLC) – is FDG-PET a Predictor of Outcome? ASTRO Annual Meeting. San Diego, California.

**Publication Details:**

2010 Sep

**Publication Details:**

2010 May 20
Treatment of the elderly when cure is the goal: The influence of age on treatment selection and efficacy for stage III non-small cell lung cancer (NSCLC).

**Publication Details:**
Coate LE, Massey C, **Hope AJ**, Pierre A, Bezjak A, Leight NB, Darling GE, Sun A, Keshavjee S,
Andrew J. HOPE


2010 May

A multinational pooled analysis of 434 cases of stage I non-small cell lung cancer (NSCLC) treated with volumetrically image-guided (VIGRT) stereotactic lung radiotherapy (SBRT): Results from the Elekta Collaborative Lung Research Group.

Publication Details:

2010

Neuropsychological assessment in patients with head and neck cancer after radiotherapy or chemo-radiotherapy. 12th World Congress.

Publication Details:

2010


Publication Details:

2009 Nov


Publication Details:

2009 Nov


Publication Details:

2009 Nov


Publication Details:

2009 Nov

Dosimetric and Clinical Parameters Contributing to Esophagitis and Radiation Pneumonitis following Treatment for Small-cell Lung Carcinoma. ASTRO Annual Meeting. Chicago, Illinois.
**Publication Details:**


2009 Jul


**Publication Details:**


2009 Feb 26

Patterns of Care in Elderly Head and Neck Cancer Patients: the recent PMH experience. International Conference on Head and Neck Oncology (IChINO). Barcelona, Spain.

**Publication Details:**


2009


**Publication Details:**


2009


**Publication Details:**


2009


**Publication Details:**


2009


**Publication Details:**


Publication Details:

2009 Comparison of tumor coverage in radical lung radiotherapy: impact of cone-beam CT image guidance using spine or carina matching. 13th Annual World Conference on Lung Cancer. San Francisco, California, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Andrew J. HOPE


2008 Sep


Publication Details:

A Pilot Prospective Study of Metabolic and Anatomic Response using FDG PET CT before, during and after Radiotherapy in Lung Cancer. American Society for Radiation Oncology (ASTRO). Boston, Massachusetts.

Publication Details:


Publication Details:

2008


Publication Details:

2008


Publication Details:

2008


Publication Details:

2008


Publication Details:
Huang E, Hope AJ, Lindsay P, Bradley J, Deasy J. SU-GG-T-404: The Impact of Breathing-Motion and

2008


**Publication Details:**

2008

**TU-C-AUD C-03:** Teletherapy MicroRT Using a Commercial 192Ir Source. American Association of Physicists in Medicine Annual Meeting (AAPM). Houston, Texas.

**Publication Details:**

2007

**ET-41:** Phosphodiesterase type 4 drives brain tumor growth in vivo. Society of Neuro Oncology Meeting (SNO). Orlando, Florida.

**Publication Details:**

2007

**Presenter.** 4D-CT reconstruction by using optical flow motion estimation. 15th International Conference on the use of Computers in Radiation Therapy (ICCR). Toronto, Ontario, Canada.

**Publication Details:**

2006 Mar

141 Targeted sub-total irradiation of mouse models for normal tissue complication modeling using a prototype microct device. Canadian Association of Radiation Oncology Annual Meeting (CARO). Calgary, Alberta.

**Publication Details:**
**Hope A,** Meyerrose T, Stojadinovic S, Lin S, Nolta J, Deasy J, Low D. 141 Targeted sub-total irradiation of mouse models for normal tissue complication modeling using a prototype microct device. Radiother Oncol. 2006 Mar;78(Suppl 1):S46. **Principal Author.**

**Session Coordinator**

2010 **Moderator.** Outcomes modeling. International Conference on Computers in Radiation.

2009 **Moderator.** Lung session. American Society of Therapeutic Radiation Oncology.

2008 **Moderator.** Lung session. American Society of Therapeutic Radiation Oncology.

2007 **Moderator.** Motion modeling. International Conference on Computers in Radiation.

**Other Presentations**

2015 Sep 8 **Presenter.** Validation of High Risk Features on CT for Detection of Local Recurrence After SBRT for Stage I NSCLC. 16th World Conference on Lung Cancer. Denver, Colorado, United States. Presenter(s): Peulen H, Mantel F, Rossill M. Stam B, Grills I, Giuliani M, Werner-Waski M, **Hope A,** Belcierbos J. Guckenberger M, Sonkel J.
2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

2015 Sep 10 Post-radiotherapy cervical lymph node calcification on its own is not predictive for neck recurrence in oropharyngeal carcinoma. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO 2015). Kelowna, British Columbia, Canada. Presenter(s): Rathod S. Podium Presentation.

Publication Details:

2015 Sep 10 Metastatic risk groups in human papillomavirus-related oropharyngeal cancer treated with definitive radiotherapy with or without chemotherapy. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO 2015). Kelowna, British Columbia, Canada. Presenter(s): O’Sullivan B. Podium
Presentation.

Publication Details:


Publication Details:


Publication Details:

2015 Sep 10 Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO 2015). Kelowna, British Columbia, Canada. Presenter(s): Rathod S. Poster Discussion.

Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:

2015 Sep Outcomes in Patients with Stage III Non-Small Cell Lung Cancer Treated with Neoadjuvant Concurrent Chemotherapy and Radiotherapy Followed by Surgical Resection. 29th Canadian Association of Radiation Oncology Annual Meeting (CARO 2015). Kelowna, British Columbia, Canada.

Publication Details:

2015 Feb Refining UICC TNM stage and prognostic groups for non-metastatic HPV-related oropharyngeal carcinomas.

Publication Details:

2015 Feb Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status.

Publication Details:

2015 Feb ‘Cure’ is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis.

Publication Details:

*Publication Details:*


*Publication Details:*


*Publication Details:*

2014 Aug  Elderly patients with advanced head and neck cancer less likely to receive radiation therapy. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

*Publication Details:*

2014 Aug  Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

*Publication Details:*


*Publication Details:*


*Publication Details:*

Andrew J. HOPE


2013 Sep
Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT).

Publication Details:

2013 Sep
Late radiographic changes after lung stereotactic body radiotherapy: Piloting a synoptic reporting and recurrence predication scale.

Publication Details:

2013 Sep
Stereotactic Lung Radiotherapy in Patients with Previous Pneumonecotomy: Safety and Efficacy.

Publication Details:

2013 Sep
Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy compared to Primary Laryngectomy.

Publication Details:

2013 Sep
Displaying 3D radiation dose on endoscopic video for therapeutic assessment and surgical guidance.

Publication Details:

2013 Sep
Quantitative selection of optimal dose fractionation based on novel dose-volume metrics.

Publication Details:

2012 Sep
Comparison of 3D Conformal Radiotherapy (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non-Small Cell Lung Cancer (NSCLC).

Publication Details:
Coauthor or Collaborator.

2012 Sep
Outcome of IMRT for hypopharyngeal cancer compared to conventional radiotherapy.

Publication Details:

2012 Sep
Outcome of Stage I Non-Small Cell Lung Cancer After Stereotactic Body Radiation Therapy, Does Growth Rate Matter?

Publication Details:

2012 Sep
The Characteristics of Cervical Lymph Node Resolution Following Primary Radiotherapy +/- Chemotherapy for N2-N3 Head and Neck Cancer.

Publication Details:

2012 Sep
Can FDG PET During the Course of Radiation Therapy for Lung Cancer Predict for Esophagitis and Pneumonitis.

Publication Details:

2012 May
Can FDG PET During the Course of Radiation Therapy for Lung Cancer Predict for Esophagitis and Pneumonitis Outcome?

Publication Details:

2012 Mar
Increased Acute Symptoms of Radiation Pneumonitis With Concurrent Chemoradiotherapy vs. Radiotherapy Alone in a Murine Model of Fractionated Sub-Total Thoracic IGRT.

Publication Details:

2011 Sep
Cost-Effectiveness Analysis Comparing Conventional Versus Stereotactic Body Radiotherapy for Surgically Ineligible Stage I Non-Small Cell Lung Cancer.

Publication Details:
2011 Sep
Is SBRT alone appropriate for early stage non-small-cell lung cancer with primary tumours larger than 4cm? Canadian Association of Radiation Oncology Annual Meeting (CARO). Winnipeg, Manitoba.

Publication Details:
Aliibhai Z, Cho BCJ, Atallah S, Brade A. Hope A. Sun A. Taremi M. Bezjak A. Is SBRT alone appropriate for early stage non-small-cell lung cancer with primary tumours larger than 4cm? Radiother Oncol. 2011;100(S1):S22-S23. Coauthor or Collaborator.

2011 May
Testing Whether the Cell-Kill-Based Equivalent Uniform Dose (CEUD) Formula Predicts Local Control for Non-Small-Cell Lung Cancer.

Publication Details:

2011

Publication Details:

2011

Publication Details:

2011
Correlation of Dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma. Canadian Association of Radiation Oncology Annual Meeting (CARO). Winnipeg, Manitoba.

Publication Details:

2011

Publication Details:

2010 Sep
Patterns of Failure in Patients with Limited-Stage Small Cell Lung Carcinoma. CARO Annual Meeting. Vancouver, British Columbia.

Publication Details:
**Responsible Author.**

2010 Sep  
Four Year Outcomes of Patients with Stage I Lung Cancer Treated with Stereotactic Body Radiation Therapy (SBRT). Canadian Association of Radiation Oncology Annual Meeting (CARO). Vancouver, British Columbia.

**Publication Details:**  
Taremi M, **Hope AJ**, Dahele M. Pearson S, Fung S, Purdie T, Brade A, Cho J, Sun A. Bissonnette JP, Bezjak A. Four Year Outcomes of Patients with Stage I Lung Cancer Treated with Stereotactic Body Radiation Therapy (SBRT). Radiother Oncol. 2010 Sep;96(S2):S18. **Coauthor or Collaborator.**

2010 Sep  
A Phase II Study of Concurrent Pemetrexed (P)/Cisplatin (C) Radiation (RT) for unresectable Stage IIIA/B Non-Small Cell Lung Cancer (NSCLC). Canadian Association of Radiation Oncology Annual Meeting (CARO). Quebec City, Quebec.

**Publication Details:**  

2010 Sep  
FDG PET SUV Uptake in Stereotactic Body Radiotherapy (SBRT) for Non-Small Cell Lung Cancer (NSCLC). Canadian Association of Radiation Oncology Annual Meeting (CARO). Quebec City, Quebec.

**Publication Details:**  

2009 Sep  
Patterns of Care in Elderly Head and Neck Cancer Patients: A Recent Single Institution Experience. Canadian Association of Radiation Oncology Annual Meeting (CARO). Montreal, Quebec.

**Publication Details:**  

2009 Sep  
Factors Influencing Prophylactic Cranial Irradiation Utilization in Limited Stage Small Cell Lung Cancer. Canadian Association of Radiation Oncology Annual Meeting (CARO). Quebec City, Quebec.

**Publication Details:**  

2009 Sep  
Assessment of Intra-fraction Target Position Accuracy for Lung Stereotactic Body Radiotherapy (SBRT) using Cone-beam CT (CBCT). Canadian Association of Radiation Oncology Annual Meeting (CARO). Quebec City, Quebec.

**Publication Details:**  

2009 Sep  

**Publication Details:**

2009 Sep

Princess Margaret Hospital experience with Lung Stereotactic Body Radiotherapy for early stage non-small cell lung cancer. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep

Quantitative Endoscopy for improved target delineation in planning intensity modulated radiation therapy for head and neck cancer. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep

Pre-Radiation Treatment PET/CT Scan can Predict the Localization of Residual Disease Post-Treatment in Lung Cancer. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep

Improvement of Target Coverage in Radical Lung Radiotherapy Using Image Guidance Cone-Beam (CBCT). CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Sep

Impact of Daily Volumetric Imaging in Reducing Set-Up Margins for Lung Cancer Patients Treated with Conventionally Fractionated Radiotherapy. CARO Annual Meeting. Montreal, Quebec.

Publication Details:

2009

The Impact of Respiratory Motion on Highly Conformal Image-Guided Radiation Therapy of Small Animals. Canadian Association of Radiation Oncology Annual Meeting (CARO). Quebec City, Quebec.

Publication Details:
Lindsay PE, Moseley DJ, Jaffray DA, Hope AJ. The Impact of Respiratory Motion on Highly Conformal Image-Guided Radiation Therapy of Small Animals. Radiother Oncol. 2009;90(S3):S191. Senior Responsible Author.

2008 Sep

**Publication Details:**

**2008 Sep**
A Pilot Prospective Study of Metabolic and Anatomic Response using FDG PET CT before, during and after Radiotherapy in Lung Cancer. Canadian Association of Radiation Oncology Annual Meeting (CARO). Montreal, Quebec.

**Publication Details:**

**2008 Sep**
Feasibility of Reducing Radiation Dose to the Brachial Plexus (BP) for Nasopharyngeal Cancer (NPC) Patients Treated with IMRT. Canadian Association of Radiation Oncology Annual Meeting (CARO). Montreal, Quebec.

**Publication Details:**

**2008 Sep**
Pain and Rib Fracture after Stereotactic Radiotherapy for Peripheral Non-Small Cell Lung Cancer. Canadian Association of Radiation Oncology Annual Meeting (CARO). Montreal, Quebec.

**Publication Details:**

**2008 Sep**

**Publication Details:**

**2007 Nov**
Incorporating Population-Based Breathing Motion Improves Radiation Pneumonitis Modeling Correlation. American Society for Radiation Oncology (ASTRO). Los Angeles, California.

**Publication Details:**

**2007 Nov**

**Publication Details:**

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

American Association of Physicists in Medicine Annual Meeting (AAPM), Orlando, Florida.

**Publication Details:**

2005 Oct
Clinical, Dosimetric, and Location-Related Factors to Predict Local Control in Non-Small Cell Lung Cancer. American Society for Radiation Oncology (ASTRO). Denver, Colorado.

**Publication Details:**

2005 Oct
Predictors of Lung Toxicity from the RTOG 9311 Radiation Dose Escalation Trial: GTV Position is Important. American Society for Radiation Oncology (ASTRO). Denver, Colorado.

**Publication Details:**

2005 Oct

**Publication Details:**

2005 Oct
Patterns of Failure in Patients Receiving Intensity Modulated Radiation Therapy (IMRT) for Head and Neck Cancer. American Society for Radiation Oncology (ASTRO). Denver, Colorado.

**Publication Details:**

2005

**Publication Details:**

2005

**Publication Details:**

2005
Publication Details:

2005

Publication Details:

2005

Publication Details:

2005

Publication Details:

2004

Publication Details:

2004

Publication Details:

2004

Publication Details:

2004
Radiation pneumonitis/fibrosis risk based on dosimetric, clinical, and location-related factors. American Society for Radiation Oncology (ASTRO) Annual Meeting. Atlanta, Georgia.

Publication Details:
Hope AJ, El Naqa I, Bradley JD, Vicic M, Lindsay PE, Bosch WR, Purdy JA, Deasy JO. Radiation

3. PROVINCIAL / REGIONAL

Presented Abstracts


Presented and Published Abstracts


Publication Details:

Session Coordinator

2009 Moderator. Head and Neck. Target Insight III.

4. LOCAL

Invited Lectures and Presentations

2016 Feb 1 Presenter. Radiation Oncology. AZ/Medimmune Head and Neck Cancer Preceptorship. Princess Margaret Cancer Center. Ontario, Canada. Presenter(s): Hope A.


2009  Molecular Genomics as Predictor of Toxicity and Response. Princess Margaret Conference. Toronto.

Presented Abstracts


Patient Education


5. OTHER

Presented and Published Abstracts

2010 May 20 Cognitive functioning pre- and postradiotherapy (RT), chemoradiotherapy (CRT), or bioradiotherapy (BRT) in patients with locally advanced squamous cell cancer of the head and neck (LA-SCCHN).

Publication Details:


Publication Details:
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2009 May
Primary Supervisor. B. Sc. Melanie Padiachy, 1st year, Medical Radiation Science Student, IPC Placement.

2009 May
Primary Supervisor. Lisa Peden, 1st year, Medical Radiation Science Student, IPC Placement.

2009 - 2010
Primary Supervisor. C. Chan, University of Toronto/Michener Institute.

Undergraduate MD

2010 - 2011

2010 - 2011
Primary Supervisor. K. Leung. Determinants of Community Health (DOCH2): research development project for assessing the acute toxicity of thoracic radiotherapy in an online format.

2009 - 2010

Postgraduate MD

2011 Jul - 2012 Jun
Co-Supervisor. Clinical Fellow. Z. Allibhai.

2010 - 2011
Primary Supervisor. A. Chan.

2009 - 2010

2008 - 2010

2. OTHER SUPERVISION

Graduate Education

Secondary Supervisor

2009 - present
MSc. M. Taremi.

Thesis Committee Member

2011 - present
PhD. S. Shaw.

2009 - 2012
MSc. A. Gussgard.

2009 - 2010
MSc. C. Chung.
Curriculum Vitae

Dr. Glenn Wayne Jones

Radiation Oncologist
Credit Valley Hospital and Trillium Health Care

Lecturer, Adjunct Professor, Clinical Investigator
Department of Radiation Oncology, University of Toronto

Director, Data Management Centre
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G. Research Supervision
   Pages 79-84
A. Date of Curriculum Vitae is Prepared:

2012 June 8
B. Biographical Information
Primary Office: The Credit Valley and Trillium Health Centre
2200 Eglinton Avenue West
Mississauga, Ontario, Canada
L5M 2N1

Secondary Office: Glenn Jones Medicine Professional Corporation
U 201 – 469 Wilson Street E
Ancaster, ON

Home: 18 Ambridge Court
Hamilton, ON
L8W 3G8

Telephones: 905-813-1100 ext 5438 (work)
905-387-1304 (home)
Cell phone: 905-577-2405
Fax: 905-813-3962
Email gjones@cvh.on.ca

Citizenships: United Kingdom (1957)
Canada (1975)

Language: English
1. EDUCATION

M.Sc. (Clinical Epidemiology & Biostatistics, McMaster University)
F.R.C.P.C. (Radiation Oncology, University of British Columbia)
M.D. (Queen’s University, Ontario)
B.Sc. (Biochemistry & Chemistry, McMaster University)

Degrees

1991-1996
MSc, Master of Science Clinical Epidemiology and Biostatistics
(5 years, part time), McMaster University, Hamilton, Ontario, Canada
1. MS721-Fundamentals in Clinical Epidemiology
2. MS730-Research Methods in the Health Sciences
3. MS733-Issues in Clinical Trials
4. MS743-Prepared Research overviews (Meta-Analysis)
5. MS727-Measurement
6. MS702-Biostatistics
7. MS723-Advanced Statistics
8. MS737-Economic Analysis (method and theory)
   With:
   Internship: Course development with course teaching, “Epidemiology in Oncology”
   Thesis: Social Preferences and allocating resources under a binding budget

1980-1984
MD: Doctor of Medicine (4 years), Queens University, Kingston, ON
   - Edgar Forrester Scholarship
   - Adiel Steacy Memorial Scholarship

1976-1980
BSc: Bachelor of Science, Double Honors in Biochemistry and Chemistry
(4 years), McMaster University, Hamilton, ON
   - Lloyd Memorial Scholarship (4 years full tuition 1976-1980)
   - McMaster University Scholarship
   - Cyanamid of Canada Scholarship
   - Chemical Association Prize
   - British-Petroleum of Canada Scholarship
   - Society of Chemical Industry (Europe) Award
   - Burke Memorial Science Ring on graduation in 1980
     (“highest marks in sciences and most significant undergraduate contribution”)
   - Dean’s Honors list, each of all 4 years, graduating Summa Cum Laude

1971-1976
HS: Thomas A Blakelock High School (5 years), Oakville, ON
   - Highest academic performance award Grade 11 (93% all subjects)
   - Highest academic performance award Grade 12 (95% all subjects)
   - Highest academic performance award Grade 13 (99.5% all subjects)
Postgraduate, Research and Specialty Training

2011
Mixed Multi-level Modeling in Stata, October 24-25, 2011, Washington DC, USA (2 days)

2011
Summer School on Modern Methods in Biostatistics and Epidemiology
BIOSTATEPI, Parma IT, June-July, 2011 (Karolinska & Harvard faculty)
1. Survival Analysis (1 week)
2. Applied Logistic Regression (1 week)
3. Applied Longitudinal Analysis (1 week)
4. Randomized Clinical Trial (1 week)
5. Meta-Analysis using Stata (1 d)
6. Multiple Imputation of Missing Data with Stata (1 d)

2007
Psychosocial assessment, IPOS and Eur School Oncology (Nov 18, 2007)

2004
Religion and Health, 1-week, Duke University Medical School, July

2003
Bayer Communication Skill’s workshop 2: Difficult Patients
McMaster University, Hamilton, ON

2000
Clinical Bioethics Symposium for clinical ethics faculty
McMaster University, Hamilton, ON

1995
Group Theory Two (Bion-Tavistock), Behav. Sciences, McMaster University, Hamilton, ON

1996
Bayer Communication Skill’s workshop 1: Physician-Patient Communication
McMaster University, Hamilton, ON

1993
Biomedical Ethics Course, Hamilton Civics Hospitals, Hamilton, Ontario

1991
Protocol Workshop, Henderson Civics Research, Ontario Cooperative Oncology Group

1989
Work-shop, Evaluation of Clinical Skills, McMaster University, Hamilton ON

1989
Work-shop, Problem Based Learning, Tutorship, McMaster University, Hamilton

1988-1989
Clinical Fellowship in Radiation Oncology (8 months), Hamilton, Ontario, Canada

1985-1988
Residency in Radiation Oncology (3 years)
University of British Columbia, Vancouver, British Columbia, Canada
Cancer Agency/UBC Lucy Ellison Award
(Canadian Association of Radiation Oncologists, Best Resident Presentation)

1985 Medical Internship in Medicine (1 year), Queens University, Kingston, Ontario, Canada

Qualifications, Certifications and Licenses

2011-present NCIC Clinical Trials Group GCP certificate

2011-present United Nations, Basic Security in the Field (staff safety, health and welfare)

2008 Tri-council policy statement: ethical conduct for research involving humans
TCPS Introductory tutorial, March 4, 2008

2008 NIH Office of Human Subjects Research, Protecting Human Research Participants
# 2854, March 4, 2008.

2006-2009 United Nations, Basic Security in the Field (staff safety, health and welfare)

1988-present F.R.C.P.C., Radiation Oncology, University of British Columbia, British
Columbia, Canada. Specialty exam in Radiation Oncology, #0391555.
Royal College of Physicians and Surgeons of Canada

1985-present CPSO: General license in Medicine (#53865), College Physicians Surgeons Ontario

1984 LMCC Licentiate of the Medical Council of Canada #59685
1867 Alta Vista Dr P.O. Box 8234, Ottawa, Ontario, Canada
2. EMPLOYMENT

Current Appointments

2011-present  Adjunct Professor, Clinical Investigator
Dept. of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

2004-present  Radiation Oncologist, Peel Radiation Oncology, Peel Regional Cancer Centre,
The Credit Valley Hospital and Trillium Health Centre, Mississauga, Ontario, Canada

Previous Appointments

CLINICAL

1989-2004  Radiation Oncologist, Hamilton Regional Cancer Centre & Juravinski Cancer Centre,
Hamilton, Ontario (and within Cancer Care Ontario 1989-2003)

2001-2003  Radiation Oncologist, Canadian Radiation Oncology Services, Toronto Ontario

2000-2001  5 weeks Locum Radiation Oncologist
Thunder Bay Regional Cancer Centre, Thunder Bay, Ontario

CONSULTING

2011  Abott, Testosterone escape

2006-2007  Therakos Consulting Agreement (1-yr term regarding photophoresis)

HOSPITAL

2005-2011  William Osler, Brampton ON, Dept. of Medicine

2004-2011  Credit Valley Hospital, Mississauga ON, Dept. of Oncology/Medicine

2004-2010  Trillium Health Care, Etobicoke ON, Dept. of Oncology/Medicine

2004-2005  University Health Network, PMH, Toronto ON, Dept. of Radiation Oncology

2004-2005  Grand River Hospital, Kitchener ON, Dept. of Medicine
2001-2003  Staff Appointment, Toronto Sunnybrook Hospital, Toronto, Ontario, Canada
2000-2001  Staff Appointment, Thunder Bay Regional Hospital, Thunder Bay, Ontario, Canada
1996-2005  Staff Appointment, Hamilton Health Science, Hamilton, Ontario, Canada
1991-1993  Courtesy Staff, St. Joseph's Hospital, Dept. of Surgery, Photo-Dynamic Therapy program, Hamilton, Ontario, Canada
1990-1996  Courtesy Medical Staff, Chedoke-McMaster Hospitals, Hamilton, Ontario, Canada
1990-1996  Staff Appointment, Hamilton Civic Hospitals, Hamilton, Ontario, Canada
1989-1992  Staff Consultant, Greater Niagara General Hospital, Niagara Falls, Ontario, Canada
1989-1990  Associate Medical Staff, Hamilton Civic Hospitals, Hamilton, Ontario, Canada

**UNIVERSITY – CROSS APPOINTMENT**

2012  PENDING: Application for cross-appointment to Graduate Studies program, University of Toronto, Toronto, Ontario, Canada

**UNIVERSITY**

2012  Applying for Assistant Professor, University of Toronto, Faculty of Medicine, Toronto, Ontario, Canada

2008-2011  Assistant Professor, Department of Medicine, McMaster University, based on part-time non-geographic status, Hamilton, Ontario, Canada

1995-2008  Associate Professor in Department of Medicine
Continuing appointment without annual review, Section II 4.(v)
McMaster University, Hamilton, Ontario, Canada

1990-1995  Assistant Professor in Department of Medicine
McMaster University, Hamilton, Ontario, Canada

1979-1980  Department of Biochemistry, Student representative
McMaster University, Hamilton, Ontario, Canada

1978-1980  Faculty of Science, Student representative
McMaster University, Hamilton, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinction and Research Awards

INTERNATIONAL

Received

Nominated

NATIONAL

Received

Nominated

PROVINCIAL/REGIONAL

Received

Nominated

LOCAL

Received

Nominated

Calvin Gutkin Quality Recognition Award, 2011
In recognition of clinical excellence and innovation, I was nominated for two Calvin Gutkin Quality Recognition prizes at CVH as part of teams for “Reducing waiting times for radiotherapy at PRCC” and “Integrating Supportive & Psychosocial Care in the Radiotherapy Experience” (team lead-member, team nominations were both in 2011)

People’s Choice Award Nomination, 2011, Credit Valley Hospital

Teaching Awards

INTERNATIONAL

Received
Nominate
NATIONAL
Received
Nominated
PROVINICIAL/REGIONAL
Received
Nominated
LOCAL
Received
Nominated

Student/Trainee Awards

INTERNATIONAL
Received
Nominated
NATIONAL
Received
Nominated
PROVINICIAL/REGIONAL
Received
Nominated
LOCAL
Received
Nominated
Professional Associations

Current
2012-present  Member, Canadian Association Radiation Oncology (CARO); also 1987-1998
2004-present  Member, Canadian Association of Psychosocial Oncology (CAPO)
2004-present  Member, American Society Therapeutic Radiation Oncology membership (ASTRO)
1989-present  Member, Royal College Physicians & Surgeons of Canada (RCPSC, #0391555)
1984-present  Member, Canadian Medical Protection Association (CMPA, #693227; code 65)
1983-present  Member, Ontario Medical Association (OMA, #2128494)

Past
2008-2009  International Psychosocial Oncology Society (IPOS)
2006-2008  Canadian Research Institute of Spirituality & Healing (CRISH), Vancouver BC
2005-2006  Spirituality in Health-Care Network, Toronto ON
1995-2004  Society for the Advancement of Socioeconomics (SASE)
1995  International Who's Who of Professionals

Administrative Activities

INTERNATIONAL

INTERNATIONAL BOARDS
2001-2002  International Mycosis Fungoides Foundation (MFF)

INTERNATIONAL CONFERENCE ORGANIZING COMMITTEES
2010  12th World Congress, International Psycho-Oncology Society, Quebec PQ
2006  4th International Multidisciplinary Conference on Spirituality and Health: Interweaving Science, Wisdom and Compassion

ADVISORY PAPER
2001  NCI USA, report submitted
Submission for Extra-Ordinary Funding, National Cancer Institute, USA
“Integrating mind-body medicine and spiritual care in clinical oncological practice: An extraordinary opportunity for the National Cancer Institute”
Jones GW, Sagar S, Wong R. 13 pages.

NATIONAL

NATIONAL BOARDS
2008-2010  C2CC  Campaign to Control Cancer (C2CC) (2 yr)
2008-2010  CAPO  Canadian Association of Psycho-Social Oncology (CAPO) (3 yr)
2007-2010  NCIC  Psychosocial and Behavioral Working Group (NCIC) (3 yr)
2000-2002  CCAC  Canadian Cancer Advocacy Coalition, Canada (CCAC) (3 yr)
1986-1991  CMDS  Canadian Ethics Commission, Medical and Dental Society of Canada (6 yr)

NATIONAL EXECUTIVE POSITIONS
1990-2004  Director, Mycosis Fungoides Canadian Cooperative Study Group (CCMFSFG)
Canadian Dermatology Society

NATIONAL EXPERT PANELS
2009-2011  Canadian Journey Action Committee – Canadian Partnership Against Cancer
Pan-Canadian Guideline on Cancer Survivorship Services

2008-2011  Canadian Journey Action Committee – Canadian Partnership Against Cancer
Pan-Canadian Guideline for Psycho-social Oncology Screening

2005-2009  NCIC PRCC Representative for Radiation Oncology, GI oncology, Canada

NATIONAL ADVISORY PANELS & TASK-FORCES
2011  Cancer Journey Advisory Group, Reviewer of Discussion Paper
Canadian Partnership against Cancer, for 2012-2017, February

2010  Standards Document review, CAPO standards committee, March

2010  Cancer Journey Strategy, Reviewer, for CPAC, July 2010

2008  Integrative Oncology, Nov 7 (1 day)

NATIONAL CONFERENCE ORGANIZING COMMITTEES

2002-2004  Medical Society Annual and Scientific Meeting, 2004, Niagara, Ontario
Established the theme and subtopics regarding interface of spirituality & health care
Responsible for Workshop “The Medical Science of Clinical Spirituality” 2 hours,
This reviewed all research and basic science evidence regarding spirituality in
Cardiovascular and Oncology

REGIONAL & PROVINCIAL

PROVINCIAL BOARDS
2007-2009  OCREB  Ontario Cancer Research Ethics Board (3 yr)
1990-1992  OCOG  Centre Representative, Ontario Cooperative Oncology Group (3 yr)

PROVINCIAL EXECUTIVE POSITIONS
1994-1997  OMA  Ontario Medical Association tariffs, Radiation Oncology

LOCO-REGIONAL ADVISORY PANELS & TASK-FORCES
2003  Toronto-Sunnybrook Hospital (Dermatology) & Regional Cancer Centre & Women’s
College Hospital clinical policy statement for Cutaneous T-Cell Lymphomas
PROVINCIAL ADVISORY PANELS & TASK-FORCES
2011 Foster the Partnership, Canadian GU Cancers Survivorship
   Kingbridge Centre, King City, ON, Jan 19-20
2003 Signature event, colorectal cancer control in Ontario, Opportunities for
   Quality improvement; Cancer Quality Council of Ontario, CCO
   Toronto, Ontario, June 23
2002-2004 ECP Therapy working group (U of T and P.M.H. working with Therakos)
   Princess Margaret Hospital Pheresis Unit
   For Cutaneous T-Cell Lymphoma and Graft vs. Host Disease.
2001 Mission & Values consultant for the professional group, OARO
1994-1995 Ontario Provincial Brachytherapy Task Force support
1994 Ontario Ophthalmology Rationalization Focus Group, Central West Ontario

REGIONAL COMMITTEES
1992-1995 CWO Radiation Chairperson, Hematology Disease Site Group, CW Ontario

LOCAL

LOCAL EXECUTIVE POSITIONS
2010-present PRCC Peel Regional Hematology DST (head, radiation oncology, 2012-present)
2010-present PRCC Peel Regional Benign DST (head, radiation oncology, 2010-present)
2005-present PRCC Peel Regional GI DST (head, 2005-2008)
2004-present PRO Executive Committee, Peel Radiation Oncology
2004-2009 CVH Chairperson, GI Oncology Disease Site Team
2004-2007 CVH Secretary, GI Oncology Tumor Board
2003-2004 JCC Vice-chairperson, GI Oncology Disease-Site Team
2002-2004 JCC Chairperson, Advanced Living: Physics & Health Associates (ALPHA)
   (An informal research group of physicists, post-docs and oncologists)
1999-2004 HRCC Administration, Gastro-Intestinal Oncology DST, HRCC
1999-2004 HRCC Expert, Colorectal expert resource person for Central-West Ontario
1999-2004 HRCC Chairperson, GI Radiation Oncology subgroup of the disease-site team
1999 HRAG Secretary, Hamilton Radiotherapy Associates, Business Group
1997-1999 HRCC Administrative Assistant, Gastro-Intestinal Oncology Disease-Site Team
1993-1995 HRCC Chairperson, Hematology Radiation Subgroup, Central West Ontario
1990-1991 HRCC Chairperson, CLINAC Accelerator User Committee, Div. RO
1989-1992 HRAG Secretary, Hamilton Radiotherapy Associates Group (HRAG)

LOCAL COMMITTEES, ADVISORY PANELS, TASK-FORCES
2012-present CVH-THC Academic and Clinical Research Program development for CVH-THC
2012-present PRCC Steering group for naming conventions for structures and plans, Dept. RO
2012-present PRCC Task force for establishing a robust, embedded, data capture system for QA
2011-present PRCC Executive Steering Committee, Comprehensive QA, Dept. RO., PRCC
2011 PRCC Comprehensive Program QA Committee
2011 CVH Supportive Care Strategic Planning (2 ½-day sessions), Jan-Feb
2005-2011 CVH Supportive Care, Oncology Program
2008-2010 CVH Research and Ethics (2 yr term)
2007-2009  PRCC  Edmonton Symptom Assessment System (ESAS) implementation
2008  Patient and family centered care, expert participant, June (1 d)
2004-2005  PRCC  Radiation Therapy technical policy group
2004-2005  PRCC  Eclipse planning for GI tumors
2004-2005  PRCC  Planning software selection
2004-2005  PRCC  Patient Education
2004-2005  PRCC  Ambulatory outpatients Working Group
2004-2005  PRCC  Radiation Safety and Monitoring
2004-2005  GRCC  IMRT implementations
1997-2004  Chairperson, Cutaneous T-lymphoid Infiltrate DST, Central-West ON
2003  HRCC  Steering Committee for Quality of Working Life, HRCC
2003  HRCC  Education Committee; Values and Ethics consultant for the Centre
2001-2002  HSC  Clinical Ethics Committee, Hamilton Health Sciences Centre
1999  HRCC  Consultant for a Review Process for the Division of RO
1993-1995  HRCC  Health Services Research Committee

Peer Review Activities

ASSOCIATE OR SECTION EDITING

INTERNATIONAL JOURNALS ASSOCIATE EDITORSHIPS
1999-present  EBM  Evidence-Based Medicine Journal (EBMJ), Assoc. Ed., McMaster U

EDITORIAL BOARDS
1989-1991  CMDS  Editor for Ethics in: Focus, (Medical and Dental Society of Canada)

GRANT REVIEWS

INTERNATIONAL RESEARCH GRANT REVIEWS
2007  DUKE  Center for spirituality, theology and health, Duke University
      RFP “Religion and Health: effects, mechanisms and interpretation”
      Grant from John Templeton Foundation

NATIONAL RESEARCH GRANT REVIEWS
2007  CIHR - Scientific Officer, University Industry committee
      Canadian Institutes of Health Research (CIHR)

MANUSCRIPT REVIEWS

JOURNAL PEER REVIEWER
2010-present  Current Oncology (CO)
2009-present  Journal of Psycho-Somatic Research (JPR)
2008-present  International Journal Radiation Oncology Biology Physics (IJROBP)

JOURNAL ARTICLE RATER
2005-present             MORE, McMaster Rating of Evidence

PRESENTATION REVIEW

MEETINGS ABSTRACT REVIEWS
2010   CAPO & IPOS annual meeting

Other Research and Professional Activities

The present foci are on supporting research and important clinical journals, local committees and task-forces for comprehensive Quality in the Radiation Oncology program, and disease site team support (e.g. statistics and research). I am presently on a task force to look at how to establish a research program across the CVH-THC sites in Mississauga, for the merged hospital organization. Past professional commitments and activities have included international, national and provincial responsibilities in multiple domains (e.g. editing, guidelines, boards, panels, task-forces, conferences and committees). See subsequent section for IAEA-related activities.

The foci of my professional development beyond formal education have been to improve my teaching-mentoring and clinical care, and to improve research methods, ethics, and statistical capabilities. In addition, self-directed study has rounded out my education by adding understanding and facility working with paradigms of choice and making decisions, and the evolution and organization of work.

UNIVERSITY FACULTY TRAINING
2011   New Faculty Orientation (Research and Graduate Studies), U of T, Fac. Of Med, Sept 29

CERTIFICATION PROGRAM OF THE ROYAL COLLEGE
2001-present  Maintaining Certification Program for Continuing Professional Education
             Royal College of Physicians and Surgeons of Canada, Ottawa, ON
1997-2001    Maintaining Competence, Voluntary Pilot Project
             Royal College of Physicians and Surgeons of Canada, Ottawa, ON

SELF-DIRECTED LEARNING
- Socioeconomics, Professionalism, Sociology of Professional
- Professional Knowledge creation, Knowledge Management, Knowledge Transfer
- Theories of Choice, Decision Science, Decision Theory, Rational Choice Theory, Wisdom
- Social Epidemiology, Stress and Distress
- Philosophies and theories of the Emotions, Affective neurosciences and Spirituality
- Cancer survivorship, Psycho-social oncology
- Educational Psychology, Encouragement and Counseling
- Burnout and Work Engagement, Conflict Management
- Organizational Architecture, Theories, Business Strategies, Cultures and Agility, Diversity
- Management and Supervision, Leadership

**HOSPITAL ASSOCIATIONS**
2011-present    Member, Professional Staff Association, CVH-THC
2004-2011    CVH Medical Staff Association

**DISEASE SITE TEAMS (Membership only)**
2008-present    Peel Regional Breast DST
2008-present    Peel Regional GU DST
2009-2012    Member, PRCC Skin DST
1995-1997    Member, Gastro-intestinal Oncology DST, HRCC

**EXTERNAL REVIEWER**
2009    Reviewer, Cancer Care Ontario PEBC 21-2 Cervix Provincial Guideline

**CONFERENCES & MEETINGS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>2011</td>
<td>5th Annual Thoracic Cancer Conf. McMaster University Health Sciences, Apr 2011</td>
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<tr>
<td>2010</td>
<td>Int. Conference on Teaching Statistics, Slovenia, June, 2010</td>
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<td>2009</td>
<td>Go Public, Ottawa, Sept 2009</td>
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<td>2009</td>
<td>STATA user group conference, 1st Canadian, Tornoto, Oct 2009</td>
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<td>2009</td>
<td>Int. conference Advances in Radiation Oncology, Vienna AU, May 2009</td>
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<td>2009</td>
<td>CAPO, Can. Assoc. Psycho-social Oncology annual meeting, Vancouver BC, April 2009</td>
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<td>2008</td>
<td>Radiotherapy, Kingbridge, PMH, Apr 26-7, 2008</td>
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<td>2008</td>
<td>Canadian Association Psycho-social Oncology, Halifax NS, 14 hours, May 7-9, 2008</td>
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<tr>
<td>2007</td>
<td>ASTRO 49th Annual Meeting, Los Angeles CA, Oct-Nov, 34 credits</td>
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<td>2006</td>
<td>Int. EORTC Conference, Cutaneous lymphomas, Sept 24-26, 2006, Budapest HU</td>
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<td>2005</td>
<td>GI Symposium, ASTRO/ASCO/SSG, Miami FL Jan 26-28, 2005</td>
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<td>2005</td>
<td>Canadian Association Psycho-social Oncology, New Horizons in Cancer Care</td>
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<td>2004</td>
<td>2nd International conference on Spirituality and Mental Health, Ottawa, Dec 6-8, 2004</td>
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<td>2004</td>
<td>Int. EORTC Conference, Guidelines in Cutaneous Lymphomas, Madrid SP, Sept 24-26</td>
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<td>2004</td>
<td>Medical and Dental Society, Spirituality and Medicine, May 2004</td>
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<td>2003</td>
<td>American Society Therapeutic Radiation Oncology, Oct 2003</td>
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<td>2003</td>
<td>Int. EORTC Conference, Cutaneous Lymphomas: Bologna IT, April 8-9, 2003</td>
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<td>2002</td>
<td>National Institutes of Health, Spirituality, health &amp; well-being, Bethesda MD, Apr 2003</td>
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<td>2002</td>
<td>5th Annual Brachytherapy Symposium, Johannesburg, South Africa</td>
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<td>2002</td>
<td>1st International conference on Spirituality and Mental Health</td>
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<td>2002</td>
<td>2nd Canadian Inter-professional Conference on Spirituality &amp; Healthcare</td>
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<td>2002</td>
<td>Society for the Advancement of Socio-Economics (SASE), May 2002</td>
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<tr>
<td>2001</td>
<td>North American Multidisciplinary Spirituality &amp; Health Conference</td>
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<td>1996</td>
<td>Canadian Association Radiation Oncology</td>
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<tr>
<td>1994</td>
<td>Canadian Association Radiation Oncology</td>
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1994  American Society Therapeutic Radiation Oncology (ASTRO)
1992  Hodgkin’s disease, Metro Toronto Lymphoma Group, 5th Annual meeting
1992  Canadian Association Radiation Oncology
1991  Low Grade Lymphomas, Metro Toronto Lymphoma Group, 4th Annual meeting
1990  Extra-nodal NHL, Metro Toronto Lymphoma Group, 3rd Annual meeting.
1990  Canadian Association Radiation Oncology (CARO)
1989  American Society of Photo-biologists, Photodynamic workshop & Annual mtg., Boston MA

PENDING:  Canadian Association Radiation Oncology, September 2012 (and running workshops on Quality); American Society Therapeutic Radiation Oncology, October 2012 (and invited speaker, symposium on disparity)

13 MEETINGS ATTENDED
2011  LHIN 5/6 Update on prostate cancer quality initiatives Sep 15, 2011
2011  Emerging therapies for ADT in prostate cancer (Klotz, Pr-5) March 9 2011
2009  ASCO summary, June 23, 2009
2009  Cuzick J, Common statistical pitfalls in clinical oncology, Jan 27, 2009
2009  NCIC spring meeting, Toronto ON, May 2009
2008  NCIC spring meeting, Toronto ON, May 1-4 2008
2007  Varian Medical Systems Users meeting, Los Angeles CA, Oct 27, 2007
2007  ASCO summary, June 26, 2007
2006  NSABP trials, S Fine, May 10, 2006
2006  Geriatrics, Anti-aging and Homotoxicology (Dr. A Smit, South Afr.), 3 hours, May 2006
2004  Homotoxicology and adjuvant therapy for cancer, Heel Pharmaceuticals, 3 hours
1997  Annual Hamilton-London Dermatology day meeting, McMaster University

CLINICAL COURSES
2012  Symptom management guides to practice, 4 hrs, Oct 28 2011 CVH
2008  IMRT symposium, CVH and PMH, January 22
2003  ASTRO Intensity Modulated Radiation Therapy course, San Diego CA
1989  Second Annual Palliative Care Course, Canterbury Hills, Hamilton, ON

CLINICAL SERVICE
Since February of 1988 (almost 24 years) I have personally managed new patients as follows: over 4,400 at HRCC-JCC); 78 at TBRCC (Thunder Bay); over 800 at CROS in Toronto; and 2,640 new patients at CVH-THC (Peel-Mississauga). The combined total exceeds 8,000 new cases and includes benign and malignant disease for a mean rate of 330 new cases per annum.  I have seen these patients in the capacity of staff Radiation Oncologist and locum tenens.  Diagnoses include Prostate, Breast, Gastro-intestinal, Mycosis Fungoides and Other Lymphomas, Skin cancers and emergency cases.
At HRCC-JCC:

- During my tenure at HRCC/JCC, I provided on-call support and provided ward support at the Hamilton Health Sciences (i.e. the Henderson division where I had admitting privileges) and had occasion to support peripheral clinics.

- From 1989 through 2004, I led a national research and clinical program in Mycosis Fungoides. As of 2004, a total of 952 patients had been managed. I was responsible for most of the clinical program, including staging, patient education, Total Skin Electron Beam Radiation, Local Superficial Radiation Therapy, ordering and supervising topical and total-skin phototherapy (UVA, narrow band UVB, PUVA, photodynamic therapy), ordering and managing biological therapies and systemic chemotherapy for these patients. I remain responsible for substantive end-reporting and international reporting.

- From 1995 through 2004, I worked in the Gastro-Intestinal Oncology Disease Site Team, inventing and implementing electronic Dynamic Care-Webs (DCW) and real collaborative working environments as a technology to support professional learning and evidence-influenced clinical decision-making. Responsibilities included Chair of the Radiation Oncology clinical and technical policy subgroup and Centre content-expert for radiation management of rectal and gastric cancers. I initiated methods for 3-D CT simulation for GI malignancies in January of 2002 when a new CT-simulator was installed, and all radical GI patients were then planned in that manner in accordance with some of the principles of IMRT planning. For half of the time I was secretary and sub-team leaders for the GI DST. Responsibilities included Case-Conference re-invention and leading the initiative, staff support to promote work engagement, triage of all new cases referred to the GI team (avg. of 17 per week), and evaluation of delivery of consistent clinical care.

- From 1989 through 1995 I was the sole radiation oncologist for the Central West Ontario region for the Hematology Disease Group. Responsibilities included Total Body Irradiation for patients undergoing Transplantation. I developed the Binary Iso-centric Technique with Asymmetric Collimation method for matching fields to treat patients with Hodgkin’s disease (to implement clinical trial HD-6).

LOCUMS:

From March 2001 through August 2003 I attended the Canadian Radiation Oncology Services (CROS “after-hours clinic”) in Toronto on a weekly basis. I saw and managed early breast and prostate cancer patients using teletherapy, hormones and 3-D conformal radiation planning.

In 2000-2001, I provided 5 weeks of general locum support at the Thunder Bay Regional Cancer Centre (78 new patients plus follow-up clinics).

AT CREDIT VALLEY HOSPITAL:

In May of 2004, I joined the Peel Radiation Oncology partnership in the Peel Regional Cancer Centre, at Credit Valley Hospital, to help develop a Peel-Mississauga program in Radiation Oncology, and Oncology in general. This is a community-based practice, with privileges at several hospitals to provide a regional program for a
population-base of approximately 1.3 million citizens with a high growth-rate (exceeding 8% per year).

- In recognition of clinical excellence and innovation, I was nominated for two Calvin Gutkin Quality Recognition prizes at CVH as part of teams for “Reducing waiting times for radiotherapy at PRCC” and “Integrating Supportive & Psychosocial Care in the Radiotherapy Experience” (team lead-member, team nominations were both in 2011)
- In 2008 I shifted to 50% nominal research time, with up to 4 protected weeks per annum for Data Management Centre and International Atomic Energy Agency activities; this translates into a clinical case-load of 200 new patients per year (foci are Prostate, Breast and Lymphomas; and routine on-call)
- Shifting to CVH in 2004 necessitated focusing almost exclusively on administrative and clinical service from 2004-2008 until such time as staff came “on-line”—the work-load in 2005-2006 was at a rate of 660 new cases per year for each Radiation Oncologist (breast, prostate, GI, palliative and emergencies)

Innovations and Development in Teaching and Education

**PROGRAM SUPPORT (MEDICAL SCHOOL, ADMINISTRATIVE)**

*Program Educational Evaluation, McMaster U*

1997 Assisted Drs. Neville & Reiter to develop 6-8 "doctored" articles to high-light basic critical appraisal issues in reports of randomized trials and diagnostic tests; for Unit 1 class (100 medical students)
C. Academic History
1. RESEARCH STATEMENTS

The following sections outline main research themes for which I am responsible and/or lead. Each section contains a brief overview. Related grants and funds are presented subsequently; grants, funds and donations total $2,956,113 (37 items, about $80,000 per item) with PENDING decisions on an additional $218,000 (3 items). Each research theme is reflected fully in the publication section of this CV, but not in thematic sections in those listings. Themes cluster into (1) Data Management, (2) Quality, and (3) Other.

1.1 DATA MANAGEMENT CENTER

I established in 2002, and continue to direct, a Data Management, Research Methods and Educational Mentoring centre (DMC). This presently consists of three full-time staff and between three and six students and volunteers at any one time. Students may be in research internships and in co-op programs, or are summer students. Funding comes from contracts with the IAEA, grants and study funding from various sources. The annual budget for staff is approximately $100,000 for FY 2011-2012. The hospital has provided two offices within the Peel Regional Oncology Program (level 4, CVH-THC), one for the IAEA and one for non-IAEA activities, and we have three work-stations (computers, filing). One staff member works full-time on IAEA projects, one works on the prostate registry-cohort studies (PROSTATE, INSPIRES), and one works on other studies and publications. Positions are considered learning and mentoring opportunities for staff and students. Consequently there is a teaching program for staff and students, plus seminars and individual or team-based project arcs in which participants experience a project from conception to publication(s). DMC staff is required to learn Stata (College Station TX), prepare presentations and write protocols, and conduct ethics submissions and develop manuscripts and reports. Mentoring covers all aspects, with a focus on scientific methods, quality professional data management, statistics and communicating scientific results.

POSITION (DIRECTOR)

- Leadership, governance and administration
- Supervision and management of staff, students and volunteers
- Methodological, operational, data management (DM) and statistical support for research, including international randomized clinical trials, international and other studies, and clinical and pathological registries
- Mentoring of colleagues, staff, students and volunteers

CLINICAL RESEARCH ASSISTANTS
(DMC staff with research & professional career mentoring)

1. Trishala Menon, 2012-present, full-time
2. Arun Partridge, 2012-present, full-time (ends July 2012)
3. Nina Mazze, 2011-present, full-time, and coordinator of student projects (ends August 2012)
4. Tina Madzima, 2011-present, full-time (ends July 2012)
5. Jenny Nae Kim, 2010-May 2012, full-time, and manager of student projects
6. Alexandra Whate, 2009-2010, full-time
7. Lyndsay Richardson, 2007-2009, full-time, and manager of student projects

STUDENTS & VOLUNTEERS
(Mentoring in research)
1. Edward Leung, 2012, Patient education (prostate), graduate RTT, Volunteer
2. Jasper Chen, 2012, Patient education (prostate), graduate University of Toronto, Volunteer
3. Arun Partridge, 2012, Emotional measures, factor analyses, undergrad McMaster University, Hamilton
4. Leanne Pinto, 2012, Prostate adverse events, undergrad University of Toronto, Volunteer
5. Rahul Varghese, 2012, Prostate adverse events, undergrad University of Toronto-Mississauga, Volunteer
6. Sejal Doshi, 2011, Prostate data base, chart assembly and filing, undergraduate McMaster U, Hamilton
7. Arun Partridge, 2011, Prostate data base, PSA updates, post-High School, 8 wks, Volunteer
8. Yonah Sturmwind, 2011, Prostate clinical update, under-grad USA, 6 wks, Volunteer
9. William He, 2009, 3rd yr biology, U of Toronto, paid
11. Sarah Peltz, 2008, 3rd yr biology, 4 wks, paid
12. Naseer Omer, 2007-2008, pre-Resident (Pakistan MD), Prostate data and CAM review, 200 h, Volunteer
14. Danielle Major, 2003, Colorectal outcomes study and QOL, McMaster U, paid
15. Jaana Kastikainen, 2002, MF database & spiritual measures, Biomedical Sc, Guelph U, paid

SOFTWARE
- Professional Statistical & DM: Stata 12, Stata Corp, Texas
- Trials forms: Adobe PDF forms with e-FORM manager
- Data Entry: Micro-sof Excel

DATA-SETS

6 IAEA trial data-sets
1. E33021 IAEA esophageal RCT (n=219, completed), G Jones
2. E33025 IAEA breast RCT (planned n=600, open), G Jones
3. E33026 IAEA cervix RCT (n=601, closed to accrual), G Jones
4. E33027 IAEA esophageal RCT (n=201, closed), G Jones
5. E33029 IAEA lung RCT (n=250, A and B closed), G Jones
6. E33033 IAEA rectal RCT (planned n=350, open), G Jones

16 cancer-specific data-sets
1. Prostate cancer, PROSTATE, G Jones (n=480/1000 completed to Feb 2012, expanding
with conversion to prospective data collection, indefinite)

2. Prostate cancer, UROPATH, 16% of Ontario biopsies, 1995-2008, prostate (n=12,004), J Srigley

3. Prostate and Breast cancers, STEPS1 & ESAS longitudinal study: A longitudinal observational study of discomfort and distress in patients with breast or prostate cancer (STEPS, ESAS and emotions), (n=103), G Jones

4. Prostate and Breast cancers, ESAS exit survey for patients leaving the treatment floor, (n=103), G Jones

5. Prostate and Breast cancers, PICKER-LITE, a validation of a modified PICKER survey for use at the completion of a course of radiotherapy, n=120, T Larson

6. Breast cancer, Cell markers (5HT, e.g.) and cell activities predicting disease control, (n=40), A Frobe, Croatia

7. Breast cancer, Loco-regional toxicity assessment in breast cancer radiotherapy, development and validation study, W He and J Kim

8. Breast cancer, STADS randomized trial of hygiene, n=64, Kovacs M et al

9. Breast cancer, TSRC-CROS, religion & spirituality, use of CAM, moods (CES-D, including study of factor structure of CES-D), (n=555), G Jones

10. Breast cancer, Symptoms when patients receive chemotherapy and marrow support, predictive factors and characterization of the burden of the symptoms (Arthralgias and Myalgias, ArMy), 2009-2010, n=131, M Leung

11. Breast cancer, Willingness to use communication aids like ESAS, n=84, J Kim

12. Breast cancer, CHARM (With Coping to Health, Appraisal and Relational Meaning), G Jones

13. Endometrial cancer, Outcomes with very aggressive treatments, a pilot study (n=40), A Frobe, Croatia

14. GI malignancies (all types), Survival, patterns of relapse, and explorations of the structure of EORTC-Q30, (n=1,022), A Figuerdo

15. MF lymphoma, photo-dermatology, a comparison and validation of QOL measures for MF (DLQI and Skindex-29, with CES-D, CAM use measure, religion-spirituality measures), n=103, G Jones

16. MF lymphoma, outcomes (n=952) including outcomes with LSRT (n=49), outcomes with TSEB+adjuvant PUVA (n=53), outcomes with T3 disease (n=53), outcomes with TSEB (n=680), M1 characterization (n=25) and second malignancies (through 2004, n=219), G Jones & R Wong (HRCC-JCC)

17. Prostate Cancer, PROSTATE, Factor structure of EMO sub-tool in STEPS-3, G Jones


9 any cancer data-sets

1. Radiation Oncology: Low dose radiation for immunomodulation, n=3, pilot project, G Jones

2. Psychosocial: OCP1-STEPS1, patterns of needs studies and predictors of stress score (n=1,955), G Jones

3. Psychosocial: STEPS3, presenting cross-sectional, (n=1,000), G Jones

4. Psychosocial: ESAS cross-sectional and longitudinal studies to assess ESAS and to develop approaches to improving ESAS (n=3,300 with 7,900 ESAS forms), G Jones


6. Psychosocial: Religion and cancer in the Canadian Health Survey, 2002, n=72,000, M Baetz
7. Psychosocial: Validation of a new Psycho-social referral form for PRCC, n=77, G Jones
8. Complementary therapies: chelating therapy, outcomes at NEX, Burlington, (n=340), G Strobele
9. Palliative Care: Malignant pleural effusions: Benchmark to practice change (2006-2009), n=121, J Hudson

1 staff survey data-set
1. Psycho-social capacities and interest in such care in radiotherapists, n=58 staff RT, A Rinaldo

1.2 INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)

My involvement with the IAEA began in 2002. It widened considerably to on-going involvement in a number of aspects from clinical trials to providing advice and manuscripts.

The IAEA of the United Nations is uniquely situated to explore the peaceful applications of the atom and has developed an expanding program consisting of a dozen randomized clinical trials in Radiation Oncology since the mid-1990’s, with specific clinical objectives and infrastructure objectives. Regarding the latter, the IAEA is active in technology transfer, improving international capacities for research, and increasing the application of evidence to decision-making in Radiation Oncology, in low and middle income countries.

Notably, Data Management for IAEA trials is far more comprehensive than DM typically understood (see under Chief Scientific Officer Contracts). Most of the participating investigators in low and middle income countries still lack infrastructure and so they require enhanced support and training from the DMC. While managing one-half of the IAEA clinical trial port-folio in Radiation Oncology with 44 investigators in 36 countries, I am working with the IAEA in advisory capacities and as a methods and statistics teacher.

I presently also lead an important, expanding initiative to develop an international network of data and methods centres, and affiliated investigators, to meet the objectives of the IAEA. Further, I have initiated four studies alongside the IAEA activities leading to manuscript submissions. I have completed an 86 pp monograph on DM, DMC’s and professional data management, which includes a component on Quality. I am participating as an expert regarding Quality in relation to a Telemedicine initiative for Africa, which is a pilot project for 2012-2014.

IAEA ADVISORY ACTIVITIES (FOR GOVERNANCE AND ADMINISTRATION)
2012 -present Advisory committee, Telemedicine in Africa, Vienna, May 28-Jun 1, 2012)
2011 -present Advisory committee “Data Management for International RCT’s in RO” May/June
2010 Reviewer for “International curriculum, Radiation Oncologist training”
2010-2011 Advisory committee “Improving coordinated research projects” Dec
2010 Program Priorities for NAHU-ABR (planning cycle 2012-13)
2010 Reviewer for “A syllabus for the education and training of Radiation Oncologists”
2009-2011 Observer to: International Harmonization/Standardization of Radiotherapy Plans, Taxonomy
2006 Reviewer for “IAEA Radiotherapy Course Syllabus” dated Aug 18, 2006
IAEA INVITED PROPOSALS AND DOCUMENTS (FOR ADMINISTRATIVE PLANNING)

2009  Proposal to NAHU/IAEA for a network of data management centres for capacity augmentation
2008  Requested paper reviewing implementation in 5 trials and investigator performances

PENDING: 2012, Proposal to IAEA for an RCT in prostate cancer (for planning cycle for 2015)

IAEA SPECIAL SERVICES AGREEMENTS (FOR TEACHING)

2010  SSA
Regional (AFRA) Training Course Clinical Research, Addis Ababa, Ethiopia, Nov 30-Dec 4
24 staff Radiation Sciences, staff & trainees 15 Mahgreb, African and South Africa facilities
Eight x 60-to-90 minute sessions (= 2.0 days of 5 day program)
Small group tutorial (daily x 4 = 6 hrs on research methods, protocol writing)
Evidence-generating research, Protocol writing, Data Management

2006  SSA C7-RAF-6.024-013
Regional (AFRA) Training Course Clinical Trials, Dakar, Senegal, May 15-19
21 staff & trainee Radiation Oncologists from 19 Mahgreb, African and South Africa facilities
Seventeen x 30-to-90 minute sessions (= 2.5 days of 5 day program)
Evidence-based medicine, Statistics, Ethics

IAEA TECHNICAL CONTRACTS (FOR WRITING)

2011-2012  Establishing a Network of Data Management and methods centres for Radiation Oncology research in International Atomic Energy Agency member countries
The purpose is to establish networks of DMC and investigators in low and middle income countries using a shared-common taxonomy and methods, in order to improve the capacity and infrastructure for international and loco-regional research. I am the lead person for this initiative, collaborating with the IAEA.

CHIEF SCIENTIFIC OFFICER CONTRACTS (FOR RANDOMIZED CONTROLLED TRIALS)

Responsibilities for each randomized trial:
1. Protocol development, Protocol final edit
2. Development of trial forms, Operations manuals, Form revisions
3. All Protocol Amendment activities
4. Minutes and reports for all Research Co-coordinators’ Meeting (RCM are held every 18m, Vienna)
5. Bi-annual reports to the Technical Officer at the IAEA (e-mailed)
6. Presentations of trial updates (every 12-18 months) in person to Technical Officer (Vienna)
7. Attending all trial-related meetings (e.g. RCM’s)
8. Randomization approvals and allocations
9. Communications with each investigator
10. Monthly trial reports to investigators and the Technical Officer
11. All Data Management, including cleaning, reference data and meta-data, archiving
12. Trial reports at each RCM
13. Interim (if any) and Final Statistical analyses  
14. Preparing all official abstracts and official presentation materials  
15. Preparation of all core manuscripts (then finalized by the Technical Officer)  
16. Preparation and submission of secondary abstracts and manuscripts

1.3 QUALITY OF LIFE - COMPREHENSIVE CARE, PSYCHO-SOCIAL CARE, AND AFFECTIVE ONCOLOGY

CCO in 199 announced a strategic plan that included attention to whole-person care and with an emphasis on front-line staff. Since then, I have been developing an understanding of this area and innovating with a number of studies to define the area more carefully, understand Ontario patients and their needs, and to look at novel ways to manage Quality of Life in order to enhance QOL, improve patient self-management and survivorship, and support research through greater patient engagement in care and using communication aids. Prior to 1999, I had conducted a comprehensive survey of Wisdom as foundational to ethics and decision-making, and I had completed my degree in Evidence-Based medicine in 1996 to round out my understanding of that what began in 1983 with the series of CMAJ articles by Sackett et al regarding decision-making and evidence based medicine. Subsequent to 1999, the goal has been to develop a model as to how to integrate the disparate set of domains outside of the bio-medical model of care, recognizing that in patients these silo domains are interactive and integrated are are reflected in outcomes such as quality of life, well-being, coping, allostatic load or stasis, and survival. I introduced a comprehensive care and survivorship plan model in Mycosis Fungoides in 1998.

Challenges have included measurement, statistical methods, meta-analyses of concepts, and conceptual model building including due attention to emotions and distress, and how symptoms are linked to greater outcomes through self-management, care, personality factors and psychology. Having established a technology platform for a program of comprehensive care and survivorship, the recent advance was to crystallize this into INSPIRES, for formal testing. The focus in 2012-2013 is to complete protocols and apply for peer-reviewed grant funding.

1.4 QUALITY OF TREATMENT - TECHNOLOGY ASSESSMENT

The purpose of this research theme is to develop a comprehensive QA program in prostate cancer with focus on clinical data quantity and quality related to treatment planning and delivery factors. High-quality outcome data (staff and patient-reported, and very detailed) fed-back to planning and delivery processes can assist technology evolution and provide methods and content for knowledge transfer. At first, I developed a longitudinal and expanding data-set in Mycosis Fungoids, 1989-2004, which received international recognition (e.g. my authoring the EORTC guideline published in 2002, my being a co-author in the DeVita and Gunderson-Tepper textbooks). Other data-sets and the prospective IAEA and other randomized trials widened and deepened that experience, c.2002-present. Beginning in 2005, my main in-house research focus at CVH-THC has been on prostate cancer as an exemplar for this stepped-up approach to technology assessment. Since 2009, and in line with QUANTEC and Advanced Technology Symposium recommendations, the approach is to develop, implement and test a high-end, disruptive technology, assessment and research program. Presently, the data-set consists of 500 cases with Prostate-Only radiotherapy, and is being expanded to exceed over 2,000 cases in total, and will become prospective in 2013.
1.5 QUALITY OF DECISION-MAKING

This research theme is aligned with those of Quality of Treatment and Quality of Life. A decision science approach has been taken. This has identified key decisions that are made during a patient’s clinical trajectory from pre-diagnosis of cancer well into survivorship or disease-or-toxicity-related death. Decisions should reflect the social capital of participants, and be influenced by evidence and ethics. In addition, for an organization to possess a learning culture and shift to agility (to manage choices, contingencies and chances) requires having processes to capture decisions and improve shared knowledge, or social capital. Therefore, during and after my thesis (MSc) I contrasted patient-level and physician-team level decision-making, and applied theory and technology (Dynamic Care Webs) to disease-site teams to demonstrate high-performance is possible with supporting infrastructure and clear values-driven activities including case-conferencing of clinical cases. The DCW approach was established in 1999 as a conceptually- and data-intense and is designed to support clinical operations, conduct technology assessments, provide whole-person care with documentation, and support administrative decision-making regarding resources (e.g. scheduling of patients). Funding for this area has not been required, as activities were conducted during normal operations. (e.g. study in contour-review by second Radiation Oncologist, development of case-conferences for Disease Site Teams).

My present work at CVH-THC in regard to furthering the Quality strategy of the Radiation Program, including being on several committees, is to institute the DCW approach as represented in a culture of Quality, with processes for Quality and professional data management. In regards to medical decisions, this includes attention to evidence-based re-organizing of clinical schedules and testing, criteria-based adverse event and disease-recurrence declarations, standardization of AE and recurrence management, capturing decisions made at case-conferences and translating those into clinical policies, and improving informed consent through locally-assembled evidence of benefits and risks.

1.6 QUALITY PARADIGM - CONTENT FOR A THEORY OF MEDICAL CHOICE

The purpose of this theme is to extend Evidence-Based Medicine to construct a complete Theory of Medical Choice. This includes placing greater weight on social sciences alongside the natural sciences, applying some of the principles of Socio-Economics and substituting Quality for Wisdom in making choices. Quality is a substantive content for a TOMC and it may be elaborated in three directions: Quality of Decisions, Quality of Treatment, and Quality of Life. A robust TOMC that can deliver Quality requires all three of these to be optimized as an ensemble, since they interact with feed-back, feed-in and feed-forward loops which may be co- or trans-temporal. Further theoretical work is being done towards a book on Quality.

1.7 NON-SERIES GRANTS AND FUNDS

No statement

1.8 CLINICAL TRIALS GROUPS

No statement

1.9 PHARMACEUTICAL STUDIES

No statement
1.10 INITIATIVES

PENDING STUDIES
- Prostate Cancer, PRINCE CHARMING, Prostate Investigations in the Cancer Experience, with Coping to Health, Appraisal and Relational Meaning, pending ethics submission, CVH (pending ethics approval June 2012)
- Prostate Cancer and MF lymphoma, Low-dose radiation as immune-modulation (hormesis), developing protocols for prostate and MF cancers with Boreman et al. at McMaster university (research meetings held Feb 14 and March 6, 2012) (pending protocols)

PENDING MONOGRAPH TEACHING SERIES
- Data as Asset—design, capture, assembly and reporting
- Quality
- Hot Statistics

PENDING STUDY COMPLETIONS (STUDIES OF THE DATA MANAGEMENT CENTRE)

2012 Investigator assessments of the difficulties and successes in conducting international trials (n=36 IAEA-trial investigators surveyed, 100% response rate)
  - Domains under evaluation include phases of a trial (ethics, accrual, treatment, follow-up), support (local, IAEA and DMC), and investigator preparation and experiences
  - Manuscript in draft form

2012 Investigator assessments of the impact of participating in international trials according to the CANMEDS2005 dimensions (n=40 IAEA-trial investigators surveyed, 100% response rate)
  - Manuscript in draft form

2011 African Research Initiative: An in-context learning environment for trainees using a Registry research project; completed, 9 students across Africa in Dec, 2011
  - This study was of in-context learning methods centered on a real project, the AFRES registry pilot study, to evaluate methods and materials for the website (see DMC section)
  - Manuscript submitted to SA J Education in Jan, 2012, pending initial reviewer responses
  - Article for African Research Oncology Group pending final acceptance, 2012

2010-2011 African Research Initiative: A real-time clinical pilot cancer registry in 4 centres (The Sudan, Zimbabwe, South Africa and Ontario); accrual 107 patients completed 2012
  - This study was a pilot project to demonstrate the feasibility of a real-time clinical registry, in contrast to IARC (e.g.)
  - Manuscript submitted to Central African Medical Journal in Dec, 2011; revision May 2012, pending final publication decision
  - Article for African Research Oncology Group pending final acceptance, 2012

PENDING WEBSITE & REGISTRY
- I am planning for a web-site for research and a new Journal high-lighting research in low and middle income countries. Discussion with AORTIC (Africa Oncology) has begun to decide how best to proceed. Elements will include monograph type material, a new Journal high-lighting research in low
and middle income countries, and research projects (e.g. a clinical outcome registry) for in-context training (based on DMC studies, see IAEA section). I have also been in discussion with STATA and iUniverse regarding web-sites and publishing. An alternative is to integrate some of these ideas into the IAEA’s Health Campus.
2. RESEARCH AWARDS

Grants, Contracts, and Clinical Trials

PEER-REVIEWED GRANTS

Funded

2.1 International Atomic Energy Agency

2009-2016: E33034 “Comparison of two induction methods for locally advanced rectal cancer”, a multicenter 9-country international randomized trial of the IAEA; sample size 350 (presently 40), Euro 300,000 (estimate)

- This is an RCT for locally advanced (uT4 or at-risk CRM uT3/N+) rectal cancers, comparing neo-adjuvant Hypofractionated radiation (25/5) plus 2 chemotherapy cycles against long-course chemoradiation, with attempted surgery at week 16. Primary outcome is resection grade, with secondary outcomes in survival, biological impacts, AE and QOL, and health economics.
- 2 RCM in Vienna are completed (2009 and 2011), with accrual ongoing and adding new centres in other countries; next RCM is expected in 2013, with planned interim analysis at that time (n>100 reaching +16 weeks from randomization)

2007-2013: E33029 “Optimization of radiotherapy and chemotherapy in locally advanced and metastatic non-small cell lung cancer”, two multicentre 13-country randomized trials of the IAEA; sample size 61 completed (sub-study A) in 2011; sample size 189 ( presently 180, sub-study B), Euro 300,000 (estimate)

- This is an RCT for NSCLC, with two sub-studies. In pilot study A, randomization was between radiation with 39 Gy in 13 fractions or Hypofractionated (1-2 fraction) radiation combined with 2 to 3 cycles of chemotherapy. In study B, randomization is between 2-3 cycles of chemotherapy and the same plus Hypofractionated (1-2 fraction) up-front radiation. Outcomes are survival, local control, and adverse events.
- Three RCM’s were completed in Vienna (2006, 2008 and 2010); another is booked for November of 2012 (the final RCM will be in Vienna, with consideration for follow-on studies)
- Final data-flow for A is expected by May of 2012, and for B by September of 2012, with final analyses for the RCM in November of 2012

2007-2013: E33027 “Improving outcomes in radiotherapy using new strategies of treatment delivery in esophageal cancer”, a multicentre 6-country international randomized trial of the IAEA; sample size 201 completed in 2010, Euro 250,000 (estimate)

- This is an RCT for the palliative treatment of esophageal cancer, M0 or M1 (stratification), all treated with 2 brachytherapy and with either 20 Gy in 5 fractions or 30 Gy in 10 fractions, with the main outcome of dysphagia relief, and secondary questions of (1) survival, (2) symptoms, (3) QOL, (4) validation of the Tata-7 QOL measure, (5) validation of the PPSv2 measure, and (6) OES-18
characterization for the questions of dysphagia

- Three RCM’s were completed in Vienna (2008, 2009, 2011)
- This study is completed; manuscripts are in preparation

2007-2013: E33025 “Resource Sparing Radiotherapy for Breast Cancer”, a multicentre 11-country international randomized trial of the IAEA; sample size of 350 for FEC/FAC component reached in 2012 (accrual continuing) and sample size for Taxane-based component presently 57, Euro 400,000 (estimate)

- This is an RCT for the radical treatment of early to intermediate stage breast cancer comparing chest-wall only radiation to chest-wall plus supraclavicular radiation, all 40 Gy in 15 fractions; primary question is loco-regional recurrence rate; secondary questions of (1) adverse events, (2) lymphedema, (3) Taxane vs. non-taxane toxicities, (4) SNiPs and adverse events (collaborator is in Japan)
- Three RCM’s were completed in Vienna (2006, 2008, 2010)
- This study continues with accrual; as of March, 2012, there are 410 women on study, with 40 deaths

2005-2015: E33024/26 “Optimizing treatment of cervix cancer using radiotherapy and analysis of virally-associated cellular resistance”, a multicentre 7-country international randomized trial of the IAEA; sample size 601 completed in 2011, Euro 400,000 (estimate)

- This is an RCT for the radical treatment of IIB and IIIB carcinoma of the cervix; it is a 4-arm trial with all cases receiving 46 Gy in 23 fractions external beam, combined with brachytherapy (2 or 4 insertions, by random allocation) or chemotherapy (0 or 5 weeks of concurrent chemotherapy); primary outcome is overall survival, with secondary questions of (1) adverse events, (2) loco-regional control, (3) radiobiologic contrast between 2 x 9 and 4 x 7 brachytherapy, (4) prognostic factors, (5) tumor markers (Kathy West, UK), (6) viral elements (JJ Kim, South Korea), (7) patient self-reporting of toxicities using SOMA-LENT (S Davidson, UK)
- Three RCM’s were completed in Vienna (2005, 2009 and 2011); another meeting is likely around an international conference in 2013
- This study completed accrual in 2011 and as of March, 2012, there are 140 women out of 601 who are dead (projected number is 220 in 2014)
- Final data cleaning for early data (through 18 months of follow-up) is complete; early analyses are ongoing (not including the primary end-point of overall survival)

2002-2007: E33021 “The role of teletherapy supplementary to intraluminal high dose rate brachytherapy in the palliation of advanced esophageal cancer”, a multicenter 6-country international randomized trial of the IAEA; sample size 219 completed in 2007, US $240,000 (estimate)

- This is an RCT for the palliation of loco-regional advanced esophageal cancer (metastases-free) comparing 2 brachytherapy to 2brachytherapy followed by 2 weeks of external beam radiotherapy (30-Gy in 10 fractions) for the outcomes of survival, dysphagia-relief, symptoms, QOL and adverse events
- Three RCM’s were completed (2002 South Africa, 2005 Canada, 2007 Vienna)
- This study was completed with publication of the main finding in 2010

2.2 Quality of Life

2009-2012: Canadian Pharmaceutical Association, Leung M, et al., Jones GW. Factors in symptoms when patients receiving chemotherapy and marrow support, $6,800
- This is a longitudinal study of women with breast cancer using scales and diary evaluating the experiences of women receiving chemotherapy with soft-tissue pain. Study is complete, ASCO abstract in 2012. Statistical analyses using longitudinal methods with mixed-effects.

**2002-2003:** Co-applicant with Drs. Wong and Sagar, Radiation Oncology, Quality of Life and Traditional Chinese Medicine assessment of Brain Tumour Patients presenting with cancer related fatigue syndrome. Fatigue Initiative, Canadian Association of Nurses in Oncology
$12,000

2.3 Quality of Treatment
(None)

2.4 Quality of Decision-Making
(None)

2.5 Quality Paradigm

**2004-2006**
Change Foundation, Ontario, Co-applicant with Dr. Karen Parent, Queen’s University
Measuring best performance and value for hospital infrastructure support
$100,000 plus matching CV Hospital funds of $139,000

2.6 Other/Non-Series

**2001 – 2004**
CIHR, Co-applicant with Dr. Haywood, Physics, HRCC with Alex Vitkin, Physics, Princess Margaret Hospital, Optical Coherence Microscopy: Skin and endoscopic gastrointestinal imaging
Canadian Institutes of Health Research (CIHR) $421,780

2.7 Clinical Trials Groups

**1995-1998**
ECOG Co-chair, Scientific, with Dr. Paul Bunn, Hematology/Medical-Oncology
ECOG-1495 randomized trial, National Cancer Institute, USA
Core operating costs at ECOG

**1995-1997**
MRC-UK Secretariat member, Sarcoma Meta-Analysis Collaboration (SMAC)
Medical Research Council, Cambridge, United Kingdom, Sterling 100,000 Pounds

2.8 Pharmaceutical companies
(None)
Declined

2006
NCIC Grant Application
Sur, Ranjan (PI), Zychla, Laura, Wright, Jim, Lukka, Himu, Okawara, Gordon, Corbett, Tom, Jones Glenn
A Phase III Study Comparing Symptom Control and Quality of Life in Lung Cancer Patients Receiving External Beam Radiation With or Without High Dose Rate Intraluminal Brachytherapy.
NCIC Randomized controlled trials $210,000

PENDING decision

June 2012 for 2012-2014, commencing in July for 2.5 yrs
Prostate Cancer Canada pilot grant program
$150,000 total
- This funding should support the PROSTATE initiative in regards to (1) extracting additional case data for another 520 cases with low to intermediate risk-prostate cancer treated at CVH (low-intermediate in 2011-2012, and adding prospectively cases in 2012-2014) and with high-risk-prostate cancer (2005-2014), (2) obtaining all partial-volume Dose-Histogram data-sets with sufficient resolution for all 1,000 cases based on baseline CT-simulation plans, (3) obtain pvDH data-sets for CBCT in-treatment imaging (2009-2014) to account for organ motion/morphing, (4) updates of all outcomes, and (5) characterization and classification of main adverse events (rectum and bladder) for the additional cases. The first step will be a case-control study (cases with AE, cases without AE, matched on clinical-pathological and organ-volume factors) to determine sample size for initial analyses, although the intent is to have a prospective expanding and rich data-set that is Advanced Technologies Symposium and QUANTEC compliant. The primary objective is to look at how patient characteristics and co-morbidities, planning and delivered treatment parameters (including types of plans) relate, and whether these are predictive of the dimensions of rectal and bladder AE.
NON-PEER-REVIEWED GRANTS

Funded

2.9 International Atomic Energy Agency

None Presently

2.10 Quality of Life

Pending decision July, 2012
Canada’s Motorcycle Ride For Dad, Central-West Ontario chapter
Prostate Awareness study and educational materials development and publication
$29,000

• This funding should support the INSPIRES project by developing the educational modules required for INSPIRES (modules for patient education in all 3 phases of the clinical trajectory: pre-, during- and post-treatment). Needs so far identified (in prior studies) will be amplified by interviewing patients and with assistance from prostate support groups, and summarizing some of the literature and web-site topics/questions, to develop a robust list of items to be mapped onto the clinical trajectory. Text “answers” will be pilot tested in men with cancer, prior to finalization. Such educational material will then be used in INSPIRES.

2012
Abbott Laboratories, Educational Grant
$3,500

• This funding was used in support of additional statistical training in advanced methods, summer 2011.

2009
Abbott Laboratories, Educational Grant, Rounds support for Patterns of Needs initiative, CVH meeting, March of 2009
$450

• This funding supported an inter-disciplinary team meeting to review the patterns of needs as identified in STEPS-3 and ESAS data (n=2,000 patients) to establish a framework and criteria for analyzing disciplinary screening, assessment and responses to patient needs in 23 domains of care (e.g. nutrition, complementary therapies, anatomic system symptoms and signs)

2009
Sanofi-Aventis, unrestricted grant, Psycho-social oncology measures
$5,000

• This funding supported an evaluation of patient self-reporting using systematic screening tools for supportive (e.g. adverse symptoms and signs) and psychosocial (e.g. nutrition, emotions, spirituality) needs. We identified 10 validated, external tools suitable for such screening (PNAT, City of Hope,
PSSCAN, SCNS-LF59, MSAS, PICKER, CARES, CARES-SF, CCM and CPNQ) and cross-tabulated their questions, by care domain, with those in STEPS-3 and ESAS and the AUA(prostate), to identify coverage, agreement and psycho-metric issues. The total number of independent logical content questions was greater than 600 for all 13 instruments. This work was done to provide as background for an internal review of the radiation oncology program’s approach to the management of needs, particularly comprising one element for guiding the evolution of STEPS-3.

2008
Sanofi-Aventis, unrestricted grant, Psychosocial oncology measures for emotions
$15,000
• This funding supported conceptual, logical and psychometric analyses of 107 tools for screening for the emotions, with and without cancer. A total of 3,455 questions were assembled from the 107 tools, and divided into non-emotional and emotional domains, and the emotional questions were analyzed for content and distilled to 27 domains (25 specific and 2 overall). A manuscript was submitted (Supportive Care Cancer) with feedback. Presentations were made at CAPO and Kingsbridge (RMP U of Toronto). Results confirmed that the emotional tool in STEPS-3 (31 questions) contains 18 of the main domains and 9 of the 10 items of the International Positive and Negative Affect Score Short Form (I-PANAS-SF, with only 2 factors), particularly those most relevant to use with patients with cancer. Data using the EMO-module (Affective or Emotional Oncology screening tool) of STEPS-3 is accumulating; preliminary analyses indicate a 5-factor structure, which can guide further development of EMO.

2003-2005
Cross-sectional survey of 300 women with breast cancer who are receiving breast radiotherapy (1) to explore complementary therapies, mental state and core spirituality, (2) to methodologically compare several measures of spirituality & religion. Canadian Radiation Oncology Services, Toronto-Sunnybrook & Women’s College Hospital. Privately funded (patient donations, and staff support)
$3,000
• This funding was used to fund the TSRCC-CROS study, in 196 women with breast cancer (356 approached, 555 consecutive cases). The study demonstrated the dynamism of Rel./Spirituality in response to a diagnosis of cancer, further validating SQ-30 and RS-15. Randomization of 4 questionnaires in religion and spirituality demonstrated no effect of randomization on patient self-scoring of all questions-items. This work provides some of the background for the present studies (2011-2012) of CHARM and PRINCE CHARMING, in which the relevance of appraisal (relational meaning, per PSS of S Cohen) and emotions (I-PANAS-SF) may be summarized by distress (DT), how these relate to coping strategies (CSI-R of PT Wong), and how those relationships may differ based on symptoms of mood disorders, and religion and spirituality. These, in turn, provide theory-frame for INSPIRES.

2003
A cross-sectional survey of quality of life in 100 dermatology patients receiving treatment at a regional photo-dermatology unit. Research Development Fund, Hamilton Health Sciences
$6,200
• This funding was used to conduct an ethics-approved cross-sectional study in 107 patients with MF undergoing phototherapy in Hamilton. Results were presented at specialty meetings.

2002-2005
Co-applicant with Dr. Figueredo, Medical Oncology
Analysis of QOL and outcomes in 1,000 GI Oncology patients managed from 1993-1999 at the HRCC.
**Academic Enhancement Fund HRCC**

$18,000

2002-2004

*Understanding the Cancer Experience in Patients with Mycosis Fungoides, including quality of life, function, spirituality and religion, and use of complementary therapies. Patient donations*

$1,120

- These funds were used to survey patients to determine patient understanding of the dimensions of spirituality and religion, and to clarify the definitions. New tools, Spiritual Quotient 30 (30 questions) and Religion-Spirituality 15 (later 18), were developed and validated against SWBS, SBI-15R, RFU and DRE. These findings laid the ground-work for a follow-on study at TSRCC (CROS). Results were presented at several meetings.

2002-2004

*An update of the Mycosis Fungoides Data-base at Hamilton, Academic Enhancement Fund HRCC*

$10,500

- This funding was used to finalize the MF data-set of the Canadian Co-operative MF Study Group of the Canadian Dermatology Society for further reporting. This took the data-set from 550 to 952 patients, with complete updates into 2004. This led to abstracts and published papers.

**2.11 Quality of Treatment**

2012-2013

*Canada’s Motorcycle Ride For Dad, Central-West Ontario chapter*

*Peel Regional Oncology Studies to Advance the Experience-Biomedical outcomes study 12-01, $21,084 for 1 yr*

- This funding should support the on-going characterization and classification of main adverse events (rectum and bladder) for all 480 prostate-only radiotherapy cases already extracted, and the additional cases from March 2011 through to the end of 2012 with PORT.

2011-2012

*Canada’s Motorcycle Ride For Dad, Central-West Ontario chapter*

*Peel Regional Oncology Studies to Advance the Experience-Biomedical outcomes, PROSTATE, $14,525*

- This funding is to complete the characterization of several adverse events for the rectum for prostate-only radiotherapy (see past grants and funding relating to PROSTATE), using methodology developed at CVH. It will also classify bladder AE into grades according to CTC and similar scales, for comparison.

2011

*Sanofi-Aventis, unrestricted grant, PROSTATE*

$7,500

- This funding was used to expand the PORT analysis to 480 cases, further refining data management methods, leading to a basic analysis of changes in baseline CT-scan based Dose-Histograms with changes in technology, but no appreciable changes in rates of bleeding (present/absent). This finding suggested the need to (1) look at CBCT information for during-treatment-course organ motion, (2) look at sub-sections or partial-volumes to better characterize the elements of the histograms, and (3) to better
characterize the outcomes (a multi-dimensional classification system, needing to be developed).

2010
Sanofi-Aventis, unrestricted grant, PROSTATE
$5,000
• This funding was used to foster the PROSTATE data-set. This combined three existing data-sets (Clinical and risk-stratification variables, STEPS-1 and STEPS-3 baseline data, DVH plots, and PSA and clinical outcomes), with further amplification of data (current to early in 2011) to enable an analysis of outcomes for the first 128 prostate-only radiotherapy (PORT) patients treated at CVH 2005-2007. This study developed methods for expanding the data-set to include the 480 PORT patients treated at CVH 2005(July)-2011(March) using 3D-CRT, IMRT and VMAT technologies.

2.12 Quality of Decision-Making

2001
Social Capital and Knowledge Creation by patients on an international ListServ, Hamilton Regional Cancer Centre Foundation
$2,900
• This funding was used to evaluate the America Cancer On-line Resources list serve activities from 1995 through 2001 for the sub-group of Cutaneous T-cell Lymphomas. Overall, more than 16,000 listings were classified by subject and author, to look at topic coverage, social capital and democratic participation patterns. There were detailed analyses of content, particularly focused on radiation and new chemotherapy and immune-modulation agents. The conclusion was that this patient-based network community was low on social capital, with too high a turn-over in membership, and a relatively undemocratic participation pattern, to be of value relative to the social capital present in a case conferencing context (for MF and GI malignancies). Results were presented at the Society for the Advancement of Socio-Economics, and were discussed with the ListServ controller Judy Jones, influencing in broad terms the further development of the MF Foundation materials (e.g. FAQ’s).

1997-1998
Development and testing of Dynamic Care Webs for the GI DST to capture case-conferencing knowledge and guide patient care
$2,500 (donation)

2.13 Quality Paradigm

1995-1997
A Social Willingness-to-Pay Survey for allocating funds under a binding budget, McGregor Clinic Fund, Hamilton Civics Hospitals
$4,000
• This funding was in support of my thesis (MSc), which was a pilot project. Monies were used to reimburse participants of the survey. The research question was the feasibility of using WTP methodology to determine social preference for budget allocations. Based in neoclassical welfare economic theory, results demonstrated construct validity for the measurement tool. Subsequent work elaborated WTP as a method for assessing willingness of patients to use communication aids with different attributes for the self-reporting of symptoms (e.g. ESAS and similar tools) in 2008-2009, resulting in a paper (Patient Education and Counseling, 2010). Findings are relevant to the INSPIRES
initiative and for evolving STEPS-3 and the emotional module of STEPS-3 (EMO).

2.14 Other/Non-Series

2003-2005
Co-applicant with Dr. Wong, Radiation Oncology
Randomized study of the use of acupuncture-like transcutaneous nerve stimulation (CODETRON) in the prevention of radiation-induced xerostomia in head and neck cancer patients during radical radiotherapy.
Hamilton Health Sciences Foundation
$43,545

2003
Co-applicant with Dr. Wong, Radiation Oncology
Photographic analysis of the tongue in patients with gastrointestinal cancers
Juravinski Cancer Centre
$4,000

2001-2004
Co-applicant with Dr. Haywood, Physics
Use of polarization photography in determining skin cancer margins for radiotherapy.
Hamilton Regional Cancer Centre Foundation
$16,032

2000-2004
Co-applicant with Dr. Haywood, Physics
Measurement of erythema during total skin electron (TSE) radiotherapy Mycosis Fungoides
The Varian Research Group
$18,106

1999-2001
Co-applicant with Dr. Haywood, Physics
Measuring hypoxia and predicting tumour radiation resistance in esophageal cancer
Hamilton Regional Cancer Centre Foundation
$12,600

2002-2003
Co-applicant with Dr. Haywood, Physics
Optimization of ALA mediated PhotoDynamic therapy using in vivo fluorescence
Hamilton Regional Cancer Centre Foundation
$6,000

1999-2004
Co-applicant with Dr. Wong, Radiation Oncology
Phase I/II study of codetron in the treatment of xerostomia in head and neck patients
Hamilton Health Sciences Corporation
$19,918
1999-2001

Co-applicant with Dr. Wong, Radiation Oncology
Measuring hypoxia and predicting tumour radiation resistance in esophageal cancer
Hamilton Health Science Corporation
$12,000

2.15  CLINICAL TRIALS GROUPS

None at present

2.16  PHARMACEUTICAL STUDIES

LEDERLE-QUADRALOGIC
My involvement was to establish a national team of investigators and chair several sub-groups by anatomic site. This was a non-reimbursed activity, but it was in line with an interest in Hamilton to develop a PDT program at the HRCC. Given the evolution of no PDT at the HRCC, but done at other hospitals, plus some Health Canada issues about setting up new clinical programs, and Brian Wilson (physics, laser applications expert) moving to Toronto from Hamilton, it was decided to terminate activity in 1992.

POSITIONS
1990-1991  Coordinator of Central West Ontario Region Clinical Unit in Photodynamic Therapy
Hamilton Regional Cancer Centre & St. Joseph’s Hospital, Hamilton, Ontario
1990-1991  Coordinator, for MaTCH (Montreal, Toronto, Calgary & Hamilton sites)
National Photodynamic Therapy Initiative, Lederle and Quadralogic Technologies

MEETINGS
1991  Photofrin Bladder investigator’s meeting, Florida
1991  Photofrin Lung investigator’s meeting, Toronto, Ontario
1991  Photofrin PDT brain tumour group of Ontario, Hamilton, Ontario
1990  Meeting, PDT in Oncology, Clinical Applications, Lederle-Cyanamid, Toronto ON

Declined

None
Salary Support and Other Funding

PERSONAL SALARY SUPPORT

Submitted, decision pending in June, 201
Commencing in June for 3 yr duration
Career Scientist Position, Ontario Association of Radiation Oncologists (OARO)
Base Salary, for 80+% protected time

TRAINEE SALARY SUPPORT

2.17 IAEA

None presently

2.18 Quality of Life

2009
2 Canada Student Jobs ($10/hr total): Psychosocial screening & Medical screening tools
$3,750
• This federal funding was used in support of two studies looking at screening tools for medical and psychosocial needs and concerns of patients with cancer. Reports were generated based on statistical summaries of CVH data, literature reviews of subject area (23 domains of care), and a meta-analysis of two dozen extant screening tools (e.g. CARES, PCAN). Reports consisted of: (1) present methods for screening; (2) present disciplinary methods for assessment; (3) statistical results at CVH (n=4,000 patients, STEPS and ESAS); (4) revision of the prior conceptual, logical and psychometric analyses of present questions and tools; (5) models of care based on international societies and publications; (6) present disciplinary and inter-disciplinary responses to identified needs; and (7) recommendations for improvement/change (e.g. how to change STEPS-3 to STEPS-4). These reports led in 2010 directly to the approach of INSPIRE as a way of organizing supportive and psycho-social care for ambulatory patients.

2.19 Quality of Treatment

2012
1 Canada Student Jobs (8 weeks at 30 h per wk and $5.43 per hour, PROSTATE)
$1,303.12
• This funding is to complete the characterization of several adverse events for the rectum for prostate-only radiotherapy (see past grants and funding relating to PROSTATE), using methodology developed at CVH. It will also classify rectal AE into grades according to CTC and similar scales, for comparison.

2.20 Quality of Decision-Making
None Presently

2.21 Quality Paradigm
None Presently

2.22 Other/Non-Series
None Presently

2.23 Clinical Trials Groups
None Presently

2.24 Pharmaceutical Studies
None Presently

OTHER FUNDING

2.25 Clinical Trials Groups

2010-present
PROFIT, Randomized Trial of Prostate Fractionated Irradiation Trial

2007-2011
NCIC, breast CTG, RAPID study (partial breast radiation vs. whole breast radiation)
McMaster University, Randomized Trial of Accelerated Partial Breast Irradiation

2009
NCIC, CTG PR.12, A Phase III Study of Neoadjuvant Docetaxel and Androgen Suppression
plus Radiation Therapy versus Androgen Suppression alone plus Radiation Therapy for
High-Risk Localized Adenocarcinoma of the Prostate, (DART)

1996-2004
RTOG, Hamilton Regional Cancer Centre, full member institution of the RTOG. Radiation Therapy Oncology
Group (RTOG) per case funding provided for personal patients entered onto clinical trials, including patients
with gastric, rectal, liver, pancreas and anal cancers. Was local principal clinical investigator for a trial testing
adjuvant chemotherapy for patients with pancreatic cancer who were undergoing a Whipple’s procedure.

1995-1996
NCIC, Randomized trial in Hodgkin’s Disease, (HD-6; became an Inter-group SWOG & ECOG study &
formally closed 2002)
2.26 Pharmaceutical companies

Responsible for recruiting and managing patients for the trial; I placed 8 cases on trial, but left HRCC for CVH and so my commitment then ceased. Reimbursement per-case funding was approximately $16,000 for a total of $128,000.

2003-2004
Ligand pharmaceuticals, FDA approved clinical trial for full licensing of ONTAK
Study 93-04-11 Randomized Trial of DAB389-Il-2 in Stage IA-III CTCL patients
Principal Investigator at HRCC/JCC, International trial

2003-2004
Ligand pharmaceuticals, FDA approved clinical trial for full licensing of ONTAK
Study 93-04-14 Trial of DAB389-Il-2 for CD25- or refractory 93-04-11 CTCL patients
Principal Investigator at HRCC/JCC, International trial
D Publications
1. MOST SIGNIFICANT PUBLICATIONS

PARADIGM AL EXTENSIONS TO EVIDENCE-BASED MEDICINE


NATIONAL GUIDELINES IN PSYCHOSOCIAL ONCOLOGY
(CANADA)


MYCOSIS FUNGOIDES EXPERTISE
(TEXTBOOK, GUIDELINE, META-ANALYSIS)


IAEA RANDOMIZED CONTROLLED TRIAL
(ESOPHAGUS)

2. PEER-REVIEWED PUBLICATIONS

Journal Articles (37)


Case and Case-Series Reports (6)


Abstracts (103)

PRESENTATIONS (59)


MEETING POSTER DISCUSSIONS (4)


POSTERS (30)


2. Vergel de Dios D, Larson T, Kim J, **Jones GW.** Integrating Supportive and Psycho-social care in the Radiotherapy Experience (INSPIRE), National meeting of CPEN (Patient Education), Buffalo NY, Sept 2011.


Academic CV of G W Jones as of Apr 11 2012


WORKSHOPS (10)


9. Jones GW. CAN12349 Esophageal protocol. IAEA investigators’ meeting, Juravinski Cancer Centre,

10. Jones GW. The medical science of clinical spirituality. CMDS, At the interface of Spirituality and Medicine, Niagara Falls, May 1, 2004.

**Books (2)**

1. Jones, GW. Data management, IAEA, 2012

2. Jones, GW. A Justification and adaptation of a methodology of contingent valuation (Willingness-To-Pay) to measure social preferences for allocating medicare services under a binding budget with an example from Radiation Oncology. McMaster University, 1996 (MSc Thesis)

**Books Edited (None at present)**

**Book Chapters (11)**


Manuals (None at present)

Editorials (None at present)

Commentaries (None at present)

Letters to Editor (20)


Monographs (None at present)

Multimedia (None at present)
Other Publications (13)

GUIDELINES (2)


COLLABORATIVE WORKS (2)


ACKNOWLEDGMENTS (9)


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles (16)


Case Reports (None at present)

Abstracts (None at present)

Books (None at present)

Books Edited (None at present)

Book Chapters (None at present)

Manuals (None at present)

Editorials (None at present)

Commentaries (None at present)
Letters to Editor (7)


Monographs (3)


Multimedia (4)

4 TELEVISION SHOWS
   1. Faith and healing. Connie Smith. CH TV, June/04, 30 mins.

Other Publications (9)

9 WRITTEN CITATIONS
4. SUBMITTED PUBLICATIONS

Journal Articles (2)

Case Reports (None at present)

Abstracts (2)

PRESENTATIONS (1)

WORKSHOPS (1)

Books (None at present)

Books Edited (None at present)

Book Chapters (None at present)

Manuals (None at present)

Editorials (None at present)

Commentaries (None at present)

Letters to Editor (None at present)

Monographs (None at present)

Multimedia (2)
1. AFROG AFRES
2. AFROG In-context learning

Other Publications (None at present)
E. Presentations and Special Lectures
Each of the following are presentations, without formally published abstracts. Published abstracts are listed under Publications.

**PRESENTATION AWARDS**

Presentation by Dr. Jones
2008  Best speaker, PMH-UofT-RMP Conf: Global perspectives, Local outcomes. April, 2008

Presentation by Dr. Wright
1993  Wright J, Jones GW, Lukka H. Patient Preference for dose rate in brachytherapy for cervix cancer. (CARO, Royal College, Sep/93, presented by Wright, won second prize in resident competition out of 18 submitted papers)
1. INTERNATIONAL

Abstracts and Other Papers
PENDING: ASTRO Cancer Disparities Symposium speaker, Boston MA, Oct 29 or 30, 2012

Invited Lectures and Presentations
2011 Nov AORTIC, invitation to present at bi-annual meeting, Cairo EGY, Nov 2011 (cancelled)
2009 May NAHU seminar series, Vienna AU: “Health economics and evidence-based oncology, an expanded decision-making framework for allocating resources and improving outcomes”
2008 Sep NAHU seminar series, Sept 9 2008, Vienna AU: Data management in clinical research in developing countries, including good clinical practice (strategy for GCP compliance)
2002 Nov Johannesburg, Dept. of Radiation Oncology, South Africa
Recent advances in the management of Mycosis Fungoides
2002 Sep Yale University, Dept. of Radiation Oncology, Connecticut USA
The electron beam paradigm for managing Mycosis Fungoides: A competitive clinical management strategy improved by recent advances
2002 Sep Boston University Medical School, CTCL Meeting
An Update on Electron Beam for CTCL (Mycosis Fungoides)
1999 Nov Haifa and Tel Aviv, Israel: 3 presentations plus one main meeting
Israel Dermatology Society, CTCL conference, Tel Aviv IS
1998 Sep EORTC & International Society Cutaneous Lymphomas meeting
Cutaneous T-Cell lymphoma, Consensus conference on radiotherapy (plenary speaker), Vienna AU
1996 Nov The survival experience of 583 patients with Mycosis Fungoides
Yale School of Medicine, Connecticut USA
1995 Dec Soft-Tissue Sarcoma Collaborators’ meeting: Clinical Background & Making the Case For Adjuvant Chemotherapy (prior to a Patient-specific Meta-analysis Type III)
Cambridge, United Kingdom
1994 Oct Boston University Consensus Conference: Total Skin Electron Radiation in MF
International Consensus Conference in Cutaneous T-Cell Lymphoma, Boston MA

Media Appearances
None at present

Other Presentations
None at present
2. NATIONAL

Abstracts and Other Papers
None at present

Invited Lectures and Presentations
2004 May  At the interface of Spirituality and Health Care
Annual National Conference, Niagara ON, Christian Medical-Dental Society
Workshop: The Medical Science of Clinical Spirituality
2000 Apr  National Care-Path Conference: linking wisdom, knowledge and technology
Burlington, ON
1998 Jun  Mycosis Fungoides, Canadian Dermatology Society, Toronto, ON
1993 Jun  Regent College: Economic Allocation under a binding budget
Clinical Bioethics Conference, Vancouver, British Columbia
1993 Apr  McGill University: Clinical studies in Mycosis Fungoides

Media Appearances
None at present

Other Presentations
None at present
3. PROVINCIAL/REGIONAL

Abstracts and Other Papers
None at present

Invited Lectures and Presentations
2009 Apr  Cancer survivorship & Thrivorship, McMaster, Albert Lager, to public, Apr. 14
2008 Jan  Princess Margaret Hospital, RMP rounds, Clinical trials of IAEA of United Nations
2004 May  Princess Margaret Hospital, Rad. Onc. Division, MF Management & Research
2003 Jun  Body, Mind & Spirit: from cancer to an experience with cancer, and “core” spirituality
          Keynote speech, Breast Cancer Support Services Inc
          2003 Annual General Meeting, Burlington Arts Centre
1999 Apr  Sunnybrook Dermatology: MF general talk and update
1997 Jun  Sunnybrook Dermatology: MF general talk and current findings
1995 May  Toronto-Bayview Cancer Centre OCTR: Economic Evaluations
1994 May  OMA-Radiation Symposium: Cost and preferences for brachytherapy
1994 May  OAMRT annual meeting: "Who chooses? High vs. low dose rate brachytherapy"
1992 Oct  Kingston Cancer Centre: Mycosis Fungoides -- TSEB results
1992 Oct  Kingston Cancer Centre: Meta-analyses in medical oncology
1992 Jun  Sunnybrook Dermatology: MF 1956-91 Beam methods and outcomes
1992 Jun  London Cancer Centre: Meta-analyses in oncology
          (Printed in: Resource issues in the practice of Radiation Oncology in the 90's)

Media Appearances
None at present

Other Presentations
None at present
4. LOCAL

Abstracts and Other Papers
None at present

Invited Lectures and Presentations
2004 Mar  Forming and Maturing Spiritual Wisdom, Medical-Dental Society/Hamilton Chapter
1997 Mar  Hamilton Dermatology Rounds, MF: old concepts, new directions
1995 Feb  Hamilton Plastic Surgery Rounds: Mycosis Fungoides
1993 Sep  Patient and Staff preferences for dose-rate in brachytherapy for cervix cancer
          Supportive Cancer Care Unit Rounds, HRCC
          Lymphoma Day - McMaster University & HRCC (talk + panel member)
1991 May  Surgical Grand Rounds - McMaster University: PDT in GI malignancies
1990 Oct  GU Rounds - McMaster University: PDT in Urologic Cancers
1990 Oct  Surgical Grand Rounds - McMaster University: PDT in Head and Neck Cancers

Media Appearances
None at present

Other Presentations

ROUNDS

CVH ROUNDS

- ROR = Regional Oncology Rounds at Credit Valley Hospital (CVH)
- RTQA = Radiotherapy Quality Assurance and Educational Rounds at CVH
- PRCC = Peel Regional Cancer Centre

2011  RTQA: Prostate planning parameters in 480 PORT, Dec 2011
2011  ROR: Prostate plans and clinical outcomes in 250 PORT, Sep 2011
2011  Clinical Rad. Onc. Rounds: Prostate plans and clinical outcomes in 128 PORT, May 1
2009  ROR, Integrating health economics and evidence based medicine, CVH, Jun 10
2009  ROR, Malignant pleural effusions: Benchmark to practice change, CVH, Mar 23
2009  Hudson J, Jones D, Higgins B, Goulbourne M, Kiteley C, Young B, Jones GW
2009  RT QA ICARO summary: planning, QA, toxicity, fractionation and anatomic atlases in radiotherapy: Present trends and new evidence, CVH, Sep 2009
2009  RT QA Benchmark strategies: DVH in prostate cancer, CVH Feb 2009
2009  RT QA MF-CTCL: an introduction, CVH, Feb 19, 2009
2009  Psychology rounds, Emotions and Cancer, CVH, Jan 23, 2009
2008  Nursing Rounds, MF CTCL, Feb 19, 2008, CVH
2007  ROR: Systematic assessments of physical and emotional symptoms Sep 2007
2007  ROR: The OOHH as a measure of patient needs and distress Jan 2007
2006 ROR: Randomized trials of the IAEA Sep 2006
2006 ROR: Aligning evidence & funding priorities with preferences Jun 7, 2006
2006 ROR: Limitations of Evidence-Based Medicine: A “progress trap”? Apr 2006
2005 RT QA rounds: infra-diaphragmatic HD techniques, Nov 2005
2005 RT QA rounds: supra-diaphragmatic HD techniques, Nov 2005
2005 ROR: Interwoven journeys: pt. & medical staff perspectives on radiotherapy, Sep’05
2005 Tumor Board: Rectal Cancer policy for PRCC, GI Regional DST, Jan 2005
2004 Tumor Board: The cancer experience in women with Breast Cancer, Dec 2004
2004 Nursing Rounds, Radiation Oncology program, Oct 2004
2004 Family Medicine Rounds, Radiation Oncology services and plans at PRCC, Sep 2004

TRILLIUM ONCOLOGY ROUNDS
2008 Distress in patients with cancer, measurement and meaning, Jan 2008

GRCC REGIONAL ONCOLOGY ROUNDS
2005 The complex relationship of spiritual values and cancer, Sept. 2005

HRCC/JCC REGIONAL ONCOLOGY ROUNDS
2004 MF care-paths and research avenues
2001 Listserv experience = social capital? America Cancer On-line Resources (ACOR.org)
2001 Spirituality and Spiritual Care
2000 Health choice, Care-paths and Spiritual care
1997 A Theory of Medical Choice
1997 The World's Largest Experience with Cutaneous T-Cell Lymphoma
1996 Health Care Funding: Past, Harris, Future
1992 High dose vs. low dose rate brachytherapy for carcinoma of the cervix
1991 Adjuvant chemotherapy in soft-tissue sarcomas: A meta-analysis
1989 Cutaneous T cell Lymphoma: A descriptive review (1981-87) of our experience
1989 Hodgkin's Disease: who should undergo a staging laparotomy?
1989 Photo-Dynamic Therapy: The Radiation Oncology Perspective

HRCC/JCC CLINICAL PRACTICE GUIDELINE ROUNDS
2000 Dynamic care-paths & Disease Site Group cultural development
2000 Professional learning cultures for Disease-site groups
1999 Oncology-stress: from burnout to engagement with work
1997 Theories of Medical Choice
1996 Adjuvant chemotherapy and patient preferences in sarcoma management
1996 Sarcoma adjuvant chemotherapy: individual patient-data meta-analysis (MRC-UK)
1991 Malignant Gliomas in Adults; Prognosis and photodynamic therapy

HRCC DISEASE SITE TEAM COUNCIL ROUNDS
2004 MF progression in, and challenges for, small DST's

HRCC HEALTH SERVICES RESEARCH ROUNDS
2000 Spiritual care within supportive care
2000 Evolving care-paths: technology; patient needs

**HRCC RADIATION ONCOLOGY DEPARTMENT ROUNDS**
1992 Thyroid Ophthalmopathy of Graves’ Disease—Radiation Management
1992 Lymphoma of the Testis—Case series
1992 Methods of statistical analysis—a sample, clinical data set
1990 Stage I Mixed Cellularity Hodgkin's Disease—Management controversies
1990 Second malignancies in Hodgkin's
1990 Rare Vascular Malignancies: Cases, Review of Literature
1989 Thyroid Ophthalmopathy of Graves' Disease—Radiation Management
1989 Lymphoma of the Testis—Case series
1989 Methods of statistical analysis—a sample, clinical data set
1989 Stage I Mixed Cellularity Hodgkin's Disease—Management controversies
1989 Second malignancies in Hodgkin's
1989 Thyroid Ophthalmopathy of Graves' Disease—Radiation Management
1989 Lymphoma of the Testis—Case series
1989 Methods of statistical analysis—a sample, clinical data set
1989 Stage I Mixed Cellularity Hodgkin's Disease—Management controversies
1989 Second malignancies in Hodgkin's

**HRCC DISEASE SITE TEAM ROUNDS**
2004 10-yr outcomes and node pathology in 738 JCC colorectal cases (’94-'99)
2003 ASTRO summary: advances in GI Oncology and GI Radiation Therapy
2002 Assessing Whole-Person needs of the Patient with Cancer
2000 Health choice, Care-paths and Spiritual care
2000 Evolving care-paths: technology; patient needs
2000 Professional learning cultures for Disease-site groups
1999 Oncology-stress: from burnout to engagement with work
1996 Adjuvant chemotherapy and patient preferences in sarcoma management
1996 Sarcoma adjuvant chemotherapy: individual patient-data meta-analysis
1994 Management of high-neck IA Hodgkin's

5. OTHER PRESENTATIONS
**PRESENTATIONS BY OTHERS (LOCAL, REGIONAL, NATIONAL, AND INTERNATIONAL)**
Not responsible for presenting (i.e. others presenting but work done in preparation by me; no published abstracts)
1. Trishala Menon, Rectal and Bladder Structure and Function in patients receiving radiotherapy for prostate cancer, BIO400Y Internship Presentations, U of Toronto, Mississauga ON, Apr 2012
2. Ceeja Vaidhyan, The relationship between dimensions of distress and coping strategies in patients with breast cancer at the Peel Regional Cancer Centre, BIO400Y Internship Presentations, U of Toronto, Mississauga ON, Apr 2012
3. Carlone M. Quality Assurance in Radiation Oncology, Radiation Medicine Program, RMP PMH-UHN, Feb 2012
5. Nina Mazze. Clinical outcome of patients receiving 78 gray prostate only 3D conformal radiotherapy at Peel Regional Cancer Centre, BIO400Y Internship Presentations, U of Toronto, Mississauga ON, 2011
6. Tina Madzima. Relationship between adverse events and radiation dose distribution for patients receiving prostate only radiotherapy, BIO400Y Internship Presentations, U of Toronto, Mississauga ON, 2011.
11. Merrimen JL, Jones GW, Leung CS, Kapusta LR, Srigley JR. Atypical small acinar proliferation when combined with prostatic intraepithelial neoplasia on biopsy has a higher rate of cancer detection on subsequent biopsies than when diagnosed alone, United States and Canadian Academy of Pathology, 2009.
17. Peters VG. Use of an electron reflector to improve dose uniformity to the vertex during total skin electron therapy. Canadian Oncology Medical Physics, June 1996.
24. Muller P, Wilson BC, Jones GW. PDT of primary brain tumours: The Threshold Effect. 27th Canadian...

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Academic CV of G W Jones as of Apr 11 2012
25. Muller PJ, Wilson BC, Jones GW, Multivariant Analysis of 52 Cases of Primary Brain Tumours Treated with Photodynamic Therapy, 27th Canadian Congress of Neurological Sciences, Winnipeg June 1992

F. Teaching and Design
1. UNDERGRADUATE EDUCATION

**HRCC DOSIMETRY AND PHYSICS ROUNDS**
1996 Apr  
Total body irradiation (TBI) dose-rate issues and meta-analysis of literature outcomes

**HRCC RADIOThERAPIST ROUNDS**
1996 Sep  
Electron Dose
1996 Apr  
Techniques and uses of Total Skin Electron Radiotherapy
1990 Oct  
Logistical issues in scheduling patients for accelerator treatments
1990 Apr  
Technical issues in Non-Hodgkin’s Lymphoma
1989 Sep  
Agenda of clinical studies in Mycosis Fungoides
1989 Sep  
Architecture of Clinical Studies
1989 Aug  
Radiobiology for Radiation Technologists
1989 May  
Photodynamic Therapy: a complete review

**ACADEMIC RADIOThERAPIST STUDENT COURSE COORDINATOR**
Responsible for organizing the course
1986  
Coordinator for Basic Sciences, Technologist Training Program
      Cancer Control Agency of BC, Vancouver, British Columbia

**ACADEMIC RADIOThERAPIST STUDENT TRAINING**
For institutional credit, responsible for parts of courses (3 h/session)
1992 Mar  
Management of Lymphomas
1991 May  
Chemotherapy
1991 Apr  
A strategic look at Lymphoma, Leukemia, and Plasma cell malignancy
1991 Apr  
Management and Radiation Techniques in Thyroid, adrenal, and pituitary

**RADIOThERAPIST STUDENT TECHNICAL PAPERS**
For institutional credit, responsible for marking of a paper
1996 Jun  
TBI for leukemias #42-94103, Mitchener Institute

**CLINICAL SUPERVISION, ROTATION, RADIOThERAPIST STUDENTS (1-5 d each)**
1994-99  
1 to 4 students per year
1994 Mar  
Marta Evans
1993 Dec  
Steve Gauld
1993 Sep  
Mandy Coalvad
1993 Aug  
James Runkel
1993 Mar  
Steve Cooper
1991  
Mike Godfrey
2. GRADUATE EDUCATION

None at present
3. UNDERGRADUATE MD

ACADEMIC CLINICAL COURSES, MEDICAL SCHOOL
For institutional credit, responsible for each complete course

Medical school, UNIT teaching, tutor/leader, McMaster U students
Sep-Nov/00 Unit 1 (6 first year students, 100 h of tutorials plus related administration, marking)
Sep-Dec/98 Unit 1 (5 first year students, 100 h of tutorials plus related administration, marking)

Medical school, International Student Elective Support, McMaster U students
2003 Assist Sheryl Alger, (McMaster U), Two countries in Africa
1997 Assist Rosemary Zacharias (McMaster U), Zambia
1995 Assist Dale Needham (McMaster U), West Africa

MEDICAL STUDENTS

MEDICAL STUDENTS, SELF-DIRECTED STUDENT LECTURE SERIES (CATS)
2001 Critical Thinking, 100-Student Symposium workshop:
   Mind & Spirit in Medicine: Physiology, Assessment, Measurement & Care

STUDENT RETREATS COURSES AND WORK-SHOPS (2hr/session)
1992 "Workshops: Economics" Medical Student Winter Retreat, Toronto
1992 "Workshops: Euthanasia" Medical Student Winter Retreat, Toronto
1992 "2 cases:cancer, fetal-tissue transplantation, mifepristone", 3 2 hr sessions, Toronto
1991 "Beyond the rules: A call to ethical excellence" 4 biweekly 1.5 hr sessions, Hamilton
1989 "Principles and Modern Ethics" 9 weekly 2 hr sessions, Hamilton
1989 "Meaningful Priorities, Personal Resource Management and Social Impact" Medical Student Leadership Conference, Aurora, ON

ISOLATED LECTURES, MEDICAL-DENTAL SOCIETY (2hr/session)
2005 "SHAPE as a way to focus one’s own purpose and avoid burnout”, Hamilton
2002 "Meaning of recent international meetings about spirituality & health care”, Hamilton
2001 “Patient Understanding of Spirituality in Health Crisis”, Hamilton
2001 “Conducting spiritual histories & administering spiritual care”, Hamilton
2000 “Spirituality vs. Religion”, Hamilton
1998 “Diversity and Pluralism in Medicine”, Hamilton
1997 "Values and Practice Guidelines", Hamilton
1996 "Small group dynamics", Hamilton
1995 "Health Care Funding and the Rise and Demise of the Welfare State", Hamilton
1994 "Finite budgets & Health Economics: Ethical Questions", Hamilton
1991 "Fetal Tissue Transplantation: Hype and Science" Hamilton
1991 "Defining Quality of Life: The current conceptual confusion" Hamilton
1990 "Applying `Quality of Life' in Medicine" Hamilton
1990 "Principles in office management" Hamilton
1990 "Leadership” Medical Student Leadership Conference, Aurora, ON
CLINICAL SUPERVISION, ROTATION, MEDICAL STUDENTS, McMaster U
2003  Orli Goldberg, 1 week Research elective, (Unit 5, McMaster U)
1996  1 week clinical, R Verhaaghe
4. POSTGRADUATE MD

CLINICAL SUPERVISION, ROTATION, RADIATION ONCOLOGY RESIDENTS

2011  1 month, Fazilat Mohammed, PGY5 PMH (Apr)
2010  1 month, Junaid Yousuf, PGY5 PMH (July)
2010  1 month, Joda Kuk, PGY5 PMH (Sept)
2010  1 month, Crystal Hann, PGY5 PMH (Sept)
2009  1 month, Hany Soliman, PGY5 PMH (May)
2009  1 month, Sarah Rauth, PGY5 PMH (May)
2003  2 months, Kim, HRCC
2001  1 month, F Mothaffer, HRCC (Kuwaiti resident)
1998  3 months, M Leoffleman, HRCC
1997  3 months, D DeSouza, HRCC
1995  2 months, J Wright, HRCC
1995  3 months, W Koll, HRCC
1994  3 months, S Ahmed, HRCC
1994  2 months, N Ahmed, HRCC
1994  3 months, S Senthalel, HRCC
1994  3 months, B Strang, HRCC
1993  3 months, N Ahmed, HRCC
1993  3 months, D Hoegler, HRCC
1993  2 months, W MacMillan, HRCC
1992  3 months, J Wright, HRCC
1992  3 months, E Friedman, HRCC
1990  3 months, O Agboola, HRCC
1989  2 months, K Schnieder, HRCC

CLINICAL OSCE, ONTARIO ONCOLOGY RESIDENTS (all-day event)
1994 Apr  Full day, examination of residents in epidemiology; discussions about lymphomas

CLINICAL MOCK EXAMINATIONS, ONCOLOGY RESIDENTS (1-4 h/session)
1995  one resident (W Koll)
1994  one resident (B Strang)
1994  OSCE in Radiation Oncology (Provincial)
1994  one resident (S Senthalel)
1994  one resident (S Ahmed)
1992  two residents (J Wright, N Ahmed)
1992  one resident (E Friedman)
1991  one resident (O Agboola)
1990  two residents (O Agboola, K Schnieder)

ACADEMIC COURSES, ONCOLOGY RESIDENTS
Responsible for each complete course

1997  Clinical Epidemiology & Ethics (3 h/session)
1997 Dec  Biomedical Ethics (Discussion Group)
1997 Dec  Informed Consent
1997 Jul  Screening & Diagnosis (Tutorial in Appraisal)
1997 Jul  Therapy (Tutorial in Appraisal)
1997 Jun  Prognosis; Etiology & Histories (Discussion Group)
1997 Jun  Randomized Controlled Trials (Discussion Group)
1997 Jun  The philosophy of Evidence-Based Medicine (Lecture)
1997 Jun  Etiology & Prognosis (Tutorial in Appraisal)
1997 May  Measurement; Diagnosis (Discussion Group)

1995:  
Clinical Epidemiology (3 h/session)
1995 Jan  Exposure and Etiology
1995 Jan  Diagnosis and Classification
1995 Jan  Prognosis and Outcomes
1995 Jan  Therapeutics and Statistics

1993:  
Clinical Epidemiology (3 h/session)
1993 Feb  Core Issues
1993 May  Clinical Judgement -- What it is, and how to develop it.

1992:  
Clinical Epidemiology (3 h/session)
1992 Dec  Outcome Measures and Decision Analysis
1992 Nov  Prognosis
1992 Oct  Diagnosis
1992 Sep  Etiology
1992 Aug  Epidemiology: Therapeutics--Critical Appraisal PBL exercise
1992 Aug  Epidemiology: Therapeutics--Design and Analysis
1992 Aug  Therapeutics—Appraisal
1992 Jul  Introduction to Clinical Epidemiology

1991-1992:  
Clinical Epidemiology (3 h/session)
1992 Jan  Why Randomize for therapy questions?
1992 Jun  Controversies in randomized trials
1992 May  Analysis strategies in randomized trials
1992 Apr  Sample Size in randomized trials
1992 Mar  Assembly and Randomization issues
1992 Feb  Research Questions
1991 Dec  Prognosis
1991 Nov  Etiology
1991 Oct  Decision Analysis
1991 Sep  Odds, Likelihood, and Bayes Theorem
1991 Aug  Diagnosis
1991 Jul  Definition and Meaning of Epidemiology

ACADEMIC LECTURES, ONCOLOGY RESIDENTS
Responsible for parts of courses
External resident academic teaching programs (2 h/session)
2005 Jun  Princess Margaret Hospital, Rad Onc Res (Design, Measurement, Analysis and Interpretation in clinical studies)
2004 May  Princess Margaret Hospital, Rad Onc Res ("Visiting Professor", radiobiology, MF)
1999 Nov  Haifa Centre: Colorectal cancer, Sarcomas ("Visiting Professor")
1996 Nov  Yale Radiation Oncology Residents ("Visiting Professor")
1993 Apr  McGill Centre: Tolerance & Staging concepts ("Visiting Professor")
1992 Oct  Kingston Centre: Cutaneous Lymphomas ("Visiting Professor")

Local oncology resident academic training program courses (3 h/session)
2003-2004
2003 Aug  Spirituality in Medicine and Oncology

2001-2002
2002 Jun  MF and TSEB

1999-2000
2000 Jul  Ethics frameworks and Sacred spaces for sharing in ethical decision-making

1998-1999
1999 May  Ethics applied to several cases
1999 May  Economics and Healthcare decision-making
1999 May  Professionalism and Knowledge Management
1999 May  Overview of Epidemiology
1999 Apr  Ethics overview
1998 Oct  Benign diseases
1998 Oct  Economics in general
1998 Oct  Health Economics and Contingent Valuations

1997-1998
1998 Jun  Total Body Irradiation
1998 Jun  Lymphoma

1996-1997
1997    locally advanced rectal carcinoma planning and combined therapy
1997 Apr  Anal Carcinoma (critical appraisal exercise of RTOG & ECOG trials)
1997 Apr  Esophageal Carcinoma Management

1995-1996
1996 Mar  TBI, TSE, and Cutaneous Lymphomas
1995 Nov  Radiation techniques for benign & aggressive disorders

1994-1995
1995 Feb  Lymphomas: A reprise
1995 Jan  Rappaport and Working Formulation Pathology Classifications
<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>1994</td>
<td>4 Benign &amp; Marginal Disorder Case</td>
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<tr>
<td>1994</td>
<td>Justice in Clinical Ethics</td>
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<td>1993-1994</td>
<td>Spleen &amp; Abdomen techniques; Hodgkin's--anatomy &amp; controversy</td>
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<td>1994</td>
<td>Advances in Etiology and Pathology of Hodgkin's</td>
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<td>1994</td>
<td>Meta-analysis of all Randomized trials in Stages I-II Hodgkin's</td>
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<tr>
<td>1993</td>
<td>Benign &amp; Marginal Disorders &amp; Mycosis Fungoides</td>
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<td>1993</td>
<td>Hodgkins Disease, Autologous Transplantation</td>
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<td>1993</td>
<td>Myeloma Chemotherapy</td>
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<td>1992-1993</td>
<td>Basal Cell Carcinoma</td>
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<tr>
<td>1993</td>
<td>Short Mantle for early Stage Hodgkin's--Rationale and technique</td>
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<tr>
<td>1993</td>
<td>Mycosis Fungoides &amp; Total Body Irradiation for Leukemias</td>
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<tr>
<td>1992</td>
<td>Quality of Life as an Endpoint of Therapy</td>
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<td>1992</td>
<td>Lung Cancer-Kirsch et al &amp; LCSG randomized trial</td>
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<tr>
<td>1992</td>
<td>Mycosis Fungoides: Kaye et al NCI-USA randomized trial</td>
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<tr>
<td>1992</td>
<td>Esophageal Cancer, adjuvant radiation and/or chemotherapy, 2 trials</td>
</tr>
<tr>
<td>1991-1992</td>
<td>Randomized Trials in Hodgkin's Disease</td>
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<tr>
<td>1992</td>
<td>Early Hodgkin's Disease: Management &amp; Techniques</td>
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<tr>
<td>1992</td>
<td>HD-6 Hodgkin's techniques</td>
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<tr>
<td>1992</td>
<td>Experimental radiation therapies &amp; PDT; Cost, Preference outcome measures</td>
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<tr>
<td>1992</td>
<td>Early Stage Hodgkins Disease: Stage 1A non-Hodgkin's Lymphoma Techniques</td>
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<tr>
<td>1992</td>
<td>Total Body Irradiation Techniques and Results</td>
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<tr>
<td>1990-1991</td>
<td>TBI Technique</td>
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<tr>
<td>1991</td>
<td>Hodgkin's Work-up and Triage</td>
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<tr>
<td>1990 Jul</td>
<td>Basic Principles of Patient Management in Oncology</td>
</tr>
<tr>
<td>1991 Jun</td>
<td>Experimental Modalities in Cancer</td>
</tr>
<tr>
<td>1989-1990</td>
<td>Non-Hodgkin's Lymphoma: cause to cure; evolution of current treatment strategies</td>
</tr>
<tr>
<td>1990 Apr</td>
<td>Hodgkin's Lymphoma: cause to cure; a review</td>
</tr>
<tr>
<td>1990 Apr</td>
<td>Hodgkin's Lymphoma: A rational strategy for Clinical Stages I-IIA</td>
</tr>
<tr>
<td>1990 Feb</td>
<td>Waldeyers-ring techniques in Lymphomas</td>
</tr>
<tr>
<td>1990 Jan</td>
<td>Hodgkin's Disease: The Mantle Technique</td>
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<tr>
<td>1989 Dec</td>
<td>Widefield and nodal radiation strategies for benign diseases</td>
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<tr>
<td>1989 Nov</td>
<td>Critical Appraisal and Meaningful Research</td>
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<tr>
<td>1989 Aug</td>
<td>Cutaneous oncology</td>
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<tr>
<td>1989 Mar</td>
<td>Hodgkin's Disease: Predictive and Prognostic Factors</td>
</tr>
</tbody>
</table>

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Academic CV of G W Jones as of Apr 11 2012
G. Research Supervision
Subsequent to 1989, and with a McMaster appointment commencing in 1991, I was responsible for teaching medical students and residents. My primary roles have been to provide “advanced” teaching to residents (and staff) regarding more special topics and skills, including evidence based decision-making and research. I have developed a strong theme with research internships and mentoring, shifting my affiliation recently from McMaster to University of Toronto to pursue this further. I have also been involved more with mentoring Radiotherapist staff (research mentoring for RT-led research projects) and senior under-graduate students in research internships (U of Toronto) or co-operative research semesters (U of Waterloo). I now plan to expand my post-graduate level activities, applying for Graduate Studies cross-appointment, to supervise U of T and international MSc and PhD candidates. I am also writing books on evidence-based medicine and research, data management and statistics, with target audiences of junior staff and early investigators.

1. UNDERGRADUATE EDUCATION

ACADEMIC RESEARCH PROJECTS-MENTORING
For institutional credit, responsible for each complete internship with mentored projects

High School, research projects (HSC = Hillfield Strathallen College)
2009 Science fair, Hillfield-Strahallen College, HSC, Hamilton
2008 Jones S. Patient understanding of clinical outcome language/terms. HSC, Hamilton
2008 Jones K. IMRT in prostate treatments. HSC, Hamilton

ACADEMIC RESEARCH COURSES-MENTORING
For institutional credit, responsible for each complete courses with respective research projects

High School, research course
1999-2000 Amy Wright, Patient Needs and spiritual care, Westmount HS, Grade 11 co-op

Undergraduate, U of Western Ontario & McMaster U, research course with respective research project
1994 Donna Marie, Approval Voting, Psych Student, U Western ON & McMaster U

Undergraduate, McMaster U, research course
2000 2 PT/OT students, Survey of rehab needs in out-patient cancer setting, McMaster U
1999 Leila Krieg, Patient Needs, Kinesiology III, McMaster U

PENDING: Meenu V, 4th year research internship, Prince CHARMing (distress and coping in men with prostate cancer), Sept 2012 – Apr 2013, 175 h

Undergraduate, U of Waterloo, Co-op courses with respective research projects
2009 Nathan Jones, Waterloo Nanotechnology Yr 2 Co-op program, 400h
Management of Malignant Pleural Effusions; Patient communication aids

2008 Nathan Jones, Waterloo Nanotechnology Yr 1 Co-op program, 400 h
Radiation planning decisions for prostate cancer; Patient communication aids
**Undergraduate, U of Toronto, BIO400 research internships, with respective research projects**

2011-2012  
Trishala Menon, Rectal and Bladder outcome data extraction and scoring (PROSTATE study)  
U of Toronto BIO400 internship, 200 h

2011-2012  
Ceeja Vaidhyan, Appraisal Theory and Coping with breast cancer (CHARM study)  
U of Toronto BIO400 internship, 200 h

2011  
Venus Marwah, Bladder outcome data extraction and scoring (PROSTATE study)  
U of Toronto BIO400 internship, 75 h

2010-2011  
Nina Mazze, Prostate data base, presentation and planning (PROSTATE study)  
U of Toronto BIO400 internship, 200 h

2010-2011  
Tina Madzima, Prostate data base, outcomes and pathology core data coding (PROSTATE study)

2009  
S Saraf, Psychosocial referral form evaluation  
U of Toronto BIO400 internship, 180 h  
U of Toronto BIO400 internship, 200h

2008-2009  
William He, Comprehensive loco-regional toxicity assessments in women receiving Adjuvant RT for breast cancer: validation of a patient self-reporting communication AID and variables that predict toxicities  
U of Toronto, BIO400 internship, 200 h

2008-2009  
Nayae Kim, Patient preference regarding the use of self-report, communication aids During breast cancer radiotherapy: preference and strength of preference using Contingent valuation methodology (ESAS study)  
U of Toronto, BIO400 internship, 200 h

PENDING: Sept 2012-Apr 2013: 2 additional students, 200 h each

**Undergraduate, Redeemer College, research internship**

2011-2012  
Christina Garchinski, Psychology 4th year, 200 h
2. GRADUATE EDUCATION

POST-GRADUATE MSc THESES
For institutional credit, project supervisor or thesis committee

2010-2011 Brenda Lunscombe, Leadership characteristics, Anglia University UK
1996-1999 Marcia Smoke, Project supervision and thesis committee, Radiotherapy

POST-GRADUATE MEDICAL FELLOWSHIPS
For institutional credit, project supervisor or thesis committee

2010-2011 Tsauria Erlwanger, Harare, Zimbabwe, Spinal cord overall survival as predicted by a prognostic scoring system, thesis RO fellowship
2007-2008 Jennifer Merriman, Urology Pathology Fellowship, CVH
1995-1997 Lori Stewart, Imaging in Mycosis Fungoides, Radiology Resident, 1 project, HRCC
1992-1995 Elena Savillo, Mycosis Fungoides, Pathology Resident, 2 projects), HRCC

RADIOTherapist RESEARCH MENTORING COURSE, CVH-PRCC
Responsible for each complete course with internship and mentoring

RT research course
2009-2011 Course, PROPELLOR, Research methods and statistics (8 lectures x 1 hr each)
Seminar discussions for research projects (avg. of 1 per month, 1 hr each)

RT research projects (CVH ethics approved)
- 2009-present: Kovacs M, Marshall D, Smith C, Jones GW. A randomized trial comparing Skin Toxicity and quality of life when Antiperspirant / Deodorant and axillary shaving are used in patients receiving tangential radiation to the breast (STADS)
- 2009-present: Rinaldo A, Whate A, Jones GW. Radiotherapist perspectives on capacities for, and interests in psychosocial support for patients undergoing radiation therapy at CVH

RT projects (not requiring CVH ethics approval)
- 2009-present: Larsen T; Patient understanding of Well-Being and a critical review of the concept in the literature; limited relationships of those to the well-being in ESAS
- 2009-2010: Medlam G; More insightful way to classify variance in radiotherapy.
- 2009-2010: Kailin, Annie; Use of prostate clips post-prostatectomy as fiducial markers for the administration of radical radiation treatments.
- 2009-2010: Robin; Potential improvements in prostate boost planning for 2-phase radical treatment course using a second CT simulation, after phase one
3. UNDERGRADUATE MD

ACADEMIC RESEARCH PROJECTS-MENTORING
For institutional credit, responsible for each complete internship with mentored projects

Medical Students, research internships
2003       Olit Goldberg, T3 disease of MF, McMaster U
2003       Abby, Esophageal radical therapy (chemo-tele/brachytherapy), McMaster U
1991       Peter Vijnevic Ivan Smith fellowship McMaster University: MF presentation

PENDING DECISION:
CREMS University of Toronto student exchange, PRINCE CHARMING study
4. POSTGRADUATE MD

Radiation Oncology Residents, research projects
2003 Kerba, Thymomas and Thymic Carcinomas
1999 LeBlanc, Zero-7-21 QOL in head and neck cancer
1996-1997 Michael Lock & Dave Habing, TBI meta-analysis
1995 William Koll, NHL CS IA: Chance of Cure after Radiation, a meta-analysis
1995 William Koll, Prostate implant, quality assurance, randomized trial
1993 William MacMillan, Mycosis Fungoides: Quality of Life Tools
1992-1993 Elaine Friedman, Case report: Fetus & radiation
1992-1993 Jim Wright, Patient Preferences: Cervix
CURRICULUM VITAE

Name: Dr. Juhu Kamra, MD, FRCPC, PhD(c)

Business Address: Department of Oncology
Royal Victoria Regional Health Centre
201 Georgian Drive
Barrie, ON L4M 6M2

Business Phone: 705-728-9090 x43352
Business Fax: 705-728-1122
Business Email: kamraj@rvh.on.ca

Last Updated: March 2012

Signature: Date: October 1st, 2013

EDUCATION

York University’s Schulich School of Business

Stepping Stones
Faculty of Medicine, University of Toronto

1998 – 2005 Doctor of Philosophy, candidate level
Department of Health Care & Epidemiology
Faculty of Medicine, University of British Columbia
Vancouver, British Columbia

1994 – 1998 Residency (PGY2 – PGY5)
Faculty of Medicine, McMaster University
Hamilton, Ontario

1993 – 1994 Internship (PGY1)
Faculty of Medicine, Dalhousie University
Halifax, Nova Scotia

1989 – 1993 Doctor of Medicine
Faculty of Medicine, Dalhousie University
Halifax, Nova Scotia

1986 – 1989 Bachelor of Science, Physics / Biology
Faculty of Science, University of New Brunswick
Fredericton, New Brunswick
CERTIFICATION

1998 Fellow, Royal College of Physicians and Surgeons of Canada

AWARDS

2008 Cancer Care Ontario, Quality Innovation Award – Canada’s First Portable Radiation Treatment Unit. Garth Matheson, Janice Skot, Tracey Keighley-Clarke, Juhu Kamra, RVH Corporate/Clinical/Support Teams, Harvey Emberley

2007 Peter’s Boyd Academy Award for Undergraduate Clinical Teaching for 2006 - 2007, Faculty of Medicine, University of Toronto

2005 Peter’s Boyd Academy Continuing Education Award for Excellence in Course Coordination, Faculty of Medicine, University of Toronto

2004 Ontario GI Multidisciplinary Oncology Conference

2000 – 2001 Simon Foundation Doctoral Scholarship ($10,000) University of British Columbia

1999 – 2000 Charles C. C. Wong Scholarship ($16,000) St. John’s College, University of British Columbia

1994 First Prize for Original Research Atlantic Health Care Journal

1986 – 1993 Silver D, Faculty of Medicine Dalhousie University

APPOINTMENTS

2008 – 2012 Regional Lead, Radiation Oncology North Simcoe Muskoka Cancer Care Ontario

2008 – 2012 Program Head, Radiation Oncology Royal Victoria Hospital Barrie, Ontario

2008 – Present Radiation Oncologist, Consultant Staff Odette Cancer Centre, Sunnybrook Hospital Toronto, Ontario

2001 – 2008 Radiation Oncologist, Active Staff Odette Cancer Centre, Sunnybrook Hospital Toronto, Ontario

2001 – Present Member, Medical/Dental/Midwifery Staff Sunnybrook & Women’s College Health Sciences Centre

2000 – 2001 Locum Radiation Oncologist Vancouver Island Cancer Centre, Victoria B.C.
APPOINTMENTS (con't)

1998 – 2001  Academic Fellowship
Department of Radiation Oncology,
British Columbia Cancer Agency
Vancouver, British Columbia

MEMBERSHIPS

1994 – Present  Canadian Association of Radiation Oncologists (CARO)
1994 – Present  American Society for Therapeutic Radiation Oncology (ASTRO)
1993 – Present  Canadian Medical Protective Association (CMPA)
1994 – 2000  American College of Radiology

PROFESSIONAL ACTIVITIES

2012 – Present  Chair, Simcoe Muskoka Article Review for Therapeutic (S.M.A.R.T.) Oncology
2008 – 2012  Chair, Radiation Clinical Operations Committee
Department of Oncology, Royal Victoria Regional Health Centre
2008 – 2012  Chair, Radiation Steering Committee
Department of Oncology, Royal Victoria Regional Health Centre
2009 – 2011  Chair, Updates in Oncology, Simcoe Muskoka Annual Regional Conference
2004 – 2008  Director, Undergraduate Medical Education, Department of Radiation Oncology, Faculty of Medicine, University of Toronto
2004 - 2008  Conference Director, Ontario Gastrointestinal Multidisciplinary Oncology Conference in Association with the 11th Annual Update on Digestive Diseases
2004 – 2008  Undergraduate Electives Committee, Faculty of Medicine, University of Toronto
2004 – 2008  Member, Radiation Program Education Advisory Committee, Department of Radiation Oncology, Toronto Sunnybrook Regional Cancer Centre
2004 – 2008  Member, Postgraduate Medical Education Committee, Department of Radiation Oncology, Faculty of Medicine, University of Toronto
2004 – 2005  Member Organizing Committee, Toronto Radiation Medicine Conference, Department of Radiation Oncology, Faculty of Medicine, University of Toronto
2004 – Present  Member, CARO Symptom Control Committee
PROFESSIONAL ACTIVITIES (Cont…)

2004 – 2008  Member, Clinical Trials Committee, Toronto Sunnybrook Regional Cancer Centre

2004 – 2008  Member, Hematology Site Group, Toronto Sunnybrook Regional Cancer Centre

2004 – 2008  Member, Skin Site Group, Toronto Sunnybrook Regional Cancer Centre

2001 – Present Member, GI Site Group, Toronto Sunnybrook Regional Cancer Centre


2003 – Present Member, CCO GI evidence based clinical practice guidelines group

2002 – 2008 Undergraduate Medical Advisory Committee
Department of Radiation Oncology
Faculty of Medicine, University of Toronto

2002  Site Group Coordinator, Gastrointestinal Radiation Oncology Site Group
Toronto Sunnybrook Regional Cancer Centre

2001 – Present Member-at-Large, Gastrointestinal Cancer Tumour Group
Toronto Sunnybrook Regional Cancer Centre

2001 – 2008 Radiation Oncology Associates Group,
Toronto Sunnybrook Regional Cancer Centre

2001 – 2003 Member, Palliative Radiation Oncology Group
Toronto Sunnybrook Regional Cancer Centre

2001 – 2002 Member, Rapid Response Radiotherapy Program
Toronto Sunnybrook Regional Cancer Centre

2000 – 2001 Member, Vancouver Island Cancer Centre
British Columbia Cancer Agency Breast Tumour Group

2000 – 2001 Member, Vancouver Island Cancer Centre
British Columbia Cancer Agency Lung Tumour Group

1999 – 2000 Member, Curriculum Advisory Committee
Departmental Curriculum Restructuring Committee
Department of Health Care & Epidemiology
Faculty of Medicine, University of British Columbia

1996 – 1998 Chairperson, Committee of Residents and Fellows
Canadian Association of Radiation Oncologists

1997 – 1998 Chief Resident, Radiation Oncology Residency Program
Faculty of Medicine, McMaster University
PROFESSIONAL ACTIVITIES (Cont…)

1997 – 1998  Resident Representative, Department of Radiation Oncology Postgraduate Education Committee Faculty of Medicine, McMaster University

Research Activities

2011 – 2012  SC.23: A Phase III Double-Blind Study of Dexamethasone versus Placebo in the Prophylaxis of Radiation-Induced Pain Flare following Palliative Radiotherapy for Bone Metastases Primary Investigator, Simcoe Muskoka Regional Cancer Program

GRANTS – Awarded

Research Grants

2005  “Development of a Virtual Elective in Radiation Oncology” ($73,204.21) Hayter C (PI), Nyhof-Young J (PI), Kamra J (PI) 2003 RSNA World Wide Web-Based Educational Program Grant Radiological Society of North America.

2002  “Becoming fluent in ‘web.’ Development of a virtual elective in radiation oncology” ($18,000) Hayter C (PI), Nyhof-Young J (PI), Kamra J, Danjoux C, Lagan E, Mah K, Meiers R, Pearce A, Spayne J, Spero L, Tsao M, Wiljer D. Toronto Sunnybrook Regional Cancer Centre, Princess Margaret Hospital, University of Toronto Dean's Excellence Fund for Medical Education

2001  “Gabapentin for the treatment of hot flashes in women diagnosed with carcinoma of the breast” ($44,000) Kamra J (PI), Bernstein V, Prior J. British Columbia Cancer Agency, Vancouver Island Cancer Centre University of British Columbia Canadian Breast Cancer Foundation BC/Yukon Chapter

2001  “A phase III evaluation of gabapentin for the treatment of hot flashes in prostate cancer patients undergoing androgen deprivation therapy.” ($23,900) Lock M (PI), Kamra J (PI), Warde P, Choo R, Bernstein V, Pai H, Dinniwell R, Ringash J, Panzerella, Kroll B. Toronto Sunnybrook Regional Cancer Centre, Princess Margaret Hospital University of Toronto British Columbia Cancer Agency, Vancouver Island Cancer Centre University of British Columbia Canadian Association of Radiation Oncologists ACURA Award
Educational Grants (Unrestricted)

2012  Simcoe Muskoka Article Review in Therapeutic Oncology  
S.M.A.R.T. Oncology, Kamra J. (Chair)  Total: $7,200

2011  Oncology Updates 2011, Kamra J. (Chair)  Total: $28,500

2010  Oncology Updates 2010, Kamra J. (Co-Chair)  Total: $17,000

2009  Oncology Updates, 2009, Kamra J. (Co-Chair)  Total: $30,000

2006  Ontario GI Multidisciplinary Oncology Conf. 2006  Total: $65,000

2004  Ontario GI Multidisciplinary Oncology Conf. 2004  Total: $112,344

PUBLICATIONS

Refereed Publications / Abstracts


Refereed Publications / Abstracts (con't)


Non-refereed Publications

1. Kamra J. Worried Residents Watch and Wait. CMAJ. 1997 Aug 1;157(3):253

PRESENTATIONS – PEER REVIEWED


PRESENTATIONS – PEER REVIEWED (con’t)


PRESENTATIONS – INVITED


2. **Kamra J**. Evidence Based Medicine Facilitator, Year 2 University of Toronto Family Medicine Residency Program, Toronto, Ontario, 2010 – Present

3. **Kamra J**. Annual Lecture, Mechanisms, Manifestations and Management of Disease (MMMD), formerly Pathobiology of Disease and Foundations of Medical Practice, University of Toronto Undergraduate Medical Education, Year 2, Toronto, Ontario, 2006 – Present


Curriculum Vitae

Irene Karam
MDCM, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

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Department of Radiation Oncology
Sunnybrook Odette Cancer Centre
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Toronto, Ontario, Canada
M4N 3M5

Telephone 416-840-5000 ext 2749
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Email irene.karam@sunnybrook.ca

1. EDUCATION

Degrees
2004 - 2008 Doctor of Medicine, M.D., C.M. Faculty of Medicine, McGill University, Montreal, Quebec, Canada
2003 - 2004 Medical Preparatory Program, Med-P, Faculty of Medicine, McGill University, Montreal, Quebec, Canada

Postgraduate, Research and Specialty Training
2014 Jul 1 - 2014 Oct 31 Clinical Research Fellowship, Gyne Oncology & Brachytherapy, Princess Margaret Cancer Centre, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Michael Milosevic, Dr. Lisa Barbera
2013 Jul 1 - 2014 Jun 30 Clinical Research Fellowship, Head & Neck Radiation Oncology, Princess Margaret Cancer Centre, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Brian O’Sullivan, Dr. John Waldron
2008 - 2013 Residency Training, Radiation Oncology, British Columbia Cancer Agency, University of British Columbia, Vancouver, British Columbia, Canada

Qualifications, Certifications and Licenses
2014 - present Certificate of Registration for Independent Medical Practice, College of Physicians and Surgeons of Ontario, Toronto, Ontario, Canada, License / Membership #: 101253
2013 - present Fellow, Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada
2009 - present Licentiate – Parts 1 & 2, Medical Council of Canada
2013 - 2014 Certificate of Registration for Postgraduate Education, College of Physicians and Surgeons of Ontario, Toronto, Ontario, Canada, License / Membership #: 101253
2008 - 2013 Certificate of Registration for Postgraduate Education, College of Physicians and Surgeons
2. EMPLOYMENT

Current Appointments

2014 Nov 3 - present  
Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2014 Nov 3 - present  
Radiation Oncologist, Department of Radiation Oncology, Sunnybrook Odette Cancer Centre, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2012  
7th Annual Dr. Peter Poon Memorial Radiation Oncology Research Award, University of British Columbia, Vancouver, British Columbia, Canada. (Research Award)  
Excellence in producing a peer-review manuscript. Total Amount: 500 CAD

2005  
Canadian Institute of Health Research Health Professional Student Research Scholarship, McGill University, Montreal, Quebec, Canada. (Research Award)  
Excellence in producing a medical scientific proposal. Total Amount: 4,200 CAD

2004  
Dean’s Honor’s List, Medical Preparatory Program, McGill University, Montreal, Quebec, Canada. (Distinction)  
To students in the Medical Preparatory Program with the highest academic standing.

2003  
J. W. McConnell Entrance Scholarship, McGill University, Montreal, Quebec, Canada. (Distinction)  
To the incoming pre-med student with high academic standing. Total Amount: 500 CAD

2003  
McGill Certificate of Merit, McGill University, Montreal, Quebec, Canada. (Distinction)  
Based on academic standing.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2014 Nov - present  
Member, Ontario Medical Association, 1228691
2013 - present  
Member, College of Physicians & Surgeons of Ontario
2010 - present  
Member, American Society of Therapeutic Radiology and Oncology (ASTRO)
2009 - present  
Member, Canadian Medical Protective Association (CMPA)
2008 - present  
Member, Canadian Association of Radiation Oncology (CARO)
2008 - 2013  
Member, British Columbia Medical Association (BCMA)
2008 - 2013  
Member, Canadian Medical Association
2008 - 2013  
Member, College of Physicians & Surgeons of British Columbia
Administrative Activities

INTERNATIONAL
Other Organizations

PROVINCIAL / REGIONAL
Other Organizations
2014 Nov - present  HN Community of Practice member, Toronto, Ontario, Canada.

BC Cancer Agency – Vancouver Centre
2011 - 2012  Member, Radiation Therapy Quality Assurance Committee, Vancouver, British Columbia, Canada.

Cancer Care Ontario
2015 Dec - present  CCO Oropharyngeal Cancer Pathway Map Working Group, Ontario, Canada.

LOCAL
University of British Columbia
2012 - 2013  Member, Residency Training Committee, Department of Radiation Oncology, BC Cancer Agency, Postgraduate MD, Vancouver, British Columbia, Canada.
2012  Member, CaRMS interview panel, Resident Selection Committee, Resident Selection Committee, Department of Radiation Oncology, BC Cancer Agency, Faculty of Medicine, Postgraduate MD, Vancouver, British Columbia, Canada.
2012  Co-Organizer, Academic Half-Day curriculum, Department of Radiation Oncology, Postgraduate MD, Vancouver, British Columbia, Canada.
Position: Organize and design the summer academic half-day for the Department of Radiation Oncology residency program.

University of Toronto
2014 Jul 1 - 2014 Oct 17  Chief Fellow, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2016 Jun - 2016 Jun 30  Healthcare Policy—Politiques de Santé, Number of Reviews: 1
2016 May  Supportive Care in Cancer, Number of Reviews: 1
2015 Aug  Clinical Oncology, Number of Reviews: 1
2015 Jul  Radiation Oncology, Number of Reviews: 1
2015 Mar  Radiotherapy and Oncology, Number of Reviews: 1
2015 Jan - 2015 Feb  Journal of Cancer Research and Therapeutics, Number of Reviews: 1
Other Research and Professional Activities

NEW INVESTIGATOR CLINICAL TRIALS COURSE

To familiarize new investigators with the essentials of clinical trial conduct in the Canadian research environment. An important component of the NCIC Clinical Trials Group.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. SUBMITTED PUBLICATIONS

Journal Articles


2. Irene Karam, MD, FRCPC, Min Yao, MD, PhD, Dwight E. Heron, MD, MBA, FACP, FACRO, Ian Poon, MD, FRCPC, Shlomo A. Koyfman, MD, Sue S. Yom, MD, PhD, MAS, Farzan Siddiqui, MD, PhD, Eric Lartigau, MD, Mustafa Cengiz, MD, Hideya Yamazaki, MD, Wendy Hara, MD, FACR1, Jack Phan, MD, PhD, John A. Vargo, MD3, Victor Lee, MBBS, FRCR, FHKCR, FHKAM12, Robert L. Foote, MD, FACR13, K. William Harter, MD, FACR14, Nancy Y. Lee, MD, FACR15, Arjun Sahgal, MD, FRCPC, Simon S. Lo, MD, FACR. Survey of Current Practices from the International Stereotactic Body Radiotherapy Consortium (ISBRTC) for Head and Neck Cancers. 2016 Jul 4. Principal Author.

E. Presentations and Special Lectures

1. INTERNATIONAL

Presented and Published Abstracts


Publication Details:
Huan Yu, Young Lee, Mark Ruschin, Irene Karam, Arjun Sahgal. Tissue Segmentation-based MR
Irene KARAM


**2014 Sep**

**Publication Details:**

**2012 Oct**

**Publication Details:**

**2012 Oct**

**Publication Details:**
Treatment Patterns and Locoregional Recurrence Outcomes in Patients with pN0(i+) Breast Cancer. **Principal Author.**

**2011 Sep**

**Publication Details:**

**2011 Sep**

**Publication Details:**

**2010 Nov**

**Publication Details:**
2. NATIONAL

Presented and Published Abstracts

2014 Aug  

Publication Details:  

2012 Sep  
Treatment Patterns and Locoregional Recurrence Outcomes in pN0(i+) Breast Cancer. 26th CARO Annual Scientific Meeting. Ottawa, Ontario, Canada. Presenter(s): Karam I, Lesperance MF, Tyldesley S, Speers C, Lesperance ML, Truong P. (Poster Discussion).

Publication Details:  

2012 Sep  

Publication Details:  

2011 Sep  

Publication Details:  

2011 Sep  

Publication Details:  

2011 Sep  

Publication Details:  
Karam I, Hamilton S, Nichol A, Woods R, Speers C, Kennecke H, Tyldesley S. Population-Based...

2010 Sep  

Publication Details:  

2008 Sep  

Publication Details:  

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2012 May 3  

2011 Dec 1  

2011 Jan 27  

2010 Apr 22  
Managing Differentiated Thyroid Cancer. BC Cancer Agency Radiation Oncology Grand Rounds. Vancouver, British Columbia, Canada. (Continuing Education).

Presented Abstracts

2011 Jun  

2010 Jun  

2008 May  
PET/CT for Radiotherapy Treatment Planning for Patients with Extremity Soft Tissue Sarcomas. MUHC Sarcoma Day. Montreal, Quebec, Canada. Presenter(s): Karam I. (Oral Presentation).
4. LOCAL

Invited Lectures and Presentations


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2011  **Co-Supervisor.** Year 2. Gavin Wilson. Supervisee Institution: University of British Columbia Medical School, Vancouver, BC, Canada. *Retrospective Comparison of Two Feeding Tube Approaches for Head & Neck Cancer Patients Receiving Concurrent Chemo-Radiation Therapy (Summer student research project).* Supervisor(s): Dr. Robert Olson.

2010  **Co-Supervisor.** Year 4. Sarah Hamilton. Supervisee Institution: University of British Columbia Medical School, Vancouver, BC, Canada. *Outcomes after Brain Radiotherapy in Patients with Metastatic Breast Cancer in the Pre-Trastuzumab and Trastuzumab Eras (Summer student research project).* Supervisor(s): Dr. Scott Tyldesley.

Continuing Education

Curriculum Vitae

John Kim
MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
University Health Network
610 University Avenue
Toronto, Ontario
M5G 2M9

Telephone 416-946-2919
Fax 416-946-6561
Email john.kim@rmpuhn.on.ca

1. EDUCATION

Degrees
1985 - 1989 MD, Dept of Medicine, University of Toronto
1983 - 1985 Arts and Science, University of Toronto, (2 year undergraduate education)

Postgraduate, Research and Specialty Training
1995 - 1998 Clinical / Research Fellow, Department of Radiation Oncology, University of Toronto / Princess Margaret Cancer Centre and, Department of Medical Biophysics, University of Toronto
1995 - 1998 Clinical and Research Fellow, Radiation Oncology, Department of Radiation Oncology/Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): UTDRO staff, Dr. Sam Benchimol
1992 - 1995 Resident, Department of Radiation Oncology, University of Toronto
1990 - 1991 Resident, General Internal Medicine, Department of Medicine, University of Toronto
1989 - 1990 Comprehensive Intern, General Medicine, Department of Medicine, University of Toronto

Qualifications, Certifications and Licenses
2010 Nov - 2011 Apr UHN-Rotman Leadership Development Program, University of Toronto, Toronto, Ontario, Canada
2009 Apr UHN Principles of Clinical Practice, University Health Network, Ontario, Canada
1997 USMLE Step 2, Federation of State Medical Boards (FSMB) / National Board of Medical Examiners (NBME)
1997 Diplomate, Certification in Radiation Oncology (ABR), American Board of Radiology
1996 USMLE Step 1, Federation of State Medical Boards (FSMB) / National Board of Medical Examiners (NBME)
1995 Fellow (FRCPC), Radiation Oncology, Royal College of Physicians of Canada
1990 Licentiate (LMCC), Medical Council of Canada
2. EMPLOYMENT

Current Appointments

2015 Jun - present  Associate Professor, Radiation Oncology, University of Toronto, Ontario, Canada
2015 Feb - present  Ontario Head and Neck Cancers Lead, Cancer Care Ontario, Ontario, Canada
  \textit{Position Accepted. February 2015 start date}
2010 - present  Radiation Treatment Program Head and Neck Community of Practice Co-Leader, Cancer Care Ontario, Ontario, Canada
2001 Jun - present  Staff, Radiation Oncologist, Princess Margaret Cancer Centre
2001 Jun - present  Staff, Radiation Medicine Program, Princess Margaret Hospital, University Health Network

Previous Appointments

CLINICAL

HOSPITAL
2008 - 2010  Courtesy Staff, Radiation Medicine, Dept. of Medicine, Southlake Regional Health Centre
2005 - 2007  Courtesy Staff, GI Oncology Collaborative Clinic, Royal Victoria Hospital
2004 Oct - 2015 Sep  Radiation Medicine Program GI Site Group Physician Leader, Radiation Medicine Program, Princess Margaret Cancer Centre, Ontario, Canada
1998 - 2001  Staff Radiation Oncologist, Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre
1998 - 2001  Staff, Radiation Oncology, Sunnybrook and Women’s College Health Sciences Centre, Toronto, Ontario, Canada

UNIVERSITY - RANK
2001 Jun - 2015 Jun  Assistant Professor, Radiation Oncology, University of Toronto
1998 - 2001  Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received

2012 Sep  \textbf{Exceptional Service Commitment}, Canadian Association of Radiation Oncology, Ottawa, Ontario, Canada. (Distinction, Specialty: Radiation Oncology)
  \textit{Award given for outstanding years of service on CARO executive board and as CARO Treasurer. Presented at 2012 CARO ASM, Ottawa, Ontario.}

PROVINCIAL / REGIONAL
Received

2010 - present  \textbf{Co-Lead, Executive Committee, Radiation Treatment Program Community of Practice in H&N Cancer}, Cancer Care Ontario, Ontario, Canada. (Distinction)
2015 Feb  \textbf{Ontario Head and Neck Cancers Lead (Start date Feb. 2015)}, Cancer Care Ontario (CCO), Ontario, Canada. (Distinction)
LOCAL

Received

2013 Oct  RMP Staff Recognition Awards, Most Inspiring Team Members, Princess Margaret Cancer Centre. (Staff Recognition Award)

1996  RS Bush Award, University of Toronto. (Research Award)
For Academic Excellence in Research by a Fellow in the Department of Radiation Oncology.

1995  WJ Simpson Award, University of Toronto. (Research Award)
For Academic Excellence in Research by a Resident in the Department of Radiation Oncology.

1994 Jan - 1994 Jun  Senior Resident, Department of Radiation Oncology, University of Toronto. (Distinction)
Toronto-Sunnybrook Regional Cancer Centre (overlapping period as Chief Resident from April 1, 1994).

1994 - 1995  Chief Resident, Department of Radiation Oncology, University of Toronto. (Distinction)

1993 - 1995  JS McLean Entrance Scholarship, University College, University of Toronto. (Distinction)

Teaching and Education Awards

LOCAL

Received

2012 Jul  The Advanced Education Program (AEP) “Putting Innovation to Work” Award - Exceptional Contribution to the AEP Program, Dept of Radiation Oncology, Faculty of Medicine, Radiation Medicine Program, Princess Margaret Hospital, Ontario, Canada. (Continuing Education)
Awarded for course development creativity and teaching. Liver Image Guided Radiation Therapy Course (IGRT) was highlighted.

2012  Professional Mentorship Award, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital. (Postgraduate MD)

2011  Clinical Teaching Award, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital. (Postgraduate MD)

2011  Professional Mentorship Award, Radiation Medicine Program, Princess Margaret Hospital. (Postgraduate MD)

2009  Best Resident Half-Day Lecture, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Ontario, Canada. (Postgraduate MD)

2006  Radiation Medicine Program Education Award for Research Supervision, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital. (Faculty Development)
Head and Neck Research Project Supervision Radiation Therapist Project.

Student/Trainee Awards

NATIONAL

Received

1995 - 1997  Terry Fox Postgraduate Research Fellowship. National Cancer Institute of Canada
Ontario Cancer Institute.
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Radiation Oncology (ASTRO)
Canadian Association of Radiation Oncology (CARO)
Canadian Medical Association (CMA)
Ontario Medical Association (OMA)
The College of Physicians and Surgeons of Ontario, CPSO No. 61067
The Royal College of Physicians and Surgeons of Canada, ID No. 478131

Administrative Activities

INTERNATIONAL

East-West Symposium on Nasopharyngeal Cancer
2005 Jun  Local Faculty, Organizing Committee
    Princess Margaret Hospital, University of Toronto.

NRG (formerly RTOG)
2009 - present  Member, Head and Neck Cancer Committee (formerly Steering)

Princess Margaret Cancer Centre
2011  Member, Quality Course Organizing Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Canada.

University Health Network
2014 May  GI Radiation Oncology representative, UHN-Kuwait Partnership, GI and H&N Oncology
    Kuwait visit, Kuwait.

NATIONAL

Canadian Association of Radiation Oncology (CARO)
2009 - 2012  Treasurer/Secretary, Canadian Association of Radiation Oncology
2009 - 2012  Member, Executive Board, Canadian Association of Radiation Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
2012 Dec - present  Member, Cancer Imaging Program, H&N Synoptic Reporting Expert Panel, Ontario, Canada.
2010 - present  Co-Lead, Executive Committee, Radiation Treatment Program Community of Practice in H&N Cancer, Ontario, Canada.
2015 Feb  Lead, Ontario Head and Neck Cancers Lead (Start date February 2015), Ontario, Canada.

Royal Victoria Hospital
2005 - 2007  Member, Development, GI Collaborative Oncology Clinic

Southlake Regional Health Centre
2008 - 2010  DRO GI Site Group Leader, Radiation Oncology GI Site Group Leader, Ontario, Canada.
John KIM

LOCAL
Princess Margaret Cancer Centre
2012 Feb  Contributor, Cancer Program Website, GI Site Group Professional Page
2011 - 2012  RMP representative, Cancer Program EReferral Initiative
2010 - 2011  GI Radiation Oncology Lead, Cancer Program Ambulatory Care Redesign Process
2006 Oct  Member, Organizing Committee, The 6th Princess Margaret Hospital Conference - New Developments in Cancer Management, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2003  Member, Quality Assurance Task Force

Radiation Medicine Program, Princess Margaret Cancer Centre
2014 Feb - present  Chair, Radiation Medicine Program (RMP) Space Transformation Working Group, Ontario, Canada.
2010 - present  Editor, Radiation Medicine Program Newsletter, ConneXions, Ontario, Canada.
2013 May - 2013 Dec  Leader, Performance Excellence Radiation Medicine - Team (PERM-T), Toronto, Ontario, Canada.
2012 - 2013  Member, CT Simulation Process Working Group
2007  Chair, Department of Radiation Oncology (DRO) Partnership
2005 Sep  Organizer, Radiation Medicine Program GI DRO Site Group Colorectal Surgeons Evening, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Ontario, Canada.
2005 - 2007  Radiation Oncology Representative, Team investigating treatment incidents, QUality INvestigation Consultants (QUINCy)
2005 - 2006  Treasurer, Department of Radiation Oncology (DRO) Partnership
2004 Nov 1 - 2015 Sep 1  DRO GI Site Group Leader, Radiation Medicine Program GI Site Group Physician Leader
2003 - 2006  Member, Head and Neck IMRT Working Group

Toronto-Sunnybrook Regional Cancer Centre
2000 - 2001  Chair, Full Medical Staff Meeting
2000 - 2001  Member, General Treatment Services Process Review Committee
2000 - 2001  Site Group Leader, Multidisciplinary Head and Neck Site Group
2000 - 2001  Member, Quality Assurance Committee
2000  Member, Referring Physician Needs Assessment Survey, Multidisciplinary Head and Neck Site Group

University Health Network
2012 Jul 17  Member, Search Committee Chief, Radiation Oncology & Radiation Medicine Program, Princess Margaret, Ontario, Canada.

University of Toronto
2011 Nov - 2012 Feb 6  Examiner and Exam Development, Radiation Oncology Residency Training Program Competency to Practice Exams, Toronto, Ontario, Canada.
2011  Report Committee Leader, End of Term Faculty Report for Department Chair, Dr. Mary Gospodarowicz, Department of Radiation Oncology
2011  Examiner, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.
2008  Examiner, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.
2007 - 2008 Examiner, PGY Planning Planning Drill, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD, Toronto, Ontario, Canada.

2005 Examiner, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.

2003 Examiner, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.

2001 Canadian Resident Matching Service (CaRMS) Interviewer, Department of Radiation Oncology

2000 - 2003 Coordinator, Treatment Planning Drill, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Ontario, Canada.

2000 - 2003 Member, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1999 Examiner, PGY Competency to Practice Examinations, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1999 Canadian Resident Matching Service (CaRMS) Interviewer, Department of Radiation Oncology

1998 - 2004 Examiner, PGY Planning Planning Drill, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD, Toronto, Ontario, Canada.

**Peer Review Activities**

**GRANT REVIEWS**

External Grant Reviewer

2005 National Health and Medical Research Council (NHMRC, Australia), Project Grant applications

Internal Grant Reviewer

2012 Jul 1 PMH UHN IDEAS Grant

**MANUSCRIPT REVIEWS**

Reviewer

2012 - present European Journal of Cancer

2012 - present Practical Radiation Oncology

2010 - present Clinical Oncology

2004 - present Head and Neck

2003 - present International Journal of Radiation Oncology, Biology, Physics

2008 Technology in Cancer Research and Treatment, Head and Neck

2007 Diseases of the Colon and Rectum

2006 - 2007 Clinical Cancer Research

2005 Clinical Oncology

**MEETING ABSTRACT AND PRESENTATION REVIEWS**

Reviewer

2009 Canadian Association of Radiation Oncology (CARO), Annual Meeting

2008 Canadian Association of Radiation Oncology (CARO), Annual Meeting

2005 Jun East-West Symposium on Nasopharyngeal Cancer, Toronto
**PROVINCIAL GUIDELINES REVIEWER: CLINICAL PRACTICE GUIDELINE HN-001**

**Reviewer**
2012 Jul 19 - 2012 Sep 7  Alberta Health Services, The Organization and Delivery of Healthcare Services for Head and Neck Cancer Patients

**Other Research and Professional Activities**

**EXPERT PANEL ON STANDARDIZED RADIOLOGY REPORTING**

<table>
<thead>
<tr>
<th>Date</th>
<th>Role</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Dec 4 - present</td>
<td><strong>Expert Panel Member</strong></td>
<td>Cancer Care Ontario, Cancer Imaging Program, Ontario, Canada. Cancer Imaging Program, Cancer Care Ontario (CCO), Synoptic Radiology Reporting Clinical Expert Panel Member.</td>
</tr>
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</table>

**EXPERT PANEL/WORKING GROUP**

<table>
<thead>
<tr>
<th>Date</th>
<th>Role</th>
<th>Activity Description</th>
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</table>

**H&N PROJECT GRANT REVIEWER**

<table>
<thead>
<tr>
<th>Date</th>
<th>Role</th>
<th>Activity Description</th>
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<tbody>
<tr>
<td>2005</td>
<td>H&amp;N Project Grant Reviewer.</td>
<td>National Health and Medical Research Council, Australia.</td>
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</table>

**LOCAL INSTITUTIONAL PI**

<table>
<thead>
<tr>
<th>Date</th>
<th>Role</th>
<th>Activity Description</th>
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<tbody>
<tr>
<td>2006 Jul - present</td>
<td><strong>Institutional Principal Investigator</strong></td>
<td>A phase II study of concurrent chemoradiotherapy using three-dimensional conformal radiotherapy (3D-CRT) or intensity modulated radiation therapy (IMRT) +/- bevacizumab (BV) for locally advanced or regionally advanced nasopharyngeal carcinoma. NCI-supplied agent: Bevacizumab (NSC 704865; IND 79211). RTOG 0815. Collaborator(s): Lee N, Pfister DG, Garden A, <strong>Kim J</strong>, Ang KK, Chan ATC, Mechalakos J. [Clinical Trials].</td>
</tr>
</tbody>
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**NRG ONCOLOGY**

<table>
<thead>
<tr>
<th>Date</th>
<th>Role</th>
<th>Activity Description</th>
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</thead>
<tbody>
<tr>
<td>2012 - present</td>
<td><strong>Expert Radiotherapy Quality Assurance Reviewer</strong></td>
<td>Radiation Therapy Oncology Group. RTOG 1008.</td>
</tr>
<tr>
<td>2009 - 2013</td>
<td><strong>H&amp;N Liaison</strong></td>
<td>Advanced Technology Integration Steering Committee (ATIC) Head and Neck</td>
</tr>
</tbody>
</table>
C. Academic Profile

1. RESEARCH STATEMENTS

2001 Jul - present  
Research Focus.  
The scope of my research activities is highlighted in my Creative Professional Activity (CPA) profile. My major research streams include:
3. Prospective evaluation of IMRT for anal canal cancers.
4. Collaborative research evaluating liver stereotactic body radiation therapy (SBRT) and conformal/IMRT/IGRT for upper GI cancers.

2. TEACHING PHILOSOPHY

My teaching philosophy has remained constant but the spectrum of teaching avenues and opportunities have evolved in my teaching career. I am actively involved undergraduate, postgraduate teaching, Continuing Medical Education and Professional (Faculty) Development.

I have modelled a teaching approach emphasizing the following principles:
1. Rigorous application of radiation treatment planning principles in a technically advanced and complex radiation oncology environment.
2. Translation of anatomic and cancer route of spread knowledge from a previous 2-dimensional era to the current 3-dimensional planning and treatment era.
3. Translation of evidence-based guidelines into clinical practice.
4. Incorporation of best practice models and standards into clinical practice.
5. Quality and safety.

My resident teaching effectiveness evaluations have highlighted my content expertise but I place significant emphasis on knowledge translation of complex radiation oncology principles into actual clinical practice. Because my clinical practice has been regarded as technically complex by radiation oncology residents and my practice style has been perceived to be very rigorous and detailed, I have typically worked with PGY5’s and senior PGY4s. I value the opportunity to work with our excellent residents and I have won numerous teaching and mentorship awards. I am currently a Royal College of Canada specialty certification examiner for Radiation Oncology.

Over the past 2-3 academic years, I have been asked by the University of Toronto, Department of Radiation Oncology resident training leadership to work with more junior residents since the experience on my service emphasizes practice standards and radiation planning skills development. I have been tasked to help junior residents transition between
learner to expert as this is inherently a challenging transition.

My principle-based teaching extends well to the CME and Professional Development environment in line with my Creative Professional Activity profile. CME and Professional Development has become a major focus of my teaching career. I have been active locally, nationally and internationally in lecturing/presenting, teaching administration and meeting/program development activities.

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

Over the past decade, the landscape of radiation oncology has changed with tremendous advancements in technical radiation therapeutics including intensity-modulated radiation therapy (IMRT) and image-guided radiation therapy (IGRT). Implementing and evaluating these technologies in an environment of quality and standardization of practice has been a major focus of my Creative Professional Activities in both of my disease sites, H&N and GI.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


2003


2002 Jun - 2005 Jun


2002 Jan - 2004 Jan


2000 Feb


**NON-PEER-REVIEWED GRANTS**

**FUNDED**


1999 Jul **Principal Investigator.** Prevalence of IRF-1 deletions/mutations in head and neck squamous cell carcinomas. Toronto-Sunnybrook Regional Cancer Centre. Radiation
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


This paper is the first report of our prospective evaluation of IMRT for anal and perianal cancers. While the patient numbers may seem modest, this is the largest prospective cohort of IMRT for anal canal cancer patients with quality of life outcomes and dosimetric evaluation to our knowledge. This database now contains more than 100 patients. This first report is the culmination of the implementation of a comprehensive multidisciplinary anal canal IMRT program at the Princess Margaret with standard institutional practices including treatment guidelines, contouring and planning nomenclature, contouring guidelines, dose prescriptions, dose-volume criteria for IMRT plan evaluation, daily cone beam CT scan image guidance and peer review quality assurance. I led the development and implementation of all aspects of our anal canal IMRT program.


Radiation dose-sparing of midline lower neck normal organs of risk (larynx, pharynx and esophagus) is an important goal of H&N IMRT planning attempting to limit acute and late swallowing toxicity. However, midline lower neck dose-sparing is extremely challenging in actual practice. This paper reports an audit in oropharynx cancer patients evaluating dosimetric compliance to our institutional lower neck normal organs at risk IMRT dose-volume planning criteria. A novel clinically applicable model is applied to evaluate and predict the success of normal tissue radiation dose-sparing. For this paper, I supervised a radiation therapist (L. Morley, Principle Author) and a radiation therapy student (S. Tang).


Preventing and treating perineural invasion and spread is a major challenge in the radiotherapy management of head and neck cancers particularly salivary gland cancers. This paper addresses this challenge with a radiation oncology perspective of application to radiation therapy planning.


This paper represents the first RTOG (now NRG) H&N clinical trial to evaluate a molecular targeted agent in combination with IMRT for nasopharynx cancer. I was a Radiation Oncology Co-Chair (development of the radiation therapy component and expert peer reviewer of radiation treatment plans).

This paper was a state-of-the-art review of the clinical importance of cancer cell repopulation as it applies to radiation therapy and systemic therapy. With respect to radiation oncology, the implementation of intensity-modulated radiation therapy (IMRT) required a re-evaluation of “standard” dose-fractionation schedules given the emergence of non-standard fraction sizes in clinical practice with IMRT. Overcoming cancer cell repopulation is a fundamental principle of all radiation dose-fractionation regimens. According to Google Scholar, this paper has been cited 320 times.

### 2. PEER-REVIEWED PUBLICATIONS

#### Journal Articles


Letters to Editor


In Preparation


4. Glick D, Warde P, Su J, Xu W, Milosevic M, **Kim J**. Gastrointestinal Toxicity in Patients With Inflammatory Bowel Disease Treated With Pelvic Radiotherapy. (Trainee publication). **Senior Responsible Author**.


**In Revision**


3. **NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


3. Pekar V., Allaire S., **Kim J.** and Jaffray D. Head and Neck Auto-segmentation Challenge. MIDAS J. 2010;Release 1.0, 2010. **Clinical Senior Responsible Author**.


**Book Chapters**


4. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


California, United States. Presenter(s): Kim J.

2014 Jul 18 **Invited Speaker.** Quality Assurance Liver SBRT. International Atomic Energy Agency (IAEA) Phase III Training Workshop. Vienna, Austria. Presenter(s): Kim J.


2014 May 7 **Invited Speaker.** Esophagus and GE Junction Cancers, Radiation Oncology Grand Rounds. Kuwait Cancer Control Center. Kuwait. Presenter(s): Kim J.


2014 May 4 **Invited Speaker.** Standardization in Clinical Oncology Practice: Building a Framework for Quality Grand Rounds. Kuwait Cancer Control Center. Kuwait. Presenter(s): Kim J and Quereshy F.


2013 Feb 8 **Session Organzier.** GI Session, ASTRO Cancer Imaging and Radiation Therapy Symposium. ASTRO. Orlando, Florida, United States. Presenter(s): Co-Organizer - Isaac Francis, MD.

2012 Jul 23 **Chair.** Lunch with the Professors: Tumor Board: Pharynx/Larynx. 8th International Conference on Head and Neck Cancer. Toronto, Ontario, Canada. Presenter(s): Dr. John Kim, Dr. Arlene Forestiere, Dr. Bayardo Perez-Ordonez, Dr. Jay Boyle, Dr. Hady Seikaly, Dr. Brian Burkey. Case based Multidisciplinary Cancer Conference.


2011 May 18 **Invited Speaker.** Image Fusion and Registration. Kuwait Cancer Control Center. Kuwait. Presenter(s): Kim J.


2011 May 12 **Invited Speaker.** The Principles of IGRT for Pelvic Cancers. Kuwait Cancer Control Center. Presenter(s): Kim J.

2011 May 10 **Invited Speaker.** The Radiation Oncology Management of Rectal Cancers. Radiation Oncology Grand Rounds, Kuwait Cancer Control Center. Kuwait. Presenter(s): Kim J.

2011 May 9 **Invited Speaker.** Does Mesorectal Fascia Involvement Need Tailored Treatment? Kuwait Cancer Control Center. Kuwait. Presenter(s): Kim J.


2009 Jul 9 **Invited Speaker.** Automation, adaptation and advanced image guidance in head and neck radiation therapy. Second World Congress of the International Academy of Oral Oncology (IAOO), American Society of Radiation Oncology (ASTRO) Sponsored Symposium. Toronto, Ontario, Canada. Presenter(s): Kim J.
Presented Abstracts


2012 May Evaluation of Inguinal Region Set-Up Accuracy using Cone-Beam CT in Anal Cancer Patients Treated with IMRT. European Society for radiotherapy and Oncology (ESTRO) Annual Meeting. Barcelona, Spain. Presenter(s): Johnston, M., P. Lindsay, T. Craig, R. Dinniwell, and J. Kim. Poster Presentation (M. Johnston, clinical fellow), Senior Responsible Author. (Trainee Presentation).


2008 Nov Validation of a Vascular Surrogate Class Solution for Inguinal Nodal Clinical Target Volume Delineation in


John KIM


1997 Oct A short U-rich sequence within the p53 3' UTR mediates translational repression of human p53 mRNA. San Francisco Symposium 1997 Translational and Stability of mRNA. San Francisco. Fu L, Ma W, Kim JJ and Benchimol S.


Presented and Published Abstracts

2016 Apr 29 Invited Lecturer. The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. Poster (PO-0631). European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Turin, Italy.

Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Society for Radiation Oncology (ASTRO) 56th Annual Meeting. San Francisco, California, United States.

**Publication Details:**

2014 Sep

**Publication Details:**

2014 Sep

**Publication Details:**

2014 Sep

**Publication Details:**

2014 Sep

**Publication Details:**

2014 Apr
Definitive radiation therapy for advanced stage oral cavity squamous cell carcinoma (OCSCC). European Society for Radiotherapy and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria. Poster presentation.
Publication Details:

2013 Oct

Publication Details:

2013 Oct
Altered fractionation radiotherapy for elderly patients with locally advanced head and neck cancer. ESTRO. Amsterdam, Netherlands.

Publication Details:

2013 Oct
A Randomized Controlled Trial of Lorazepam to Reduce Organ Motion in Patients Receiving Upper Abdominal Radiotherapy. American Society for Therapeutic Radiology and Oncology (ASTRO) 55th Annual Meeting. Atlanta, Georgia, United States.

Publication Details:

2013 Apr
Altered fractionation radiotherapy for elderly patients with locally advanced head and neck cancer. 2nd ESTRO Forum. Genève (fr), Switzerland.

Publication Details:

2013 Jan
Outcomes following stereotactic body radiotherapy for patients with child-pugh b/c hepatocellular carcinoma. American Society of Clinical Oncology (ASCO) GI Meeting. San Francisco, California, United States.

Publication Details:

2012 Oct
Phase II trial of palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases. American Society for Radiation Oncology (ASTRO) 54th Annual Meeting. Boston, Massachusetts, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Phase II Study of Concurrent and Adjuvant Chemotherapy with Intensity-Modulated Radiation Therapy (IMRT) or Three-Dimensional Conformal Radiotherapy (3D-CRT) + Bevacizumab (BV) For Locally or Regionally Advanced Nasopharyngeal Cancer (NPC)[RTOG 0615]: Preliminary Toxicity Report.
American Society for Radiation Oncology (ASTRO) 52nd Annual Meeting. San Diego, California.

Publication Details:

2010 Nov

Publication Details:

2007 Sep

Publication Details:

2006 Oct

Publication Details:

Other Presentations


2011 Jan 27  **Presenter.** H&N Disease Site Report, Advanced Technical Integration Committee. RTOG Semi-Annual Meeting. San Diego, California, United States. Presenter(s): **Kim J.**


**Workshop Presenter**


2. NATIONAL

**Invited Lectures and Presentations**

2013 Sep 18  **Invited Speaker.** Magament of Esophageal and GE Junction Cancers. 2013 CARO Annual Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): **Kim J.** CARO UPDATE COURSE.


2012 Oct 14  **Invited Speaker.** Role of IMRT in the Treatment of Pelvic Tumours: Standardization fo Practice. McGill University: Integration of New Radiation Technologies in the Multi-modality Treatment Approaches in Cancer Therapy. Montreal, Quebec, Canada. Presenter(s): **Kim J.**


2008 May 2  **Invited Speaker.** Update of PMH H&N Nomenclature System. National Cancer Institute of Canada (NCIC) Spring Meeting, Delta Chelsea Hotel. Toronto, Ontario, Canada. Presenter(s): **Waldron JN, Kim J.**

2007 Apr 27  **Invited Speaker.** A Standardized IMRT/Conformal RT Nomenclature System. National Cancer Institute of Canada (NCIC) Spring Meeting, Delta Chelsea Hotel. Toronto, Ontario, Canada. Presenter(s): **Kim J.**


**Presented Abstracts**

John KIM


2000 Sep Presenter. IRF-1 Mutations Are Common In Head and Neck Squamous Cell Carcinoma. Royal College of Physicians and Surgeons Annual Meeting. Edmonton, Canada. Presenter(s): Kim JJ, Pathai S and Jordan RCK.


Presented and Published Abstracts


Publication Details:

2015 Sep 9
Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada. Poster Discussion.

Publication Details:

2015 Sep 9

Publication Details:

2015 Sep 9

Publication Details:

2015 Sep 9

Publication Details:

2015 Sep 9

Publication Details:

2015 Sep 9
Metastatic risk groups in human papillomavirus-related oropharyngeal cancer treated with definitive

**Publication Details:**

2014 Aug  

**Publication Details:**

2014 Aug  

**Publication Details:**

2014 Aug  

**Publication Details:**

2014 Aug  

**Publication Details:**

2014 Aug  

**Publication Details:**
John KIM


2014 Aug


Publication Details:


Publication Details:

2011 Sep


Publication Details:


Publication Details:


Publication Details:

Publication Details:

Applying control charts to improve decisions in image-guided radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Winnipeg, Manitoba, Canada. Presenter(s): Loudon J, Cerase C, Naccarato N, Kim J, Breen S.

Publication Details:

Intensity modulated radiotherapy (IMRT) and concurrent chemotherapy (CHT) for anal and perianal cancer: Preliminary report of acute toxicity. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada. Presenter(s): Han K, Cummings B, Bayley A, Brierley J, Dawson L, Dinniwell R, Ringash J, Wong R, Krzyzanowska M, Mackay H, Moore M, Chen E, Craig T, Kim JJ. (Trainee Presentation)

Publication Details:

2011 May 18 Invited Speaker. IMRT for H&N Cancers. CCO IMRT Coaching Visit, London Regional Cancer Centre. Presenter(s): Kim J.

2011 May 5 Invited Speaker. Conformal Radiotherapy for Pelvic GI Cancers. CCO Coaching Visit, Grand River Regional Cancer Centre. Kitchener, Ontario, Canada. Presenter(s): Kim J.

2011 May 5 Invited Speaker. Pelvic IMRT for GI Cancers. CCO IMRT Coaching Visit, Grand River Regional Cancer Centre. Kitchener, Ontario, Canada. Presenter(s): Kim J.

2011 Apr 11 Invited Speaker. IMRT for H&N Cancers. CCO IMRT Coaching Visit, Juravinski Cancer Centre. Hamilton, Ontario, Canada. Presenter(s): Kim J.

2011 Feb 21 Invited Speaker. IMRT for GI Cancers. CCO IMRT Coaching Visit, Sudbury Regional Cancer Centre. Sudbury, Ontario, Canada. Presenter(s): Kim J.

2011 Feb 21 Invited Speaker. The Multi-Disciplinary Approach to Rectal Cancer Management: Radiation Oncology Perspective. Sudbury Regional Cancer Centre. Sudbury, Ontario, Canada. Presenter(s): Kim J.

2010 May 27 Invited Speaker. IMRT: Established Technology, Establishing Implementation: The Uncomplicated Cure. Department of Radiation Oncology, University of Toronto, Target Insight Conference. Toronto, Ontario, Canada. Presenter(s): Kim J.


2009 Feb 13 Invited Speaker. Altered Fractionation in Head and Neck Radiotherapy. Sudbury Regional Hospital, North East Regional Cancer Program. Sudbury, Ontario, Canada. Presenter(s): Kim J.

2008 Oct 16 Invited Speaker. IMRT and IGRT in the management of head and neck cancer. The 8th Princess Margaret Hospital Conference: Developments in Cancer Management: Conquering Cancer in our Lifetime Princess Margaret Hospital's 50th Anniversary. Toronto, Ontario, Canada. Presenter(s): Kim J.


Presented Abstracts

Other Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations

2016 May 27  Presenter. HPV-Associated Oropharynx Cancer: Dispelling the Myths. 18th Annual Wharton/Elia Day. Princess Margaret Cancer Center. Toronto, Ontario, Canada.


2014 Nov 14  Invited Speaker. RMP GI Site Group Perspective. UTDRO Symposium to Honour the Career and Legacy of Dr. Bernard J. Cummings. Toronto, Ontario, Canada. Presenter(s): Kim J.


2011 Oct 17  Invited Speaker. Cancer Care Ontario H&N Communities of Practice. Cancer Care Ontario, Gyne
Communities of Practice Workshop. Toronto, Ontario, Canada. Presenter(s): John Kim.

2010 Nov 26 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist's Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).

2010 May 27 Invited Speaker. IMRT: Established Technology, Establishing Implementation: Post-Implementation. department of Radiation Oncology, University of Toronto, Target Insight Conference. Toronto, Ontario, Canada. Presenter(s): Kim J.


2009 Sep 18 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist’s Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).


2009 Apr 9 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist's Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).

2009 Feb 27 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist's Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).


2008 Jun 8 Invited Speaker. Princess Margaret Hospital IMRT Course, Preparations for Treatment Planning and Delivery: A Radiation Oncologist's Perspective. Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Kim J. (Continuing Education).

2006 Nov 18 **Invited Speaker.** Image Guided Radiation Therapy for Liver Cancer. Princess Margaret Hospital IGRT Course, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2006 Jun 8 **Invited Speaker.** Radiation Strategies to Prevent Swallowing Dysfunction. 7th Annual Wharton Day, Improving Outcomes in Head and Neck Cancer, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**


2004 Jun **Invited Speaker.** Potential for Biologic Agents with Altered Fractionation. 5th Annual Wharton Day, Clinical Trials in Head and Neck Oncology, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2004 Apr 13 **Invited Speaker.** Update of clinical trial - NCIC CO.16. Princess Margaret Hospital GI Site Group Miniretreat, Delta Chelsea. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2004 Apr 13 **Invited Speaker.** Update of clinical trial - A Phase I/II Trial of Celecoxib with Preoperative Chemoradiation for Resectable Rectal Cancer with In Vivo Analysis of Celecoxib Effector Pathways. Princess Margaret Hospital GI Site Group Miniretreat, Delta Chelsea. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2003 Jan **Invited Speaker.** Radiotherapy in Rectal Cancer. Trillium Health Centre Grand Rounds. Etobicoke, Ontario, Canada. Presenter(s): **Kim J.**

2002 Jun **Invited Speaker.** Postoperative Concurrent Chemotherapy and Radiotherapy in the Management of High Risk Head and Neck Squamous Cell Carcinomas. 4th Annual Wharton Day, Clinical Trials in Head and Neck Oncology, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

1999 Jun **Invited Speaker.** Molecular Prognostic Markers in Head and Neck Squamous Cell Cancers. Presented at Future Directions in Radiation Oncology, Continuing Medical Education Course, Department of Radiation Oncology, University of Toronto. Ontario, Canada. Presenter(s): **Kim J.** (Continuing Education).

**Presented Abstracts**

2016 Feb 22 **Presenter.** Radiation Oncology. AZ/Medimmune Head and Neck Cancer Preceptorship. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): **Kim, J.**

**Other Lectures and Presentations**

2014 Oct 3 **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2014 Jan 27 **Invited Lecturer.** Larynx and Nasopharynx Cancers. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2013 Sep 23 **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2013 Jan 14 **Invited Lecturer.** Larynx and Nasopharynx Cancers. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2012 Dec 13 **Presenter.** Standardization in Radiation Oncology: A Framework for Personalized Care. RMP Grand Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2011 Sep 26 **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Kim J.**
2010 Sep 27  **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2010 Sep 17  **Lecturer.** Head and Neck Anatomy. Radiation Oncology Resident Half-Day Teaching, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2010 May 28  **Lecturer.** Radiotherapy Management of Liver Metastases. Radiation Oncology Resident Half-Day Teaching, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2010 Feb 1  **Lecturer.** Radiotherapy in Upper GI Malignancies. University of Toronto Surgical Oncology Fellows Lecture, Princess Margaret hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2010 Jan 21  **Presenter.** The Clinical Implications of Consensus CTV Contouring. RMP Grand Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2010 Jan 13  **Invited Lecturer.** Clinical Reasoning and Decision Making in Radiotherapy. Course II Treatment and Technical Factors MHSC - Masters Health Sciences, Princess Margaret Hospital, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2009 Oct 19  **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): **Kim J.**

2009 Apr 17  **Lecturer.** IMRT planning for carcinoma of the anal canal. Radiation Oncology Resident Half-Day Teaching, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2008 Sep 29  **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): **Kim J.**

2008 Jun 26  **Presenter.** Avoiding Paradigm Paralysis in Search of the Uncomplicated Cure. RMP Grand Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2008 Jan 24  **Invited Lecturer.** Larynx and Nasopharynx Cancers. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2007 Oct 4  **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): **Kim J.**

2007 Feb 15  **Presenter.** Defining Head and Neck Target Volumes: Certain Uncertainties. RMP Grand Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**

2007 Jan 19  **Invited Lecturer.** Larynx and Nasopharynx Cancers. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): **Kim J.**

2006 Oct 6  **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada. Presenter(s): **Kim J.**

2006 Jun 2  **Lecturer.** Radiologic Anotomy of Head and Neck Cancers. Resident Half-Day Teaching Session, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Kim J.**


2005 Oct 14  **Invited Lecturer.** Upper GI Malignancies. Radiation Therapy student lecture, UT/TMI Medical Radiation Sciences Program, The Michener Institute, Faculty of Medicine, University of Toronto. Ontario, Canada.
### 1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

- **2014 Feb - present**: Chair, Organizing Committee, Multi-Disciplinary Annual Gastro-Intestinal Cancer (MAGIC) Update, Continuing Education, Faculty of Medicine, University of Toronto CEPD
- **2012 Feb - present**: Contributing Faculty, Quality & Safety in Radiation Therapy Education Course, Continuing Education, Radiation Medicine Program, Princess Margaret Hospital. Toronto, Ontario, Canada.
- **2011 Mar - present**: Organizing Committee, Multi-Disciplinary Annual Gastro-Intestinal Cancer (MAGIC) Update, Continuing Education, Faculty of Medicine, University of Toronto CEPD
- **2008 - present**: Contributing faculty, Intensity-Modulated Radiotherapy (IMRT) Education Course, Continuing Education, Princess Margaret Hospital
- **2006 - present**: Contributing faculty, Image-Guided Radiotherapy (IGRT) Education Course, Continuing Education, Princess Margaret Hospital
- **2009**: CARO ASM Workshop Organizer and Presenter, IMRT: Established Technology, Novel Processes, Multilevel Education, Canadian Association of Radiation Oncology
  - Kim J, Breen S.
- **2008 Jul - 2010 Jun**: Co-Recipient of Educational Grant. Co-Director, IMRT in Theory and Clinical Practice: A Continuing Medical Education Course, Continuing Education, Cancer Care Ontario
- **2008**: CARO ASM Workshop Organizer and Presenter, IMRT: Establishing Technology, Novel Processes, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Radiation Oncology
  - Kim J, Breen S.
- **2004 May**: Radiation Medicine Program Head and Neck IMRT Workshop. Faculty Development, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital
  - Workshop designed to facilitate the implementation of H&N IMRT at PMH through case presentations and interactive discussions. Co-Chair and Presenter. Audience ~50.
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Postgraduate MD


2013 Jul - 2014 Jun  Primary Supervisor. Core Program. Daniel Glick. Supervisee Institution: Princess Margaret Cancer Centre, University of Toronto. Gastrointestinal Toxicity in Patients with Inflammatory Bowel Disease Treated With Pelvic Radiation Therapy, Non-thesis Project.


CUSTOMIZED VACUUM IMMOBILIZATION DEVICE (CVID) IN RECTAL CANCER PATIENTS TREATED WITH PREOPERATIVE PELVIC RADIATION THERAPY., Non-thesis Project.

2008 Jul - 2014 Jun  

2008 Jul - 2009 Jun  

2007 Feb - 2008 Nov  
**Primary Supervisor.** Clinical Fellow. Chen Liu. *Delivery of less than intended cisplatin (CDDP) dose intensity in patients with locally advanced head and neck squamous cell carcinoma (LA-HNSCC) receiving concurrent chemoradiation (CRT) correlates with poorer outcome and Audit of a Standardized Nomenclature System for Head and Neck (H&N) IMRT Cont., Non-thesis Project.*

2002 Jul - 2003 Jun  

Faculty Development

2009 Jul - 2013 Jun  

2005 Jul - 2006 Jun  

I. Creative Professional Activities

1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2001 Jul 1 - present  
**GOAL:** TO IMPROVE HEAD AND NECK (H&N) CANCER OUTCOMES THROUGH THE IMPLEMENTATION OF HIGH QUALITY RADIATION THERAPY STANDARDS AND STANDARDIZATION OF PRACTICE.

My goal is to improve H&N cancer outcomes by standardizing radiation therapy practices and improving the quality of radiation therapy delivery for patients with H&N cancer. Radiation therapy is often the primary curative treatment modality for H&N mucosal cancers. Over the past 10 years, there has been a tremendous change in the technical landscape of radiation therapy with the development and implementation of intensity-modulated radiation therapy (IMRT) and image-guided radiation therapy (IGRT). There is level 1 evidence demonstrating the importance of IMRT for H&N cancers. The implementation of these advanced technologies has required new quality assurance and system management processes. Unwanted variations in practice have been shown in phase II and III H&N clinical trials to compromise locoregional control and disease-free survival. Standardization of practice is one approach to limiting unwanted variation.

My creative professional activity (CPA) in this area has been to provide clinical, research, education and thought leadership to promote high quality H&N radiation therapy in an advanced technical environment.
As a member of the Princess Margaret Cancer Centre, Radiation Medicine Program (RMP) H&N Site Group, I played a prominent and leadership role in the development and implementation of many of our now well established H&N IMRT practice standards. Two practice changing examples are: 1) I developed a standardized H&N nomenclature system for radiation targets and normal organs-at-risk with our lead physicist (Dr. Stephen Breen) and our Site Group Leader at that time (Dr. Brian O’Sullivan). This system is integral to the way we plan and deliver radiation therapy. I led the implementation of this new system and I audited and reported our compliance. 2) I developed our institutional IMRT planning dose-volume constraint guidelines and I facilitated the implementation these guidelines by obtaining consensus support from our large H&N team.

Impact: I have audited and reported our institutional outcomes in some H&N subsites. Taken together with other institutional audits, our institutional H&N cancer control outcomes are excellent. The development of our H&N IMRT program led the implementation of H&N IMRT in Ontario.

Automatic computer generation or delineation of normal organs and neck lymph node regions (autosegmentation) is a technology that may limit unwanted variation in clinical practice. I was the principle clinical investigator in a Princess Margaret Cancer Centre radiation physics autosegmentation project (PI - Dr. David Jaffray, radiation physics) in partnership with Philips Research. This research contributed to the development of a now commercially available autosegmentation software platform for H&N radiation therapy planning (SPICE, Philips Pinnacle v.9.6 planning system - trademark).

I have been a strong advocate for implementation of best practices and standardization of practice leading to a number of collaborative activities and leadership opportunities. I am currently a member of the Cancer Care Ontario (CCO), Cancer Imaging Program Synoptic Radiology Reporting Clinical Expert Panel. I was invited to co-lead of the CCO Radiation Therapy Program (RTP), H&N Community of Practice (CoP) working toward the development of best practice recommendations for H&N radiation medicine in Ontario. One of my first actions was to advocate for an executive team that reflected the 3 core disciplines of radiation medicine: radiation oncology; radiation physics; and radiation therapy. As standardization of practice is inherently a collaborative process, I have championed interdisciplinary and multidisciplinary collaboration as a core value to promoting quality of care for cancer patients. The H&N CoP general membership is comprised of representatives of the 3 core disciplines of radiation medicine from each of the 10 cancer centres treating H&N cancer patients with radiation therapy.

Impact: The H&N CoP was the first RTP disease site CoP and is regarded as a successful model of collaboration among CCO cancer centres. The H&N CoP general membership selected the development of a provincial H&N nomenclature system and H&N IMRT dose-volume constraints as the first two provincial initiatives undertaken. Our Princess Margaret H&N nomenclature system was acknowledged as the foundation of the provincial nomenclature recommendation document. The RTP H&N CoP productivity output includes the development of recommendation documents that are available on the CCO website, successful collaborative meetings, development of a H&N CoP knowledge sharing and collaborative website, regular reporting to RTP leadership (I represent the H&N CoP leadership team at these meetings), a Canadian Organization of Medical Physicists (COMP) project gallery and an American Society of Clinical Oncology (ASCO) poster presentation. The recommendation documents demonstrate effective province wide collaboration in the radiotherapy management of H&N cancer.

My career trajectory in the promotion of H&N IMRT quality and standards extends to clinical trials research. The major North American radiation oncology clinical trials cooperative group is NRG Oncology (formerly Radiation Therapy Oncology Group, RTOG). I was invited to be the H&N Disease Site Liaison for the NRG Radiation Oncology Working Group. In my NRG H&N Liaison role, I am involved in the development of radiotherapy quality standards for NRG H&N clinical trials. I am also a member of the NRG Oncology Head and Neck Cancer Committee (formerly Steering Committee). I am the Radiation Oncology Co-Chair of 2 RTOG
trials, RTOG 0615 and RTOG 1008 evaluating H&N IMRT with system therapies in two disease specific subsites, nasopharynx cancer and salivary gland cancer respectively. I have contributed to the literature in these two disease subsites by institutional audit and presentations, peer reviewed publications and book chapters. As well, I was the expert radiation oncology quality assurance reviewer for RTOG 0615 and I am currently the expert reviewer for RTOG 1008. I was an expert reviewer for the “HEADSTART” trial, conducted jointly by the Trans-Tasman Radiation Oncology Group (TROG) and Sanofi-Aventis [Phase III randomized trial of concomitant radiation, cisplatin and tirapazamine (SR259075) versus concomitant radiation and cisplatin in patients with advanced head and neck cancer]. Impact: I have played a leadership role in the promotion of H&N IMRT quality and radiation therapy standards for major North American radiation oncology clinical trials.

As a result of my leadership in our institutional implementation of H&N IMRT and my reputation as an effective collaborator, I have been invited to 6 CCO cancer centres to facilitate their IMRT implementation as content expert (e.g. CCO coaching IMRT program ) and to speak about IMRT implementation and radiation therapy quality. I have lectured widely on topics relevant to this CPA stream. A major focus of my teaching is Continuing Medical Education (CME) and faculty development. I have demonstrated a strong commitment to knowledge transfer through trainee teaching and CME by my record of collaboration in course development (including educational funding), consistent teaching efforts, teaching effectiveness scores and teaching/mentorship awards. Impact: I have actively and collaboratively promoted the implementation of quality H&N IMRT programs provincially, nationally and internationally.

As further evidence of my credible leadership, I have successfully applied for a peer reviewed H&N cancer provincial leadership position. I have accepted the new CCO position of Ontario Head and Neck Cancers Lead. This position will start in February, 2015. I will be the provincial multidisciplinary H&N Disease Site Leader with a disease site portfolio that will include all H&N mucosal cancers and thyroid cancers. Among my responsibilities, I will be leading the development of clinical care disease pathways and overseeing CCO activities related to H&N and thyroid cancers.

2001 Jul 1 - present

GOAL: TO IMPROVE GASTROINTESTINAL (GI) CANCER OUTCOMES THROUGH THE IMPLEMENTATION OF HIGH QUALITY RADIATION THERAPY STANDARDS AND STANDARDIZATION OF PRACTICE.

My goal is to better define practice standards in an era of advanced radiation therapeutics for the adjuvant treatment of rectal adenocarcinomas and primary treatment of anal canal squamous cell cancers. The role of conformal radiation therapy or intensity-modulated radiation therapy (IMRT ) is less well defined in the pelvis. Hence, there is an ongoing need to develop and evaluate effective processes and advanced technological standards in the context of our current understanding of radiation dose-fractionation and classical radiation biology. Parallel to my efforts in H&N cancer, my lower GI CPA extends from my institutional GI leadership activities to international consensus and best practice contributions in the management of rectal and anal canal cancers.

I developed and implemented our current comprehensive anal canal IMRT program through protocol and policy development including: the creation of a lower GI nomenclature system for radiation targets and organs-at-risk; multidisciplinary training sessions; treatment policies and guidelines; and leadership of quality assurance rounds. I led the development of a research ethics board (REB) approved prospective anal canal IMRT database. Our initial evaluation was recently published demonstrating excellent disease and quality of life outcomes. Impact: To our knowledge, ours is the largest published prospective evaluation of IMRT in the treatment of anal canal cancer in the literature with quality of life and radiation dosimetric correlation. Since our initial evaluation, we have accrued more than 100 patients with this rare disease. The development of our peer reviewed database will enable us to evaluate a larger cohort and we plan to publish longer term outcomes including patterns of failure and
late toxicity. Currently, there is no publication of late toxicity with pelvic IMRT in this disease.

I was the only Canadian radiation oncologist invited to be an expert panel member in the development on the RTOG Contouring Consensus Guidelines for Elective Clinical Target Volumes for Conformal Therapy in Anorectal Cancer: An RTOG Consensus Panel Contouring Atlas. This Atlas is available online and in published format. The RTOG Atlases are regarded as high impact guidelines that are widely used as standard guides for practicing radiation oncologists inside and outside of clinical trials. As recognition of my content expertise, I was invited to be an Anal Cancer Scientific Session discussant at the 2014 American Society for Radiation Oncology (ASTRO) Annual Meeting held Sept 15, 2014 in San Francisco, California, United States. ASTRO is the most prominent North American radiation oncology society.

Further to my institutional leadership in rectal cancer radiotherapy management, I wrote the Canadian pelvic radiotherapy standards for the National Cancer Institute of Canada (NCIC) CTG CO.16/MRC CR07: A randomised trial comparing pre-operative radiotherapy and selective post-operative chemoradiotherapy in rectal cancer together with my British Columbia radiation oncology colleague, Dr. John Hay. I was recently invited to join the ASTRO Working Group - Best Practice Statement on Rectal Cancer. An ASTRO Best Practice publication (Appropriate Customization of Radiation Therapy for Stage II and III Rectal Cancer: An ASTRO Best Practice Statement) is near submission.

Parallel to my teaching, CME and professional development efforts in my H&N CPA stream, I have also lectured and presented widely in my lower GI CPA stream. This year, I am chair of the organization committee for (M)ultidisciplinary (A)nnual (G)astrointestinal (C)ancer (MAGIC) Update held annually in Toronto. The event is accredited by the Office of Continuing Education and Professional Development (CEPD), Faculty of Medicine, University of Toronto.

Impact: I am regarded as an international content expert in pelvic radiotherapy and I have influenced international practice standards.

### 2. EXEMPLARY PROFESSIONAL PRACTICE

**2001 Jul 1 - present**

COLLABORATIVE RESEARCH, PROGRAM DEVELOPMENT and EDUCATION in SUPPORT of LEADING UPPER GI SUBSPECIALITY PROGRAMS.

My clinical, academic and teaching contributions include upper GI subsites (e.g. liver stereotactic body radiation therapy (SBRT) and upper GI malignancies) that are not my main areas of clinical and research focus. However, my contributions extend beyond expectations of my Site Group membership and clinical practice. I have been very committed to collaborative clinical research and education in my roles as content expert and Princess Margaret Cancer Centre, Radiation Medicine Program (RMP) GI Site Group Physician Leader. I have supported our programs locally, nationally and internationally. I was recently invited as an expert consultant in the development of an International Atomic Energy Agency (IAEA) liver stereotactic radiotherapy randomized clinic trial as another example of my radiotherapy quality expertise contribution to clinical trials.

As the RMP GI Site Group Physician Leader, I oversaw or actively led the implementation of state-of-the-art radiation therapy technologies for the GI Site Group including 4-dimensional (4D) CT scanning, 3D image guidance, 4D image guidance, motion management technologies (ABC, abdominal compression), magnetic resonance simulation/fusion, IMRT and most recently volumetric-modulated arc therapy (VMAT). These technologies are fundamental to our research programs and our ability to deliver leading edge and world class upper GI radiation therapy. My co-authorship on several high impact institutional publications support my effective research collaboration.
Curriculum Vitæ

Normand Laperriere
MD

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

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Princess Margaret Hospital
Department of Radiation Oncology
610 University Ave, Rm 5-961
Toronto, Ontario, Canada
MSG 2M9

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Email norm.laperriere@rmp.uhn.on.ca

1. EDUCATION

Degrees
1974 Sep - 1978 Jun MD, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada
1972 Sep - 1974 Apr BSc, Science, Faculty of, Western University, London, Ontario, Canada

Postgraduate, Research and Specialty Training
2008 Oct - 2009 May UHN- Rotman Leadership Development Program, University of Toronto Rotman School of Management Executive Programs, University Health Network, Toronto, Ontario, Canada
1980 Jul - 1984 Jun Resident (PGY1-4), Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1978 Jul - 1980 Jun Resident (PGY1-2), Family Medicine, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
1978 Jul - present Licence CPS, College of Physicians and Surgeons of Ontario, Canada
2009 Oct FRANZCR(Hon), Honorary Fellow, Royal Australian and New Zealand College of Radiology
1984 Dec FRCPC, Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1984 Nov C.S.P.Q., Certification, Radiotherapy, Province of Quebec, Canada
1984 Jul - 1985 Licence CPS, Collège des médecins du Québec, Canada
1984 Jun D.A.B.R., Certification, Therapeutic Radiology, American Board of Radiology, United States
1980 May Certificant, C.C.F.P. College of Family Physicians of Canada (The), Canada
1978 Jun License (LMCC), Medical Council of Canada, Canada
2. EMPLOYMENT

Current Appointments

2011 Jul - present  Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1998 Jan - present  Active Staff, Division of Hematology/Oncology, The Hospital for Sick Children, Toronto, Ontario, Canada
1992 Jul - present  Active Staff, Division of Neurosurgery, Toronto Western Hospital/UHN, Toronto, Ontario, Canada
1985 Nov - present  Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario, Canada

Previous Appointments

CONSULTING
1985 Nov - 1997 Dec  Consultant, Division of Hematology/Oncology, The Hospital for Sick Children, Toronto, Ontario, Canada

HOSPITAL
1984 Jul - 1985 Oct  Staff Radiation Oncologist, Montreal General Hospital, Royal Victoria Hospital, Jewish General Hospital, Montreal, Quebec, Canada

UNIVERSITY - RANK
1999 Jul - 2011 Jun  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1989 Jul - 1999 Jun  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1985 Nov - 1989 Jun  Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1984 Jul - 1985 Oct  Assistant Professor, Radiation Oncology, McGill University, Montreal, Quebec, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2011 Oct  D'Angio Lecture, 43rd Congress of the International Society of Paediatric Oncology (SIOP), Auckland, New Zealand. (Distinction)
Advances in Photon Radiation Therapy for Pediatric Tumours: New Opportunities and Lessons Learned.
2009 Oct - 2009 Nov  The 2009 Carestream Professorship, Royal Australian and New Zealand College of Radiology. (Distinction)
2009 Oct  FRANZCR(Hon), Honorary Fellow, Royal Australian and New Zealand College of Radiology. (Distinction)
1992 Nov  Mahaley Award, Congress of Neurological Surgeons, United States. (Research Award)
Teaching and Education Awards

LOCAL
Received

2008  **Best Radiation Medicine Rounds for 2007/2008**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada. (Postgraduate MD)

2008  **Postgraduate Advocacy and Mentorship Award, Department of Radiation Oncology**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

2006  **Mentorship Award, Radiation Medicine Program**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto, Ontario, Canada. (Postgraduate MD, Clinical Fellow)

2005  **Best Clinical Teacher, Radiation Medicine Program**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada. (Postgraduate MD)

2005  **Postgraduate Advocacy and Mentorship Award, Department of Radiation Oncology**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

2001  **Residents’ Award for Excellence in Clinical Teaching**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada. (Postgraduate MD)

Student/Trainee Awards

NATIONAL
Received

1999 Sep  **Second prize (the Nucletron Award)**, Supervisor, Awardee Name: Andrew Loblaw (Postgraduate Trainee, Department of Radiation Oncology). Canadian Association of Radiation Oncology’s Resident Research Award Competition, Canada
*For his project, “A population-based study of malignant spinal cord compression”.*

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

**Member**, American Society for Therapeutic Radiology and Oncology
**Member**, Canadian Association of Radiation Oncologists
**Member**, Canadian Brain Tumour Consortium
**Member**, Canadian Medical Association
**Member**, European Society for Radiotherapy and Oncology
**Member**, Fellow of The Royal College of Physicians and Surgeons of Canada
**Member**, Joint Section on Tumors, American Association of Neurological Surgeons and Congress of Neurological Surgeons
**Member**, Ontario/Canadian Medical Association
Administrative Activities

INTERNATIONAL

15th International Symposium on Pediatric Neuro-Oncology
2012 Jun  Member, Organizing Committee, Toronto, Ontario.

International Brain Tumour Research and Therapy Meeting
2010 - 2012  Member, Local Organizing Committee

Pediatric Radiation Oncology Society (PROS) Annual Meeting
2014 Oct  Member, Local Organiser, Organizing and Scientific Committee, Toronto.

SIOP Annual Meeting
2014 Oct  Member, Local Organizing Committee, Toronto.

Society of Neuro-Oncology
2012 - 2014  Member, Local Organizing Committee

The 19th International Brain Tumour Research and Therapy Conference
2012 Jun  Member, Organizing Committee, Niagara Falls, Ontario.

NATIONAL

11th Biennial Canadian Neuro-Oncology Meeting
2004 May  Member, Organizing committee, Toronto.

13th Biennial Canadian Neuro-Oncology Meeting
2008 May  Member, Organizing committee, Banff.

Brain Tumour Foundation of Canada
2008  Participant, Think Tank
One day Think Tank for members of board. London, Ontario.

Canadian Association of Medical Radiation Technologists

Canadian Brain Tumour Consortium
2004 - present  Vice Chair
2000 - present  Founding Member of Board

Fifth Canadian Neuro-Oncology Meeting
1992 Jun  Member, Organising Committee, Deerhurst, Ontario.
Normand LAPERRIERE

National Cancer Institute of Canada
1993 - 1995  Chair, Site Specific Advisory Group for Brain Tumours of the Canadian Committee on Cancer Staging

National Cancer Institute of Canada/Clinical Trials Group
1995 - 2000  Member, Executive, Central Nervous Site

Royal College of Physicians and Surgeons of Canada
1993 - 2003  Member, Examination Board in Radiation Oncology

The College of Physicians and Surgeons of Ontario
2000 - present  Member, Advisory Committee on Radiation Oncology

PROVINCIAL / REGIONAL

Other Organizations
2014 Apr  Co-Director, Personalized High Precision Radiotherapy for Brain Tumours, Toronto.
1988  Member, Task Force for the establishment of a French language community health center in Toronto

Cancer Care Ontario
2004 - present  Co-Chair, Neurologic Disease Site Group, Evidence Based Program
1998 - 2004  Member, Neurologic Disease Site Group, Evidence Based Program

Centre Medico-Social Communautaire Inc.
1989 - 1991  Founding Member of Board, Toronto, Ontario.  a french language community health center.

Pediatric Oncology Group of Ontario Aftercare Education
2007 Jan  Member, Organising committee, Toronto.

Provincial Pediatric Oncology Planning
2004 Jul - 2005 May  Member, 2010 Steering Committee
2004 - 2005  Chair, Radiotherapy committee

Radiation Therapy Oncology Group (RTOG)
1997 - 2005  Member, Brain Tumour Committee

LOCAL

Other Organizations
1992 - present  Leader, Department of Radiation Oncology Central Nervous System Site Group
1998 - 2009  Director, Adult Aftercare Program for survivors of Pediatric Malignancies
1997 - 2004  Leader, Central Nervous System Quality Management Team
1995 - 1996  Member, Medical Advisory Committee (MAC)
1994 - 2005  Leader, Central Nervous System Accreditation Team
1994 - 1995  Member, Transition Management Team
1993  Member, Rules & Regulations Review Committee
1992 - 1993  Team leader, Continuous Quality Improvement demonstration project: Patient waiting in Testicular Cancer clinic
1992 - 1993  Member, Medical Advisory Committee (MAC)
1991 - 1992  Secretary, Medical Advisory Committee (MAC)
1990  Member, CT selection committee
1990  Member, Imaging user group
1989 - 1993  Chair, Ambulatory Care Committee
1989 - 1991  Member, Comprehensive Cancer Center ad hoc planning group
1989  Member, Clinical Organisation and Planning Committee
1988 - 1989  Member, Medical Advisory Committee (MAC)
1987 - 1990  Member, Executive, Medical Staff Association

Princess Margaret Hospital
2000 - present  Member, Cancer Committee
1996 - present  Leader, Central Nervous System Site Group
2008 - 2009  Chair, Cancer Committee
2008 - 2009  Member, Advisory Committee on Oncology
2008 - 2009  Member, Cancer Program Medical Leadership Committee
1995 - 1996  President, Medical Staff Association
1995 - 1996  Member, Board of OCI/PMH
1991 - 1994  Member, OCI/PMH Family Canvass Committee, Capital Campaign
1986 - 1994  Member, Radiation Protection Committee

University Health Network
2008 - 2009  Member, Medical Advisory Committee

University of Toronto
2010 - present  Member, Teaching Effectiveness Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
1989  Member, Search committee, for the Head of the Interdepartmental Division of Oncology, Faculty of Medicine, Dept of Radiation Oncology
1988  Member, Ad hoc committee on academic affairs for the Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
1987 - 1990  Functional Program Liaison Coordinator, Rehabilitation Medicine
1987 - 1990  Secretary, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology

Peer Review Activities
ASSOCIATE OR SECTION EDITING
Editor
Neuro-Oncology (Associate Editor)
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

Funded
2010 - 2015

**Sponsor:** NCIC CTG, Schering Plough (Merk).

2007 - 2012  **Co-Investigator.** Prospective changes in white matter integrity and cognitive function following cranial radiation for pediatric brain tumors. National Cancer Institute of Canada (NCIC). PI: Mabbott D. Collaborator(s): **Laperriere N**, Sharpe M, Bouffet E. 700,000 CAD. [Grants]

2007 - 2010  **Co-Investigator.** Retrospective study of changes in white matter integrity and cognitive function following cranial radiation for pediatric brain tumors. C17 Research Network. PI: Mabbott D. Collaborator(s): **Laperriere N**, Sharpe M, Bouffet E. 94,000 CAD. [Grants]


2005 - 2007  **Principal Investigator.** Serial MRI (MRSI, permeability, diffusion) to evaluate spatial-temporal patterns of failure following concurrent external beam radiotherapy and temozolomide chemotherapy in patients with newly diagnosed Glioblastoma Multiforme. Canadian Brain Tumour Consortium. Collaborator(s): Perry J, Koh ES. 100,000 CAD. [Clinical Trials]


1989 - 1996  **Principal Investigator.** Accelerated Radiation Therapy for Primary Lymphoma of Brain. Princess Margaret Hospital. Department of Radiation Oncology. Collaborator(s): Wong CS, Milosevic MF, Whitton AC, Wells W, Patterson B. [Clinical Trials]


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Normand LAPERRIERE


Normand LAPERRIERE


Journal Articles, Randomized Controlled Trial


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


34. Millar BA, **Laperriere NJ**. Effects of Radiation on the Older Brain. Geriat Aging. 2004;7:46-49 (Trainee publication, Millar BA.). **Co-Principal Author.**

35. **Laperriere NJ**, Bernstein M. Radiotherapy for Brain Tumors. Cancer Bull. 1993;45:337-345. **Principal Author.**


**Book Chapters**


Editorials


Letters to Editor


Monographs

Multimedia
3. Radiation therapy. IMS Creative Communications, University of Toronto. An educational videotape for patients. Medical adviser.

3. SUBMITTED PUBLICATIONS

Journal Articles
E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2014 May  Evolution of the Role of Radiotherapy in the Management of Pediatric Brain Tumours. 3rd Annual Meeting of the Pan Arab Society of Paediatric Oncology International Congress in Pediatric Neuro-Oncology. Annaba, Algeria.

2014 May  Re-irradiation for Pediatric Brain Tumours. 3rd Annual Meeting of the Pan Arab Society of Paediatric Oncology International Congress in Pediatric Neuro-Oncology. Annaba, Algeria.


2013 May  Radiation Therapy for Pediatric Craniopharyngiomas. Pediatric Neuro-Oncology Basic and Translational Research Conference. Fort Lauderdale, United States.


2011 Feb  Image Guided Photon IMRT for Skull Base Chordomas and Chondrosarcomas. 21st North American Skull
Base Society Meeting. Phoenix, United States.


2010 Oct  The Role of Temodal with Radiation in Malignant Gliomas. Shanghai Brain Tumour Interest Group. Shanghai, China.


2009  State of the Art in Radiation Treatment of High Grade Gliomas. Turkish Multidisciplinary Neurooncology Symposium. Istanbul, Turkey.


2009  Effect of Radiation Treatment on Non-Involved Brain. 36th Annual Meeting of the Clinical Oncology Society of Australia. Gold Coast, Australia.
2009 Radiation for Brain Metastases. 36th Annual Meeting of the Clinical Oncology Society of Australia. Gold Coast, Australia.


2009 Radiation Oncology and National Cancer Institute of Canada (NCIC) Portfolio of CNS Trials. Cooperative Trials Group for Neuro-Oncology (COGNO) 2nd Annual Scientific Meeting. Gold Coast, Australia.


2009 **Visiting Professor.** The Management of Brain Metastases. Carestream Professor, the Combined Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Brisbane, Australia. Including the Faculty of Radiation Oncology (FRO), The Australian Institute of Radiography (AIR) and the Australasian College of Physical Scientists & Engineers in Medicine (ACPSEM).

2009 **Visiting Professor.** Temozolomide in Gliomas: current state of the art. Carestream Professor, the Combined Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Brisbane, Australia. Including the Faculty of Radiation Oncology (FRO), The Australian Institute of Radiography (AIR) and the Australasian College of Physical Scientists & Engineers in Medicine (ACPSEM).

2009 **Visiting Professor.** NCIC/EORTC/TROG Trial: Glioma in the Elderly. Carestream Professor, the Combined Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Brisbane, Australia. Including the Faculty of Radiation Oncology (FRO), The Australian Institute of Radiography (AIR) and the Australasian College of Physical Scientists & Engineers in Medicine (ACPSEM).

2009 **Visiting Professor.** Radiation Therapy for Malignant Gliomas: an Evidence Based Review. Carestream Professor, Department of Radiation Oncology, Mater Hospital Brisbane. Brisbane, Australia.

2009 **Visiting Professor.** Overview of CNS radiotherapy: Gliomas and Metastases. Department of Radiation Oncology, Townville Hospital. Townsville, Australia.

2009 **Visiting Professor.** Management of Brain Metastases. Department of Radiation Oncology, Royal Brisbane and Women’s Hospital and Royal Brisbane Children’s Hospital. Brisbane, Australia.

2009 **Visiting Professor.** Management of Pediatric Brain Tumours: Pilocytic Astrocytomas, Medulloblastomas, Ependymomas. Department of Radiation Oncology, Royal Brisbane and Women’s Hospital and Royal Brisbane Children’s Hospital. Brisbane, Australia.

2009 **Visiting Professor.** Management of Brain Metastases. Department of Radiation Oncology, Westmead Hospital. Sydney, Australia.

2009 **Visiting Professor.** Management of Brain Metastases. Department of Radiation Oncology, Liverpool Hospital. Sydney, Australia.

2009 **Visiting Professor.** Malignant Gliomas: Evidence Based Review of Radiotherapy and Upcoming Trials. New South Wales Radiotherapy Club Meeting, University of Sydney. Sydney, Australia.

2009 **Visiting Professor.** Radiation Therapy for Malignant Gliomas and Pseudoprogression. Department of Radiation Oncology, Aukland Hospital and Children’s Hospital. Aukland, New Zealand.
2009 Visitings Professor. Craniopharyngiomas, Medulloblastomas, Ependymomas. Department of Radiation Oncology, Aukland Hospital and Children’s Hospital. Aukland, New Zealand.


2008 Strategies for Treatment and New Frontiers in Elderly Patients with GBM. IVth International Conference on Future Trends in the Treatment of Brain Tumors. Bologna, Italy.


2008 Update on EORT-NCIC 4 Year Results. Current Trends in the Management of Malignant Gliomas II. Rio de Janeiro, Brazil.


2007 Pseudoprogresion in High Grade Glioma after Radiotherapy and Temozolomide: is it an Issue? Perspectives in Central Nervous System Malignancies. Warsaw, Poland.


<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Glioblastoma: Recent Advances and Future Studies. 7th Annual Turkish Radiation Oncology Congress. Fethiye, Turkey.</td>
</tr>
<tr>
<td>2006</td>
<td>Pseudoprogession in Malignant Gliomas: Possible Value of Newer MRI Techniques. Department of Radiation Oncology, University of Tehran. Iran, Islamic Republic Of.</td>
</tr>
<tr>
<td>2005</td>
<td>Case Presentation: Brain Metastases. 3rd International Conference on Future Trends in the Treatment of Brain Tumors. Padua, Italy.</td>
</tr>
<tr>
<td>2005</td>
<td>Randomized Study of Temozolomide and Radiation Therapy in Elderly Patients with Glioblastoma: an NCIC CTG/EORTC Study. Satellite Meeting at the Second Quadrennial Meeting of the World Federation of NeuroOncology and the Sixth Meeting of the European Association for NeuroOncology. Edingburgh, United Kingdom.</td>
</tr>
<tr>
<td>2005</td>
<td>Experimental MRI Sequences in the Assessment of Patients with Glioblastoma Multiforme: Proposal for a Prospective Study in 30 Patients. Satellite meeting at the Second Quadrennial Meeting of the World Federation of NeuroOncology and the Sixth Meeting of the European Association for NeuroOncology. Edingburgh, United Kingdom.</td>
</tr>
</tbody>
</table>
Update Meeting. Lisbon, Portugal.

2004 Evidence Based Guidelines for Radiation in Malignant Gliomas. World Federation of Neurosurgical Societies, Tumor Section Meeting. Jaipur, India.

2004 Role of Radiation in Adult Neuro-Oncology. World Federation of Neurosurgical Societies, Tumor Section Meeting. Jaipur, India.


2004 Evidence Based Guidelines for Radiation in Adult Low Grade Gliomas. World Federation of Neurosurgical Societies, Tumor Section Meeting. Jaipur, India.

2004 Simplified Approach to Classification and Indications for RT in Paediatric Brain Stem Gliomas. World Federation of Neurosurgical Societies, Tumor Section Meeting. Jaipur, India.


2004 Evidence Based Guidelines for Radiation in Malignant and Low Grade Gliomas. World Federation of Neurosurgical Societies, Tumor Section Meeting, Satellite Conference. Kolkata, India.


2001 Low Grade Gliomas: The Case for Early Radiotherapy. Second International Clinic of Neurological Surgery. New Delhi, India.


Presented Abstracts


Normand LAPERRIERE

2009 Apr  

2008 Jun  

2008 May  

2008 May  

2008 May  
**Collaborator.** Predictors of hydrocephalus after stereotactic radiation and radiosurgery for vestibular schwannoma. The 14th International Meeting of the Leksell Gamma Knife Society. Quebec, Canada. Vachhrajani S, **Laperriere N,** Koh ES, Bernstein M, Hodaie M.

2007 Oct  

2007 Jul  
**Collaborator.** Two Beam Segment-Based Intensity Modulated Radiation Therapy for Solid Tumours of the Brain. 49th Annual Meeting of the American Association of Physicists in Medicine. Minneapolis, United States. L Chin, **Laperriere N,** R Heaton.

2007 Jun  

2007 May  

2006 Jun  
**Senior Responsible Author.** Treatment Options for Patients with Vestibular Schwannomas at the University Health Network, Toronto, Canada. 14th World Congress of International Society of Radiographers & Radiological Technologists and the American Society of Radiologic Technologists. Denver. McKinnon S, Mendonca W, Menard C, Bernstein M, Cusimano M, Gentili F, Hodaie M, Koh S, Kulkarni A, Millar B, Schwartz M, Tsao M, Valiante T, **Laperriere N.**

2006 May  


1990 Aug **Principal Author.** The Toronto randomized trial of brachytherapy in patients with malignant astrocytoma of brain. 15th International Cancer Congress UICC. Hamburg, Germany. *Laperriere NJ*, Bernstein M, Leung PMK, Mckenzie S, Lumley M.


1989 Oct **Principal Author.** The role of radiation in the management of patients with brain metastases. 39th Annual Meeting of the Congress of Neurological Surgeons. Atlanta, Georgia. *Laperriere NJ*.


2. NATIONAL

**Invited Lectures and Presentations**


2011 Oct **Speaker.** The Evolving Role of Radiation in High Grade Gliomas. Saskatchewan Cancer Agency Provincial CNS Malignancies Meeting. Regina, Saskatchewan.

Normand LAPERRIERE

Team Meeting. Calgary, Alberta.

2011 Jul  

2011 Feb  

2011 Feb  

2011 Feb  

2011 Feb  

2011 Jan  

2011 Jan  

2010 May  
Challenges in the Assessment of T1 Gadolinium and T2 Flair Images in the RESCUE Study. RESCUE Volumetric Study. Montreal, Quebec.

2010 May  

2010 May  

2010  

2010  

2010  

2010  

2010  

2009  

2009  

2009  

2008  

2008  
New Approaches to Understanding Pseudoprogression. Temozolomide Canadian Research Update
Meeting. Banff, Alberta.


2007 Pseudoprogesssion in High-Grade Glioma after Concurrent Radiotherapy and Temozolomide: a Multi-Parametric MRI study. Dr. H. Bliss Murphy Cancer Centre. St John’s, Newfoundland and Labrador.

2007 Pseudoprogesssion in High Grade Glioma after Radiotherapy and Temozolomide. 25th Annual Meeting of the Quebec Association of Radiation Oncology. Orford, Quebec.


2003 Radiotherapy for Malignant Gliomas: Current Approaches and Future Directions. 38th Annual meeting of the Canadian Congress of Neurological Sciences. Quebec City, Quebec.

2003 Radiosurgery for Meningiomas and Vestibular Schwannomas. Canadian Association of Radiation Oncologists (CARO), Annual Scientific Meeting. Montreal, Quebec.


1995 Radiation Therapy for Brain Tumours: an Overview. Annual Meeting of the Canadian Association of Radiologists and the Canadian Association of Medical Radiation Technologists. Montreal, Quebec.


Presented Abstracts


Laperriere N, Simpson ER.

**2008 May**  

**2008 May**  
**Senior Responsible Author.** Atypical and malignant meningiomas: Long-term results with radiation therapy. 13th Biennial Canadian Neuro-Oncology Meeting. Banff, Alberta. G Bahl, C Ménard, BA Millar, W Mason, **N Laperriere.**

**2008 Mar**  

**2008 Mar**  

**2008 Mar**  
**Collaborator.** Target volume treatment margin for the CBCT-based intracranial stereotactic radiosurgery/radiotherapy. Annual Meeting of the Canadian Association of Radiosurgery. Mont Tremblant, Quebec. Heydarian M, van Prooijen M, Islam M, Tsui G, **Laperriere N.**

**2008 Mar**  

**2006 Nov**  

**2006 Nov**  

**2005 May**  

**2005 Mar**  
**Senior Responsible Author.** PMH experience with stereotactic radiotherapy for meningiomas. Canadian Radiosurgical Society. Banff, Canada. Millar BA, Koh ES, Menard C, Michaels H, Heydarian M, Ladak S, McKinnon S, **Laperriere NJ.**

**2000 May**  
**Principal Author.** Fractionated stereotactic radiotherapy for the treatment of vestibular schwannomas. Canadian Neuro-Oncology Meeting. Vancouver. **Laperriere NJ,** Jaywant S, Michaels H.

**2000 May**  

**1999**  
**Senior Responsible Author.** A retrospective analysis of 52 cases of spinal cord glioma. 2nd Annual Canadian Brain Tumour Network Conference. Toronto. Rodrigues GB, Waldron JN, Wong CS, **Laperriere NJ.**

**1999**  
**Principal Author.** Stereotactic Radiation Therapy for Vestibular Schwannomas. 2nd Annual Canadian Brain Tumour Network Conference. Toronto. **Laperriere NJ.**

1995 Sep Principal Author. Accelerated Radiation Therapy for Primary Lymphoma of Brain. 64th Annual Meeting of The Royal College of Physicians and Surgeons of Canada and The Canadian Association of Radiation Oncologists. Montreal, Canada. Laperriere NJ, Wong CS, Milosevic MF, Simpson WJ.


1994 May Collaborator. Permanent myelopathy following re-irradiation of the spinal cord. 6th Canadian Neuro-Oncology Meeting. Lake Louise, Alberta. Wong CS, Van Dyk J, Milosevic M, Laperriere NJ.

1994 May Principal Author. A wait and see approach to radiation therapy is best for patients with low grade astrocytoma. Debate on low grade astrocytoma. 6th Canadian Neuro-Oncology Meeting. Lake Louise, Alberta. Laperriere NJ.


Lectures and Other Presentations


2010 Late Effects of Treatment of Sarcomas in Childhood: a Story in Evolution. 3rd Annual International Sarcoma Awareness Week Symposium. Toronto, Ontario. (Presentation to Patients/Public).


2010 New Developments in Radiation Therapy for Brain Tumours. Canadian Brain Tumour Foundation, Patient information day. Calgary, Alberta. (Presentation to Patients/Public).

2006 Radiation Therapy, an Overview. Schering Canada Annual Oncology Meeting. Mont Tremblant, Quebec. (Presentation to Patients/Public).

2006 Glioblastoma Management Pre and Post Temozolomide. Schering Canada Annual Oncology Meeting. Mont Tremblant, Quebec. (Presentation to Patients/Public).


### 3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**


2009 Pseudoprogression in High Grade Glioma. The Ottawa Regional Cancer Centre. Ottawa, Ontario.


2008 MRIs, Malignant Gliomas, Temozolomide, Pseudoprogression. Thunder Bay Regional Cancer Centre. Thunder Bay, Ontario.


2000  Ocular Oncology Program at Princess Margaret Hospital. Ottawa Regional Cancer Centre. Ottawa, Ontario.


1990  Radiation Implants for Brain Tumors. Ontario Oncology Association for Health Professionals. Toronto, Ontario.


1987  New Strategies for Treating Patients with Malignant Brain Tumours. Ontario Oncology Association for Health Professionals. Toronto, Ontario.

1983  Carcinoma of the Thyroid. Review of the Cross-Canada Survey, Oncological Clinical Day. Sudbury,
Presented Abstracts


1990 Mar Principal Author. Primary CNS Lymphoma. Third Annual Metro Toronto Group Meeting. Toronto, Ontario. Laperriere NJ.

Lectures and Other Presentations


2008 Recurrence Patterns in Gliomas. Medical Options in Neuro-Oncology.


4. LOCAL

Invited Lectures and Presentations


2001  **Participant.** Role of Radiation in Low Grade Gliomas. E. Harry Botterell Professorship in Neurosurgery, University of Toronto. Toronto, Ontario.


1999  Predictive Factors for Brain Tumours. Future Directions in Radiation Oncology, CME course sponsored by The Department of Radiation Oncology, University of Toronto, and Princess Margaret Hospital. Toronto, Ontario.


1994  Dose-Fractionation Studies in Malignant Gliomas. Clinical Aspects of Radiation Biology, CME course, Department of Radiation Oncology, University of Toronto. Toronto, Ontario. (Continuing Education).

1993  **Participant.** Brachytherapy for Malignant Brain Tumors. Keith Professorship in Neurosurgery, University of Toronto. Toronto, Ontario.

1992  Choroidal Melanomas. CME course, Department of Radiation Oncology, University of Toronto. Toronto, Ontario. (Continuing Education).

1992  Malignant Gliomas of Brain. CME course, Department of Radiation Oncology, University of Toronto. Toronto, Ontario. (Continuing Education).

Presented Abstracts


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


Postgraduate MD


2004 - 2006 **Primary Supervisor.** Resident. A. Sahgal. Stereotactic radiotherapy in the treatment of...
Normand LAPERRIERE

juxtapapillary choroidal melanoma.


2003 - 2004  **Primary Supervisor.** Clinical Fellow. BA. Millar. *Defining the impact and contribution of steroids in patients receiving whole-brain irradiation for cerebral metastases.*

2002 - 2004  **Primary Supervisor.** Clinical Fellow. BA. Millar. *Perfusion Computerized Tomography of Patients Undergoing Whole Brain Radiotherapy For Cerebral Metastases.*


2. OTHER SUPERVISION

**Graduate Education**

**Thesis Examination Committee**


Curriculum Vitae

Justin Lee

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre (T-Wing)
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-4998
Fax 416-480-6002
Email Justin.Lee@sunnybrook.ca

1. EDUCATION

Degrees
2007 Jul - 2010 Aug MSc, Masters Medical Biophysics, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1999 Sep - 2002 Jun MD, Doctor of Medicine, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada
1994 Sep - 1999 Aug BSc, Bachelors Electrical Engineering and Management (Not completed), Engineering, Faculty of, McMaster University, Canada

Postgraduate, Research and Specialty Training
2007 Jul - 2009 Oct Clinical Research Fellow, Department of Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences, Toronto, Ontario, Canada
2005 Senior Resident, Toronto Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada
2002 Jul - 2007 Jun Resident, Radiation Oncology, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2007 - present Fellow, Royal College of Physicians and Surgeons of Canada (FRCPC), Canada
2002 - present Licentiate, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2015 - present Courtesy Staff, North York General Hospital, North York, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2008 - 2009 CBCF Physician Fellowship Award, Canadian Breast Cancer Foundation, Canada. (Distinction)
Total Amount: 107,250
2007 - 2009 EIRR 21st Award, Excellence in Radiation Research Program, Canada. (Distinction)
(CIHR funded Research Training Program). Total Amount: 28,500
2001 Ivan Smith Memorial Studentship, Canadian Cancer Society, Canada. (Distinction)

LOCAL
Received
2005 WJ Simpson Resident Research Award, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada. (Research Award)

Teaching and Education Awards

LOCAL
Received
2015 Oct Post Graduate Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

Nominated
2007 Mar 2007 PAIRO Trust Fund Resident Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
2008 - present American Institute of Ultrasound in Medicine (AIUM)
2005 - present American Society for Therapeutic Radiology and Oncology
2002 - present Canadian Association Radiation Oncology (CARO)
2002 - present Canadian Medical Association (CMA)
2002 - present Ontario Medical Association (OMA)

Administrative Activities

PROVINCIAL / REGIONAL

Cancer Care Ontario (CCO)
2014 - present Breast Pathway, Toronto, Ontario, Canada.
2013 Nov 22 - present Program in Evidence Based Care - Head and Neck Disease Site Group, Ontario, Canada.
2015 Dec Systemic Therapy in the Curative Treatment of Head and Neck Squamous Cell Cancer - DSG reviewer, Toronto, Ontario, Canada.

College of Physicians and Surgeons of Ontario (CPSO)
2013 Aug 12 - 2013 Nov 5 CPSO Peer Assessor - Radiation Oncology, Ontario, Canada.

LOCAL

NRG Oncology
2014 Aug 7 - present NSABP Site Representative, Toronto, Ontario, Canada.

Odette Cancer Centre, Radiation Oncology
2013 Jul 1 - present Head and Neck Disease Site Group Lead, Toronto, Ontario, Canada.

Odette Cancer Centre, Sunnybrook Health Sciences Centre
2013 May 9 - present Concurrent Therapy Advisory Committee, Toronto, Ontario, Canada.
2013 Jan 1 - 2013 Dec 30 Radiation Planning Redesign Committee, Toronto, Ontario, Canada.

Sunnybrook Health Sciences Centre, SRI

University of Toronto
2002 - 2005 Resident Rep, Post-Graduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

Peer Review Activities

GRANT REVIEWS

External Grant Reviewer
2013 Canadian Breast Cancer Foundation, CBCF-PNWT Region’s 2013 Breast Cancer Research Grant Competition, Number of Reviews: 1
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2014 Feb - 2019 Jan  
The major goal of the project is to translate MRI-controlled HT mediated drug delivery into the clinic.

2013 Feb - 2015 Feb  

2012 Jul - 2015 Jun  

2008 Jul - 2010 Jun  

2008 Jul - 2009 Jun  

NON-PEER-REVIEWED GRANTS

FUNDED

2016 - present  
Principal Site Investigator. NRG HN002: A randomized phase II trial for patients with p16
positive, non-smoking associated, locoregionally advanced oropharyngeal cancer (head and neck disease site group). [Clinical Trials]

2016 - present  Principal Site Investigator. A phase II randomized trial of radiation fractionation schedules for once-a-day accelerated partial breast irradiation (OPAR) (breast disease site group). [Clinical Trials]


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Justin LEE


In Preparation


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Newsletter

3. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


Presented and Published Abstracts


2015 Jun Efficacy of the anti-emetic regimens for prophylaxis of chemotherapy-induced nausea and vomiting in head and neck cancer. MASCC/ISOO International Symposium on Supportive Care in Cancer. Copenhagen, Denmark.

Publication Details:

2015 Low tech solutions in a high tech world - positioning to decrease radiation induced breast toxicity. 3rd Estro Forum. Barcelona, Spain.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:
Identifying knowledge translation opportunities in the treatment of locally advanced breast cancer.


Publication Details:
2011 **Responsible Author.**

Automatic segmentation of non-small cell lung carcinoma using 3D texture features in co-registered FDG PET/CT images. The American Association of Physicists in Medicine (AAPM) Canadian Organization of Medical Physicists (COMP).

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2006 Clinical impact of F-18 Fluorodeoxyglucose (FDG) positron emission tomography (PET) on the management of primary tumors of the thymus. American Society for Radiation Oncology (ASTRO).

**Publication Details:**
Lee J, MacManus M, Ball D, Hicks R, Hogg A. Clinical impact of F-18 Fluorodeoxyglucose (FDG) positron emission tomography (PET) on the management of primary tumors of the thymus. Int J Radiat Oncol Biol Phys. 2006;717(S1). **Principal Author.**


**Publication Details:**
2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

2016 Margin determination for hypofractionated partial breast irradiation. Canadian Association of Radiation Oncology (CARO). Banff, Alberta, Canada. Presenter(s): Gready C.


2012 Predictors of radiotherapy failure in non melanoma skin cancer. Canadian Association of Radiation Oncology (CARO).


2012 Evaluation of skin dose distribution in head and neck cancer patients requiring radiation therapy with coverage of the tracheostomy site. Canadian Association of Radiation Oncology (CARO).


2009 Non-invasive ultrasound monitoring of radiation and vascular disrupting microbubble treatment effects. Canadian Association of Radiation Oncology (CARO). Quebec City, Quebec, Canada.
1. PERMANENT / NATIONAL

Invited Lectures and Presentations


2008 Ultrasound microbubble-potentiated enhancement of tumour response to radiation: Preliminary results. Canadian Association of Radiation Oncology (CARO). Montreal, Quebec, Canada.

Invited Lectures and Presentations


2. INTERNATIONAL

Invited Lectures and Presentations


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

Presented Abstracts

2004 Impact of severe acute respiratory syndrome on patient access to palliative radiation therapy. Provincial Conference on Palliative Care, Toronto, Ontario, Canada. Poster presentation.

4. LOCAL

Invited Lectures and Presentations


Presented and Published Abstracts

2016 Apr 22 Hypofractionated partial breast irradiation for unresected locally advanced breast cancer in metastatic and medically inoperable patients. UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Hahn E.

Publication Details:

2016 Apr 22 Can intratreatment PET CT based adaptive radiotherapy reduce treatment margins in head and neck cancers? UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Farha G.

Publication Details:

5. OTHER

Presented and Published Abstracts

2014 Jun A retrospective analysis of factors affecting treatment outcome and patient experience in elderly head and neck cancer patients: The Odette Cancer Centre experience.

Publication Details:
F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD


Postgraduate MD


Curriculum Vitae

Eric Leung
BASc, MD, MSc, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
2075 Bayview Avenue, T-Wing
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-6165
Email eric.leung@sunnybrook.ca

1. EDUCATION

Degrees
2008 - 2011 MSc, Full-time graduate school program completed during residency training, Medical Biophysics, University of Toronto
2003 - 2007 MD, Memorial University of Newfoundland
1998 - 2002 BASc, Electrical Engineering Program, University of Toronto

Postgraduate, Research and Specialty Training
2012 Radiation Oncology Clinical Fellowship, Gynecologic Oncology Fellowship; MRI-guided brachytherapy, Department of Radiation Oncology, University of Toronto
2007 - 2012 Radiation Oncology Residency (FRCPC), Department of Radiation Oncology, Odette Cancer Centre and Princess Margaret Cancer Centre, University of Toronto

2. EMPLOYMENT

Current Appointments
2014 - present Radiation Oncologist, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
Clinical Site Groups: Gynecologic Oncology, Breast
2014 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2014 - present Affiliate Scientist, Sunnybrook Research Institute, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
Clinical Site Groups: Gynecologic Oncology, Breast Oncology

2013 - 2014
Associate Scientist, Lawson Health Research Institute, London, Ontario, Canada

UNIVERSITY - RANK
2013 - 2014
Assistant Professor, Oncology, Western University, London, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2010
Merit Award, American Society of Clinical Oncology. (Distinction)

NATIONAL
Received
2011
Resident Award for Basic Science and Translational Research, Canadian Association of Radiation Oncology (CARO). (Research Award)
2010
Oncology Young Clinical Investigator Award, Novartis. (Distinction)

LOCAL
Received
2011
WJ Simpson Research Award, Department of Radiation Oncology, University of Toronto. (Research Award)
2007
Scholarship, Dr. H. Bliss Murphy Cancer Care Foundation. (Distinction)
2003 - 2007
Graduation Oncology Award, Memorial University of Newfoundland. (Distinction)
1998 - 2002
Gordon Cressy Leadership Award, University of Toronto. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Canadian Medical Association (CMA)
College of Physicians & Surgeons of Ontario (CPSO)
Ontario Medical Association (OMA)
Royal College of Physicians and Surgeons of Canada (FRCPC)

Administrative Activities

NATIONAL
NCIC CTG Committee
2015 - present
Member, CTG Disease Site Committee, Ontario, Canada.
OCREB - Ontario Cancer Research Ethics Board
2015 - present Member, OCREB - Ontario Cancer Research Ethics Board, Ontario, Canada.

Rectal Cancer Alliance of Canada
2013 - present Site Lead, Radiation Oncology
- Quicksilver Phase II multicentre national trial
- Site Lead for Radiation Oncology in London.

PROVINCIAL / REGIONAL
London Regional Cancer Program
2013 - 2014 Vice Chair, Radiation Oncology Associate Group

LOCAL
Odette Cancer Centre
2014 - present Gynecologic site group representative, Brachytherapy Steering Committee

University of Toronto
2015 - present Member, Post-Graduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2015 Jul Reviewer, CaRMS, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2013 - 2014 Coordinator, Hematologic Oncology Rotation, Radiation Oncology Rotation, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
- Coordinate clinical rotations in hematologic oncology.
2010 - 2011 Postgraduate, Resident Elect, Radiation Oncology Residency Training Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1998 - 2002 Vice President, Engineering Student Society

Western University
2013 - 2014 Postgraduate Coordinator, Radiation Oncology Lymphoma Residency Training, Department of Hematology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED
Feasibility and Acceptability of Measuring Cervical Cancer Specific Patient-Reported Outcomes in Clinical Practice.

2015  
*Cancer Imaging Network of Ontario Research Grant.*

2014  

2014  

**D. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Book Chapters


Abstract


Manuscript


2. NON-PEER-REVIEWED PUBLICATIONS

In Preparation


Abstract


Manuscript


3. SUBMITTED PUBLICATIONS

Journal Articles

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts

2015 Jun  **Presenter.** DEVELOPMENT OF A NOVEL E-EDUCATION TOOL TO MEET THE NEEDS OF OUR ENDOMETRIAL CANCER PATIENTS UNDERGOING VAGINAL VAULT BRACHYTHERAPY. MASCC/ISOO Annual Meeting on Supportive Care in Cancer. Copenhagen, Denmark. DEVELOPMENT OF A NOVEL E-EDUCATION TOOL TO MEET THE NEEDS OF OUR ENDOMETRIAL CANCER PATIENTS UNDERGOING VAGINAL VAULT BRACHYTHERAPY.


2. NATIONAL

Presented Abstracts


2011 Sep  Relapse patterns in stage I seminoma: overall impact on total treatment burden. Canadian Association of Radiation Oncologists 20th Annual Scientific Meeting. Winnipeg, Manitoba. Authors: **Leung E**, Warde P,
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2016 Feb 4 **Invited Speaker.** Interstitial Brachytherapy in Gyne Malignancies. Cancer Centre of Southeastern Ontario. Kingston, Ontario, Canada. A review of Interstitial Brachytherapy in Gyne Malignancies, (cervix, endo and vagina) and specifically the different equipment and treatment planning principles/policies typically used.


4. LOCAL

Invited Lectures and Presentations


2016 Apr 14 **Invited Speaker.** Interstitial Brachytherapy in Gyne Malignancies. Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.


2013 **Invited Lecturer.** ASTRO 2013 Highlights, Division of Radiation Oncology. Western University. London, Ontario, Canada.

5. OTHER

Presented and Published Abstracts

2014 Adjuvant Treatment of Stage IA Type II Endometrial Cancers: Is Observation a Valid Strategy?

2014;90(1S):S497-S498.

2013 **Principal Author.** Neutrophils modulate vascular function in locally advanced cervical cancer and impair response to radiation therapy. Ontario, Canada.

*Publication Details:*  

2013 **Principal Author.** The effects of neutrophils on the vascular function and radiation response of locally advanced cervical cancer. Ontario, Canada.

*Publication Details:*  

2013 **Principal Author.** The effects of glycolysis targeting on the radiation response of hypoxic solid xenograft tumours.

*Publication Details:*  

2013 **Co author.** Phase I/II study of palliative radiation and sorafenib for metastatic renal cell carcinoma and bone metastases.

*Publication Details:*  

2013 **Principal Author.** Metabolic targeting by HIF-1 inhibition of glycolysis enhances radiation response in hypoxic solid tumours.

*Publication Details:*  

2011 **Principal Author.** Metabolic targeting by HIF-1 inhibition of glycolysis enhances radiation response in hypoxic solid tumours.

*Publication Details:*  

2011 **Principal Author.** Targeting tumour metabolism through HIF-1 inhibition enhances radiation response in cervix and head and neck xenograft tumours.
Publication Details:

2011
Relapse patterns in stage I seminoma: overall impact on total treatment burden.

Publication Details:

2010 May
Principal Author. Total treatment burden in stage I seminoma patients. Ontario, Canada.

Publication Details:

Principal Author. Case-based study to assess the potential of carboplatin-based synchronous chemoradiation therapy to attain local control with minimal toxicities for bladder cancer patients not candidates for radical therapy.

Publication Details:
Leung E, Greenland J, Tompkins B, McCarthy J. Case-based study to assess the potential of carboplatin-based synchronous chemoradiation therapy to attain local control with minimal toxicities for bladder cancer patients not candidates for radical therapy. Radiotherapy and Oncology: Journal of the European Society for Therapeutic Radiology and Oncology. 80(S1):S67.

Other Presentations
2015 Jan

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2015 - present

2014 - 2015
Primary Supervisor. Matthew Florczynski. Supervisee Institution: Schulich School of Medicine & Dentistry, Department of Oncology, Division of Radiation Oncology. Case Report: Radiation Myositis after Pelvic Radiation.

Postgraduate MD

2014 - 2015
Primary Supervisor. Jelena Lukovic. Supervisee Institution: Schulich School of Medicine &
Dentistry, Department of Oncology, Division of Radiation Oncology. *Pathological Complete Response in Low Rectal Tumours after Chemoradiation.*

2013 - 2015

**Primary Supervisor.** Vikram Velker. Supervisee Institution: Schulich School of Medicine & Dentistry, Department of Oncology, Division of Radiation Oncology. *Adjuvant Treatment of Stage IA Type II Endometrial Cancers: Is Observation a Valid Strategy?*. Awards: CARO Resident Award 2014.
Curriculum Vitae

Wilfred Levin
MB, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

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Princess Margaret Hospital
Department of Radiation Oncology
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2127
Fax 416-946-4442
Email wilfred.levin@rmp.uhn.on.ca

1. EDUCATION

Degrees
1972 M. Med, Radiotherapy, University of Cape Town, Cape Town, Western Cape, South Africa
1966 M.B. Ch.B. Distinction in Physics, University of Cape Town, South Africa

Qualifications, Certifications and Licenses
1989 Fellow (FRCPC), Radiation Oncology, Royal College of Physicians of Canada, Canada
1972 F.F. Rad (T.), College of Medicine of South Africa, South Africa

2. EMPLOYMENT

Current Appointments
2000 - present Director of ARLEC (Adult Radiation Late Effects), University of Toronto, Toronto, Ontario, Canada
1998 - present Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario, Canada
1988 - present Assistant Professor, University of Toronto, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
2006 Physician Investigator - QUINCY, Princess Margaret Hospital
2003 - 2007 Administrative Director of Palliative Radiation Services, Princess Margaret Hospital, Toronto, Ontario, Canada
1980 - 1988 Senior Specialist, Head of Firm, Department of Radiotherapy, Groote Schuur Hospital, Cape Town, South Africa
1973 - 1980 Senior Specialist, Provincial Hospital, Port Elizabeth, South Africa
1972 - 1973 Registrar, Department of Radiotherapy, Groote Schuur Hospital, Cape Town, South Africa
1968 - 1970 Registrar, Department of Medicine, Groote Schuur Hospital, Cape Town, South Africa
1967 Staff, Groote Schuur Hospital, Cape Town, South Africa

included four months Paediatric Department

UNIVERSITY

1989 - 1992 Gynaecology Site Group Leader, University Health Network/Princess Margaret Hospital, Toronto, Ontario, Canada

UNIVERSITY - RANK

1980 - 1988 Senior Lecturer, University of Cape Town, Cape Town, South Africa

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2008 Dec Gerald Kirsh Humanitarian Award, Princess Margaret Hospital. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1989 Member, Canadian Association of Radiation Oncologists
1988 Member, International Society of Gynaecological Oncologists
1988 Member, Ontario Medical Association
1984 - 1998 Member, European Society of Hyperthermia Oncology
1982 - 1988 Member, Medical Association of South Africa
1975 - 1988 Member, South African Society of Radiotherapists

Administrative Activities

NATIONAL

S.A. Society Radiotherapists
1978 Convenor, 5th National Congress, Port Elizabeth, South Africa.

LOCAL

Princess Margaret Hospital
2003 Member, Accreditation Committee, Breast Site Group, Toronto, Ontario, Canada.
2003 Member, Radiation Services Committee - Breast Site Group, Toronto, Ontario, Canada.
1995 Member, Ambulatory Care Committee, Toronto, Ontario, Canada.

University of Toronto
Peek Review Activities

EDITORIAL BOARDS

Member
1985 - 1996
International Journal of Hyperthermia

GRANT REVIEWS

Member
1989 - 1991
NCIC, Gynaecology Clinical Trials Committee Member

C. Academic Profile

1. RESEARCH STATEMENTS

1991 - 1996
Clinical Hyperthermia Program. Vascular occlusion and hyperthermia, Breast cancer radiotherapy + hyperthermia.

1981 - 1984
Laboratory: in vivo study in mice to assess the effect of ischaemia induced by tourniquet on the responses of tumours to radiation and heat.

1976 - 1980
Clinical Hyperthermia: Whole body hyperthermia using the Pettigrew molten wax technique.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED
2008 - 2011

2003 - 2006

1990 - 1992

1982 - 1984
Principal Investigator. Vascular occlusion and hyperthermia in murine tumours treated with

*Tumour Registry Groote Schuur Hospital.*

E. Publications

1. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Evaluation Studies, Journal Articles


Journal Articles, Multicenter Study


Journal Articles, Multicenter Study, Randomized Controlled Trial

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

Book Chapters

Monographs

F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations
2009 Adult Radiation Late Effects Clinic – A clinic dedicated to the management of patients with complications of radiation therapy. 2009 PREVENT Conference. Brussels, Belgium. (poster presentation).
1996 Hypoxia in cervix cancer - Polarographic Electrode measurements correlate with radiation response. European Society of Therapeutic Radiology. Montreal, Quebec, Canada. Fyles A, Milosevic M, Sun A,
Kavanagh MC, Levin W, Manchul L, Hill R.

1995

1995
Long Term Follow-up: A Randomized Trial comparing melphalan alone to platinum and non-platinum containing combination chemotherapy in advanced ovarian cancer. American Society of Clinical Oncology, Los Angeles, California, United States. Sturgeon JFG, Fine S, Gospodarowicz MK, Fyles AW, Oza A, Manchul L, Levin W, Milosevic M.

1995

1994

1994

1994

1993

1992

1980
The use of the Pettigrew Technique for whole body hyperthermia results with radiation. 3rd International Hyperthermia Congress. Colorado, United States.

1980
The use of 433MHz microwaves to augment tumour temperatures in patients undergoing whole body hyperthermia. 3rd International Hyperthermia Congress. Colorado, United States. Presenter(s): Levin W.

1980
Clinical experience with the use of misonidazole in patients undergoing whole body hyperthermia. 3rd International Hyperthermia Congress. Colorado, United States. Presenter(s): Levin W.

Presented Abstracts

2014 Nov

2014 Nov

2003 Jun
The role of an HBO physician in the team. UHMS Annual Scientific Meeting. Evans AW, Austin L, Levin W.

2001 Feb
Tumor oxygenation is an independent predictor of nodal metastasis and of radiation treatment outcome in node negative patients with cervix cancer. ISRO-ICRO meeting. Melbourne, Australia.

2. NATIONAL

Invited Lectures and Presentations


2008  Living well with RT late effects. Canadian Cancer Society Conference, Princess Margaret Hospital. Toronto, Ontario, Canada.

2008  **Presenter.** Bone metastases Grid - coping with multiple previous treatment fields in a technological age. CARO Conference. Montreal, Quebec, Canada. Presenter(s): Levin W. Podium presentation.

2008  Palliative Radiotherapy – How to cope with Multiple previous Treatment Volumes in the Electronic Age. CARO Annual Scientific Meeting. Quebec, Canada. (Oral presentation).

2007  Radiation Proctitis. CPROG Teleconference, Princess Margaret Hospital. Toronto, Ontario, Canada.

2006  **Presenter.** Clinical aspects of normal tissue effects of radiation therapy. CARO. Edmonton, Alberta, Canada.


1993  Granulosa cell tumour of the ovary - Princess Margaret Hospital experience. Canadian Association of Radiation Oncology Meeting. Vancouver, British Columbia, Canada. Levin W, Richmond H, Banerjee D, Fyles W, Pintilie M.

1985  Salvage radiotherapy in cancer of the ovary. SA Society of Radiation Therapists.


1980  Hyperthermia - The Poor Man’s Neutrons! SA Society of Radiation Therapists.


Presented Abstracts

2002  Radiation related breast injuries referred to a dedicated late effects clinic - analysis of three years experience. Dept. of Radiation Oncology, Princess Margaret Hospital, Hyperbaric Medicine, University Health Network, University of Toronto, CARO. Toronto, Ontario, Canada. Levin W, Evans AW, Matheson B, Austin L, Gilhooly K, Buckley CA, Charman P, Chan P, Levin W, Bezjak A.

2001  Radiation Late Effects Clinic - A Good Idea? CARO. Canada.
Wilfred LEVIN


Media Appearances


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations

2010  Radiation complications: Challenges, rewards and opportunities. Radiation Medicine Program Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Levin, W.


G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2010  Primary Supervisor. Melanie Finkbeiner, Ivan Smith.
2010  Primary Supervisor. Chris Smith, University of Memorial.
2010  Primary Supervisor. Jing Yan, Princess Margaret Hospital.
2010  Primary Supervisor. Robert Thompson, Dalhousie.
2009  Primary Supervisor. Jing Yan, Princess Margaret Hospital.
2009  Primary Supervisor. A. Walsh, University of Toronto.
2008  Primary Supervisor. Jing Yan.
2008  Primary Supervisor. Behzad Hassani, University of Toronto.
2008  Primary Supervisor. A. Walsh, University of Toronto.
2008  Primary Supervisor. William Dubinski, University of Toronto.
2007  Primary Supervisor. Yongyin Wan, Queens University.
2007  Primary Supervisor. Eman Al-Duhaby.
2007  Primary Supervisor. Kate Barrett, University of British Columbia.
2007  Primary Supervisor. Lindsay Crabbe.
2007  Primary Supervisor. David Esho, Elective, Queens University.
2007  Primary Supervisor. Andrew Sparrow, Queens University.
2007  Primary Supervisor. Michael Detsky, Queens University.
2007  Primary Supervisor. Kate Barrett, University of British Columbia.
2007  Primary Supervisor. Jing Jim.
2007  Primary Supervisor. Lara Hugal.
2007  Primary Supervisor. Martin Betts.
2007  Primary Supervisor. Andrew Sum.
2006  Primary Supervisor. Sylvia Cael, University of UFR, France.
2006  Primary Supervisor. Selvan Rajakesari, McGill University.
2006  Primary Supervisor. Hasina Visram, Queens University.
2006  Primary Supervisor. Anita Chakraborty, Palliative Medicine.
2006  Primary Supervisor. Peter De Maio, University of Sydney.
2006  Primary Supervisor. Trissia Brown, University of West Indies.
2006  Primary Supervisor. David Esho, Queens University.
2006  Primary Supervisor. Andrew Sparrow, Queens University.
2006  Primary Supervisor. Michael Detsky, Queens University.

Undergraduate MD

2007  Primary Supervisor. A. Sparrow.
2006  Primary Supervisor. L. Zand.
2006  Primary Supervisor. B. Hui.
2006  Primary Supervisor. I. Imanirad.
2006  Primary Supervisor. S. Cael.
2006  Primary Supervisor. S. Rajakesari.
2006  Primary Supervisor. H. Visram.
2006  Primary Supervisor. Anita Chakraborty.
2006  Primary Supervisor. S. Cael.
2005  Primary Supervisor. J. Sollazzo.
2005  Primary Supervisor. A. Organer.
2005  Primary Supervisor. B. Yanagawa.
2005  Primary Supervisor. J. Barron.
2005  Primary Supervisor. S. Singer.
2005  Primary Supervisor. A. Pinto.
2005  Primary Supervisor. D. Ricciuto.
2005  Primary Supervisor. A. Scheer.
Postgraduate MD

2010  Primary Supervisor. Michael Skler, University of Saskatchewan.
2010  Primary Supervisor. K. Pope.
2009  Primary Supervisor. K. Pope.
2009  Primary Supervisor. Ernie Mak.
2009  Primary Supervisor. Andrea Walsh.
2009  Primary Supervisor. Matthew Knox.
2009  Primary Supervisor. Kayla Lam.
2009  Primary Supervisor. Dusan Sajic.
2009  Primary Supervisor. Fatima Alfaraj.
2008  Primary Supervisor. Titelayo Olipona.
2008  Primary Supervisor. Stanley Liu.
2008  Primary Supervisor. Cindy So.
2008  Primary Supervisor. A. Potter.
2008  Primary Supervisor. Titelayo Olipona.
2007  Primary Supervisor. D. Fitzpatrick.
2007  Primary Supervisor. Y. Wang.
2007  Primary Supervisor. Eman Al-Duhaby.
2006  Primary Supervisor. S. Rauth.
2006  Primary Supervisor. L. Fenkell.
2006  Primary Supervisor. N. Dhani.
2006  Primary Supervisor. P. De Maio.
2006  Primary Supervisor. A. Mansour.
2005  Primary Supervisor. M. Finlay.
2005  Primary Supervisor. C. Booth.
2004  Primary Supervisor. C. Elder.
2003  Primary Supervisor. P. Haddad.
2003  Primary Supervisor. K. Jones.
2003  Primary Supervisor. A. Sturdza.
2003  Primary Supervisor. T. Nageeti.
2002  Primary Supervisor. L. Austen.
2002  Primary Supervisor. A Brade.
2001  Primary Supervisor. B. Matheson.
2000  Primary Supervisor. R. Benson.
CURRICULUM VITAE

JD (Jidong) Lian, MSc, MD, FRCPC
Tel: 905-813-1100 Ext. 5127
Email: jlian@cvh.on.ca

QUALIFICATION:

2007-2008  Assistant Professor (Adjunct), University of Western Ontario
July 2006  FRCPC, Canada
1991-1994  M.Sc, Department of Oncology, University of Alberta, Canada
1979-1984  M.D., Second Military Medical University, Shanghai, China
October 2002  Qualifying Examination, Medical Council of Canada
October 1999  Clinical Skills Assessment and ECFMG, USA
March 1999  USMLE (United States Medical Licensing Examination)

LICENSE AND CERTIFICATE:

August 2007  Radiation Oncology (Registration No. 87473), Ontario, Canada
2003-2004  Physician Extender (Registration No. S10238), Alberta, Canada
October 2002  LMCC Registration (Registration No. 92550), MCC, Canada
November 1999  ECFMG Certificate (Certificate No. 0-588-660-1), USA

CLINICAL EXPERIENCE:

December 2008  Radiation Oncologist, Peel Regional Cancer Centre, Canada
2007-2008  Radiation Oncologist, Windsor Regional Cancer Centre, Canada
2006-2007  Fellow in Radiation Oncology, Cross Cancer Institute, Canada
2001-2006  Resident in Radiation Oncology, University of Alberta, Canada
2000-2001  Resident in Neuropathology, University of Calgary, Canada
1988-1989  Neurologist in Neurology, No.401 Hospital, China
1986-1987  Resident in Neurology, No.401 Hospital, China
1984-1985  Resident in Internal Medicine, No.401 Hospital, China

RESEARCH EXPERIENCE:

2006-2007  Clinical Research Fellow in Radiation Oncology, Cross Cancer Institute, Canada
Research area: gynecologic and lung cancers using IMRT-based Technique

1999-2000  Clinical Research Fellow in neuromuscular diseases, Division of Neurology, University of Alberta, Canada
Research Area: cell death and protection

1994-1999  Technologist and Lab Supervisor, Neuromuscular Diseases Laboratory, Division of Neurology, University of Alberta Hospitals

1991-1994  MSc Student, Department of Medicine, University of Alberta
MSc thesis: Platelet Activation by Collagen

TEACHING EXPERIENCE:

2007-2008  Preceptor for the rotating 3rd year medical students from the University of Western Ontario and radiation therapy students from the University of Toronto

December 2008  Involvement in teaching medical residents and radiation therapy students from the University of Toronto

PRESENTATION:  Assessment of extended–field radiotherapy for stage IIIC endometrial cancer using 3DCRT, IMRT and helical tomotherapy. CARO 2007, Toronto

Platelet activation by immobilized collagen involves integrin and is responsive to mechanical force. American Society of Hematology Thirty-fourth Annual Meeting, 1992, San Diego

JOURNAL REVIEWER:

Since May 2008  Reviewer for Radiotherapy & Oncology
COMMITTEE:

Since Dec. 2008  IMRT Working Group, Peel Regional Cancer Centre

2007-2008  Research Committee, Windsor Regional Cancer Centre (WRCC)
Quality Assurance, WRCC
IMRT study group (protocol development), WRC

PUBLICATION:


**ABSTRACT:**

1) Tak Hing, Patricia Tai, Avi Assouline, Edward Yu, **Jidong Lian**, Tong Zhu, Joseph Kurian, Cyrus Chargari, Claude Krzisch. Clinical/Disease sites: Other tumour sites *(ESTRO 29, 2010)*


CLINICAL TRIALS:

I have been involving in the RAPID study since March 2008

I participated in the following clinical trials at the WRCC in 2007-2008:

1. CUOG/OCOG trial: A randomized comparison of immediate versus deferred androgen deprivation therapy using goserelin for recurrent prostate cancer after radical radiotherapy (ELAAT).
2. NCIC CTG PR.11: A phase III study of active surveillance therapy against radical treatment in patients diagnosed with favorable risk prostate cancer (START).
3. NCIC CTG SC 20: A phase III international randomized trial of single versus multiple fractions for re-irradiation of painful bone metastases.

PROJECT AND GRANT APPLICATION:

1. Retrospective analysis of factors influencing the outcome in breast cancer patients without adjuvant treatments (2008)
   J. Lian, Radiation Oncologist, Windsor Regional Cancer Centre
   C. Hamm, Medical Oncologist, Windsor Regional Cancer Centre
   Julie Durocher, Manager to HIS, Windsor Regional Cancer Centre
   **Funded:** $23,000

2. Proposal for summer student research project (2008)
   C. Hamm, Medical Oncologist, Windsor Regional Cancer Centre
   J. Lian, Radiation Oncologist, Windsor Regional Cancer Centre
   S. Kanjeekal, Medical Oncologist, Windsor Regional Cancer Centre
   Y. Alam, Medical Oncologist, Windsor Regional Cancer Centre
   D. Sicheri, Medical Oncologist, Windsor Regional Cancer Centre
   C. Springer, Radiation Oncologist, Windsor Regional Cancer Centre
   K. Schneider, Radiation Oncologist, Windsor Regional Cancer Centre
   **Funded:** $10,000

AWARD:

1991-1994 Graduate Scholarship
Department of Medicine, University of Alberta, Canada
August 1988  Second-Prize winner in National Epidemiological Study of Neurological Diseases, Department of Health, China
1979-1984  First-Class Student Award in each university year

**PROFESSIONAL AFFILIATION:**

August 2007  College of Physicians and Surgeons of Ontario
2001 - Present  Canadian Association of Radiation Oncologists
2001 - Present  American Society for Therapeutic Radiology and Oncology
2001 - Present  American College of Radiology
2000 - 2007  College of Physicians and Surgeons of Alberta
2000 - 2008  Canadian Medical Association
1986 - 1989  Chinese Neurology Association
Curriculum Vitae

Fei-Fei Liu
MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office 610 University Avenue, Room 5-975
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-2123
Fax 416-946-2038
Email fei-fei.liu@rmp.uhn.on.ca

1. EDUCATION

Degrees
1980  MD, University of Toronto, Canada

Postgraduate, Research and Specialty Training
1987 - 1988 Hyperthermia Research Fellow, Stanford University Medical Center, United States
1983 - 1986 Resident 4-6, Radiation Oncology, Princess Margaret Hospital, Canada
1980 - 1983 Intern – R3, Internal Medicine, University of Toronto, Canada

Qualifications, Certifications and Licenses
1986  FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1984  FRCPC, Internal Medicine, Royal College of Physicians and Surgeons of Canada, Canada
1980  College of Physicians and Surgeons of Ontario, Canada

2. EMPLOYMENT

Current Appointments
2012 Aug - present  Chief, Radiation Medicine Program, Princess Margaret Cancer Centre
2012 Aug - present  Head, Department of Radiation Oncology, University Health Network
2012 Jul - present  Chair, Radiation Oncology, University of Toronto, Canada
2002 - present  Professor, Radiation Oncology, University of Toronto, Canada
2002 - present  Professor, Medical Biophysics, University of Toronto, Canada
2002 - present  Professor, Otolaryngology, University of Toronto, Canada
1992 - present  Senior Scientist, Ontario Cancer Institute, Canada
1988 - present  Staff Radiation Oncologist, Princess Margaret Cancer Centre, Canada
Previous Appointments

CONSULTING
1994 - 1996 Consultant Staff, Wellesley Hospital, Canada

RESEARCH
2005 - 2010 Head, Division of Applied Molecular Oncology, Division of Applied Molecular Oncology, Ontario Cancer Institute, Canada

UNIVERSITY - CROSS APPOINTMENT
1996 - 2002 Associate Professor, Medical Biophysics, University of Toronto, Canada
1995 - 1996 Assistant Professor, Medical Biophysics, University of Toronto, Canada

UNIVERSITY - RANK
1996 - 2002 Associate Professor, Radiation Oncology, University of Toronto, Canada
1988 - 1996 Assistant Professor, Radiation Oncology, University of Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2016 
Ted Phillips Distinguished Speaker, University of California San Francisco. (Distinction)
Incorporating Genomics Information in Personalized Radiation Medicine.

2014 
Dolly Huang Memorial Lecture, 10th Asia Pacific Multidisciplinary Meeting for Cancer Research. (Distinction)
Novel Insights into NPC Biology via the micro-RNA Lens.

2013 
2013 Best of ASTRO Award, American Society for Radiation Oncology. (Research Award)

2012 
Women of Action 2012, Israel Cancer Research Fund. (Research Award)

2000 
Vical Award for Most Innovative Abstract, 9th International Conference for Cancer Gene Therapy, San Diego, California, United States. (Research Award)

1987 
Gordon E. Richards Fellowship, Stanford University Medical Center, United States. (Research Award)

NATIONAL

Received

2013 
2013 Best Abstract in Science and Applied Technology, 27th CARO Annual Scientific Meeting. (Research Award)

2012 
Focus on Science, Women in Cancer Research. (Distinction)

2012 
Gordon Richards Lecturer 2012, Canadian Association of Radiation Oncologists (CARO), Canada. (Research Award)

2009 
Award for Best Abstract in Science and Applied Technology, Canadian Association of Radiation Oncologists, Quebec City, Quebec, Canada. (Research Award)

1984 
Second Prize, Radiation Oncology Congress Award Competition, Canadian Association of Radiologists, Canada. (Distinction)
“Primary Lymphoma of the Breast”.


PROVINCIAL / REGIONAL
Received
1980  K.J.R. Wightman Award, Dana-Farber Cancer Institute, Canada. (Distinction)

LOCAL
Received
2012 - 2017  Elia Chair in Head & Neck Cancer Research (Re-appointment), University of Toronto & Princess Margaret Cancer Centre, Canada. (Distinction)  
Joint Research Chair.
2012  Successful Mentor, WinC. (Distinction)
2011  Most Influential Research Publication, Radiation Medicine Program, Princess Margaret Cancer Centre. (Research Award)
2001 - 2012  Elia Chair in Head & Neck Cancer Research, University of Toronto & Princess Margaret Cancer Centre, Canada. (Distinction)  
Joint Research Chair.
1977 - 1978  Physicians' Services Incorporated Scholarship, Toronto Western Hospital, Canada. (Distinction)  

Teaching and Education Awards
LOCAL
Received
1985  Teaching bursary, Faculty of Medicine, Princess Margaret Hospital, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
American Association for Cancer Research
American Society of Gene Therapy
American Society of Therapeutic Radiology and Oncology
Canadian Association of Radiation Oncologists
Canadian Medical Association
North American Hyperthermia Society
Ontario Medical Association
Radiation Research Society
Women in Cancer Research

Administrative Activities
INTERNATIONAL
American Head and Neck Society
2016 - 2017  Member, 9th International Conference on Head & Neck Cancer
Chinese University of Hong Kong – NPC
2012 - present  Member, Advisory Board

National Cancer Institute
2010  Member, Tumor Biology & Imaging (TB&I) Task Force
2005 - 2007  Member, Subcommittee D
2003  Member, Special Emphasis Panel
2003  Member, US Site Visit Review of P01 Re-submission Henry Ford Health Sciences Center, Dr. Svend Freytag Molecular Gene and Radiation Therapies for Cancer
2002  Member, US Site Visit Review of MD Anderson Cancer Center, Dr. Kiang Ang Extension of Radiotherapy Research
2002  Member, US TJU P01 Re-review
2002  Member, US Site Visit Team at Henry Ford Health Sciences Center, Dr. Svend Freytag Molecular Gene and Radiation Therapies for Cancer
2001  Member, US Site Visit Team at Thomas Jefferson University, Dr. Dennis Leeper Modification of Hyperthermia Response
2001  Member, US Site Visit Team at Georgetown University, Dr. Rupert K. Schmidt-Ullrich Molecular Radiation Oncology Clinical Trials Consortium
2001  Member, Reporting Team to Parent Committee D, Washington, District of Columbia.
2000  Member, US Site Visit Team at Duke University, Dr. Mark Dewhirst Investigations into Hyperthermia and Gene Therapy

National Institutes of Health
2010  Member, Head and Neck Steering Committee
2003  Invited participant, NIH-sponsored workshop on Radiology Education and Training

North American Hyperthermia Society Meeting
2001  Member, Scientific Organizing Committee, Puerto Rico.

Oak Ridge Associated Universities
2015  Member, Florida Department of Health’s Biomedical Research Programs

University of Pennsylvania
2012 - present  Member, Advisory Board; Research Training Program

NATIONAL
Canadian Breast Cancer Foundation
2000 - 2003  Chair, Professional advisory Committee of the Ontario Chapter
1999 - 2000  Vice Chair, MAC of the Ontario Chapter
1998 - 1999  Member, Medical Advisory Board of the Ontario Chapter
1995 - 1998  Member, Medical Advisory Board

Canadian Cancer Society
2005  Member, Terry Fox Program Project Review Team Dr. P Brodt: The IGF System: From Biology to Therapy
2004  Member, Terry Fox Program Project Review Team Dr. J Bell: Oncolytic Virus Consortium
Fei-Fei LIU

National Cancer Institute of Canada
2006 - 2012 Member, Advisory Committee on Research (ACOR)

PROVINCIAL / REGIONAL
Ontario Cancer Institute
2008 - 2012 Chair, Appointments Committee

LOCAL
Princess Margaret Hospital
1992 - 1998 Member, In-Patient Care Sub-committee of the Medical Advisory Committee

University Health Network
2015 - present Co-Chair, Delegated Order Sets, Medical Acts Committee
2015 - 2017 Vice Chair, Medical Advisory Board

University of Toronto
2008 - 2012 Member, Executive of UT-Department of Radiation Oncology, Faculty of Medicine, Department of Radiation Oncology
2008 - 2011 Member, Decanal Promotions Committee, Faculty of Medicine
2008 - 2010 Member, Executive of the Medical Biophysics Graduate Division, Faculty of Medicine, Dept of Medical Biophysics
2005 Chair, East-West Symposium on Nasopharyngeal Carcinoma 2005 Combined with the Wharton Day, Toronto, Canada.
2005 Chair, Breast Cancer Symposium 2005; Advances in Breast Cancer: Molecularly targeted therapies, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
1997 - 1999 Member, Promotion Committee, Faculty of Pharmacy, Faculty of Medicine, Dept of Pharmaceutical Sciences
1994 - 2005 Director, University of Toronto Fellowship Program, Faculty of Medicine

Peer Review Activities

EDITORIAL BOARDS
Section Head Editor
2010 - 2012 BMC Cancer

GRANT REVIEWS
Reviewer
2015 - 2016 Canadian Cancer Society Research Institute, Innovation Grants Review Panel
2015 - 2016 Canadian Cancer Society Research Institute, Innovation to Impact Grants Review Panel
2015 Hong Kong Special Administrative Region Grants
2015 Research Grants Council for the University Grants Committee, HKSAR and the People’s Republic of China
2015 Canadian Foundation for Innovation, Funding for Research Infrastructure Review Panel
2015 Canadian Institutes of Health Research, CPT Panel
2014 Research Grants Council (RGC) of Hong Kong
2012 Canadian Cancer Society Research Institute
2012 CIHR Catalyst
2012 Israel Cancer Research Fund, 2012 Review Panel
2012 NCI-US Special Emphasis Panel
2007 - 2012 Canadian Institutes of Health Research, CPT Panel

Ad Hoc Reviewer

Association for International Cancer Research (UK)
Biomedical Research Council for Singapore
Canadian Breast Cancer Foundation, Alberta Chapter
Dutch Cancer Society
Health Services Utilization and Research Commission – Saskatchewan
Innovation and Technology Fund of the Hong Kong Government
Research Grants Council of Hong Kong
United States-Israel Binational Science Foundation

Chair
2000 - 2003 Canadian Breast Cancer Foundation, Grant Review Panel

Member
2006 Canadian Breast Cancer Research Alliance, IDEA grant review panel
2002 - 2006 National Cancer Institute of Canada/Clinical Trials Group, Grant Panel J
2001 - 2006 Canadian Institutes of Health Research, Cancer Panel B
1998 - 2002 National Cancer Institute of Canada/Clinical Trials Group, Grant Panel E
1996 - 2000 Canadian Breast Cancer Foundation, Grant Panel

MANUSCRIPT REVIEWS

Ad Hoc Reviewer

Annals Surg Oncol
BMC Cancer
Br J Cancer
Cancer
Cancer Detection Prevention
Cancer Gene Therapy
Cancer Res
Cell Death Disease
Clin Can Res
Clin Chemistry
Clin Oncol
Eur J Nucl Med
Experimental Hematology
Head/Neck
Human Gene Therapy
Int J Cancer
Int J Hyperthermia
Int J Radiat Biol
Int J Radiat Oncol Biol Phys
J Clin Oncol
C. Academic Profile

1. RESEARCH STATEMENTS

My research focuses on several aspects of translational molecular oncology, including the development of biomarkers for head and neck cancers, identification and development of novel anti-cancer therapeutics, and stem cell regenerative therapy. Over the years, we have continued to seek a greater understanding of the determinants of human cancer development and progression, with an overall objective to identify clinically useful biomarkers, as well as potential novel therapeutic targets. We have also extensively evaluated the role of micro-RNAs (miRNAs) in human cancers using global miRNA profiling of FFPE tissues. We profiled several different tumour types, seeking potential prognostic
signatures, including cervix, head & neck squamous cell carcinoma (HNSCC), breast, soft-tissue sarcomas, and nasopharyngeal carcinoma (NPC). Importantly, candidate signatures have been validated for the latter two malignancies. Furthermore, using a siRNA high throughput screen, we identified uroporphyrinogen decarboxylase (UROD) as a novel radiosensitizing target, mediated through generation of reactive oxygen species (ROS), by exploiting the iron dysregulation in human cancers. Targeting UROD appears to sensitize a broad spectrum of human cancer models, as well as also chemo-sensitizing. Based on this research, we were granted 3 national and international Patents. Additionally, we will continue to investigate more potent novel synthetic UROD inhibitors, with a number of promising candidates that warrant further validation. Our future studies will also focus on further defining the head & neck cancer (HNC) landscape, which is continually evolving. The two most pressing issues in HNSCC management relate to: a) HPV-positive oropharyngeal carcinoma (OPC); and b) oral cavity squamous cell carcinoma (OSCC). We plan to continue investigating additional molecular signatures that might inform on how to further improve patient stratification, prognosis and outcome. Lastly, our studies also focus on a major clinical issue with radiation therapy, radiation fibrosis, which is an irreversible scarring of normal tissues that can result in significant functional morbidity. We are interested in understanding how adipose-derived stem cells may aid in tissue regeneration after treatment with ionizing radiation.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDING

Mitigating Radiation Therapy Side-Effects.

Investigations of Cancer Therapy.

Investigations of Molecular Cancer Therapy.


Issues Relevant to Breast Cancer.

*Issues Relevant to Breast Cancer.*


*Investigations of Cancer Bio-markers.*


*Investigations of Cancer Bio-markers.*

2011 Apr - 2015 Mar **Co-Investigator.** Is the improvement in survival for HPV associated head and neck cancer due to the addition of chemotherapy to radiotherapy or to a more treatment-sensitive cancer? Canadian Institutes of Health Research (CIHR). Collaborator(s): Hall S (PI), O’Sullivan B, Perez-Ordonez B, Groome, Tu D, Gillison M. 590,526 CAD. [Grants]

*Issues Relevant to Head & Neck Cancer.*

2010 Apr - 2013 Mar **Principal Investigator.** Small molecule inhibitors against a novel radio- and chemosensitizing target for human cancers. Canadian Institutes of Health Research (CIHR). Collaborator(s): Ito E, Kim I, Schimmer A. 422,553 CAD. [Grants]

*Investigations of Molecular Cancer Therapy.*


*Investigations of Molecular Cancer Therapy.*


*Training Program.*


*Issues Relevant to Breast Cancer.*


*Investigations of Cancer Bio-markers.*


*Investigations of Molecular Cancer Therapy.*

2007 - 2008 **Principal Investigator.** Quest for the “stem cell” in nasopharyngeal carcinoma. Canadian Institutes of Health Research (CIHR). Collaborator(s): Alajez N, Bastianutto C. 110,553 CAD.
Investigations of Molecular Cancer Therapy.

2007


**Issues Relevant to Breast Cancer.**

2006 - 2007

**Principal Investigator.** HTS for identification of novel anti-cancer radiosensitizers. Ontario Institute for Cancer Research. Collaborator(s): Durocher D. 130,000 CAD. [Grants]

Investigations of Molecular Cancer Therapy.

2005

**Principal Applicant.** Funding for the East-West Symposium on Nasopharyngeal Carcinoma. Canadian Institutes of Health Research (CIHR). 20,000 CAD. [Grants]

2005

**Principal Applicant.** Funding for the East-West Symposium on Nasopharyngeal Carcinoma. National Cancer Institute of Canada (NCIC). 10,000 CAD. [Grants]

2005

**Principal Investigator.** Local radiotherapy contributes to leukemia in breast cancer by recruitment of hematopoietic stem cells. Canadian Breast Cancer Research Alliance. IDEA. Collaborator(s): Bastianutto C, Medin J, Minden M, Crump M. 82,401 CAD. [Grants]

**Issues Relevant to Breast Cancer.**

2004 - 2008

**Principal Investigator.** The next generation of gene transfer therapy for human nasopharyngeal cancer. Canadian Institutes of Health Research (CIHR). Collaborator(s): Reilly R, Jurisica I. 560,525 CAD. [Grants]

Investigations of Molecular Cancer Therapy.

2003 - 2009


Training Program.

2003 - 2006


Investigations of Molecular Cancer Therapy.

2003 - 2006


Investigations of Molecular Cancer Therapy.

2001 - 2006

**Principal Investigator.** The kiss of death: exploitation of an endogenous virus in nasopharyngeal cancer therapy. Princess Margaret Hospital Foundation (The). Elia Chair in Head & Neck Cancer Research. 625,000 CAD. [Grants]

Investigations of Molecular Cancer Therapy.

2001 - 2004


Investigations of Molecular Cancer Therapy.
*Issues Relevant to Breast Cancer.*

*Issues Relevant to Breast Cancer.*

*Investigations of Molecular Cancer Therapy.*

*Issues Relevant to Breast Cancer.*


*Equipment support for the PMH/OCI Clinical Hyperthermia Program. Operating component ($65,000).*


1989  **Principal Investigator.** Relationship between intracellular pH regulation and thermosensitivity in vitro. University of Toronto. Dean’s Research Grant. 4,000 CAD. [Grants]
NON-PEER-REVIEWED GRANTS

Funded


2005 - 2006 Principal Investigator. The potential efficacy of combining GX-015 with radiation therapy for human nasopharyngeal carcinoma. Geminix Advanced Oncology Therapeutics. 12,000 CAD. [Industrial Grants]

2003 - 2005 Principal Investigator. Evaluation of potential efficacy of 5A1 in human nasopharyngeal carcinoma. Senesco Technologies Inc. 64,000 USD. [Industrial Grants]

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Fei-Fei LIU


96. Au PY, Martin N, Chau H, Moemeni B, Chia M, Liu FF, Minden M, Yeh WC. The oncogene PDGF-B provides a key switch from cell death to survival induced by TNF. Oncogene. 2005 Apr;24(19):3196-205.


Commentaries


Letters to Editor


Invited Reviews


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

Books

Book Chapters

Editorials

F. Intellectual Property

1. PATENTS

2012 Jan Sensitizing Agents for Cancer Therapy, Methods of Use and Methods for the Identification thereof. Granted. Patents #: No. 8,637,481, United States. Joint Holder Name(s): Ito E, Kim I, Liu FF. No. 8,637,481 (US); PCT/CA2010/000569 (CAN); 2010237572 (AUS).


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Jan 26  **Visiting Professor.** Future opportunities in personalized radiation therapy. MD Anderson Cancer Center. Houston, United States.

2015 Oct 4  **Invited Speaker.** Recent advances in radiation science shaping the future of radiation therapy. National Taiwan University Yonglin Biomedical Engineering Center. Taiwan, Province Of China.


2015 Mar 8  **Invited Speaker.** Translational Research Opportunities in Clinical Oncology. King Saud University College of Medicine. Riyadh, Saudi Arabia.

2014 Dec 1  **Invited Speaker.** Quality & Safety in Radiation Medicine. Westmead Radiation Oncology Department, Grand Medical Rounds. Sydney, Australia.


2014 Oct 14  **Invited Speaker.** Understanding NPC; an East-West Symposium. IAEA. Vienna, Austria.


2013 Oct  **Invited Special Lecturer.** Translational research in radiation oncology. 26th Annual Japanese Society for Therapeutic Radiology and Oncology Meeting. Aomori, Japan.

2013 Oct  **Visiting Professor.** Role of micro-RNAs in head & neck cancer. Kyoto University, Department of Radiation Oncology. Kyoto, Japan.


2013 Jul  **Invited Speaker.** The role of micro-RNAs in human nasopharyngeal carcinoma. 14th International Symposium, Society of Chinese Bioscientists of America. Xian, China.

2013 Jun  **Invited Speaker.** Translational Research in Nasopharyngeal Carcinoma. 6th International Symposium on Nasopharyngeal Carcinoma. Istanbul, Turkey.

2013 Jun  **Invited Speaker.** Transformative Radiation Medicine – the Next 10 Years. Varian Meeting. Palo Alto, California, United States.

2013 Jun  **Visiting Professor.** Transformative Radiation Medicine – the Next 10 Years. Stanford University Department of Radiation Oncology. Palo Alto, California, United States.

2013 May  **Invited Speaker.** Quality & Safety in Radiation Medicine. Third Hospital. Beijing, China.

2012 Nov  **Visiting Professor.** “Micro-RNAs in Human Cancers – What have we learned?”. Peking Union Medical College. Beijing, China.

2012 Aug 24  **Visiting Professor.** PMH Head & Neck Cancer Translational Research Program. AC Camargo Cancer
Fei-Fei LIU

Center. São Paulo, Brazil.

2011 Dec 7 **Invited Co-Chair.** Lessons Learned from Radiation Oncology Clinical Trials. NCI-US Workshop. Bethesda, Maryland, United States. Dec 7-8th, 2011.


2008 Oct 6 **Invited Speaker.** HTS for radio-sensitizers. Molecular Radiation Therapeutics Branch, NCI-US. Bethesda, Maryland, United States.


2001 Dec **Invited Participant.** An innovative gene therapy approach for nasopharyngeal carcinoma. Kadoorie Workshop 2001, Sir YK Pao Center for Cancer, Chinese University of Hong Kong. Hong Kong, Hong Kong.


1988 Sep **Invited Speaker.** Update of Clinical Results of Hyperthermia. Istituto per la Ricerca Scientifica e Tecnologica. Trento, Italy.


**Presented Abstracts**


2011 Apr 2 Proteomic Profiling of Head and Neck Squamous Cell Carcinoma Cell Lines. 102nd Annual Association
Fei-Fei LIU


2008 Apr 13 Potential therapeutic role of seliciclib in combination with ionizing radiation for human nasopharyngeal


Lectures and Other Presentations


2000 May Visiting Professor. Humboldt University. The potential of p53 gene therapy combined with either radiation or hyperthermia. Berlin, Germany.


Webinar

2. NATIONAL

Invited Lectures and Presentations

2013 Apr  Invited Speaker. Transformative Radiation Medicine – the next 10 years! Tom Baker Cancer Centre. Calgary, Alberta, Canada.


Presented Abstracts


2005 Mar 9  Radiation and Cisplatin activation of EBV in nasopharyngeal cancer. Oncolytic viruses as cancer


1986 Jun  Review of extremity soft tissue sarcomas at Princess Margaret Hospital. Canadian Association of Radiologists. Montreal, Quebec, Canada. Liu, F-F, O’Sullivan, B, Bell, R, Fornasier, V, Cummings, BJ and Quirt, IC.

1984 Jun  Primary lymphoma of the breast. Canadian Association of Radiologists. Montreal, Quebec, Canada. Liu, F-F, and Clark, RM.

1981 Sep  Spectrum of disease associated with Clostridium difficile. Canadian Association of Microbiologists. Liu, F-F, Devlin, R, and Spence, L.

Lectures and Other Presentations


2006 Mar  Invited Speaker. Chinese Cancer Information Forum For the Canadian Cancer Society. (Continuing
2005 Mar  **Invited Speaker.** Chinese Cancer Information Forum For the Canadian Cancer Society. (Continuing Education).


### 3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**

- **2013 Aug**  

- **2013 Aug**  
  **Invited Speaker.** Laboratory aspects of biomarker studies. NCIC Clinical Trials Group. Kingston, Ontario, Canada.

- **2013 Apr**  
  **Invited Speaker.** Trials and Tribulations of Micro-RNAs in Human Cancers. Queen’s University. Kingston, Ontario, Canada.

- **2011 May 31**  

- **2011 May 20**  
  **Invited Speaker.** Overview of the PMH/OCI HNC Translational Research Program. OCI Retreat, Deerhurst Inn. Huntsville, Ontario, Canada.

- **2009 Oct 20**  

- **2005 Oct 4**  
  **Invited Speaker.** The now and future of molecular oncology. Dept of Medical Biophysics Retreat, Geneva Park. Orillia, Ontario, Canada.

- **2005 Jun 26**  
  **Invited Speaker.** Think Tank. Canadian Breast Cancer Foundation National Board Retreat. Port Credit, Ontario, Canada.

- **2004 May**  

- **2003 May**  
  **Invited Speaker.** Developing a targeted gene therapy strategy for nasopharyngeal carcinoma. Southeast Ontario Gene Therapy Meeting, Langdon Hall. Cambridge, Ontario, Canada.

- **1999 Oct**  

- **1995 Jun**  
  **Invited Participant.** The potential role of hsp70 as an indicator of response to radiation and hyperthermia treatments for recurrent breast cancer. First Southern Ontario Meeting on Stress Proteins, Molecular Chaperones and the Heat Shock Response, Erindale College, University of Toronto. Mississauga, Ontario, Canada.

- **1990 May**  

**Presented Abstracts**

- **2004 May 2**  

- **2004 May 2**  
  The use of bioluminescent imaging (BLI) to evaluate biodistribution and kinetics of nasopharyngeal...


**Lectures and Other Presentations**


2009 Apr **Invited Speaker**. Healthy Living EXPO 2009 For the Mississauga Asian Community. Mississauga, Ontario. (Continuing Education).


1993 Sep **Visiting Professor**. An update on Clinical Hyperthermia. Queen’s University, Kingston Regional Cancer Clinic. Kingston, Ontario.

**4. LOCAL**

**Invited Lectures and Presentations**


2016 Jan 11 **Invited Speaker**. Invited speaker at a Ride to Conquer Cancer fundraising event. Ride to Conquer Cancer. Toronto, Ontario, Canada.


2014 Apr **Speaker**. The Why’s and How’s of Academic Promotion. Department of Radiation Oncology, University of Toronto. Toronto, Ontario, Canada.

2014 Apr **Speaker**. TRCP Radiation Oncology Update. Cancer Care Ontario - Toronto Regional Cancer Program Steering Committee. Toronto, Ontario, Canada.
2014 Mar  
**Invited Speaker.** Cancer Genomics 101. Department of Radiation Physics, Princess Margaret Cancer Centre. Toronto, Ontario, Canada.

2013 Nov  
**Session Chair & Invited Speaker.** Translational research in head & neck cancer. Joint University of Toronto-Universidade de São Paulo Oncology Conference. Toronto, Ontario, Canada.

2013 Oct  

2013 Oct  
**Keynote Speaker.** Personalized cancer medicine definition, opportunity, therapeutic trajectory radiation perspective. TECHNA 2013 Symposium. Toronto, Ontario, Canada.

2013 Aug  

2012 Sep 24  
**Invited Panelist.** Personalized Cancer Medicine: At what cost? The Hospital for Sick Children, 1st GFCC Cross-Talk. Toronto, Ontario, Canada.

2012 Jul 21  

2012 Jul 21  

2012 May 20  

2012 Feb 28  
**Invited Speaker.** Micro-RNAs in human cancers: What have we learned? Odette Cancer Center Research Seminar. Toronto, Ontario, Canada.

2012 Jan 17  
**Invited Speaker.** Identification of MTDH as a novel target of miR-375 in HNC. SCBA Toronto Chapter. Toronto, Ontario, Canada.

2011 Jun 13  
**Invited Speaker.** Head & Neck HPV Disease Burden. HPV Webnar. Toronto, Ontario, Canada.

2010 Nov 23  
**Invited Speaker.** Biology of HNC; HPV & OPC. Amgen Preceptorship, PMH. Toronto, Ontario, Canada.

2010 Feb 5  
**Invited Speaker.** UROD – a novel radiosensitizing target for HNC. OCI Faculty Seminar. Toronto, Ontario, Canada.

2010 Jan 7  
**Invited Speaker.** HPV and Micro-RNAs in HNC. PMH Combined DMO/DRO Rounds. Toronto, Ontario, Canada.

2009 Jun 5  
**Invited Speaker.** The emerging role of HPV in oropharyngeal cancer. Target Insight III, University of Toronto. Toronto, Ontario, Canada.

2009 May  
**Invited Speaker.** HSC Trafficking in Response to RT. PMH/OCI Breast Retreat. Toronto, Ontario, Canada.

2009 May  
**Invited Speaker.** HPV Determination in OPC. NCIC-CTG Spring Meeting. Toronto, Ontario, Canada.

2009 Mar  
**Invited Speaker.** PMH HNC Translational Research Program. UT Dept Otolaryngology Research Evening. Toronto, Ontario, Canada.

2008 Oct 16  
**Invited Speaker.** Translational Research in Head & Neck Cancers. PMH/OCI 50th Anniversary Conference. Toronto, Ontario, Canada.

2008 May 23  
**Invited Speaker.** Micro-RNA profiling for FFPE breast cancer tissues. Princess Margaret Hospital Breast Site Group Retreat. Toronto, Ontario, Canada.

2008 Mar 26  
**Invited Speaker.** Second Cancers Following Radiation. University of Toronto – Department of Radiation Oncology. Toronto, Ontario, Canada.
2008 Mar 6  **Invited Speaker.** Serendipity of Science: Challenges & Opportunities. PMH Grand Rounds. Toronto, Ontario, Canada.


2006 Nov  **Invited Speaker.** What goes on in the division of Applied Molecular Oncology. PMH Innovation Rounds. Toronto, Ontario, Canada.

2006 Nov  **Invited Lecturer.** Role of radiation therapy in early stage breast cancer. University of Toronto Surgical Fellows Teaching Rounds. Toronto, Ontario, Canada.


2006 May 5  **Invited Speaker.** Cancer to cosmetics - HTS for drug discovery in head & neck cancer. Target Insight II Meeting, University of Toronto. Toronto, Ontario, Canada.

2006 Apr 6  **Invited Speaker.** HTP screens for discovering novel cancer therapeutic compounds. City-Wide Chemical and High Throughput Biology rounds, University of Toronto. Toronto, Ontario, Canada.

2006 Feb 27  **Invited Speaker.** High throughput screens for discovery of novel radiosensitizing cancer therapeutics. Department of Laboratory Medicine & Pathobiology, University of Toronto. Toronto, Ontario, Canada.


2004 Jun 10  **Organizer and Debater.** This House Believes that by 2014, Molecular Pathology will be Used for the management of head & neck cancer patients. 2nd Annual Elia Research Afternoon in Head & Neck Cancer. Toronto, Ontario, Canada.


2004 Apr  **Invited Lecturer.** Why the Liu lab has not yet won the war on cancer. Radiation Medicine Program Rounds. Toronto, Ontario, Canada.


2002 Apr  **Invited Lecturer.** Onto the Road to Cure for Nasopharyngeal Cancer Gene Therapy. Faculty of Pharmacy, University of Toronto. Toronto, Ontario, Canada.

2002 Mar  **Invited Lecturer.** Cancer Biology for the Biostatistician. Dept of Biostatistics at PMH. Toronto, Ontario, Canada.


2001 Jun  **Invited Lecturer.** Utilizing the EBV for tumour-specific targeting in treating nasopharyngeal carcinoma. 3rd Annual Wharton Day. Toronto, Ontario, Canada.

2001 May  **Invited Lecturer.** Clinical Potential of Cancer Gene Therapy. UT-DRO CME Course: Target Insight - Innovative Strategies to Improve Target Volume Definition in Radiation Oncology. Toronto, Ontario,
1999 Jun  **Invited Speaker.** From the Bench to the Bedside and Back: Predictive Factors in Cancer Therapy. UT-DRO Course - Future Directions in Radiation Oncology. Toronto, Ontario, Canada.


1989 Nov  **Workshop Speaker.** HIV Infections - What We Need to Know. University of Toronto, Mt. Sinai Hospital. Toronto, Ontario, Canada.

**Presented Abstracts**


Lectures and Other Presentations

2014 May Invited Speaker. Partners in Care: Continuing to enhance a seamless connection with Primary Care and the Princess Margaret Cancer Centre. Princess Margaret Cancer Centre - ELLICSR. Toronto, Ontario, Canada. (Continuing Education).


2011 May Invited Speaker. PMHF Behind-the-Scenes. Toronto, Ontario, Canada. (Continuing Education).

2009 Nov Invited Speaker. PMHF Foundation Team Meeting. Toronto, Ontario, Canada. (Continuing Education).
2005  **Invited Participant.** Career Mentoring Session for Pathway to Education Regent Park. Toronto, Ontario, Canada. (Continuing Education).

2004  **Invited Participant.** Career Mentoring Session for Pathway to Education Regent Park. Toronto, Ontario, Canada. (Continuing Education).

**Session Moderator**


**H. Research Supervision**

1. **PRIMARY OR CO-SUPERVISION**

**Graduate Education**

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
<th>Student Name</th>
<th>Degree</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 - present</td>
<td>Primary Supervisor</td>
<td>PhD. Xiao Zhao MD.</td>
<td>Investigating the use of adipocyte-derived stem cells to repair radiation injury.</td>
<td></td>
</tr>
<tr>
<td>2010 - 2012</td>
<td>Primary Supervisor</td>
<td>MSc. Ronald Wu</td>
<td>c-met inhibition in HNC.</td>
<td></td>
</tr>
<tr>
<td>2009 - 2014</td>
<td>Primary Supervisor</td>
<td>PhD. Jeff Bruce</td>
<td>Micro-RNAs in human nasopharyngeal carcinoma.</td>
<td></td>
</tr>
<tr>
<td>1998 - 2000</td>
<td>Primary Supervisor</td>
<td>MSc. Laura Weinrib</td>
<td>Cisplatin chemotherapy combined with p53 gene therapy for NPC.</td>
<td></td>
</tr>
<tr>
<td>1997 - 2002</td>
<td>Primary Supervisor</td>
<td>PhD. Dr. Anthony Brade</td>
<td>Heat-directed cancer gene therapy.</td>
<td></td>
</tr>
</tbody>
</table>

**Postdoctoral Research Fellow (PhD)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
<th>Student Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 - present</td>
<td>Primary Supervisor</td>
<td>Pierre-Antoine Bissey.</td>
<td>miRNA/mRNA global profiling &amp; biological characterization of nasopharyngeal carcinoma.</td>
</tr>
<tr>
<td>2014</td>
<td>Primary Supervisor</td>
<td>Jeff Bruce</td>
<td>Analysis of genome-scale data sets from molecular profiling experiments of cancer patient samples.</td>
</tr>
</tbody>
</table>
2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

<table>
<thead>
<tr>
<th>Year</th>
<th>Degree</th>
<th>Name</th>
<th>Supervised by</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 - present</td>
<td>MSc.</td>
<td>Meghan Lambie</td>
<td>Fei-Fei Liu</td>
<td>Mimicking a Radiosensitivity Signature using Pharmaceuticals in Squamous Cell Carcinomas.</td>
</tr>
<tr>
<td>2016 - present</td>
<td>MSc.</td>
<td>Anna Pan</td>
<td>Fei-Fei Liu</td>
<td>PTCHD4 as a potential modifier of Li-Fraumeni Syndrome.</td>
</tr>
<tr>
<td>2008 - present</td>
<td>PhD.</td>
<td>Keira Pereira</td>
<td>Fei-Fei Liu</td>
<td>HNC stem cells &amp; their niches. Collaborator(s): co-supervisor Laurie Ailles.</td>
</tr>
<tr>
<td>2012 - 2014</td>
<td>MSc.</td>
<td>Elina Korpela</td>
<td>Fei-Fei Liu</td>
<td>Targeting the Angiopoietin-1/Tie2 pathway to decrease normal tissue damage in radiotherapy.</td>
</tr>
<tr>
<td>2011 - 2014</td>
<td>MSc.</td>
<td>Daria Taiakina</td>
<td>Fei-Fei Liu</td>
<td>The effects of hypoxia on mitotic centrosome function and genetic instability in prostate cancer.</td>
</tr>
<tr>
<td>2010 - 2013</td>
<td>MSc.</td>
<td>Badr Idsaid</td>
<td>Fei-Fei Liu</td>
<td>miR-605 as a novel genetic modifier in Li-Fraumeni Syndrome.</td>
</tr>
</tbody>
</table>
2005 - 2012  PhD. Craig Simpson. *Sensitization to Fas/TRAIL & anoikis.*

**Thesis Examiner**

2014 Apr  MSc. Elina Korpela. *Improving Cancer Radiotherapy Outcomes with Vasculotide, an Angiopoietin-1 Mimetic.*
2014 Apr  PhD. Mengshu Xu. *Developmental control throughout the budding yeast lifecycle by JHD2.*
2011 Mar  MSc. Harshika Seepany. *Chromatin re-assembly after DNA DSBs; Ctf18, Ctf4 & H3K56.*
2010 May  MSc. Natasha Malik. *Investigating EBNA1-Host Protein Interactions in NP & Gastric Cancers.*
Fei-Fei LIU

2010 Jan  
MSc. Stephanie Yee. Subset of RB lacking RB1 mutations with MYCN amplification.

2009 Dec  
PhD. Aleks Pandrya. Role of statins as anti-cancer agents in MM & AML.

2009 Jun  
MSc. Tim To. Role ARF and p53 in RB development.

2009 Jun  

2009 Jan  
MSc. Brent Williams. Immunotherapy of leukemic stem cells.

2008 Nov  

2008 Oct  
MSc. Andrea Para. Effects of genistein following fractionated lung irradiation in mice.

2008 Jul  
MSc. Emma Coe. Investigating the sensitization of AML cells to As2O3.

2008 Jun  
MSc. Taymaa May. Characterization of low grade serous carcinoma of the ovary.

2008 Apr  
PhD. Shobha Ramsubir. Retrovirus-mediated gene therapy for Farber Disease.

2008 Mar  

2008 Jan  
MSc. Sharon Cushing. Relationship between SNHL and vestibular function in children.

2007 Nov  
MSc. Tim To. Barrier to malignant transformation: Retinoma.

2007 Aug  
PhD. Lee Chin. Optical monitoring of interstitial thermal therapies.

2007 Jun  
MSc. Nirojini Sivanchandran. Functions of the EBV EBNA1 protein in NPC.

2007 Apr  
PhD. Helen Dimaras. The molecular progression of RB & role of p75NTR.

2007 Mar  
PhD. Claire McCann. A novel radiofrequency coil for interstitial thermal therapy.

2007 Mar  

2006 Dec  
MSc. Suzanne Lau. Validation of putative prognostic markers for NSCLC.

2006 Nov  
PhD. Ron Agatep. Germline CDKN2A mutations and the p16INK4A interaction network.

2006 Aug  

2006 Aug  
MSc. Andrew Coleman. Microscopy-based RT-induced foci as marker for DNA repair.

2006 Jun  

2006 May - 2006 Jul  
PhD. Xia Wu. Multiple focus acoustic lens transducer combinations for HIFU therapy.

2006 Apr  
MSc. Beau Standish. Quantification of microvascular blood flow during PTD using DOCT.

2006 Jan  
MSc. Alina Mihai. Radiosensitization by halogenated pyridazines.

2005 Aug  

2005 Aug  
MSc. Gloria Spirou. An Investigation of pulsed and frequency domain photoacoustics and their Applicability to biomedical studies.

2005 Jul  

2004 Aug  

2004 Aug  

2004 May  
PhD. Scott Harvey. Type IV collagen in development and disease: Alport Syndrome.

2004 Feb  
PhD. Scott Harvey. Type IV collagen in development and disease: Alport Syndrome.

2003 Dec  

2003 Nov  
PhD. Claire McCann. A novel radiofrequency coil for interstitial thermal therapy.

2003 Jun  
PhD. Jason Barlow. Studies of the p53 regulated genes in Li-Fraumeni.

2002 Sep  
MSc. Sandra Aswald. Efficient adv-mediated transgene expression in human AML.

2002 Aug  
PhD. Jeffrey Donovan. The role of p27 in G1 cell cycle arrest by antiestrogens and by TGF-B.

2002 Jun  
PhD. Carl Kumaradas. Theoretical Analysis of Superficial MW HT.

2002 Feb  
MSc. Jean-Pierre Corbet. The effect of seed orientation deviations on the quality of 125I implants.

2001 Jun  
PhD. Rizwan Haq. MAPK: Characterization of a novel member in EPO signaling.

2000 Sep  
MSc. Melody Nguyen. TEL-JAK2 Chromosomal translocations and PI(3) kinase signaling.

2000 Apr  
MSc. Erinn Soucie. Investigating the role of the Myc oncogene in apoptosis.
Fei-Fei LIU

2000 Feb  MSc. Dr. Saul Mandelbaum. A model of cancer immunotherapy of gene modified tumour cells.
1997 Jul  MSc. Susan Randall. Interactions among the MAPK cascades and novel cdc-2-related PK.
1997 Mar  PhD. Dennis Mah. Portal imaging with amorphous selenium.
1990 Oct  MSc. Xi-Lian Li. Factors Influencing Tumor Response to HT in Two Rodent Tumors.

Qualifying/Reclass Examiner
2014 May  PhD. Simon Wisnovsky. Mitochondria-targeted DNA damaging agents as probes of mitochondrial biology.

External Appraisor
2014 Aug  PhD. Annette May Ling Lim. Defining the molecular profile of oral tongue squamous cell carcinomas and its impact on patient outcome.
2009 Sep  MSc. Olayinka Akinlolu. Combination of 111In and 177Lu-DOTATOC with ddVV for sstr2 tumors.

PhD Defence Chair
2006 Sep  PhD. Christopher Thomson. Role of FcRγ in DN Treg cell function.
Curriculum Vitae

Stanley K. Liu
Clinician-Scientist, PhD, MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

Primary Office

Sunnybrook Health Sciences Centre
Department of Radiation Oncology
2075 Bayview Avenue, T2-142
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-4998
Fax 416-480-6002
Email stanley.liu@sunnybrook.ca

1. EDUCATION

Degrees

2000 - 2004 MD, University of Toronto
1995 - 2000 PhD, Medical Biophysics, University of Toronto, Supervisor(s): Dr. J. McGlade
1991 - 1995 BSc, Biochemistry Honours SSP, Queen’s University at Kingston, Ontario

Postgraduate, Research and Specialty Training

2009 - 2010 Post-Doctoral Research Fellowship, Gray Institute Radiation Oncology and Biology, University of Oxford, United Kingdom, Supervisor(s): Profs. Adrian Harris and Ruth Muschel
2004 - 2009 Radiation Oncology Residency, University of Toronto

Qualifications, Certifications and Licenses

2009 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2009 Certificate of Registration for Independent Practice, College of Physicians and Surgeons of Ontario
2005 Licentiate (LMCC), Medical Council of Canada

2. EMPLOYMENT

Current Appointments

2015 Jan - present Consulting Staff, Scarborough General Hospital, Toronto, Ontario, Canada
2013 Jan - present Director, Biobanking Facility, Odette Cancer Centre, Canada
2011 Sep - present Assistant Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2009  
**ASCO Young Investigator Award**, American Society of Clinical Oncology. (Research Award)  
48 awarded internationally. **Total Amount: 50,000 CAD**

NATIONAL

Received

2014  
**Movember Rising Star Award**, Prostate Cancer Canada. (Research Award)

2011  
**Clinician-Scientist Award**, Prostate Cancer Canada. (Research Award)  
**Total Amount: 150,000 CAD**

2009  
**Canadian Research Award for Specialty Residents - Division of Medicine**, Royal College of Physicians and Surgeons of Canada. (Research Award)  
1 awarded per year in Canada. **Total Amount: 2,000 CAD**

2009  
**NCIC Dorothy J. Lamont Fellowship Award**, National Cancer Institute of Canada. (Research Award)  
Highest-ranking fellow in Post-MD Research competition. **Total Amount: 5,000 CAD**

2009  
**Terry Fox Foundation Post-MD Research Fellowship**, National Cancer Institute of Canada. (Research Award)  
10 awarded across Canada. **Total Amount: 46,250 CAD**

1999  
**Cancer Research Studentship**, Cancer Research Society Inc. (Research Award)  
$15,050/yr for 3 yr; 14 awarded across Canada. **Total Amount: 45,150 CAD**

1999  
**Doctoral Research (Biomedical) Award**, Medical Research Council of Canada. (Research Award)  
$19,030/yr for 3 yr; 122 awarded across Canada. **Total Amount: 57,090 CAD**

1999  
**Student Travel Award**, National Cancer Institute of Canada. (Distinction)  
**Total Amount: 1,500 CAD**

1999  
**Terry Fox Research Studentship**, National Cancer Institute of Canada. (Research Award)  
$21,000/yr for 3 yr; 14 awarded across Canada. **Total Amount: 63,000 CAD**

PROVINCIAL / REGIONAL

Received

2015  
**Early Researcher Award**, Ministry of Research and Innovation. (Research Award)

2011  
**OICR Early Stage Career Investigator Award**, Ontario Institute for Cancer Research. (Research Award)  
**Total Amount: 65,000 CAD**
2009  OICR Fellowship Award, Ontario Institute for Cancer Research. (Research Award)
      Total Amount: 24,000 CAD

2002  Ivan Smith Summer Memorial Studentship, Cancer Care Ontario. (Distinction)
      Total Amount: 2,100 CAD

1999  Ontario Graduate Scholarship, Government of Ontario. (Distinction)
      Total Amount: 11,859 CAD

      (Distinction)
      Total Amount: 15,000 CAD

1998  Ontario Graduate Scholarship, Government of Ontario. (Distinction)
      Total Amount: 11,859 CAD

LOCAL
Received

2011  Outstanding Research Potential Award, University of Toronto - Department of Radiation
       Oncology. (Research Award)

2007  W. J. Simpson Award for Academic Excellence in Research by a Resident, University of
       Toronto - Department of Radiation Oncology. (Research Award)
       Total Amount: 500 CAD

1999  Tuition Bursary, Hospital for Sick Children Research Institute. (Distinction)
       Total Amount: 4,000 CAD

1997  Open Doctoral Fellowship, University of Toronto. (Research Award)
       Total Amount: 7,200 CAD

1996  Open Master’s Fellowship, University of Toronto. (Research Award)
       Total Amount: 7,200 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 - present  Full Active Member, Canadian Urological Oncology Group (CUOG)

2008 - present  Active Member, American Society of Clinical Oncology (ASCO)

2004 - present  Active Member, Canadian Association of Radiation Oncologists (CARO)

2004 - present  Active Member, Canadian Medical Protective Association (CMPA)

2000 - present  Active Member, Canadian Medical Association

2000 - present  Active Member, Ontario Medical Association

Administrative Activities

INTERNATIONAL

American Association for Cancer Research (AACR)

2012  Committee Member, 2013 Annual Meeting Program, United States.
      Preclinical Radiotherapeutics Section of the Experimental and Molecular Therapeutics
      Subcommittee.
NATIONAL

Canadian Association of Radiation Oncologists
2013 Apr  Abstract Reviewer - Basic and Translational Biology, 27th Annual Scientific Meeting, Canada.
2012 Apr  Abstract Reviewer - Basic and Translational Biology, 26th Annual Scientific Meeting, Canada.

Terry Fox Foundation (TFF) Strategic Training Initiative for Excellence in Radiation Research for the 21st Century (EIRR21) at CIHR
2012 - present  Mentor, EIRR21 Training Program

PROVINCIAL / REGIONAL

Ontario Institute for Cancer Research
2012 - present  Ontario Tumor Bank Material Access Review Committee member, Ontario, Canada.

LOCAL

Odette Cancer Centre
2010 - 2012  Secretary for minutes, Department of Radiation Oncology, Toronto, Ontario, Canada.  
             Monthly staff meetings.

Sunnybrook Research Institute
2012 - present  Member, Recruitment Committee - Biological Sciences Platform, Toronto, Ontario, Canada.

University of Toronto
2010 - 2012  Member, Data Warehouse Working Group
             As part of the Department of Radiation Oncology Strategic Plan.
2007 - 2008  Member, Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology,
             Postgraduate MD
             Resident Representative.

Peer Review Activities

ASSOCIATE OR SECTION EDITING

Reviewer
2014  Content reviewer for “Research in Radiation Therapy” for Canadian Cancer Society (external website)

GRANT REVIEWS

External Grant Reviewer
2016 Jun  Foundation for Polish Science - First TEAM expert reviewer, Number of Reviews: 1
2015 Oct - 2015 Oct 30  MRC (Medical Research Council UK) grant, Number of Reviews: 1
2015  Czech Science Foundation GACR
2014  Cancer Care Manitoba Foundation Research Operating Grant
2014  Prostate Cancer UK
2012  Czech Science Foundation GACR
2011  Cancer Association of South Africa (CANSA)

Reviewer
2016  Juravinski Hospital & Cancer Centre, Juravinski Hospital and Cancer Centre Foundation Research Grant, Number of Reviews: 1
2016  Prostate Cancer Canada Discovery Grants, Movember – therapeutics panel
2014  Canadian Breast Cancer Foundation (CBCF) - Ontario Region, Panel A - laboratory and preclinical investigations
2014  Prostate Cancer Canada Discovery Grants, Movember – therapeutics panel
2012  Canadian Breast Cancer Foundation (CBCF) - Ontario Region, Panel A - laboratory and preclinical investigations

MANUSCRIPT REVIEWS
Reviewer
2015 Nov - present  Cancer Medicine, Number of Reviews: 1
2015 Oct - present  International Journal of Oncology, Number of Reviews: 1
2015 - present  Cancer Research, Number of Reviews: 1
2015 - present  International Journal of Radiation Oncology Biology Physics, Number of Reviews: 2
2015  BMC Cancer, Number of Reviews: 1
2015  Journal of Urology, Number of Reviews: 1
2014 - 2016  Oncotarget, Number of Reviews: 3
2014 - 2015  Molecular Cancer Research, Number of Reviews: 3
2014  BBA - Reviews on Cancer, Number of Reviews: 1
2014  International Journal of Radiation Biology, Number of Reviews: 1
2013 - 2015  Urologic Oncology, Number of Reviews: 4
2012 - 2014  European Journal of Cancer, Number of Reviews: 3
2012 - 2014  International Journal of Radiation Biology, Number of Reviews: 2
2012  Radiation Oncology, Number of Reviews: 1

PRESENTATION REVIEWS
Reviewer
2012  American Association for Cancer Research (AACR) 2013 Annual Meeting Program, Preclinical Radiotherapeutics Section of the Experimental and Molecular Therapeutics Subcommittee

Other Research and Professional Activities

2015  Correlative Studies Coordinator. A Phase II Randomized Feasibility Study Comparing Stereotactic Body Radiotherapy (SBRT) Versus Conventional Palliative Radiotherapy (CRT) for Patients with Spinal Metastases (NCIC-CTG SC.24). NCIC Clinical Trials Group, Canada.
C. Academic Profile

1. RESEARCH STATEMENTS

Improving radiotherapy outcomes for cancer patients through biology and biomarkers. Radiotherapy is a major treatment modality for prostate cancer patients, however despite delivery of a high dose of radiation, up to one-third of patients will recur following treatment. Patients who develop locally recurrent disease are at significant risk of subsequently developing distant metastases, and have a poor prognosis, highlighting the importance of elucidating mediators of cancer radioresistance.

To address this important clinical problem, my laboratory generated radiation resistant cancer models and discovered that they possess an aggressive phenotype that mimics the clinical scenario. We are investigating the role of microRNA in promoting this phenotype, since they are known to possess pleotropic oncogenic effects by targeting multiple downstream gene targets. My laboratory has identified and is elucidating the mechanism of several candidate microRNA that are involved in mediating cellular response to radiation. Translational relevance is provided by the finding that these microRNA may serve as novel targets to sensitize tumor cells to radiation treatment. Additionally, pre-treatment microRNA expression levels may serve as predictive biomarkers to identify which patients’ tumors may respond better to radiation treatment. To this end, we are investigating microRNA profiling of patient biofluids to identify potential predictive signatures that can be used to improve clinical decision making.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


Tiffin Foundation. PI: Chung, H. Collaborator(s): Loblaw A, Morton G. 90,000 CAD. [Grants]


2013 May - 2014 Apr Principal Investigator. Characterization of microRNA as novel mediators of radiation resistance and cancer aggression. Dean’s Fund. Faculty of Medicine, University of Toronto. 20,000 CAD. [Grants]


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   This topical review highlights the current insights on the major ways that microRNA may contribute to tumour radiation response and whether their levels reflect treatment success. We conclude by applying the potential framework of future roles of miR in personalised radiotherapy using prostate cancer clinical management as an example.


   The prostaglandin E2 (PGE2) pathway promotes tumor progression and is implicated in recurrence following radiotherapy. We demonstrated that miR-620 contributes to radiation resistance in cancer cells by targeting HPGD, which is a key regulator of PGE2 metabolism. Our results led us to propose a novel model regulating cancer radiation resistance: miR-620 targets HPGD, resulting in accumulation of HPGD’s substrate, PGE2, and signaling by PGE2 through the EP2 receptor results in cancer radiation resistance. Furthermore, we demonstrated that specific blockade of the EP2 receptor had therapeutic efficacy in reversing radioresistance. Specific inhibitors of PGE2 signaling such as EP2 antagonists may be desirable, since they may potentially limit or avoid side-effects seen with cyclooxygenase-2 (COX-2).


   Most cancer patients are treated with radiotherapy, but the treatment can also damage the surrounding normal tissue. Acute skin damage from cancer radiotherapy diminishes patients’ quality of life, yet effective biological interventions for this damage are lacking. Protecting microvascular endothelial cells from irradiation-induced perturbations is emerging as a targeted damage-reduction strategy. We discovered that administration of a vascular modifying agent reduces acute skin radiation damage in mice. This radiation protection approach may have clinical impact for cancer radiotherapy patients by reducing the severity of their acute skin radiation damage.

Radiation resistance poses a major clinical challenge in cancer treatment, but little is known about how microRNA may regulate this phenomenon. In this study, we used a novel approach to identify functionally relevant microRNA: next-generation sequencing and an unbiased comparison of microRNA expression in prostate cancer cells rendered resistant to fractionated radiation treatment. We detected the enrichment of microRNA-95 in radiation resistant cells, and performed in vitro and in vivo characterization experiments. This seminal publication identified the little-studied microRNA-95 as a major mediator of radiation resistance in tumors, and elucidated that the sphingosine-1-phosphate (S1P) signaling pathway is specifically targeted by microRNA-95. Additionally, we demonstrated that resistance was reversed with a clinically approved inhibitor of S1P signaling.


My research detailed for the first time that blockade of the DLL4-Notch pathway with a blocking DLL4 antibody can be used advantageously when given after radiation treatment to promote ineffective tumor vasculature function, extreme tumor hypoxia (low oxygen levels), and profound tumor cell death. This novel strategy greatly improved the efficacy of radiotherapy, meaning that the same dose of radiation worked much better in preventing tumor regrowth in different types of tumors, indicating the broad relevance of this treatment strategy. A patent based upon these findings (combination of DLL4 antibody with radiotherapy) has been awarded to my co-investigators and I. The ultimate goal will be to translate the findings from this novel research to an early phase clinical trial in a range of cancer patients undergoing radiotherapy.

2. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


6. Korpela E, Vesprini D, Liu SK. MicroRNA in radiotherapy: miRage or miRador? British J Cancer. 2015;112:777 (Trainee publication). **Senior Responsible Author.**


3. NON-PEER-REVIEWED PUBLICATIONS

Magazine Entries


Correspondence

4. SUBMITTED PUBLICATIONS
F. Intellectual Property

1. PATENTS


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Invited Lecturer. MicroRNA and prostate cancer therapy response. 31st ESTRO Meeting on Clinical and Experimental Research in Radiation Oncology. France. Presenter(s): Liu SK.

2016 Invited Lecturer. MicroRNA and tumor radioresistance. International Summit on Biomarkers and Therapeutic Advances in Radiation Oncology. Quebec, Canada. Presenter(s): Liu SK.


2013 Invited Lecturer. MicroRNA and tumor radiation response. 28th ESTRO Meeting on Clinical and Experimental Research in Radiation Oncology (CERRO). France. Presenter(s): Liu SK.


1998 Invited Lecturer. Gads, a novel SH3-SH2-SH3 adaptor protein is associated with SLP-76 and TCR zeta-chain in activated T cells. 4th Annual Tyrosine Phosphorylation and Cell Signaling meeting. La Jolla, United States. Liu SK and McGlade CJ.

Presented Abstracts


2007 Poster Presentation. A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. 10th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatigen, Switzerland. Liu S (Principal Author), Coackley C, Bristow RG.

2007 Poster Presentation. A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. American Society for Therapeutic Radiology and Oncology (ASTRO) 49th Annual Meeting. Los Angeles, California, United States. Liu S (Principal Author), Coackley C, Bristow RG.
2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts

2007  
**Poster Presentation.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. Canadian Prostate Cancer Research Initiative (CPCRI). Toronto, Canada. **Liu S** (Principal Author), Coackley C, Bristow RG.

2007  
**Poster Presentation.** A novel poly(ADP-ribose) polymerase inhibitor, ABT-888, radiosensitizes malignant human cell lines under oxia and hypoxia. Canadian Association of Radiation Oncology (CARO). Toronto, Canada. **Liu S** (Principal Author), Coackley C, Bristow RG.

Presented and Published Abstracts

2016 Sep  
**Poster presentation.** Serum exosomal microRNAs (miRNAs) as non-invasive biomarkers to guide postoperative radiotherapy in prostate cancer (PCa) patients treated with radical prostatectomy (RP). Canadian Association of Radiation Oncology (CARO). Banff, Alberta, Canada. Presenter(s): Fotouhi-Ghiam A. (Trainee Presentation)

**Publication Details:**
Fotouhi Ghiam A, Vesprini D, Taeb S, Jahangiri S, Huang X, Ray J, Hoey C, Loblaw DA, Fokas E, **Liu S.** Serum exosomal microRNAs (miRNAs) as non-invasive biomarkers to guide post-operative radiotherapy in prostate cancer (PCa) patients treated with radical prostatectomy (RP). Radiother Oncol. 2016. **Senior Responsible Author.**

2016 Sep  
**Oral presentation.** The biological role and clinical significance of long non-coding RNA urothelial carcinoma associated 1 (UCA1) in prostate cancer (PCa). Canadian Association of Radiation Oncology (CARO). Banff, Alberta, Canada. Presenter(s): Fotouhi Ghiam A. (Trainee Presentation)

**Publication Details:**
Media Appearances


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts

2011 Poster Presentation. Inhibition of Dll4-Notch signalling in tumor and vasculature enhances the response to radiation. Ontario Institute for Cancer Research (OICR) 4th Annual Scientific Meeting. Alliston, Ontario, Canada. Liu S (Principal Author), Bham S, Fokas E, Im J, Muschel R, Harris AL.

4. LOCAL

Invited Lectures and Presentations


2013 Invited Speaker. MicroRNA Biology and Translation: In the lab and beyond? Sunnybrook Research Institute Biology Seminar Lunch and Learn Series. Toronto, Ontario, Canada. Presenter(s): Liu SK.

2013 Invited Speaker. Tackling Aggressive Prostate Cancer: from the lab to the clinic. Prostate Canada Cancer Network - Orillia Awareness Group. Orillia, Ontario, Canada. Presenter(s): Liu SK.

2013 Invited Lecturer. MicroRNA Biology and Biomarkers in Prostate Cancer. University of Toronto - University of Sao Paulo Joint Oncology Conference. Toronto, Ontario, Canada. Presenter(s): Liu, SK.

2012 Invited Lecturer. Enhancing tumor radiation response - how to kill more cancer cells with less. Department of Medical Biophysics summer research lecture series, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Liu SK.

2012 Invited Lecturer. Enhancing tumor radiation response – how to kill more cancer cells with less. Department of Medical Biophysics Annual Retreat. Orillia, Ontario, Canada. Presenter(s): Liu SK.

2011 Invited Lecturer. Inhibition of Dll4-Notch signaling in tumor and vasculature enhances the response to radiation. Radiation Oncology Research Rounds, Sunnybrook Health Sciences Centre. Toronto, Ontario. Liu SK, Bham S, Fokas E, Im J, Muschel R, Harris AL.


2011 Invited Lecturer. Microbubble contrast ultrasound to monitor in vivo tumor perfusion in response to Notch

2007  

Presented Abstracts

2011  
Poster Presentation. PEA 3 is a potential downstream target of Notch signalling. IMS Summer Research Program Day. Toronto, Ontario, Canada. Lin C, Taeb S, Harris A, Liu SK.

1999  
Poster Presentation. The adaptor protein Gads is implicated in coupling the tyrosine-phosphorylation of Hematopoietic Progenitor Kinase-1 with T cell receptor activation. Hospital for Sick Children Research Institute Retreat. Toronto, Canada. Liu S (Principal Author), Smith CA, Arnold R, Kiefer F, McGlade CJ.

Presented and Published Abstracts

2016 Apr 22  

Publication Details:

2016 Apr 22  
Poster presentation. microRNA-198 targets Wnt signaling to regulate prostate cancer aggression. UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Ray J. (Trainee Presentation)

Publication Details:

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2015 May - 2015 Aug  

2015 Jan - 2015 Aug  

2014 May - 2014 Dec  

2014 May - 2014 Aug  

2013 May - 2013 Sep  


**Graduate Education**

2015 Jan - present  **Primary Supervisor.** MSc. Jessica Ray, Medical Biophysics. Supervisee Institution: University of Toronto. *The role of mir-198 in prostate cancer progression.*

2015 Jan - present  **Primary Supervisor.** MSc. Christianne Hoey, Medical Biophysics. Supervisee Institution: University of Toronto. *mir-106a as a mediator of prostate cancer aggression and therapy resistance.* Awards: Queen Elizabeth II Graduate Scholarship ($15,000).

2012 Jan - 2014 Jun  **Primary Supervisor.** MSc. Elina Korpela. Supervisee Institution: University of Toronto. *Targeting the Angiopoietin-1/Tie2 Axis to Decrease Normal Tissue Damage During Cancer Radiotherapy.* Awards: Queen Elizabeth II Grad Scholarships in Science and Technology, Jan-Dec 2012, $15,000; Paul Starita Graduate Student Fellowship, Sep 2012–Aug 2013, $6,000; Scace Grad Fellowship in Prostate CA Research, Sep 2012–Aug 2013, $6,000; Frederick Banting and Charles Best Canada Grad Scholarships Master’s Award, CIHR, Sep 2012–Aug 2013, $17,500; Best Oral Presentation Award, James Lepock Memorial Student Research Symposium, May 2013, $150; Richard P. Hill Award for Academic Excellence, June 2013, $200.

**Undergraduate MD**

2012 Jul - present  **Primary Supervisor.** Aruz Mesci. Supervisee Position: CREMS Research Scholar, Supervisee Institution: University of Toronto. *PEA3 as a pro-metastatic factor in colorectal cancer.* Awards: Clinician Investigator Trainee Association of Canada (CITAC) Annual Meeting and Conference Travel Award $2,000.


**Postgraduate MD**

2015 Jul - present  **Primary Supervisor.** Clinical Fellow. Alireza Fotouhi. Supervisee Institution: University of Toronto. *Serum exosomal microRNAs as non-invasive biomarkers to guide therapy or surveillance for Prostate Cancer.* Awards: CARO Fellowship Award $80,000 (only 1 awarded across Canada), 2015-2016 Postgraduate Awards UofT Faculty of Medicine (Heidi Sternbach, Chisholm Memorial, Timeposters and Joseph M. West Family).

**Postdoctoral Research Fellow (PhD)**


**Other**

2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2015 Jan - present  PhD. James Pemberton, Medical Biophysics. *Deciphering the mechanism of the BH3-only protein PUMA and how it contributes to neuronal cell death in stroke.*

2015 Jan - present  MSc. Michelle Mayer. Supervisee Institution: University of Toronto. *Metformin and Docetaxel treatment in castrate resistant prostate cancer.* Supervisor(s): Dr. V. Venkateswaran.


Thesis Examiner

2015 Jan  PhD. Natalie Venier. Supervisee Institution: University of Toronto. *Capsaicin as a Novel Chemopreventive and Therapeutic Option for Prostate Cancer.* Supervisor(s): Dr. V. Venkateswaran.


2012 Sep  MSc. Diana Tran. Supervisee Institution: University of Toronto. *Functional Characterization of a Novel Substitution in the Human DNA Repair Protein APLF.* Supervisor(s): Dr. A. Koch.

2012 Sep  PhD. Christine Ichim. Supervisee Institution: University of Toronto. *The Orphan Nuclear Receptor NR2F6 is a Leukemia Oncogene and Novel Regulator of Hematopoietic Stem Cell...*
Homeostasis and Differentiation. Supervisor(s): Dr. R. Wells.


Qualifying/Reclass Examiner


2014 Feb  PhD. Rozhin Yousefi. Supervisee Institution: University of Toronto. Diffusion evaluation of cancer therapies. Supervisor(s): Dr. G. Stanisz.

Curriculum Vitae

Douglas Andrew Burr Loblaw

A. Date Curriculum Vitae is Prepared: 2016 May 6

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-4806
Fax 416-480-6002
Email andrew.loblaw@sunnybrook.ca

1. EDUCATION

Degrees
2010 - 2011 OMA Physician Leadership Development Program, Schulich School of Business, York University, Toronto, Ontario, Canada
2008 - 2009 Sunnybrook-Schulich Advanced Leadership Development Program, Schulich School of Business, York University, Toronto, Ontario, Canada
1996 - 2002 MSc, Health Policy Measurement and Evaluation, University of Toronto, Toronto, Ontario, Canada
1991 - 1994 MD, Queen’s University, Kingston, Ontario, Canada
1987 - 1991 BSc, Physics, The University of British Columbia, Vancouver, British Columbia, Canada

Postgraduate, Research and Specialty Training
1996 - 2002 Clinical Investigator Program, University of Toronto, Toronto, Ontario, Canada
1995 - 2000 Princess Margaret Hospital / Toronto Sunnybrook Regional Cancer Centre, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1991 - 1993 Summer Research Student, Department of Medical Biophysics, BC Cancer Research Centre, Vancouver, British Columbia, Canada

Qualifications, Certifications and Licenses
2000 FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada

2. EMPLOYMENT

Current Appointments
2014 Jul 1 - present Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada
Douglas Andrew Burr LOBLAW

2014 Jul 2 - present  Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2013 Jul - present  Courtesy Staff, Medicine, Rouge Valley Health System, Toronto, Ontario, Canada
2008 - present  Scientist, Sunnybrook Research Institute, Toronto, Ontario, Canada
2007 - present  Courtesy Staff, Department of Surgery, North York General Hospital, Toronto, Ontario, Canada
2000 - present  Active Staff, Radiation Oncology, Odette Cancer Centre, Toronto, Ontario, Canada
2000 - present  Active Staff, Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2002 - 2008  Associate Scientist, Sunnybrook Research Institute, Toronto, Ontario, Canada

UNIVERSITY - CROSS APPOINTMENT
2008 - 2014 May  Associate Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK
2007 Jul - 2014 May  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2000 - 2007  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2009  Frank Ellis Medal, Royal College of Radiologists, United Kingdom. (Research Award)
2008  Clinician Scientist Award, Ontario Association of Radiation Oncology, Canada. (Research Award)
2007  Fellowship Award, CUOG/AstraZeneca. (Research Award)
Awarded for proposal: ‘The Role of Bound Prostate Specific Antigen in Predicting Risk of Progression in the Active Surveillance Population with Low Risk Localized Prostate Cancer’.
2003  Award of Merit, American Society of Clinical Oncology, United States. (Research Award)
Awarded for scientific paper: “Hormones may break their bones: is there an increased risk of fracture in men with prostate cancer treated with androgen ablation”.
1998  Award of Merit, American Society of Clinical Oncology, United States. (Research Award)
Awarded for scientific paper: “Development and testing of a new visit-specific patient satisfaction questionnaire: the Princess Margaret Hospital Satisfaction with Doctor Questionnaire (PMH/PSQ-MD).

NATIONAL
Received
1999  Resident Lecture Award (Nucletron), Canadian Association of Radiation Oncology, Canada. (Research Award)
Awarded for scientific paper: “A population based study of malignant spinal cord compression”.
1994  Award of Merit, Canadian Cancer Society, Canada. (Research Award)
Awarded for outstanding achievement related to Cancer Research.
PROVINCIAL / REGIONAL

Received

1993  A. Maxwell Evans Award for Cancer Research, BC Cancer Agency, Canada. (Research Award)
      Awarded to top medical applicant to BC Summer Studentship.

1992  J. M. Warren Award for Cancer Research, BC Cancer Agency, Canada. (Research Award)
      Awarded to top applicant to BC Summer Studentship.

1987  Scholarship, Government of British Columbia, Canada. (Distinction)

LOCAL

Received

2014 Jul - 2015 Jun  Excellence in Research Leadership, University of Toronto Department of Radiation Oncology. (Research Award)
1995  Aesculapian Award, Queen’s University, Canada. (Distinction)
      Awarded for invaluable service to the Queen’s medical school community over M.D. training.
1995  Michael Brown Memorial Award in Oncology, Queen’s University, Canada. (Distinction)
      Top Medical Student in Oncology.
1993  Aesculapian Society Award of Merit, Queen’s University, Canada. (Distinction)
      Awarded for outstanding service to the society (Queen’s medical student council) during term in office.
1992  Athletic Letter, Queen’s University, Canada. (Distinction)
1991  Deans Honour List, The University of British Columbia, Canada. (Distinction)
1991  Science Scholar, The University of British Columbia, Canada. (Distinction)
      One of top 10 in Faculty of Science.
1991  Volkoff Scholarship in Science, The University of British Columbia, Canada. (Distinction)
1990  Charles and Jane Banks Scholarship, The University of British Columbia, Canada. (Distinction)
1989  Carl and Elsie Halterman Scholarship, The University of British Columbia, Canada. (Distinction)
1987  Entrance Scholarship, The University of British Columbia, Canada. (Distinction)

Student/Trainee Awards

INTERNATIONAL

Received

2016 Jun  NOYClA, Awardee Name: Joelle Helou. Novartis Oncology Young Canadian Investigator Awards, United States
          Total Amount: 5,000 USD
2013 Feb  Conquer Cancer Foundation Merit Awards, Oncology, Primary Author, Awardee Name: Suneil Jain. Conquer Cancer Foundation, United States
          Total Amount: 1,000 USD
2004 Jul - 2005 Jun  Award of Merit, Primary Author, Awardee Name: Hanna Carolan. American Society of Clinical Oncology, United States
          Total Amount: 1,000 USD
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Society of Clinical Oncology
Member, Canadian Association of Radiation Oncologists
Member, Canadian Medical Association
Member, Canadian Urologic Association
Member, Canadian Urologic Oncology Group
Member, Ontario Medical Association
**Administrative Activities**

**INTERNATIONAL**

**Agency for Healthcare Research and Quality**
2006 Apr - present  **Member**, Technical Expert Panel, Comparison of Local Therapies for Clinically Localized Prostate Cancer, United States.

**American Society of Clinical Oncology**
2012 Oct - present  **Co-Chair**, Genitourinary Guidelines Advisory Group, United States.
2004 - present  **Member**, Expert Panel, Management of Androgen-Resistant Recurrent or Metastatic Prostate Cancer, Health Services Committee, United States.
2004 - 2013  **Co-Chair**, Expert Panel, Management of Androgen-Resistant Recurrent or Metastatic Prostate Cancer, Health Services Committee, United States.
2002 - 2007  **Member**, Methodology Subcommittee, Health Services Committee.
2002 - 2006  **Chair**, Writing Committee, Health Services Committee, United States. *Management of Androgen-Sensitive Recurrent or Metastatic Prostate Cancer.*
2002 - 2005  **Member**, Health Services Committee

**AstraZeneca**
2006 - 2007  **Member**, Global Speaking Bureau.
2006  **Faculty**, Futurology 2006, Hamburg, Germany.

**NATIONAL**

**Canadian Association of Radiation Oncology**
2004 - 2007  **Co-Chair**, Symptom Control Research (SCORE) Awards
2003 - 2007  **Co-Chair**, Spinal Cord Compression Research Initiative
2003 - 2007  **Member**, Symptom Control Advisory Committee

**Canadian Prostate Cancer Research Foundation**
2004 Nov - 2005 Mar  **Member**, Scientific and Medical Advisory Committee

**Canadian Urologic Oncology Group**
2007 - present  **Member**, Executive, Canada.

**Medical Career Services, Incorporated**
2004 - 2013  **Co-Founder**, Ontario, Canada.
2004 - 2013  **Secretary**, Ontario, Canada.

**National Cancer Institute of Canada**
2007 - present  **Executive**, Genitourinary Site Group, Canada.
2007 - present  **Co-Chair**, Early Prostate Cancer Disease Oriented Group, Genitourinary Site Group, Canada.
2004 - present  **TSRCC Representative**, Genitourinary Site Group, Canada.
2003 - present  **Member**, Advanced Prostate Cancer Disease Oriented Group, Genitourinary Site Group, Canada.
2001 - present  **Member**, Early Prostate Cancer Disease Oriented Group, Genitourinary Site Group, Canada.
2003 - 2009 Co-Chair, Spinal Cord Compression Research Initiative

Prostate Cancer Canada
2012 Nov - present Member, Health Education Review Committee, Canada.
2009 Sep - 2012 Oct Member, Public and Patient Education Committee, Canada.

PROVINCIAL / REGIONAL
AstraZeneca
2010 Oct 6 Co-Organizer, New Insights 2010
2010 Oct 6 Co-Founder, New Insights 2010
2010 Oct 6 Co-Chair, New Insights 2010
Forty community and academic Urologists, Radiation and Medical Oncologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $10,000 educational grant obtained from AstraZeneca to run event.

2010 Apr 7 Co-Organizer, GU Conversations, Mississauga.
2010 Apr 7 Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 3 speakers, 20 hours of planning; $12,000 educational grant obtained from AstraZeneca to run event.

2009 Oct 6 Co-Organizer, New Insights into Old Controversies in Prostate Cancer
2009 Oct 6 Co-Chair, New Insights into Old Controversies in Prostate Cancer
Thirty community and academic Urologists, Radiation and Medical Oncologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $10,000 educational grant obtained from AstraZeneca to run event.

2009 Apr 8 Co-Organizer, GU Conversations, Mississauga.
2009 Apr 8 Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $15,000 educational grant obtained from AstraZeneca to run event.

2008 Oct 29 Co-Organizer, New Insights into Old Controversies in Prostate Cancer
2008 Oct 29 Co-Chair, New Insights into Old Controversies in Prostate Cancer
Fifty community and academic Urologists, Radiation Oncologists and Radiologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $15,500 educational grant obtained from AstraZeneca to run event.

2008 Apr 2 Co-Organizer, GU Conversations, Mississauga.
2008 Apr 2 Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $15,000 educational grant obtained from AstraZeneca to run event.

2007 Sep Co-Organizer, New Insights into Old Controversies in Prostate Cancer
2007 Sep Co-Chair, New Insights into Old Controversies in Prostate Cancer
Fifty community and academic Urologists, Radiation Oncologists and Radiologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $15,500 educational grant obtained from AstraZeneca to run event.

2007 Mar Co-Organizer, GU Conversations, Mississauga.
2007 Mar Co-Chair, GU Conversations, Mississauga.
Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $8000 educational grant obtained from AstraZeneca to run event.

2006 Sep Co-Chair, New Insights into Old Controversies in Prostate Cancer
Fifty community and academic Urologists, Radiation Oncologists and Radiologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $8,500 educational grant obtained from AstraZeneca to run event.

2006 Sep  Co-Chair, New Insights into Old Controversies in Prostate Cancer
2006 Mar 29 Co-Organizer, GU Conversations, Mississauga.
2006 Mar 29 Co-Chair, GU Conversations, Mississauga.

Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $8000 educational grant obtained from AstraZeneca to run event.

2006 Sep - 2009 Oct Co-Founder, New Insights into Old Controversies in Prostate Cancer
2006 Sep  Co-Organizer, New Insights into Old Controversies in Prostate Cancer
2006 Sep  Co-Chair, New Insights into Old Controversies in Prostate Cancer

Fifty community and academic Urologists, Radiation Oncologists and Radiologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $8,500 educational grant obtained from AstraZeneca to run event.

2005 Sep  Co-Chair, GU Conversations, Mississauga.
2005 Mar 23 Co-Organizer, GU Conversations, Mississauga.
2005 Mar 23 Co-Chair, GU Conversations, Mississauga.

Fifty Radiation Oncologists and community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $7000 educational grant obtained from AstraZeneca to run event.

2004 Mar 31 Co-Founder, GU Conversations, Mississauga.

Fifty community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $7000 educational grant obtained from AstraZeneca to run event.

2004 Mar 31 Co-Organizer, GU Conversations, Mississauga.
2004 Mar 31 Co-Chair, GU Conversations, Mississauga.
2003 Apr  Organizer, Urological Conversations, Toronto.
2003 Apr  Chair, Urological Conversations, Toronto.

Fifty community Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $5000 educational grant obtained from AstraZeneca to run event.

2002 Apr  Organizer, Urological Conversations, Toronto.
2002 Apr  Chair, Urological Conversations, Toronto.

Fifty Radiation Oncologists and Urologists attended from around Ontario. Three hour event, 4 speakers, 20 hours of planning; $5000 educational grant obtained from AstraZeneca to run event.

Cancer Care Ontario
2010 - present Member, Prostate Disease Management Committee, Ontario, Canada.
2008 - present Co-Chair, Provincial Genitourinary Disease Site Group, Program in Evidence Based Care, Ontario, Canada.
2004 - present Member, Provincial Genitourinary Disease Site Group, Program in Evidence Based Care, Ontario, Canada.
2000 - 2004 Member, Provincial Neuro-Oncology Disease Site Group, Program in Evidence Based Care

Ontario Medical Association
2013 Dec 1 Radiation Oncology Executive, Ontario, Canada.
1997 - 2000 Resident Representative, Radiation Oncology Section, Toronto.

Professional Association of Resident and Interns of Ontario
1996 - 2000 Representative, General Council, Toronto.
1996 - 1997 Member, Human Physician Resources Committee, Toronto.
Sanofi-Aventis
2009 Sep 23  Co-Founder, Active Surveillance Educational Evening
2009 Sep 23  Organizer, Active Surveillance Educational Evening
2009 Sep 23  Chair, Active Surveillance Educational Evening

Thirty community and academic Urologists, Radiation Oncologists attended from around Ontario. Two-hour event, 3 speakers, 10 hours of planning. $4,000 educational grant obtained from Sanofi-Aventis to run event.

LOCAL
Odette Cancer Centre
2013 Oct - present  Chair, GU Site, Toronto, Ontario, Canada.
2011 Jul - present  Chair, GU Radiation Oncology Trials, Toronto, Ontario, Canada.
2008 - 2009  Head, Clinical Trials & Epidemiology
2007 - 2008  Acting Head, Clinical Trials & Epidemiology
2007 - 2008  Member, Clinical Trials Strategic Committee
2006 - 2009  Deputy Chair, Clinical Trials & Epidemiology
2006 - 2009  Member, Clinical Trials Decision Making Working Group
2006 - 2009  Director, Radiation Oncology Research
2006 - 2009  Chair, Research Advisory Committee
2004 - 2006  Chair, Radiation Oncology Associates of the Toronto Sunnybrook Regional Cancer Centre
2002 - 2004  Site Director, Residency Program, (Toronto Sunnybrook Regional Cancer Centre), Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2000 - 2003  Advisor, HOTSPOT Newsletter, Rapid Response Radiotherapy Program

Queens University
1994 - 1995  Organizer, CARMS Mentor Program
1993 - 1994  Director, Corporate Finance, Queen’s Medical Outreach
1992 - 1993  Treasurer, Queen’s Medical Outreach
1992 - 1993  Vice President (Internal), Aesculapian Society
1992 - 1993  Chair, A. A. Traville Award Committee, Aesculapian Society
1992 - 1993  Chair, Aesculapian Award Committee, Aesculapian Society
1992  Chair, Orientation and Welcoming Week, Aesculapian Society
1992  Co-Producer, Medical Variety Night
1991 - 1992  Representative, Class of Medicine ‘95

University of Toronto
2000 - present  Research Director, Medical Advancement Steering Committee, Office of Student Affairs, Faculty of Medicine
1996 - present  Co-Chair, Medical Advancement Steering Committee, Office of Student Affairs, Faculty of Medicine
1999  Member, Internal Review Committee, Faculty of Medicine
Peer Review Activities

ASSOCIATE OR SECTION EDITING

Editor
2007 Jul - 2015 Jun 30 Clinical Oncology, Regional Editor, North America

EDITORIAL BOARDS

Member
2010 Jul - present J Supp Oncol

Member
2010 - present Journal of Supportive Oncology
Can J Urol (past)
Our Voice

Regional Editor, North America
2007 - present Clinical Oncology

MANUSCRIPT REVIEWS

Ad Hoc Reviewer

Ann Oncol
BMC Cancer
Br J Cancer
Can J Urol
Cancer
Clin Neurol Neurosurg
Clin Oncol
Eur Urol
Exp Rev Anticancer Ther
International Journal for Quality in Health Care
J Clin Oncol
J Supp Oncol
Lancet Oncol
Radiother Oncol
Spine

C. Academic Profile

1. RESEARCH STATEMENTS

Improving outcomes for men with prostate cancer.

2. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

1: Professional Interests
My research and clinical interest is to improve the outcomes of men with prostate cancer through the design and conduct of clinical trials and on the generation of clinical practice guidelines.
Using my formal training and expertise in clinical trial design, conduct and analysis, I have been awarded a number of grants investigating new radiotherapy techniques and hormonal maneuvers. The main thrust of my research was to document the feasibility, tolerability and efficacy of stereotactic ablative radiotherapy (SABR) using standard linear accelerators. Our group is among a few internationally who have been recognized for this paradigm-changing work. Since my last promotion, I am the PI or co-PI on 8 prospective clinical trials: 6 of which have peer-reviewed grants supporting them, 2 of them are randomized controlled trials and one of these is being performed in a multicentre study context.

The foundation of evidence-based medicine is the systematic review and the resultant clinical practice guideline (CPG). The latter is the clinical application of the data on a given topic and is represents the product most likely to represent the truth. As such, these CPGs are widely disseminated and are used for funding decisions and audits of quality of care. Since my last promotion, I have been invited to co-chair both Cancer Care Ontario’s Program in Evidence-Based Care Genitourinary Group and the American Society of Clinical Oncology’s Genitourinary Guidelines Advisory Group. I continue to lead guidelines for the management of androgen-sensitive prostate cancer, management of castrate-resistant prostate cancer and management of malignant spinal cord compression, of which prostate cancer patients are at greatest risk.

2: Impact
Our group has shown that 5 treatments of SABR can be iso-effective and iso-toxic compared to 38 treatments of external beam radiation for low-risk prostate cancer patients. Furthermore, we’ve shown that 33 fewer visits are more convenient for patients, save almost $2,000 in out-of-pocket costs, increase radiotherapy throughput by 7-fold and decrease per patient departmental costs by 80%. As a result, I have been awarded more peer-reviewed funding to further study and refine these approaches, including a national, multicentre, phase 2 randomized study; I have been invited to lead an international consortium on prostate SABR; and I have received various national and international speaking invitations to share our work and vision.

These guidelines have been published in high impact peer-reviewed journals and have led to setting and changing practice standards internationally. The work has been widely cited in top-named journals; I have been invited to speak, join committees and Editorial boards nationally and internationally. Furthermore, I have taken the lead on new questions arising from the work to further strengthen the evidence addressing these topics. An example of this is the multicentre, randomized study of early versus late androgen deprivation therapy (ELAAT). An example where a guideline in which I was senior author has a significant impact on patient and healthcare outcomes was the recent Cancer Care Ontario guideline on the use of low-dose rate brachytherapy. This conclusions of this guideline led to a Cancer Care Ontario funding decision, allow patients with intermediate-risk disease to have access to this highly effective (97% 5-year biochemical control) with only one outpatient treatment (compared to 16-39 treatments).

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

<table>
<thead>
<tr>
<th>Date</th>
<th>Role</th>
<th>Grant Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Jul - 2020 Jun</td>
<td>Co-Principal Investigator</td>
<td>A phase III multi-centre open-label randomized controlled trial of multi-parametric magnetic resonance imaging (MRI)-targeted biopsy compared to systematic trans-rectal ultrasound (TRUS) guided biopsy for the diagnosis of prostate cancer in men without prior biopsy. Prostate Cancer Canada. Translation Acceleration Grant. PI: Klotz, L. Collaborator(s): Haider, M (co-PI), Loblaw, A (co-PI), Milot L, Earle C. 1,500,000 CAD. [Clinical Trials]</td>
</tr>
<tr>
<td>2016 Jul - 2017 Jun</td>
<td>Co-Principal Investigator</td>
<td>A phase III multi-centre open-label randomized controlled trial of</td>
</tr>
</tbody>
</table>
multi-parametric magnetic resonance imaging (MRI)-targeted biopsy compared to systematic trans-rectal ultrasound (TRUS) guided biopsy for the diagnosis of prostate cancer in men without prior biopsy. OICR. Clinical Trial Initiative. PI: Klotz, L. Collaborator(s): Haider, M (co-PI), Loblaw, A (co-PI), Milot L, Earle C. 519,399 CAD. [Clinical Trials]


2013 Jun - 2020 Jun  **Co-Principal Investigator.** A Randomized Phase II Trial of High Dose-Rate Brachytherapy as Monotherapy in Low and Intermediate Risk Prostate Cancer. abbvie-ACURA Award. PI: Morton, Gerard. Collaborator(s): **Loblaw, Andrew**; Chung, Hans; Cheung, Patrick, Ravi, Ananth; Nam, Robert. 30,000 CAD. [Clinical Trials]


2012 - 2014  **Co-Investigator.** Pilot Study of Focal Salvage HDR Prostate Brachytherapy. CARO-ACURA. Award. Collaborator(s): Chung H, **Loblaw DA** (C), Morton G, Haider M, Ravi A. 23,250 CAD. [Grants]


2011 - 2018  **Principal Investigator.** Randomized Phase II Study of Two Extreme Hypofractionated Radiotherapy Schedules for Low and Intermediate Risk Prostate Cancer. Prostate Cancer Canada. Collaborator(s): Quon H, **Loblaw DA** (CPI). 119,500 CAD. [Grants]


2011 - 2013  **Principal Investigator.** Nomogram predicting the 7-year biochemical disease free survival after external beam radiation therapy (EBRT) and androgen deprivation therapy (ADT) for high risk prostate cancer patients. CASARIA. Collaborator(s): D’Souza N, **Loblaw DA** (SRA), Cheung P, Kattan M. 12,000 CAD. [Grants]

2011 - 2012  **Co-Investigator.** Conventional Frequency Spectroscopic Ultrasound Imaging as a Personalized Measure of Treatment Response to External-beam Radiotherapy. CARO-ACURA. Collaborator(s): Chung H, Czarnota G, Morton G, **Loblaw A** (C). 19,625 CAD. [Grants]

2010 - 2011  **Principal Investigator.** Assessing the Radiosensitizing Capacity of Capsaicin. RACZER. Award. Collaborator(s): **Loblaw DA** (CPI), Venkatesawaran V, Klotz L, Venier N, Colquhoun A, Fleshner N. 25,500 CAD. [Grants]

2010 - 2011  **Co-Investigator.** Integration of MRI into Prostate Radiotherapy. Motorcycle Ride for Dad. Collaborator(s): Chu W, **Loblaw DA** (C), Cheung P, Quon H, Haider M, Stanicz G, Cunningham C. 39,000 CAD. [Grants]

2009 - 2010  **Principal Investigator.** Matched control-analysis of salvage prostatectomy (SP) versus salvage radiotherapy (SRT) for T1 or T2 low or intermediate risk prostate cancer. CUOG. Research Award. Collaborator(s): Quon H, **Loblaw DA** (SRA). 12,500 CAD. [Grants]


2009 - 2010  **Co-Investigator.** Can genetic variants predict aggressive disease in prostate cancer patients managed with Active Surveillance? CARO-ACURA. Collaborator(s): Vesprini D, Klotz L, Nam R, Narod S, **Loblaw DA** (C). 34,653 CAD. [Grants]

2009  **Principal Investigator.** Matched control-analysis of salvage prostatectomy (SP) versus salvage radiotherapy (SRT) for T1 or T2 low or intermediate risk prostate cancer. Canadian Radiation Oncology Foundation. Fellowship Grant. Collaborator(s): Quon H, **Loblaw DA** (SRA). 5,000 CAD. [Grants]


2007 - 2008  **Co-Investigator.** Phase II study of single fraction High Dose-Rate (HDR) brachytherapy and hypofractionated external beam radiotherapy in men with intermediate risk carcinoma of the prostate. Motorcycle Ride For Dad. Collaborator(s): Morton G, **Loblaw DA**, Sankreecha R, Gardner S. 60,000 CAD. [Grants]

2007 - 2008  **Principal Investigator.** The role of bound prostate specific antigen in predicting risk of progression in the active surveillance population with low risk localized prostate cancer. CUOG-AstraZeneca. Fellowship Award. Collaborator(s): Tang C, **Loblaw DA** (SRA), Klotz L. 9,940 CAD. [Grants]


2005


2003 - 2004


2003 - 2004


2003 - 2004


2002 - 2005


2002 - 2003


NON-PEER-REVIEWED GRANTS

FUNDED

2014 Jul - 2018 Jun

Co-Investigator. Comprehensive Stereotactic Radiotherapy for Oligometastatic Prostate Cancer: A Phase I/II Study Proposal (CROP). Abbvie. Investigator Initiated Grant. PI: Cheung P. Collaborator(s): Chung P, Loblaw A, Sahgal A, Bristow R. 250,000 CAD. [Clinical Trials] 
Multicentre, phase 2 trial.

2011 - 2019


2011


2010

Principal Investigator. Educational grant for CME event, GU Conversations, Mississauga,
April 7, 2010. AstraZeneca. Collaborator(s): Dayes I. 12,000 CAD. [Grants]

2010


2009

**Principal Investigator.** Educational grant for CME event, GU Conversations, Mississauga, April 8, 2009. AstraZeneca. Collaborator(s): Dayes I. 15,000 CAD. [Grants]

2009


2009


2009

**Principal Investigator.** Educational grant for CME event, Future Directions of University of Toronto Radiation Oncology Research, Toronto, Oct 8, 2009. AstraZeneca. Collaborator(s): Catton C. 4,000 CAD. [Grants]

2008

**Principal Investigator.** Educational grant for CME event, GU Conversations, Mississauga, April 2, 2008. AstraZeneca. Collaborator(s): Dayes I. 15,000 CAD. [Grants]

2008


2008

**Principal Investigator.** Educational grant for CME event, Future Directions of University of Toronto Radiation Oncology Research, Toronto, Nov 27, 2008. AstraZeneca. Collaborator(s): Catton C. 6,000 CAD. [Grants]

2007 - 2015


2007 - 2008


2007

**Principal Investigator.** Educational grant for CME event, GU Conversations, Mississauga, March 28, 2007. AstraZeneca. Collaborator(s): Dayes I. 15,000 CAD. [Grants]

2007


2006 - 2020


2003  Principal Investigator. Educational grant for CME event, Urological Conversations, April 2003. AstraZeneca. 5,000 CAD. [Grants]


2002  **Principal Investigator.** Educational grant for CME event, Urological Conversations, April 2002. AstraZeneca. 5,000 CAD. [Grants]

2. **SALARY SUPPORT AND OTHER FUNDING**

**Personal Salary Support**


**E. Publications**

1. **MOST SIGNIFICANT PUBLICATIONS**


   *Based on a systematic review of the literature led by Dr. Loblaw, this clinical practice guideline makes recommendations on the use of systemic therapies for men with castrate resistant prostate cancer. This will help refine current practice and set practice standards in North America and globally.*


   *This reports our group’s 5-year prospective phase I/II experience with stereotactic ablative radiotherapy for low-risk prostate cancer. It is the only series to only use standard linear accelerators and one of the largest and longest series reported to date of SABR for prostate cancer.*

   12 citations (Google Scholar Aug 2014).

*Evidence-based medicine lies in the centre of high-quality provision of care. However, there are many areas where there exists uncertainty and limited evidence where traditional systematic reviews of the literature cannot be performed. This methodologic paper describes ASCO’s development of guidelines on topics for which limited evidence is available by using a formal consensus process.*

17 citations (Google Scholar Aug 2014).


*This reports our group’s early phase I/II experience with stereotactic ablative radiotherapy for low-risk prostate cancer. It is the only series to only use standard linear accelerators and one of the largest and longest series reported to date of SABR for prostate cancer.*

45 citations (Google Scholar Aug 2014).


*This work systematically identified, collected and synthesized the evidence on the initial use of androgen deprivation for defined groups of men with prostate cancer. This refined current practice, particularly surrounding the issue of bicalutamide combined androgen blockade and the timing of androgen deprivation therapy for the disease population.*

336 citations (Google Scholar Aug 2014).


*This work systematically identified, collected and synthesized the evidence on the management of malignant spinal cord compression. This is an update of one of the first evidence-based guidelines produced on this topic (created by the author) and further refined current practices, particularly surrounding the role of surgery versus radiotherapy.*

240 citations (Google Scholar Mar 2015).


*This work systematically identified, collected and synthesized the evidence on the initial use of androgen deprivation for defined groups of men with prostate cancer. This refined current practices but also identified gaps in research knowledge to focus future research efforts.*

182 citations (Google Scholar Mar 2015).


*This was the first population-based study of malignant spinal cord compression (MSCC) published. This work reported the risk of MSCC in the last five years of life and set the stage for risk-based interventions to prevent the neurologic sequelae of MSCC.*

193 citations (Google Scholar Mar 2015).

   *This was the first outpatient satisfaction with physician questionnaire. It was short, clear and demonstrated strong reliability and validity testing.*
   *88 Citations (Google Scholar Mar 2015).*


   *This work systematically identified, collected and synthesized the evidence on the management of malignant spinal cord compression. This was the first evidence-based guideline of malignant spinal cord compression (MSCC) published in the literature.*

### 2. PEER-REVIEVED PUBLICATIONS

**Journal Articles**


54. Young S, Bansa P, Vella E, Finelli A, Levitt C, **Loblaw A**, and the Prostate Cancer Referral Expert Panel. Referral of Suspected Prostate Cancer by Family Physicians and Other Primary Care Providers. EBS 24-3. CancerCare Ontario guidelines. **Coauthor or Collaborator.**


60. **Loblaw DA**. The Overuse of Intensity-modulated Radiotherapy and the Role of the Healthcare Payer. Clin Oncol (R Coll Radiol). 2012 Sep;24(7):459-60. **Principal Author.**


65. **Loblaw DA**. Be it resolved that in the modern era, the best method for dose escalation is brachytherapy: The con position. Can Urol Assoc J. 2012 Jun;6(3):199-201. **Principal Author.**


84. **Loblaw DA.** A New Dawn in Prostate Cancer Management: Do We Have the Trials to Support it? CUAJ. 2011 Jun;5(3):180-1. **Principal Author.**


91. Stevens C, Bondy S, **Loblaw DA.** Wait Times in Prostate Cancer Diagnosis and Radiation Treatment. CUAJ. 2010 Aug;4(4):243-8. **Senior Responsible Author.**


93. Jankovic B, Nam R, **Loblaw DA.** Capsaicin May Slow PSA Doubling Time: Case Report And Literature Review. CUAJ. 2010 Feb;4(1):9-11. **Senior Responsible Author.**


Douglas Andrew Burr LOBLAW


Books Edited


Book Chapters

Clinical Care Guidelines


Conference Publications


Comment, Journal Article


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


http://www.washingtonpost.com/wp-dyn/content/article/2007/04/02/AR2007040201346.html


Books


### Books Edited


### Book Chapters


9. **Loblaw DA**, Enright K, McWhirter E. Malignant spinal cord compression. In: TSRCC breast site group treatment policies, ed, Clemons M, Toronto Sunnybrook Regional Cancer Center, Toronto; 2003. **Principal Author**.


**Letters to Editor**


**In Preparation**


**4. SUBMITTED PUBLICATIONS**

**Journal Articles**


**F. Presentations and Special Lectures**

1. **INTERNATIONAL**

**Invited Lectures and Presentations**

2014 Jun 26 **Visiting Professor.** Image-Guided Diagnosis and Treatment: The Future of Prostate Cancer Care has Arrived. Queen’s University. Belfast, Belfast, United Kingdom. Presenter(s): Loblaw A.

2014 Jun 26 **Keynote Speaker.** Update in the Management of Prostate Cancer for the Clinical Oncologist. Janssen UK. Belfast, Belfast, United Kingdom. Presenter(s): Loblaw A.


2014 Mar 28 **Invited Speaker.** SBRT Techniques for treating Prostate Cancer. Elekta Next Meeting. Dallas, Texas, United States. Presenter(s): Loblaw A.

2011 Oct 4 Active Surveillance for Low Risk Prostate Cancer: Recent Data and Future Directions. European School of Oncology. Milan. (Continuing Education).

2011 Jul 7 **Visiting Professor.** Rationale and Feasibility of Focal Therapy for Localized Prostate Cancer. Division of Urology, Munich University. Munich, Germany. July 7 – 8, 2011.

2010 Nov 22 **Visiting Professor.** Active Surveillance and Lifestyle / Dietary interventions. Grand Rounds, Peter MacCallum Cancer Centre, University of Melbourne. Melbourne, Australia. (Continuing Education).

2010 Nov 22 **Visiting Professor.** Radiobiology for residents. Peter MacCallum Cancer Centre, University of Melbourne. Melbourne, Australia.

2010 Nov 17 **Visiting Professor.** Hypofractionation in prostate cancer. Calvary Mater Hospital, University of Newcastle. Newcastle, Australia. (Continuing Education).

2010 Nov 17 **Visiting Professor.** Radiobiology for residents. Calvary Mater Hospital, University of Newcastle. Newcastle, Australia.

2010 Nov 17 **Visiting Professor.** Active Surveillance: current approaches and future directions. Calvary Mater Hospital, University of Newcastle. Newcastle, Australia. (Continuing Education).

2010 Nov 16 **Visiting Professor.** Salvage Therapy in Prostate Cancer. Calvary Mater Hospital, University of Newcastle. Newcastle, Australia. (Continuing Education).


2010 Feb 20 Invited Panelist. Be it resolved that the recent screening trials validate that prostate cancer screening adds significant value to health care. Issues & Controversies in Prostate Care. Las Vegas, United States. (60 attendees). (Continuing Education).


Presented Abstracts

2013 Sep 23 Senior Responsible Author. Comparison of Biochemical and Toxicity Outcomes from a Contemporaneous Cohort Study of Low-Risk Prostate Cancer Treated with Different Radiation Techniques. ASTRO. Atlanta, Georgia, United States. Presenter(s): Sethukavalan P. abstract# 2121. (Trainee Presentation).

2012 Oct 31 Senior Responsible Author. Dose Escalation of Five-Fraction Radiotherapy for Prostate Cancer: Quality of Life Comparison of Two Prospective Trials. ASTRO. Boston, Massachusetts, United States. Presenter(s): Andrew Loblaw. (Trainee Presentation).


2006 Feb Updated Follow-up of Active Surveillance with Selected Delayed Intervention for Localized Prostate Cancer. ASCO / AUA / SUO Prostate Cancer Symposium. San Francisco. (500 attendees). (Continuing Education).


Presented and Published Abstracts

2016 Jan 8  Co-author. Early toxicity in a randomized trial of high dose-rate (HDR) brachytherapy as monotherapy for low- and intermediate-risk prostate cancer. GU Cancer Symposium. San Francisco, California, United States. Presenter(s): Morton G.

Publication Details:

2016 Jan 8  Co-author. MRI response to focal salvage HDR prostate brachytherapy for locally recurrent prostate cancer after external-beam radiotherapy. GU Cancer Symposium. San Francisco, California, United States. Presenter(s): Chung HT.

Publication Details:

2016 Jan 8  Senior Responsible Authors. Phase I/II study of stereotactic ablative radiotherapy including regional lymph node irradiation for patients with high-risk prostate cancer (SATURN): Early results. GU Cancer Symposium. San Francisco, California, United States. Presenter(s): Musunuru HB. (Trainee Presentation)

Publication Details:

2016 Jan 8  Senior Responsible Authors. Predictive parameters of symptomatic haematochezia following 5-fraction gantry-based SABR in prostate cancer. GU Cancer Symposium. San Francisco, California, United States. Presenter(s): Musunuru HB. (Trainee Presentation)

Publication Details:

2015 Oct  Two Stereotactic Ablative Radiotherapy Treatments (2STAR) for Localized Prostate Cancer: Feasibility and Early Results. American Society for Therapeutic Radiology and Oncology. United States. (Trainee Presentation)

Publication Details:

Publication Details:

Coauthor or Collaborator.

2015 Oct

Publication Details:

2015 Oct

Publication Details:

2015 Oct

Publication Details:

Media Appearances

2007 Apr 18 People Living With Cancer. ASCO. http://www.plwc.org/portal/site/PLWC/menuitem.169f5d85214941ccfd748f68ee37a01d/?vgnextoid=33d241eca8daa010VgnVCM100000ed730ad1RCRD.

2. NATIONAL

Invited Lectures and Presentations
2015 Nov 21 Invited Speaker. Improving patient care collaboratively – A multidisciplinary formal consensus based
patient information guide. GUROC. Toronto, Ontario, Canada. (Continuing Education).

2015 Nov 11  **Visiting Professor.** Changes in the Management of Localized Prostate Cancer. CHUM - Hopital Maisonneuve-Rosemont. Montreal, Quebec, Canada. (Continuing Education).

2015 Nov 11  **Invited Speaker.** What’s the Best Ablative Treatment for Localized Prostate Cancer? AbbVie. Montreal, Quebec, Canada. (Continuing Education).


2013 Mar 8  Be it resolved that in the modern era, the best method for dose escalation is brachytherapy. Issues and Controversies in Prostate Care. Whistler. (Continuing Education).

2012 Mar 10  Be it resolved that men with locally advanced prostate cancer are under treated and the breast cancer model of sequential therapy should be applied. Issues and Controversies in Prostate Care. Whistler. (Continuing Education).

2012 Mar 9  Adjuvant Radiation in High Risk Disease – It’s not whether you need it, it’s in whom you recommend it. Issues and Controversies in Prostate Care. Whistler. (Continuing Education).


2011 Feb 23  Radiation Trials Update. Prostate Cancer Consultant Meeting. Whistler. (Continuing Education).


**Presented Abstracts**

2009 Oct  **Presenter.** Active Surveillance with Selected Delayed Intervention for Localized Prostate Cancer: Outcomes after 13 Years of Follow-up. CARO Annual Scientific Meeting. Quebec City. (Continuing Education).

2009  Phase 2 study evaluating post-operative radiotherapy (RT) plus 2-year androgen suppression (AS) for
post-radical prostatectomy patients with pt3 and/or positive surgical margins. 22nd CARO Annual Scientific Meeting. Choo R, Danjoux C, Gardner S, Morton G, Szumacher E, Loblaw DA, Cheung P, Pearse M.

2009
The dosimetric significance of catheter displacement in prostate high dose rate (HDR) brachytherapy. 22nd CARO Annual Scientific Meeting. Solliman H, Sankreacha R, Hunt D, Loblaw D, Morton G.

2008

2008

2008

2007 Jun

2006 Sep

2004 Sep

2004 Jun

2004 Jan

2002 Oct 25

2002 Oct
Lessons learned from an electronic database comparison and chart reabstraction audit of a population-based, linked administrative database. Canadian Association of Radiation Oncology Annual Meeting. Toronto. (Continuing Education).

2001 Sep

2000 Apr 30


Presented and Published Abstracts

2017 Apr 1 Presenter. FIGHTING PROSTATE CANCER WITH OUR EYES OPEN: IMPACT OF MRI STAGING ON RISK ASSESSMENT AND RADIATION THERAPY. Canadian Association of Radiation Oncologists (CARO). Banff, Alberta, Canada. Presenter(s): Carmen Ji. abstract 116. (Trainee Presentation)

Publication Details:
FIGHTING PROSTATE CANCER WITH OUR EYES OPEN: IMPACT OF MRI STAGING ON RISK ASSESSMENT AND RADIATION THERAPY. Senior Responsible Author.


Publication Details:


Publication Details:


Publication Details:
Quality of Life (QOL) and Toxicity Outcomes of a Pilot Study of Focal Salvage High Dose Rate (HDR) Prostate Brachytherapy in Patients with Local Recurrence after Definitive External-Beam Radiotherapy (XRT). Radiotherapy and Oncology. 2015 Sep;116(Supp 1):S26.

2015 Sep **Co-Author or Collaborator.** High Dose Rate Brachytherapy for Localized Prostate Cancer: Is There an Optimal Implant? Canadian Association of Radiation Oncologists (CARO). Presenter(s): Helou J, Morton G, Davidson M, Chung H, **Loblaw A**, D’Alimonte L, Ravi A. Poster Presentation

_Abstract 103._

**Publication Details:**


_Abstract 140._

**Publication Details:**

2015 Sep **Presenter.** Testosterone Flare in Patients with High-Risk Localized Prostate Cancer Receiving Luteining Hormone Releasing Hormone Agonists in a Prospective Non-Randomized Clinical Trial. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Musunuru HB, Klotz L, Vesprini D, Zhang L, Sethukavalan P, Mamedov A, Jethava V, Jain S, Tamamoto T, **Loblaw A**. Poster Presentation

_Abstract 141._

**Publication Details:**
Musunuru HB, Klotz L, Vesprini D, Zhang L, Sethukavalan P, Mamedov A, Jethava V, Jain S, Tamamoto T, **Loblaw A**. Testosterone Flare in Patients with High-Risk Localized Prostate Cancer Receiving Luteining Hormone Releasing Hormone Agonists in a Prospective Non-Randomized Clinical Trial. Radiotherapy and Oncology. 2015 Sep;116(Supp 1):S51. **Principal Author.**

**Lectures and Other Presentations**


3. **PROVINCIAL / REGIONAL**

**Invited Lectures and Presentations**

2014 Apr 11 **Visiting Professor.** Advancements in the Management of Metastatic Prostate Cancer. Northeastern Ontario Regional Cancer Centre. Sudbury, Ontario, Canada. Presenter(s): **Loblaw A**.

2014 Apr 10 **Visiting Professor.** What's New in GU? Sudbury Uro-Oncology. Sudbury, Ontario, Canada. Presenter(s): **Loblaw A**.

2013 Apr 15 **Invited Speaker.** Improving Patient Care with a Multidisciplinary, Rapid Diagnosis Prostate Centre. Niagara Urology Group. Niagara Falls, Ontario, Canada. Presenter(s): **Loblaw A**.
2013 Mar 27  **Visiting Professor.** Doing More with Less in Prostate Cancer. Ottawa Regional Cancer Centre. Ottawa, Ontario, Canada. Presenter(s): **Loblaw A.**

2013 Mar 26  **Visiting Professor.** When will SBRT be the new standard treatment for prostate cancer? Ottawa Regional Cancer Centre. Ottawa, Ontario, Canada. Presenter(s): **Loblaw A.**


2012 Jan 18  **Invited Speaker.** Improving Prostate Outcomes, Treatment Capacity and Cost through Biological Dose Escalation. GU Disease Site Team Meeting. London, Ontario. Presenter(s): **Loblaw A.** (Continuing Education).

2010 Sep 20  **Invited Speaker.** Prostate Cancer Clinic: A Care Model. University of Western Ontario Fall Review in Uro-Oncology. Niagara-on-the-Lake, Ontario. (Continuing Education).


2008 Apr 3  **Invited Speaker.** Prostate Radiotherapy & Salvage Therapies. Quebec Radiation Oncology Forum. Montreal, Quebec. (30 attendees). (Continuing Education).


2006 Sep 19  Ongoing Controversies in Androgen Deprivation Therapy for Prostate Cancer. Ottawa, Ontario.


2006 Jun 22  **Visiting Professor.** The Optimal Timing of Androgen Deprivation Therapy for Recurrent Prostate Cancer after Radical Radiotherapy. Sudbury, Ontario. (20 attendees). (Continuing Education).


2003 May  **Invited Speaker.** Residency selection made ridiculously simple. School of Medicine, McMaster University. Hamilton, Ontario. Lecturer to 200 medical students from McMaster.

2002 Oct  **Invited Speaker.** Taking control of your future medical career. Ontario Medical Student Weekend. Toronto, Ontario. Lecturer for two 2-hour presentations of approximately 50 medical students from around
Ontario.


**Presented Abstracts**


**Lectures and Other Presentations**


2009 Sep 23  **Speaker.** Active Surveillance Educational Evening. (30 attendees). (Continuing Education).


2008 Jun 20  **Visiting Professor.** Defining The Optimal Timing Of Androgen Deprivation Therapy For Recurrent Prostate Cancer After Radical Radiatiion - The ELAAT Trial. GU Rounds, Kingston Regional Cancer Center. Kingston. (Continuing Education).


2007 Mar  **Speaker.** GU Conversations. Mississauga. (Continuing Education).

2006 Jun 23  **Visiting Professor.** ASCO Update on the Initial Androgen Treatment for Progressive, Metastatic or Recurrent Prostate Cancer. Oncology Grand Rounds, North East Ontario Regional Cancer Centre. (40 attendees). (Continuing Education).

2006   **Visiting Professor.** The Optimal Timing of Androgen Deprivation Therapy for Recurrent Prostate Cancer After Radical Radiotherapy. Sudbury.


2004 Mar 31 Speaker. GU Conversations. Mississauga. (Continuing Education).

4. LOCAL

Invited Lectures and Presentations

2013 Apr 9 Invited Speaker. When will SBRT be the new standard treatment for prostate cancer? Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Loblaw A.


2011 Dec 14 Invited Speaker. What is New in Prostate Cancer Management? Medical Grand Rounds, Women’s College Hospital. (Continuing Education).


2011 Apr 28 Radiation and hormones should be the standard of care for high risk localized prostate cancer. Toronto Urology Rounds. Toronto. (Continuing Education).

2011 Apr 28 The Value of Biological Dose Escalation in Prostate Cancer. Department of Radiation Oncology Rounds, University of Toronto. Toronto. (Continuing Education).


2005 Mar Taking Control of Your Future Medical Career. 3rd Year Medicine, University of Toronto. Toronto, Ontario.

2004 Nov Management of pathological fractures and spinal cord compression in palliative care. The Science and Art
of Pain and Symptom Management, University of Toronto. Toronto, Ontario. (100 attendees). (Continuing Education).


**Presented Abstracts**


**Lectures and Other Presentations**

2008 Apr 16  What Is Active Surveillance and is it the Best Management Option for my Prostate Cancer? Sunnybrook Speaking Series. (300 attendees). (Presentation to Patients/Public).

5. OTHER

**Presented and Published Abstracts**


2015 Sep  **Senior Responsible Author.** Radiotherapy Treatment Volume and Rectal Dosimetry Predict Clinically Significant Hematochezia in Gantry-Based Five Fraction Prostate SABR. Canadian Association of Radiation Oncologists (CARO). Poster Presentation Abstract 88.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Undergraduate MD

2011 Jul - 2012 Jun  Primary Supervisor. Andrew Chiang. 5 Alpha-Reductase Inhibitors in Men on Active Surveillance.

Postgraduate MD

2009 Jul - 2010 Jun  Primary Supervisor. Harvey Quon. Sequencing of Treatment Modalities for Localized Prostate Cancer after Recurrence. Awards: CUOG-AstraZeneca Award and Cdn Radiation Oncol Foundation Travel Award obtained for work.
2006 Jul - 2009 Jun  Primary Supervisor. Colin Tang. The Role of Bound Prostate Specific Antigen in Predicting
**Risk of Progression in the Active Surveillance Population with Low Risk Localized Prostate Cancer.** Awards: CUOG-AstraZeneca Fellowship Award.

2005 Jul - 2008 Jun  **Primary Supervisor.** Charles Cho.
2004 Jul - 2004 Aug  **Primary Supervisor.** Ravi Mohan.
2002 Jul - 2008 Jun  **Primary Supervisor.** Christiaan Stevens.
2002 Jul - 2006 Jun  **Co-Supervisor.** Hanna Carolan. Awards: ASCO Award of Merit, 2005 Prostate Cancer Symposium, Orlando.
2000 Jul - 2001 Jun  **Primary Supervisor.** Dante Morra.

### 2. OTHER SUPERVISION

**Graduate Education**

- **External Reviewer**

### H. Creative Professional Activities

#### 1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2013 Jul 1 - present  Improving Outcomes through Clinical Trials for Men with Prostate Cancer. Using my formal training and expertise in clinical trial design, conduct and analysis, I have been awarded a number of research grants investigating new radiotherapy techniques and hormonal maneuvers. The main thrust of my research work was to document the feasibility, tolerability and efficacy of stereotactic ablative radiotherapy (SABR) using standard linear accelerators. Our group is among a few internationally who have been recognized for this paradigm-changing work. Since my last promotion, I am the PI or co-PI on 8 prospective clinical trials: 6 of which have peer-reviewed grants supporting them, 2 of them are randomized controlled trials and one of these is being performed in a multicentre study context. We’ve shown that 5 treatments of SABR can be iso-effective and iso-toxic compared to 38 treatments of external beam radiation for low-risk prostate cancer patients. Furthermore, our group has shown that 33 fewer visits is more convenient for patients, saves that almost $2,000 in out-of-pocket costs, increases radiotherapy throughput by 7-fold and decreases per patient departmental costs by 80%. As a result, I have been awarded more peer-reviewed funding to further study and refine these approaches, including a national, multicentre, phase 2 randomized study; I have been invited to lead an international consortium on prostate SBRT; and I have received various national and international speaking invitations to share our work and vision.

2000 Aug - 2007 Jun  Medical Career Guidance Summary. Career selection is the single most stressful factor in medical students’ lives. Despite this, there was no nationally available career guidance program to address the students’ needs. When I moved to Toronto in 1995 to begin my residency, I co-founded the Medical Advancement Steering Committee (MASC), to address an unmet need for career guidance for the University of Toronto medical students. My Office of Student Affairs colleagues and I hired a project coordinator to develop a University of Toronto guide that was published in 1998 after securing sponsorship from the Canadian Medical Association and MD Management.
My role continued after I became Staff at the Toronto Sunnybrook Regional Cancer Center (now Odette Cancer Centre). Responding to numerous emails and verbal requests for the University of Toronto guide, MASC hired a series of project coordinators to develop a handbook that address the career needs of Canadian medical students. Included in the work were focus groups with students to identify their specific needs; developing and administering questionnaires for Program Directors about aspects of candidates that were highest regarded; engaging and coordinating a legion of medical student volunteers to write the specific book chapters on every direct entry residency program available in Canada; partnering with CaRMS to reproduce vital match statistics and Program Director Surveys; and performing exit interviews with graduating medical students on strategies they found most valuable in the CaRMS Match. In February 2001, we released the second edition of Taking Control of Your Future Medical Career, again with sponsorship from the CMA and MD Management.

MASC provided a copy to every English-speaking senior medical student in Canada distributed by the Canadian Federation of Medical Students (CFMS) and have sold over 1500 additional copies of the 2nd edition. As a result, I have been invited to present at the 2002 and 2003 Ontario Medical Student Weekends as well as at several universities. I gained approval to survey Ontario Postgraduate Medical Residency Directors in 2003, hired a student to perform the work and oversaw data collection and analysis. In 2004, two medical residents and I incorporated Medical Career Services, Inc (MCSI), on which I currently serve on the Board of Directors as Secretary and Director of Research. The objectives of MCSI are to produce high-quality research required for medical student career decision-making; to disseminate this data through lectures, web and print-based media; to provide consultation to medical schools on career decision-making resources and programs; and to liaise with financial partners and students to augment student financial knowledge and security.

MCSI partnered with RBC Insurance to produce the 3rd edition. I was Editor-in-Chief of this edition of which 2000 copies were printed in January 2005. Significant improvements were made to this edition in terms of layout, graphics, content and comprehensiveness of data. Most notable is that all Residency Program data were reviewed and approved by the respective Program Directors and their Postgraduate Medical Education Deans. Again, a copy was provided free to every English-speaking senior medical student in Canada distributed by CFMS representatives and all additional copies have been sold, some to students from the United States, Israel and Saudi Arabia. I stepped down as Editor-in-Chief for the 4th edition, but remained on the Editorial Board. Data was updated and most significantly this edition was published in English and French in August 2006. A free copy has been provided to every senior medical student in Canada. Sales of the other copies are ongoing. A website (www.medcareerservices.com) has been developed (currently under construction) and a national speaking series on career and financial planning for medical students has been established.

2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2013 Jul - present Improving the Quality of Care for Prostate Cancer. The foundation of evidence-based medicine is the systematic review and the resultant clinical practice guideline (CPG). The latter is the clinical application of the data on a given topic and is represents the product most likely to represent the truth. As such, these CPGs are widely disseminated and are used for funding decisions and audits of quality of care. Since my last promotion, I have been invited to co-chair both CancerCare Ontario’s Program in Evidence-Based Care Genitourinary Group and the American Society of Clinical Oncology’s Genitourinary Guidelines Advisory Group. I continue to lead guidelines for the management of androgen-sensitive prostate cancer, management of castrate-resistant prostate cancer and management of malignant spinal cord compression, of which prostate cancer patients are at greatest risk. These guidelines have been published in peer-reviewed journals of international stature and
have led to setting and changing practice standards internationally. The work has been widely cited in top-named journals; I have been invited to speak, join committees and Editorial boards nationally and internationally. Furthermore, I have taken the lead on new research questions arising from the work to further strengthen the evidence addressing these topics. An example of this is the multicentre, randomized study of early versus late androgen deprivation therapy (ELAAT). An example where a guideline in which I was senior author has a significant impact on patient and healthcare outcomes was the recent CancerCare Ontario guideline on the use of low-dose rate brachytherapy. This conclusions of this guideline led to a CancerCare Ontario funding decision, allow patients with intermediate-risk disease to have access to this highly effective (97% 5-year biochemical control) with only one outpatient treatment (compared to 16-39 treatments).
Curriculum Vitae

Lee Manchul
MD, MHPE, FRPC

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

Primary Office
Princess Margaret Hospital/University Health Network
Department of Radiation Oncology
610 University Ave
Toronto, Ontario, Canada
MSG 2M9

Telephone 416-946-2963
Email lee.manchul@rmp.uhn.on.ca

1. EDUCATION

Degrees
2002 MHPE, University of Chicago, Chicago, Illinois, United States
1983 MD, University of Toronto, Toronto, Ontario, Canada
1974 BSc, Honours, University of Toronto, Toronto, Ontario, Canada
Victoria Park Secondary School, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1985 Jul - 1988 Jun Radiation Oncology

Qualifications, Certifications and Licenses
1989 - present Fellow, Royal College of Physicians and Surgeons of Canada
1983 - present Licentiate, Medical Council of Canada, License / Membership #: CPSO 52635

2. EMPLOYMENT

Current Appointments
1992 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1990 - present Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1990 - present Courtesy Consultant, Credit Valley Hospital, Toronto, Ontario, Canada
1990 - present Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2000 - 2002 AMS/Wilson Senior Fellowship, Associated Medical Services. (Distinction)

PROVINCIAL / REGIONAL
Received
1970 Ontario Scholar, Government of Ontario. (Distinction)

LOCAL
Received
2003 MHPE Best Thesis Award, University of Illinois at Chicago. (Distinction)
1970 David Fear Fellowship in Continuing Education, University of Toronto. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, Alliance for Continuing Medical Education
Member, American Association for Cancer Education
Member, Association of American Medical Colleges
Member, Canadian Association of Medical Education
Member, Canadian Association of Radiation Oncologists
Member, College of Physicians and Surgeons of Ontario
Member, Northeast Group on Educational Affairs
Member, Ontario Medical Association
Member, Royal College of Physicians and Surgeons of Canada
Member, Society for Academic Continuing Medical Education
Member, University of Toronto Joint Centre for Bioethics

Administrative Activities

INTERNATIONAL
Other Organizations
2003 Member, Organizing committee
“Advances in Breast Cancer: From Molecular Pathology and Imaging to Therapeutics” given June 20, 2003.
Lee MANCHUL

2011 - present  **Chair**, Northeast Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology
2006 - present  **Section leader**, Continuing Medical Education, Northeast Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2009 - 2011  **Chair Elect**, Northeast Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology
2004 - 2006  **Chair**, Continuing Medical Education Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2004 - 2006  **Chair**, CME Section, Group on Educational Affairs, Continuing Education
2003 - 2004  **Chair Elect**, CME Group on Educational Affairs, Continuing Education
2002 - 2004  **Chair Elect**, Steering Committee, CME Group on Educational Affairs, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

**Northeast Group on Educational Affairs**
2006 - 2008  **Chair**, CME Section, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

**Society for Academic Continuing Medical Education**
2003 - present  **Chair**, Education Research Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2002 - present  **Member**, Research Endowment Council, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2001 - present  **Member**, Organizing Committee, Fall and Spring meetings
2003 - 2004  **Chair**, Research Committee
2001 - 2002  **Vice Chair**, Research Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

**NATIONAL**

**CME Congress 2004**
2004 May  **Member**, Scientific program committee and abstract reviewer, Toronto.

**RCPSC Accredited Provider’s Conference**
2003 Nov  **Member**, Program Committee, Ottawa, Ontario.

**LOCAL**

**Princess Margaret Hospital**
1997 - present  **Member**, Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology
2003 - 2008  **Chair**, Breast Cancer Quality Committee
1998 - 2002  **Chair**, Radiation Medicine Education Committee, Faculty of Medicine, Dept of Radiation Oncology
1997 Dec  **Member**, Organizing Committee and Faculty, PMH CME Day “CME for the CME Provider”, Toronto.

**University of Toronto**
2010 - present  **Chair**, Continuing Education Awards Committee, Faculty of Medicine, Continuing Education
2005 - present  **Member**, Faculty Council
2002 - present  **Member**, Oncology Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
1997 - present  **Member**, Faculty Council Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

1997 - present  **Member**, Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology

1992 - present  **Member**, Undergraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD


2006 - 2008  **Chair**, Faculty Council Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

2006 - 2008  **Member**, Strategic planning working group, Office of Continuing Education and Professional Development, Faculty of Medicine, Continuing Education

2006 - 2008  **Member**, Defining and developing the research agenda, Office of Continuing Education and Professional Development, Faculty of Medicine, Continuing Education

2006  **Member**, Planning Committee, Radiation Therapy Program “*Accelerating Interprofessional Practice* presented to 100 radiation therapists and radiation therapy nurses in Kingbridge, Ontario, May 27, 2006.

2005 Apr  **Member**, Program Committee, Dept. of Radiation Oncology Program, Kingston, Ontario. “*The Multidisciplinary Management of Radiation Therapy Induce Acute Effects*” given to 145 therapists and nurses Kingsbridge Conference Centre, King City Ontario, April 2, 2005.

2005 - 2009  **Member**, Agenda Committee, Faculty Council

2005 - 2009  **Chair**, Continuing Education Council, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

2004 Sep - 2010  **Leader**, Centre for Faculty Development Journal Club Leader “Stepping Stones Program”, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development Monthly, 3 hours per month.

2004 May  **Member**, Program Committee, Department of Radiation Oncology program “*The Science and Management of Late Radiation Effects*”

1998 - 1999  **Member**, Undergraduate Medical Education Faculty Development Committee, Wightman-Berris Academy, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD

1997 - 2007  **Director**, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

1992 - 1998  **Member**, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1992  **Member**, Organizing Committee and Sessional Chair, University of Toronto Department of Radiation Oncology Academic Day “Radiation Oncology 25 Years Later”, Toronto.

**Peer Review Activities**

**ASSOCIATE OR SECTION EDITING**

**Associate Editor**

2009 - present  MedEdPORTAL, An electronic repository of medical educational materials

**Web Editor**

2007 - 2008  Association of American Medical Colleges, CME Section Website, Group on Educational Affairs

**PRESENTATION REVIEWS**

**Poster Judge**

1995  Faculty of Medicine Student Research Day
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


NON-PEER-REVIEWED GRANTS

FUNDED


1992 Co-Investigator. A Phase II trial to assess the effects of recombinant human granulocyte colony stimulating factor on neutropenia induced by whole abdominal radiation therapy. Amgen Canada Inc (Mississauga, ON). Collaborator(s): Fyles A, Manchul L. 60,000 CAD.
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2013 Aug  "Essential Skills in Continuing Education and Professional Development, a two-day international course on CEPD". Association for Medical Education of Europe Annual Meeting. Prague, Czech Republic. Authors: Manchul L, Tipping J, Bystrin M.

2011 Aug  "Designing and Analysing Data from Focus Groups for Educational Research". Association for Medical Education of Europe Annual Meeting. Vienna, Austria. Authors: Manchul L and Tipping J. Workshop.


2007 Practice-based team learning: Professional competencies and CPD. Northeast Regional Group on Educational Affairs Annual meeting. Stony Brook.


2006 What can Practicing Physicians Teach and Learn from Residents and Students. Society for Academic CME annual spring meeting. United States. (Continuing Education).

2005 Nov Predicting Clinical Performance, Research in Medical Education. Association of American Medical Colleges annual meeting. United States.
2005 What can practicing physicians teach and learn from medical students and residents? Association of American Medical Colleges annual meeting. United States.

2004 Apr Conflict of Interest in Medical Education. Northeast Group on Educational Affairs Spring meeting. United States.


2004 Interprofessional Education (IPE) and the learning organization CPD at work. Association for Medical Education in Europe. Edinburgh, Scotland.


2003 SARS: Lessons for CME. Plenary session American Association of Medical Colleges annual meeting. United States.

2003 Practice-based team learning at work. Society of Academic Continuing Medical Education Annual Spring Meeting. United States.

2003 SARS: Lessons for CME. American Association of Medical Colleges annual meeting. United States.


2002 ACGME Core Competencies and CME: Practice-based team learning--two for the price of one. Society for Academic Continuing Medical Education Fall Meeting. United States.


2002 The role of tumour conferences and quality assurance rounds in continuing professional development. The Alliance for Continuing Medical Education annual meeting. United States.

2002 Interpersonal and communication skills: Views from the cancer patient’s perspective. American Association for Cancer Education annual meeting. Toronto.


2001 The interprofessional continuing education needs of the radiation oncology team. Society for Academic Continuing Medical Education Fall meeting. United States.

2001 The interprofessional continuing education needs of the cancer health care team. American Association for Cancer Education annual meeting. United States. (Continuing Education).

2000 Strategies to promote interprofessional continuing education. Society for Academic Continuing Medical
Lee MANCHUL

Education Congress meeting. United States.

2000 Tumour conferences at a comprehensive cancer centre can provide objective learning needs. Annual Association for Cancer Education meeting. United States.


Presented Abstracts

2004 Sep Interprofessional Education and the learning organization: CPD at work. Association for Medical Education in Europe Annual Meeting. Edinburgh, Scotland, United Kingdom. Presenter(s): Manchul L.


2. NATIONAL

Invited Lectures and Presentations


2008 From strategic plan to scholarly activity: Moving beyond ideas to advance research and scholarship in CME. CME Congress. Vancouver. (Continuing Education).


2006 How well have we translated the state of the art? An audit of continuing education events. Canadian Association of Continuing Health Education annual meeting. St. John’s.


2004 Sep Essential Components of a Section I Accredited Activity. RCPSC Providers Accreditation Conference. (Continuing Education).

2004 Working and learning together: Creating and evaluating interprofessional education initiatives. CME Congress meeting. Toronto. (Continuing Education).


2004 Interprofessional Education and the Radiation Oncology Team. Canadian Association of Medical Oncologists Annual Meeting. Halifax. Presenter(s): Gelula M.


2003 Interprofessional education and the learning organization. Association of Canadian Medical Colleges/Canadian Association for Medical Education Annual Meeting. Quebec.

2003 A randomized trial of Tamoxifen with or without breast radiation in women over 50 years of age with T1/2 N0 disease. Radiother Oncol CARO. Victoria.

2003 Lack of benefit of chemo-radiation in cervix cancer is not solely related to anemia-induced hypoxia. Radiother Oncol CARO. Victoria.


2003 Learning together across the disciplines Plenary session. Canadian Association for Continuing Education. Halifax.


2001 Practice review rounds. CPD and CQI at work. Canadian Association of Medical Educators and the Association of Canadian Medical Colleges annual meeting. Toronto.

Workshop presented to 30 participants.

2001 Preliminary results of a randomized study of Tamoxifen with and without breast irradiation in T1/2 N0 breast cancer in women over 50 years of age. Canadian Association of Radiation Oncologists annual meeting. Quebec.

2001 The interprofessional continuing education needs of the radiation oncology team. Canadian Association of Radiation Oncologists annual meeting. Quebec. (Continuing Education).

2001 When you don't know what you need to know: Objective learning needs from QA rounds. Canadian Association of Radiation Oncologists annual meeting. Quebec.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


1998 Active Learning in Clinical Teaching. Conjoint Conference on Medical Education. Toronto.

Other Lectures and Presentations

1997 Paramedical Course, Commencement Address. Ontario School of Radiation Therapy Graduation Ceremony. (Continuing Education).

4. LOCAL

Invited Lectures and Presentations

2008 Creation and evaluation of a breast cancer treatment policy manual. Princess Margaret Hospital/University Health Network Breast Cancer Group. Breast Oncology Program, Princess Margaret Hospital (PMH), University Health Network (UHN), University of Toronto. Toronto.

2007 Looking Beyond: An Assessment of the Spiritual Needs of Breast Cancer Patients Undergoing Treatment at Princess Margaret Hospital. Princess Margaret Cancer Centre. Toronto.


1999 Expand Your Repertoire: How to Make Clinical Teaching Count in Your Career. University of Toronto Faculty. Toronto.

1999 The Teaching Dossier: Depth, Scope and Scholarship. University of Toronto faculty meeting. Toronto.

1997 Interdisciplinary Education at PMH. Continuing Education Day. Toronto. (Continuing Education).
Presented Abstracts

2005 May
Web-based Radiation Oncology Continuing Education: Feasibility, Needs, Challenges, and Outcome Measures. Faculty of Medicine 3rd Annual Educational Achievement Event. Toronto, Ontario. Authors: Manchul L, Wiljer D, Michaelson T.

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

1996 - present
Course Director, Medical Ethics, Radiation Oncology Residents and Surgical Oncology Fellows, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology

2006 May
Course Director: “Target Insight II: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
*May 5-6, 2006. Presented to 135 radiation oncologists, therapists and physicists in Toronto.*

2005 Feb
Course Director: “Update in Gynecologic cancer Prevention”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
*Presented to 150 physicians and nurses, at the Old Mill.*

2003 Sep 26
Director, “Changing Management of Cervical Dysplasia and Early Endometrial Cancer: Achieving a Consensus”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology

2001
Course Director, “Target Insight: Innovative Strategies to Improve Target Volume Definition in Radiation Therapy”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
*Course for Radiation Oncologists, Medical Oncologists, Physicists, Therapist and Scientists.*

1999 - 2000
Course Director, “Issues in Cervix Cancer Screening for Primary Health Care Providers”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
*Oncology CE Course: 220 Physicians, nurses and other health professionals.*

1998 May
Course Director, “Future Directions in Radiation Oncology”, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
*For 180 Radiation Oncologists, Therapists and Physicists and Clinician Scientists.*

1996 - 1997
Design of a competency-based examination for radiation therapists, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology

1996
Organization of a series of workshops on continuing education for continuing education providers, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital

1995 - 2000
Oncology Course Director, OSRT, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
*Lectures, tutorials and student evaluation.*

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2004 - 2005
2002  Primary Supervisor. UT Michener Radiation Sciences Program. “Anemia in cervix cancer patients undergoing chemo-radiation therapy at Princess Margaret Hospital”.

2002  Primary Supervisor. Year IV Radiation Sciences Program. “Assessment of Fatigue in women Receiving Treatment of Cervix Cancer”.

1996 - 1997  Primary Supervisor. Year 2. “Sexual function in women who have received radiation therapy for cervix cancer.”.


Postgraduate MD

Name: McGowan, Stanley, Thomas

Title: Chief of Radiation Oncology
Carlo Fidani Peel Regional Cancer Centre
Credit Valley Hospital

Address: 2200 Eglinton Avenue West
4th floor Administration
Mississauga, ON L5M 2N1
Phone 905-813-1100 x5000
Fax 905-813-3962

E-mail: tmcgowan@cvh.on.ca

DOB: Nov. 20, 1960

ADMINISTRATION POSITIONS

July 2007 to Present  Clinical and IS Consultant
Pathology Checklist Reporting Project-Cancer Care Ontario
Stage Capture Project Leadership Team-Cancer Care Ontario

April, 2005 to June 2007  Clinical Lead
Pathology Checklist Reporting Project-Cancer Care Ontario
Stage Capture Project Leadership Team-Cancer Care Ontario

January, 2004 to Present  Head of Radiation
Credit Valley Hospital

September, 2003 to January 2004  Head Clinical Programs
Director, Analytic Unit
Cancer Care Ontario

January, 2001 to June 2003  President, Medical Director and Founder
Canadian Radiation Oncology Services

October 1991 - March, 2001  Staff Radiation Oncologist
Princess Margaret Hospital

April, 2000 - January 2001  Executive Vice-president
Cancer Care Ontario

January 1998 - March, 2000  Coordinator Radiation Treatment
Cancer Care Ontario
DEGREES, DIPLOMAS, LICENSURE
1995 MBA, University of Toronto
1991 Fellow, Royal College of Physicians of Canada (Radiation Oncology)
1987 General License State of Georgia
1986 General License Province of Ontario
1985 MD, Queen’s University, Kingston, Ontario
1982 BSc, Queen’s University, Kingston, Ontario

POSTGRADUATE TRAINING/EXPERIENCE
Radiation Oncology 1990 – 1991 Chief Resident in Radiation Oncology, University of Toronto, Radiation Oncology Training Program
1988-1990 Resident in Radiation Oncology, University of Toronto
General Practice 1986-1988 General Practice, Locums, Ontario and Quebec
Internal Medicine 1985-1986 Internship, Montreal General Hospital, McGill University, Montreal, Quebec

COURSES TAKEN
August, 1998 Medical Informatics A – American College of Physician Executives
A two day course on information technology as it applies to healthcare.

August, 1998 Financial Decision Making – American College of Physician Executives
A four day course on financial analysis and decision making as it applies to health care.

UNIVERSITY AND HOSPITAL APPOINTMENTS
University 1991- 1999 Lecturer
Department of Radiation Oncology, Faculty of Medicine, University of Toronto
1996 - 1999 Lecturer (Cross appointed)
Department of Health Administration
Faculty of Medicine, University of Toronto

1999 – Present
Assistant Professor (Cross appointed)
Department of Radiation Oncology
Department of Health Administration
Faculty of Medicine, University of Toronto

Hospital
May, 2004- Present
Chief, Staff Radiation Oncologist, Credit Valley Hospital

May, 04 June 05
Grand River Regional Cancer Centre, Staff Radiation Oncologist

Sept, 2004- Present
Staff Radiation Oncologist, Trillium Health Centre

Jan, 2005- Present
Staff Radiation Oncologist, William Osler Health Centre, Mississauga Site

March, 2001 - Sept, 2003
Staff Radiation Oncologist, Canadian Radiation Oncology Services - Consultant Radiation Oncologist, Toronto – SunnyBrook Regional Cancer Centre, SunnyBrook and Women’s Health Science Centre

March, 2001- 2006
Consultant Radiation Oncologist, Princess Margaret Hospital

October 1991 - Mar 01
Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital (1991 – March 2001)

1991-1999
Consultant Radiation Oncologist, Marvelle Koffler Breast Centre, Mount Sinai Hospital

ADMINISTRATION/COMMITTEE WORK

Departmental
July 04 – present
Chair, DRO Executive Committee

July 04 – present Chair, DRO Staff Committee

July 04 – present Chair, Peel Radiation Oncologists, Executive

2004 – present Member, PRCC Radiation Therapy technical Policy group
2004 – present  Member, PRCC Executive Committee

2004 – present  R.O. Rep, PRCC Radiation safety and monitoring Committee

1994 - 1995  Member at large, Partnership Executive, Radiation Oncologists

Hospital

Feb 04 – present  Head, PRCC Department of Radiation Oncology

2004 – 2005  Member, Grand River Cancer Centre IMRT Committee

2004 – present  Member, PRCC IM/IT Committee

Nov 96 – May 99  Chair, Radiation Services Quality Management Committee (PMH)

Jan 98 – Sept. 98  Chair, Cancer Committee, PMH
  Vice-chair, TTH MAC
  Member, Board of Directors, TTH
  Member, Standing Committee on Oncology, TTH
  Member, TTH Board Quality Subcommittee
  Member, Joint University Hospital Relations Committee, TTH

Aug. 97 – Dec. 97  Chair, PMH Medical Advisory Committee (MAC)
  Vice-chair, The Toronto Hospital (TTH) MAC
  Member, Board of Directors, TTH/PMH
  Member, Standing Committee on Oncology, TTH/PMH
  Member, TTH Board Quality Subcommittee
  Member, Joint University Hospital Relations Committee, TTH

Jan. 97 - July 97  President, PMH Medical Staff Association,
  Member, Board of Directors PMH

July 96 - May 97  Chair, Radiation Services Accreditation Team (PMH)
  Member, Hospital Accreditation Planning Committee (PMH)

July 96 - Nov 96  Member, Radiation Services Quality Management Committee (PMH)

Jan. 95 - Dec. 96  Vice President, Medical Staff Association (PMH)
  Member, Medical Advisory Committee (PMH)
Member, Patient Care Committee of the Board of PMH

Dec. 94 - June 95 Member, Princess Margaret Hospital (PMH) ambulatory care re-engineering team as part of a re-engineering project managed by the consulting firm of Deloitte and Touche.

**Provincial**

July 03 – Jan 04 Head, Clinical Programs, Cancer Care Ontario

2004-present Director, Analytic Unit, Cancer Care Ontario

2004-present Member, Clinical Council, Cancer Care Ontario

May 04 – present Member, OARO Centre Representative

May 99 - Jan 01 Chair, Business Case Working Group, Specialist Clinical Modules Subcommittees of the Cancer Care Ontario Knowledge Management Initiative

May 99 – Jan 01 Chair, Radiation Equipment Selection Committee for the new Peel, Durham, and Kitchener-Waterloo Cancer Centres.

April 99 – June 01 Chair, Radiation Funding Formula Committee of the Joint Policy and Planning Committee (A joint committee of the Ministry of Health, and the Ontario Hospital Association)

Jan 98 – Jan 01 Chair, Radiation Treatment Advisory Committee Cancer Care Ontario

Jan 98 – Jan 01 Member, Information Services Management Committee Cancer Care Ontario

Sept. 98 – Jan 01 Member, Durham Regional Cancer Centre Planning and Development steering committee

Sept. 98 – Jan 01 Member, Peel Regional Cancer Centre Planning and Development steering committee

May 99 – June 99 Member, Central East Cancer Care Ontario Region Committee to examine the deployment of Radiation Services in the Greater Toronto Area
Dec. 98 – April 99 Chair, Radiation Treatment Systems Working Group (CCO)

Dec. 98 – Mar 99 Vice-Chair, Ministry of Health Task Force on Human Resources for Radiation Services

July 98 – Dec. 98 Member, Selection Committee, CEO, London Regional Cancer Centre

1993-1995 Chair, Section of Radiation Oncology, Ontario Medical Association

Jan. 94-June 94 Member, Ministry of Health, Committee to examine recruitment and retention of Radiation Oncologists

National

2004-06 Member, Canadian Association of Pathologists, Pathology Reporting

Mar. 96 – Dec. 97 Member, Canadian Association of Radiation Oncologists Manpower and Standards of Care Committee

Private Sector

2004-06 Member, Advisory Board Closing the Gap Healthcare Group http://www.closingthegap.ca/advisoryboard.htm

HONOURS AND AWARDS

1999 Cancer Care Ontario received An Award of Excellence, Canadian Information Productivity Award Simulation of a Virtual Patient

1995 Dean’s List - University of Toronto Executive MBA Highest grade point average in the class in final year

1994 Dean’s List - University of Toronto Executive MBA Highest grade point average in the class in first year

1991 Residents Research Day Prize Winner University of Toronto, Radiation Oncology Training Program
1983 Ivan Smith Scholarship,
Ontario Cancer Treatment and Research Foundation

1982 Ontario Heart Foundation Scholarship

1980 Annie Bentley Lillie Prize in Calculus
Queen’s University, Kingston, Ontario

MEDICAL/SCIENTIFIC SOCIETY MEMBERSHIPS
American Society of Therapeutic Radiology and Oncology

Canadian Association of Radiation Oncologists

Canadian Medical Association

Ontario Medical Association

American College of Physician Executives

EDITORIAL BOARD, PEER REVIEW

2007 Invited to peer review a paper submitted for publication.
Radiotherapy & Oncology, Journal of the European Society for
Therapeutic Radiology and Oncology

LECTURES GIVEN
Invited Speaker
Speaker, Winter COMP School, “Improving Quality in Clinical Practice”, Whistler, B.C.,

Speaker, Varian Medical Systems, “Upgrade Readiness: Preparing your Center”, Las Vegas,

Speaker, Varian Medical Systems, “Radiation Oncology in a Paperless Environment”, Montreal,
Quebec, January 20, 2010.

Speaker, Varian Medical Systems, “Radiation Oncology in a Paperless Environment”,
Minneapolis, Minnesota, April 23, 2009

Speaker, Sanofi-Aventis, to The Departments of Medical and Radiation Oncology, and Urology of
The Credit Valley Hospital, “A discussion on the DART/NCICCTG PR.12 Study”, (Neoadjuvant Docetaxel and Androgen Suppression plus Radiation Therapy vs Androgen Suppression alone plus Radiation Therapy for High Risk Localized Adenocarcinoma of the Prostate).

Speaker, Webinar for VARIAN, Information Management in a Paperless Environment, January 18, 2008


Up-regulation of the Humanism in Science, A lecture series offered by the University of Toronto Department of Radiation Oncology as part of the EIRR21, Transdisciplinary Training Program. Leadership in Collaborative Groups, Oct 19, 2004 through May 10, 2005.


Capacity and Resource Constraints in the Delivery of Radiation in Ontario, Ontario Radiation Oncology Genito-urinary site group annual retreat, September 1999.

Informatics at Cancer Care Ontario, Community Oncologists of Metro Toronto Annual Retreat, July 1999.

Cancer Care Ontario and the Funding of Cancer Services How to Balance Cost, Access and the Availability of All Treatment Options for Patients with Prostate Cancer Cost Challenges and Conflicts in Cancer Care, Continuing Education Program, Faculty of Medicine, University of Toronto, June 1999.

Remuneration Models in Radiation Oncology, Ontario Medical Association Section of Radiation Oncology Symposium, May 1999.

Radiation Oncology in Ontario, Ontario Hospital Association Conference on Cancer Care Ontario, Toronto Ontario, February 1999.

Principles of Radiation Therapy, Preceptorship program at Mount Sinai Hospital, Toronto,

Cost and Value Considerations in Treatment Verification
Refresher course, "Translating Physics into Clinical Practice" University of Toronto, Department of Radiation Oncology, November 1996.

Conservative Management of Multiple Invasive Foci of Breast Cancer, Interdepartmental Division of Oncology Breast Cancer Rounds, University of Toronto, Faculty of Medicine, December 1995.

Potential Benefits of Conformal Therapy, Refresher course, "Selected Topics in Radiation Oncology", University of Toronto, Department of Radiation Oncology, May 1992.

LECTURES GIVEN

Credit Valley Hospital, Presentation to Physicians and other Medical Personnel, Topics in Prostate Cancer Management from the Perspective of Radiation Oncology, January 2009
Windsor Regional Hospital, April 2007.
Grand River Hospital, May 2007.
Princess Margaret Hospital/University Health Network, June 2007.
Credit Valley Hospital, Presentations to Clinical and Administrative staff:
The Current Status, and Future Direction of Cancer Care Ontario’s Stage Capture Project, July 2007.
Kingston General Hospital, April 2007.
Thunder Bay Regional Hospital, April 2007.

Credit Valley Hospital, Presentations to Clinical and Administrative staff:
Update from the Provincial Pathology Checklist Reporting Project and 2007 Indicator Results, April 2007.

Health Sector Strategy and Organization, Joseph L. Rotman School of Management (MBA) University of Toronto, October 12, 2006, October 01, 2007.

Principals of Radiation Oncology, Teaching to medical oncologists, and residents, 2000 to 2003.


Accreditation, and Quality Management in Radiation Services at Princess Margaret Hospital Department of Radiation Oncology Rounds, University of Toronto, Department of Radiation Oncology, April 1997.
Quality Assurance in Radiation Oncology, Department of Radiation Oncology Rounds University of Toronto, Department of Radiation Oncology, March 1996.


Multi-Leaf Collimators and Portal Imaging, Department of Radiation Oncology Rounds University of Toronto, Department of Radiation Oncology, February 1993.


PANEL DISCUSSION PARTICIPANT
Graduate Department of Health, Policy, Management and Evaluation, University of Toronto, January 8, 2004 Expert panelist – HAD5020: Canada’s Health System and Health Policy II

The 3rd HEALNet Annual General Meeting, Toronto, November 1997
Panel discussion – Using Information to Increase Health Care Organizations’ Performance

Profits and Patients, Annual Round Table Discussion, Canadian HealthCare Manager, Toronto, Published April 2002, http://www.chmonline.ca/

Research Grants

Currently Funded as Principle Investigator

Previously Funded as Co-Investigator
Patient-centred cancer care at Princess Margaret Hospital. Philanthropic Gift, $500,000.00, 2004-2005.

CLINICAL TRIALS

Feb 2009 A National “Patterns of Care” Study in Prostate Cancer Radiation Therapy, Feb 10, 2009 to Feb 9, 2010.

June 2005  Nursing and Oncologist Survey, “Meeting the Needs of the Cancer Patients and Families: Today and Tomorrow: Oncology Nurse Demographics and Clinical Role Functions. Patients selected by Dr. T. McGowan for survey/interview by Toronto Sunnybrook team.

Nov. 2004  Harnessing consumerism in Health and Healthcare: User tracking and analysis of publicly reported cancer treatment wait lists. Patients selected by Dr. T. McGowan for survey/interview by Toronto Sunnybrook team.

PEER REVIEWED PUBLICATIONS

Manuscripts


McGowan TS, Yong J. CEA of IMRT work, “value for money in cancer-IMRT as a case study”, Journal of Clinical Oncology (JCO).


McGowan TS., Does the private sector have a role in public healthcare? Healthcare Papers (4): 45–50, 2004


Abstracts


McGowan TS, Thomason C. Comparison of three commercially available portal imagers. JA, Medical Physics, (21): 888, 1994..


Dassinger C, Dehay-Turner S, Fox L, Jones GW, McGowan TS. Symptoms of mood affect are highly associated with distress in patients with breast and prostate cancer. International
ORAL PRESENTATIONS (Peer reviewed selected by competition)


POSTER PRESENTATIONS (Peer reviewed selected by competition)


OTHER PRESENTATIONS
McGowan TS, Yong J. CEA of IMRT work, “value for money in cancer-IMRT as a case study”, 4th International Cancer Control Congress in Seoul, South Korea, November 2011.

Radiation Oncology. Credit Valley Hospital Board Meeting, Credit Valley Hospital, Mississauga. 2004

Questions and Answers, the state of the health care system in Canada. The Standing Senate Committee on Social Affairs, Science and Technology, (Chair, Senator Michael Kirby), Toronto, 2001
CURRICULUM VITAE

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        610 University Avenue
        Toronto, ON M5G 2M9 Canada
Telephone: (416) 946-2132
Fax: (416) 946-6561
Email: Michael.McLean@rmp.uhn.on.ca
Date Last Updated: August 2012

Education
Undergraduate Education
1965 – 1969 Queen's University of Belfast
Distinctions: Prize Exams in Surgery and Pathology

Postgraduate Medical Training
1969 – 1970 Royal Victoria Hospital, Belfast

Biographical Information
Degrees
1969 M.B., B.Ch., B.A.O. QUB
1974 M.D. (by Thesis) QUB
1977 F.R.C.S.E. Edinburgh
1982 F.F.R., R.C.S.I. Dublin
1988 F.R.C.P. (C) Ottawa, Canada

Appointments
1969 – 1970 House Officer (Pre-Registration)
        Royal Victoria Hospital, Belfast
1970 – 1973 Research Fellow, Department of Pathology, QUB.
1973 – 1979 Northern Ireland Surgical Rotation
1979 – 1984 Northern Ireland Radiotherapy Centre
        Residency Program in Radiation Therapy
1984 – 1985 Consultant Radiotherapist
        Derby Royal Infirmary, Derbyshire, England.
1985 – 1991 Radiation Oncologist
        Ontario Cancer Treatment and Research Foundation/TBRCC
        Director of the School of Radiotherapy.
1991 – present Radiation Oncologist, Princess Margaret Hospital, Toronto
        Assistant Professor, University of Toronto

Professional Affiliations and Activities
1994 – present Senior Editor, Current Oncology
2004 – present Member, University Health Network (UHN) Research Ethics Board
        (Princess Margaret Hospital)
Publications

Thesis
M.D. Thesis, Queen's University, Belfast, 1974. "Studies in the Aetiology and Morbid Anatomy of Congenital Heart Defects" (induced by radiation therapy and temperature variations in the developing chick embryo).

Refereed Publications


Non-Refereed Publications


Published Abstracts


58. Crook JM, Yeung I, Borg J, **McLean M**, Lockwood G, Ma C. Ten years’ experience with Iodine-125 prostate brachytherapy for 1,111 patients in a university hospital setting.


Non-Published Abstracts


9. How can an Advanced Practice Nurse enhance an Academic Palliative Radiation Oncology Program? D Williams, A Bezjak, W Levin, M McLean. Poster presentation at
International Society of Nurses in Cancer Care (ISNCC) 12th International Conference On Cancer Nursing, London UK, Aug 2002


Curriculum Vitae

Cynthia Ménard
MD

A. Date Curriculum Vitae is Prepared: 2013 June 28

B. Biographical Information

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Radiation Medicine Program, Department of Radiation Oncology
Princess Margaret Hospital, University Health Network
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Toronto, Ontario, Canada
M5G 2M9

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Email Cynthia.Menard@rmp.uhn.on.ca

1. EDUCATION

Degrees
1993 - 1996 May MD, Dept of Medicine, The University of Calgary, Calgary, Alberta, Canada
1990 - 1993 Biochemistry, microbiology and immunology, University of Ottawa, Ottawa, Ontario, Canada

Postgraduate, Research and Specialty Training
2001 - 2003 Research Fellow PGY6-7, Radiation Oncology, Radiation Oncology Branch, National Cancer Institute, National Institutes for Health, Department of Health and Human Services, Bethesda, Maryland, United States
2000 - 2001 Resident PGY4-5, Radiation Oncology, Cross Cancer Institute, University of Alberta, Edmonton, Alberta, Canada
1996 - 2000 Resident PGY1-4, Radiation Oncology, The University of Manitoba, Winnipeg, Manitoba, Canada

Qualifications, Certifications and Licenses
2004 - present License, College of Physicians and Surgeons of Ontario, 74547
2001 - present Certification, Radiation Oncology, American Board of Radiology, United States, 48567
2001 - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, 528438
2011 - 2012 Telemedicine Consultation License, College of Physicians and Surgeons of Newfoundland and Labrador
2002 - 2005 License, Maryland Board of Physicians, D0059048
2001 Fellow, Radio-oncologie, College des Medecins du Quebec
2000 - 2001 License, College of Physicians and Surgeons of Alberta
2000 Certification, United States Medical Licensing Examinations, United States
Cynthia MéNARD

1998 License, College of Physicians and Surgeons of Quebec, R08169
1996 - 2000 License, College of Physicians and Surgeons of Manitoba
1996 Licentiate (LMCC), Medical Council of Canada

2. EMPLOYMENT

Current Appointments

2012 Nov - present Affiliated Faculty, TECHNA Institute for the Advancement of Technology for Health, Toronto, Ontario, Canada
2009 - present Associate Professor, Radiation Oncology, University of Toronto
2006 - present Associate Member, Institute of Medical Science, University of Toronto
Graduate Faculty
2004 - present Clinician Scientist, Radiation Medicine Program, Princess Margaret Hospital University Health Network
2013 Jul - 2014 Jul Maternity Leave, Radiation Medicine Program, University of Toronto, Princess Margaret Hospital, Ontario, Canada

Previous Appointments

HOSPITAL
2003 - 2004 Staff Clinician, National Cancer Institute, National Institutes of Health, Department of Health and Human Services, United States

UNIVERSITY - RANK
2004 - 2009 Assistant Professor, Radiation Oncology, University of Toronto

WORK INTERRUPTIONS
2011 Jul - 2012 Jan Maternity Leave, Radiation Medicine Program, University of Toronto, Princess Margaret Hospital, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2010 Judith Stitt Best Papers Award, American Brachytherapy Society (ABS). (Research Award)

2009 Transactions on Biomedical Engineering (TBME) best paper award for most citations in the last 5 years, IEEE Engineering in Medicine and Biology Society. (Research Award)

2005 International Travel Grant, American Society for Therapeutic Radiation Oncology. (Distinction)
Cynthia MéNARD

2003

**Outstanding Clinical Scholar-in-Training Award**, American Association for Cancer Research - GlaxoSmithKline. (Research Award)
For: Radiation alters serum proteomic patterns.

NATIONAL
Received

2007 - 2012

**New Investigator Award**, Canadian Institutes of Health Research. (Research Award)
For: Individualized therapy for patients with prostate cancer by integrating interventional MRI in the radiotherapy planning process.

2004

**Fellows Award for Research Excellence**, National Institutes for Health. (Research Award)
For: Radiation alters serum proteomic patterns.

2001 - 2003

**Translational Research Award**, National Cancer Institute - American Society for Therapeutic Radiation Oncology. (Research Award)
For: Magnetic resonance and molecular profiling of prostate cancer.

2000

**First Prize, Resident Research Podium Presentation**, Canadian Association of Radiation Oncology. (Research Award)
For: Proton Magnetic Resonance Spectroscopy of Prostate Biopsies after RT.

1993

**Science Scholarship**, National Research Council Canada. (Distinction)

1990 - 1992

**Scholarship of Canada for Science**. (Distinction)

LOCAL
Received

2008

**Most Influential Research Publication - Radiation Medicine Program**, Princess Margaret Hospital. (Research Award)

2006

**Outstanding Research Potential Award, Department of Radiation Oncology**, University of Toronto. (Distinction)

2003

**Technology Transfer Award**, National Cancer Institute - Center for Cancer Research. (Distinction)

2000

**RJS and Ada Maude Wright Memorial Prize in Radiation Oncology**, University of Alberta. (Distinction)

1996

**Sandoz Prize in Medicine**, The University of Calgary. (Distinction)
For achievement in Radiation Oncology.

1990 - 1992

**Excellence Scholarship**, University of Ottawa. (Distinction)

Teaching Awards

LOCAL
Received

2009

**Best Radiation Medicine Program Rounds**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital
For: iMRI Sim-Ending an Era of Radiation Therapy Blind to Prostate Cancer.

2006

**Best Radiation Medicine Program Rounds**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital

2003

**Teacher of the Year Award**, Association of Residents in Radiation Oncology. (Postgraduate MD)
For teaching at: Resident Training Program, National Cancer Institute - Radiation Oncology
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Brachytherapy Society
Member, American Society for Therapeutic Radiology and Oncology
Member, Canadian Association for Radiation Oncology
Member, Canadian Urologic Oncology Group
Member, European Society for Therapeutic Radiology and Oncology
Member, International Society for Magnetic Resonance in Medicine

Administrative Activities

INTERNATIONAL

European Society for Therapeutic Radiation Oncology
2010 Jul - present MRI for Physicists Course (Annual), Faculty of Medicine, Dept of Radiation Oncology, Faculty Development

AdMeTech Foundation
2010 Member, Advisory Committee
2008 Member, Program Committee

NATIONAL

Other Organizations
2011 Jul - present NaF MITNEC Study Executive Committee, Canada.

Alberta Radiosurgery Center
2007 Program External Reviewer, External Review, Alberta, Canada.

Canadian Association of Radiation Oncology / Canadian Organization of Medical Physicists
2007 Chair, Pre-conference Symposium, Faculty of Medicine, Dept of Radiation Oncology, Canada.

PROVINCIAL / REGIONAL

Cancer Care Ontario
2008 Member, MRI Simulator Advisory

LOCAL

Radiation Medicine Program
2011 - present Interventional Radiotherapy Process Comittee, Toronto, Ontario, Canada.
Princess Margaret Hospital
2010 - present  Imaging Committee, Radiation Medicine Program, Toronto, Canada.

University of Toronto
2008 - present  Member, Residency Competency Examination Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Ontario, Canada.

Peer Review Activities

ASSOCIATE OR SECTION EDITING

Editor
2013  Seminars in Radiation Oncology, MR in Radiotherapy, Number of Reviews: 8

GRANT REVIEWS

External Grant Reviewer
2013  Cancer Research UK, Number of Reviews: 1
2013  Cancer Care Manitoba, Number of Reviews: 1
2013  Prostate Cancer UK, Number of Reviews: 1
2012  Prostate Cancer UK Research Awards Spring 2012, Number of Reviews: 1
2010  National Institutes for Health, Subcommittee H - Radiation Physics Center
2009 - 2010  Department of Defense, Prostate Cancer Research “Development Award and Synergistic Idea Development”
2007  Health Research Board Ireland
2006 - 2007  Alberta Heritage Fund
2006  Dutch Cancer Society

Internal Grant Reviewer
2013  Canadian Cancer Society Research Institute, Innovation Grants Panel - Imaging and Technology Development, Number of Reviews: 6
2010  Canadian Cancer Society Research Institute, Grant Panel E
2009  National Institutes for Health, Study Section for PAR 08-225 "Quantitative Imaging for Evaluation of Responses to Cancer Therapies"
2008  National Cancer Institute of Canada, Panel E
2007  National Cancer Institute of Canada, Panel E (Imaging and Radiotherapy)
2007  Department of Defense, US, Breast Cancer Panel, Number of Reviews: 7
2006 - 2007  Department of Defense, US, Prostate Imaging Section, Number of Reviews: 12

MANUSCRIPT REVIEWS

Reviewer
2010 - present  Radiation Research
2010 - present  Physics in Medicine and Biology
2009 - present  European Journal of Radiology
2008 - present  Medical Image Computing and Computer Assisted Interventions
2008 - present  Radiation Oncology, Number of Reviews: 5
2008 - present  Journal Magnetic Resonance Imaging
2006 - present  American Journal of Clinical Oncology
C. Academic Profile

1. RESEARCH STATEMENTS

STATEMENT OF SCHOLARLY AND PROFESSIONAL ACTIVITY. The primary focus of my scholarly activity is to better individualize radiation therapy through the development, validation, and clinical application of magnetic resonance imaging techniques to radiation treatment planning, response assessment, and treatment adaptation. I have specifically invested my efforts to improving radiotherapy to the brain and for prostate cancer.

Improving Radiotherapy with MRI. The role of magnetic resonance imaging in radiation oncology has long been expected to bring improvements in targeting and assessment of radiation therapy. While the rationale for these benefits draws upon the quality of MR images in depicting unique spatial and biological characteristics of tissue targets for radiotherapy, the conversion of these perceived benefits into robust and routine use of this modality in radiation oncology has been slow and fragmented. This is in part due to complexities in the science and clinical practice of MRI, and requires a focused dedicated effort for judicious integration in radiation oncology.

My activities in this newly emerging fields range from leadership in policy and infrastructure development, to the design and oversight of educational programs, and finally to a body of research which addresses unmet clinical needs in radiotherapy. Examples of such unmet needs include: defining the target for radiotherapy after prostatectomy, characterizing organ motion for radiotherapy planning, validating the spatial integrity of MRI-defined radiotherapy targets, developing registration techniques for integration of MR images in radiotherapy, validating MRI measures of tumor hypoxia, quantifying user uncertainties in MRI target delineation, and exploring early MRI metrics of tissue response to radiotherapy.

Interventional MRI for Prostate Cancer. This work is focused, first and foremost, on a pressing need to better tailor therapeutic interventions for individual patients with prostate cancer. An ability to visualize the spatial extent and biological profile of cancers within the prostate gland may address issues of biopsy sampling error, enable appropriate patient selection for local therapy, guide local
therapy to the disease rather than to the entire prostate gland, and provide a non-invasive means of monitoring progression or response to therapy. To address this need, I have implemented a clinical and research program to develop and test novel techniques in interventional MRI.

Interventional MRI techniques specifically aim to precisely guide needles for biopsy and therapy into specific areas of suspected cancer burden within the prostate gland during the MRI examination. The program includes investigations in technical development, and well as clinical testing of both technical performance and clinical performance of MRI-guided prostate biopsy and MRI-guided prostate brachytherapy.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDING


2011 Jul - present  Co-Investigator. Discovery of biomarkers to guide individualized therapy in patient’s with brain metastasis receiving radiotherapy. Brain Tumor Foundation of Canada. REB#: 10-0743-C. [Clinical Trials]


2009 Jul - present  Principal Investigator. MRI-Guided Biopsy for Suspicion of Locally Recurrent Prostate Cancer after External Beam Radiotherapy. DOD PCRFC USA. REB#: 05-0641-C. [Clinical Trials]

2009 Jul - present  Principal Investigator. MRI-Guided HDR Brachytherapy for Prostate Cancer. National Institutes of Health (NIH) (USA). REB#: 09-0026-C. [Clinical Trials]

2009 Jul - present  Co-Investigator. A Phase I Study of Stereotactic Radiosurgery Concurrent with Sunitinib in Patients with Brain Metastases. Pfizer Canada Inc. REB#: 09-0115-C. [Clinical Trials]

2008 Jul - present  Principal Investigator. Salvage Prostatectomy after Radiotherapy Whole-mount Histopathological Validation from Tumor-Targeted Salvage HDR Brachytherapy. National Institutes of Health (NIH) (USA). REB#: 08-0350-CE. [Clinical Trials]
Co-Investigator. Hypofractionated and Adaptive Stereotactic Radiotherapy (HFA-SRT) for Large-Volume Brain Metastases. Industry (Elekta) and Institutional Support. REB#: 08-0602-C. [Clinical Trials]


Principal Investigator. Hypoxia imaging in patients with high-risk localized prostate cancer using F18-FAZA PET and MRI. Canadian Association of Radiation Oncologists (CARO). Uro-Oncologic Radiation Award (ACURA). 20,000. [Grants]


**2008 Jul - 2012 May**

**Principal Investigator.** Fiducial Localization and Individualized Radiotherapy for Prostate Cancer. Abbott Laboratories / Canadian Association of Radiation Oncologists (CARO). Uro-Oncologic Radiation Award (ACURA). REB#: 08-0271-C. [Clinical Trials]

**2008 Jul - 2012 Jan**

**Co-Investigator.** Validating the Accuracy of a Relocatable Frame for Perfexion Based Stereotactic Radiotherapy. Industry (Elekta) and Institutional Support. REB: 08-0121-C. PI: Jaffray, D. [Clinical Trials]

**2008 Jul - 2010 Jun**


**2008 Jul - 2009 Jun**


**2008 Jul - 2009 Jun**


**2007 Jul - 2012 Jun**

**Principal Investigator.** Individualized therapy for patients with prostate cancer by integrating interventional MRI in the radiotherapy planning process. Canadian Institutes of Health Research (CIHR). New Investigator Award. # 200609CNI-170195. 300,000. [Grants]

**2007 Jul - 2012 Feb**

**Principal Investigator.** Hippocampal Radiation Exposure and Memory: A Pilot Study. Brain Tumor Foundation of Canada. REB#: 07-0023-CE. [Clinical Trials]

**2007 Jul - 2009 Jun**

**Principal Investigator.** Hippocampal Radiosurgery Exposure and Memory. Brain Tumor Foundation of Canada. 22,950. [Grants]

**2007 Jul - 2009 Jun**


**2007 Jul - 2009 Jun**

**Principal Investigator.** IG-IMRT after Radical Prostatectomy. Royal Victoria Hospital Foundation. Motorcycle Ride for Dad Grant Competition. 40,000. [Grants]

**2007 Jul - 2008 Jun**

**Co-Investigator.** A prospective quantification of patient-reported adverse events following marker insertion and therapist matching variability within an established intra-prostatic fiducial marker program. Abbott Laboratories / Canadian Association of Radiation Oncologists (CARO). Uro-Oncologic Radiation Award (ACURA). Collaborators: Rosewall T, Catton C, Bayley A, Kelly V, Kong V, Ménard C, Warde P. 12,000. [Grants]

**2006 Jul - 2012 Feb**

**Principal Investigator.** Low-Intermediate Risk Prostate Cancer: Improving Acute Toxicity Outcomes of Radiotherapy with the Integration of Advanced Imaging for Treatment Planning and Guidance. Abbott Laboratories / Canadian Association of Radiation Oncologists (CARO). Uro-Oncologic Radiation Award (ACURA). REB#: 06-0520-C. Collaborators: Co-
**2006 Jul - 2012 Feb**

**Principal Investigator.** MRI changes with Administered Oxygen and Carbon Dioxide in Patients with Brain Tumors Receiving Radiotherapy: A Pilot Study. University of Toronto. Dean’s Fund New Staff Grant Competition. REB#: 04-0750-C. [Clinical Trials]

**2006 Jul - 2012 Feb**

**Principal Investigator.** Exploring the Role of 3T Gamma Knife Radiosurgery: A Pilot study. Ontario Cancer Research Network (OCRN). Junior Investigator Award. REB#: 06-0427-CE. [Clinical Trials]

**2006 Jul - 2007 Jun**

**Principal Investigator.** Exploring the role of 3T MRI in Gamma Knife Radiosurgery: A Pilot Study. Ontario Cancer Research Network (OCRN). Junior Investigator Award Program. 40,000. [Grants]

**2006 Jul - 2007 Jun**


**2005 Jul - 2011 Jun**


**2005 Jul - 2011 Apr**

**Principal Investigator.** A Pilot Study to Develop a Technique for External Beam Radiotherapy after Radical Prostatectomy Based on MRI-Delineation of the Clinical Target Volume. Abbott Laboratories / Canadian Association of Radiation Oncologists (CARO). Uro-Oncologic Radiation Award (ACURA). REB#: 04-0759-CE. [Clinical Trials]

**2005 Jul - 2009 Jun**


**2005 Jul - 2007 Jun**

**Co-Investigator.** Advanced Prostate Imaging. University of Toronto. Research Program Grant, Department of Medical Imaging Resear. PI: Haider M. Collaborators: MéNARD C, Langer D, Toi A, Trachtenberg J. 70,000. [Grants]

**2005 Jul - 2006 Jun**

**Principal Investigator.** BOLD-MRI Changes with Administered O2 and CO2 in Patients with Brain Tumors Receiving Radiotherapy: A Pilot Study. University of Toronto. Dean’s Fund New Staff Grant Competition. 9,250. [Grants]

**2005 Jul - 2006 Jun**


**2005 Jul - 2006 Jun**

**Principal Investigator.** A single cohort study to develop a technique for external beam...

NON-PEER-REVIEWED GRANTS

FUNDING

2011 Jan - 2014 Dec


*This trial will utilize novel imaging and guidance techniques along with our experience in prostate hypofractionation to investigate hypofractionated dose escalation to the dominant prostate nodule only. It includes imaging correlative studies to investigate tumor hypoxia.*

2009 Oct

**Co-Investigator.** BIBW 2992 with or without daily temozolomide in the treatment of patients with recurrent malignant Glioma. BI 1200.36. Collaborators: Mason W, Laperriere N, Menard C, Sahgal A, Millar BA. [Grants]

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


### 2. NON-PEER-REVIEWED PUBLICATIONS

#### Journal Articles


#### Abstracts


Book Chapters
Conference Publications


3. SUBMITTED PUBLICATIONS

Journal Articles

F. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers


Cynthia MéNARD


2010 Early Quantitative T1 and T2 Response of the Prostate Gland during Radiotherapy. International Society for Magnetic Resonance in Medicine (ISMRM) Scientific Meeting. Stockholm, Sweden. Presenter(s): Foltz...


2009 Design and Preliminary Clinical Studies of an MRI-Guided Transrectal Prostate Intervention System.
2009

2008

2008
Clinical Validity of 3T MRI in Gamma Knife Radiosurgery. 14th International Meeting of the Leksell Gamma Knife Society. Quebec. Presenter(s): Cho YB, Ménard C, Bernstein M, Hodaie M.

2008

2008

2008

2008

2007

2007

2007

2007


2003 CY 5.5 Labelled Endostation for Tumor Imaging. ICTR. Lugano, Switzerland. Presenter(s): Scott T, Sproull M, Coleman NC, Ménard C, Camphausen K.

2003 Copper Chelation Inhibits Endothelial Proliferation in vitro. ICTR. Lugano, Switzerland. Presenter(s): Sproull M, Tantama S, Scott T, Ménard C, Brechbiel M, Camphausen K.

2003 Radiation Exposure Consistently Alters the Protein Profile of Serum in Cancer Patients Receiving Radiotherapy. ICTR. Lugano, Switzerland. Presenter(s): Ménard C, Tantama S, Scott T, Petricoin E, Sproull M, Liotta L, Coleman NC, Camphausen K.


2003 Clinical Trial of Endorectal Amifostine for Radioprotection in Patients with Prostate Cancer: Rationale and Early Results. 3rd International Cytoprotection Investigator’s Congress. Nevis, WestIndies. Presenter(s): Ménard C, Camphausen K, Muanza T, Crouse N, Smith S, Ben-Josef E, Coleman CN.


2002 Jun High Field MR-Guided HDR Brachytherapy for Prostate Cancer at the NCI: Linking Biology, Imaging and Therapy. 11th International Brachytherapy Conference. Santa Fe, New Mexico. Presenter(s): Ménard C, Camphausen K, Ning H, Ullman K, Coleman N.


2002 Cy 5.5 labeled Endostatin for Tumor Imaging. NIH Research Festival. Bethesda, Maryland. Presenter(s): Scott T, Sproull M, Coleman CN, Ménard C, Camphausen K.


2001 Dec Determining imaging targets after radiotherapy using microarrays. Urologic Oncology: Extraordinary Opportunities in Discovery. Presenter(s): Camphausen K, Kaushal A, Ménard C, Beecken WD.

2001 Nov In vivo optical tumor imaging using near infrared labeled compounds. Molecular Targets Program Retreat. Leesburg, Virginia. Presenter(s): Camphausen K, Ménard C, Sproull M, Coleman CN.


Invited Lectures and Presentations


2012 Sep  **Invited Speaker.** MRI-Guided Prostate Biopsy Prior to Focal Salvage after Radiotherapy. 9th International Interventional MRI symposium. Boston, Massachusetts, United States.


2011 Apr  **Presenter.** Disease Specific Breakout Session-Prostate. Cancer Imaging and Radiation Therapy Symposium. Atlanta, United States. Presenter(s): Menard, Cynthia.


2011 Jan  Augmenting radiotherapy with MRI-guided tissue sampling. CERRO Annual Meeting. Les Menuires, France. Presenter(s): Menard, Cynthia.


2009  Molecular Imaging in Radiation Therapy Practice-Challenges and Opportunities for Growth. Round Table Discussion, Society of Nuclear Medicine (SNM) Annual Meeting. Toronto. Presenter(s): Menard, Cynthia.

2009 **Visiting Professor.** MRI as a Catalyst for Change in Radiation Oncology. University of Pennsylvania, Department of Medical Imaging. Philadelphia. Presenter(s): Menard, Cynthia.


2004 Interventional MRI for Prostate Cancer. American Association for Cancer Research. Baylor College of Medicine - GU Oncology Section. Orlando, United States. Presenter(s): Menard, Cynthia.


2002 Molecular Biology – Part II: Molecular Insights into the Cancer Cell. 44th American Society for Therapeutic Radiation Oncology (ASTRO) Refresher Course 201C. New Orleans, United States. Presenter(s): Menard, Cynthia.

2. NATIONAL

Abstracts and Other Papers


2007 Automatic Prostate Motion Estimation For Cancer Treatment. CMS-MITACS Joint Conference. Winnipeg. Presenter(s): Peshko O, Moseley D, Terlaky T, Ménard C, Craig T, Rocca C.


Invited Lectures and Presentations

2013 Sep 19 **Invited Speaker.** Innovations in Imaging Theme Symposium. Canadian Association of Radiation Oncology and Canadian Organization of Medical Physics. Montreal, Quebec, Canada.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2011 Feb Prostate IMRT/IGRT. Cancer Centre of Southeastern Ontario at Kingston General Hospital. Kingston. Presenter(s): Menard, Cynthia.


4. LOCAL

Abstracts and Other Papers


Invited Lectures and Presentations

2012 Dec **Presenter.** Prostate focal therapy and imaging. Princess Margaret Cancer Center GU Site Academic Retreat. Toronto, Ontario, Canada. Presenter(s): Menard, Cynthia.


2012 May 4 **Presenter.** Multiparametric of Hypofractionated MR-imaging of Tumor Biology to Guide Prostate Cancer Radiotherapy. Target Insight VI: Forgoing the hypofractionation Frontier: SBRT, HDR Brachytherapy and Beyond. Toronto, Ontario, Canada. Presenter(s): Dr. Cynthia Menard.


2011 Jun Tumor-Targeted Salvage HDR Brachytherapy. UT DRO GU Site Research Presentations, Department of Radiation Oncology. Presenter(s): Menard, Cynthia.


2010 **Presenter.** Image Guided Radiation Therapy (IGRT) Course, Princess Margaret Hospital. Toronto. Presenter(s): Menard, Cynthia.

2010 Online Guidance of Tumor Targeted Prostate Brachytherapy using Histologically Referenced MRI. Radiation Oncology Research Rounds, Sunnybrook Health Sciences Centre. Toronto. Presenter(s): Menard, Cynthia.


2009 Use of imaging technologies to guide therapies. 10th Annual Interventional Neuroradiobiology Symposium. Toronto. Presenter(s): Menard, Cynthia.

2008 MRI-Guided Biopsy and Brachytherapy of the Prostate. Imaging Network Ontario (INO) 7th Imaging Symposium, University of Toronto. Toronto. Presenter(s): Menard, Cynthia.


2007 **Presenter.** MRI for Adaptive Radiotherapy. Image Guided Radiation Therapy Course (IGRT), Princess Margaret Hospital. Toronto. Presenter(s): Menard, Cynthia.


G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2007 Sep Chair, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Radiation Oncology Symposium - MRI in Radiotherapy.

H. Research Supervision

1. UNDERGRADUATE EDUCATION


2. GRADUATE EDUCATION

2009 - 2013 Feb Thesis Committee Member, Emma Henderson. MSc, An explicit dosimetry model for interstitial photodynamic therapy.
2008 Jan - 2009 Dec Thesis Committee Member, Jiafei (Caroline) Niu. MSc, Experimental Validation of Mathematical Models to Include Biomechanics into Dose Accumulation Calculation in Radiotherapy., Completed 2009.
2007 - 2010 Primary Supervisor, Supriya Chopra. MSc, Molecular MR Imaging for non-invasive characterization of hypoxia in men with primary and recurrent prostate cancer. Awards: EIRR21st CIHR Strategic Training Program in Radiation Medicine, ACURA Award, PMH-UHN Trainee Award In Prostate Cancer Research.


2005 - 2006  **Primary Supervisor**, Jenifer Hensel. Year 2, *Development of a prostate deformation model to enable accurate registration of endorectal coil magnetic resonance images (ERC-MRI) to reference treatment planning CT images*. Awards: U of T, Faculty of Medicine, Summer Research Scholarship and Ivan Smith Studentship 20th Annual Undergraduate Medical Student Research Day “Best overall poster and best clinical science poster awards”. Completed 2006.


Cynthia MéNARD

2002 - 2003  **Primary Supervisor**, L. Chan, National Cancer Institute, National Institutes of Health. Year 1, *Urinary VEGF levels in patients.*

4. POSTGRADUATE MD


Curriculum Vitae

Barbara-Ann McLellan Millar

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Cancer Centre
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946-2132
Fax (416) 946-6561
Email barbara-ann.millar@rmp.uhn.on.ca

1. EDUCATION

Degrees
2006 FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons, Ontario, Canada
2000 FRCR, Clinical Oncology, United Kingdom
1995 MRCP, United Kingdom
1986 - 1992 MBChB (Hons), University of Sheffield Medical School, Sheffield, England, United Kingdom

Postgraduate, Research and Specialty Training
2001 - 2004 Clinical Fellow, CNS and Paediatrics, Dept of Radiation Oncology, University of Toronto/Princess Margaret Hospital
1996 - 2001 Specialist Registrar, Clinical Oncology, Weston Park Hospital, University of Sheffield, Sheffield, England, United Kingdom
1995 - 1996 Senior House Officer, Clinical Oncology, Beatson Oncology Centre, Western Infirmary, University of Glasgow, Glasgow, Scotland, United Kingdom
1993 - 1995 Senior House Officer, Medical Rotation, Ninewells Hospital, University of Dundee, Dundee, Scotland, United Kingdom
1992 - 1993 House Officer, Royal Hallamshire Hospital, University of Sheffield, Sheffield, England, United Kingdom

Qualifications, Certifications and Licenses
2011 Jan Postgraduate Course: IGRT PMH Course, Princess Margaret Cancer Centre
2010 May Postgraduate Course: Situation Simulation in the Curriculum
2006 Sep - 2008 Jun Postgraduate Course: Educational Scholar Program Postgraduate Education, University of Toronto
2005 Apr Postgraduate Course: Bayer Clinician-Patient Communication, Toronto General Hospital, Toronto
2. EMPLOYMENT

Current Appointments

2011 Feb 1 - present  Associate Director, Education Scholars Program, Faculty of Medicine, St. Michael’s Hospital, University of Toronto, Toronto, Ontario, Canada

2004 - present  Active Staff-Assistant Professor, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada

2016 Jul  Chair-Elect. Radiation Oncology Specialty Committee Royal College of Physicians and Surgeons. Radiation Oncology, Princess Margaret Cancer Center, Ontario, Canada

Previous Appointments

HOSPITAL

2007 - 2016 Jun  Director, Postgraduate Radiation Oncology Residency Training Program, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada

2004 - 2014  Active Staff, The Hospital for Sick Children, University of Toronto, Toronto, Ontario, Canada

2001 - 2004  Clinical Fellow, CNS and Paediatrics, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada

1996 - 2001  Special Registrar, Clinical Oncology, Weston Park Hospital, University of Sheffield, Sheffield, England, United Kingdom

1995 - 1996  Senior House Officer III, Clinical Oncology, Beatson Oncology Centre, Western Infirmary, University of Glasgow, Glasgow, Scotland, United Kingdom

1993 - 1995  Senior House Officer in Medicine, Medical Rotation, Ninewells Hospital, University of Dundee, Dundee, Scotland, United Kingdom

1992 - 1993  House Officer, General Medicine and Diabetes, Royal Hallamshire Hospital, University of Sheffield, Sheffield, England, United Kingdom  
Professor Ward and Professor Wilson

1992 - 1993  House Officer, General Surgery and ENT, Royal Hallamshire Hospital, University of Sheffield, Sheffield, England, United Kingdom  
Mr WEG Thomas and Mr. AJ Parker

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2003  R.S. Bush Award for Excellence in Research, Department of Radiation Oncology, University of Toronto. (Research Award)

1992  Distinction in Medicine, Surgery and Psychiatry, University of Sheffield. (Distinction)

1992  Final year Medal for MBChB, University of Sheffield. (Distinction)

1992  Gold Medal for Clinical Medicine and Surgery, University of Sheffield. (Distinction)

1992  Walters S. Kay Gold Medal in Mental Diseases, University of Sheffield. (Distinction)
1992  
**West Riding Panel Practitioners Prize in Clinical Medicine**, University of Sheffield.  
(Distinction)

**Teaching and Education Awards**

**LOCAL**

Received

- **2015**  
  **Best Clinical Teaching in the Undergraduate Medical Education Program**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada.  
  (Undergraduate MD)

- **2013**  
  **Postgraduate Classroom Teaching Award**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto

4. **PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

**Professional Associations**

<table>
<thead>
<tr>
<th>Year</th>
<th>Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 Jul - present</td>
<td><strong>Associate Member</strong>, Medical Education</td>
</tr>
<tr>
<td>2003 - present</td>
<td><strong>Member</strong>, Canadian Association of Radiation Oncologists</td>
</tr>
<tr>
<td>2002 - present</td>
<td><strong>Associate Member</strong>, Canadian Brain Tumour Consortium</td>
</tr>
<tr>
<td>1996 - present</td>
<td><strong>Member</strong>, Royal College of Radiologists (UK)</td>
</tr>
<tr>
<td>2014</td>
<td><strong>Member</strong>, Association of Medical Education</td>
</tr>
<tr>
<td>2011 - 2016</td>
<td><strong>Member</strong>, Connective Tissue Oncology Society</td>
</tr>
<tr>
<td>2005</td>
<td><strong>Member</strong>, European Association of Neuro- oncology</td>
</tr>
<tr>
<td>2005</td>
<td><strong>Member</strong>, Society of Neuro- oncology</td>
</tr>
<tr>
<td>2003</td>
<td><strong>Associate Member</strong>, American Association of Cancer Research</td>
</tr>
</tbody>
</table>

**Administrative Activities**

**NATIONAL**

- **Royal College of Physicians and Surgeons of Canada**
  - **2008 - present**  
    **Member**, National Program Director’s Committee, Specialty Committee

**PROVINCIAL / REGIONAL**

- **Queen’s University at Kingston**
  - **2010 Nov**  
    **External Reviewer**, Radiation Oncology Residency Training Program

**LOCAL**

- **Ontario Cancer Institute**
  - **2009 - present**  
    **Member**, Faculty

- **Princess Margaret Cancer Center**
  - **2015**  
    Patient’s Experience and 4As Implementation Committee

- **Princess Margaret Cancer Centre**
2012 - present  Member, MRS Board of Examiners
2006 - present  Member, Acute Resuscitation Committee, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Center, Multilevel Education
2004 - present  Member, Staff Committee, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Center
2005 - 2013  Supervisor, Elective Residents Paediatric Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2003  Member, Radiation Medicine Program Task Force on Quality Assurance Error Elimination and Quality Improvement
2003  Member, Image Management Committee for Radiation Medicine Program

Radiation Oncology Department
2010 - present  Member, Residency Program Committee - Evaluation Sub-Committee
2007 - present  Chair, Residency Program Committee, Selection Committee, Curriculum Committee, Toronto, Ontario, Canada.

Royal College of Physicians and Surgeons of Canada
2016 Jul 1  Chair-Elect, Radiation Oncology Specialty Committee

University of Toronto
2007 Jul - present  Member, Physics Residency Program Committee, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

University of Toronto
2015 Sep - present  Internal Reviewer, Dermatology Residents Program
2014 Oct 9 - present  Global Health lead for Radiation Oncology for PGME, Global Health Education Sub-Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2010 - present  Member, Fellowship Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2010 - present  Member, UTDRO AGM Education Award Review Committee
2010 - present  Member, Best Practices in Teaching Assessment working group
2008 - present  Member, Palliative Medicine Residency Program Committee
2008 - present  Member, Fellowship Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2007 - present  Chair, Competency to Practice Exam Committee, Radiation Oncology Residency Training Program, Toronto, Ontario, Canada.
2007 - present  Member, All Program Directors, Postgraduate Medical Advisors Committee, Faculty of Medicine, PGME U of T, Postgraduate MD
2007 - present  Member, Selection Committee, Residency Training Program, Radiation Oncology Physics, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2007 - present  Member, Postgraduate Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2007 - present  Chair, Residency Program Committee – Radiation (PGMEC), Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2007 - present  Member, Dept of Radiation Oncology Executive committee
2006 - present  Member, Radiation Medicine Program Education Committee
2016 Jan  Internal Reviewer (Chair), Adult Haem Residency Program
2011 May 12  Internal Reviewer, Neurosurgery Residency Training Program, Faculty of Medicine,
Barbara-Ann McLellan MILLAR

Neurosurgery, Department of Surgery, Postgraduate MD, Ontario, Canada.

2011 Feb 15  **Reviewer**, Palliative Care Residency Training Program, Faculty of Medicine, Dept of Medicine, Palliative Care Internal Review, Postgraduate MD, Ontario, Canada.

2008 - 2013  **Member**, Internal Review Committee, Postgraduate Medical Education, University of Toronto

2007 - 2009  **Coordinator**, Annual Research Day, Dept of Radiation Oncology

2006 - 2008  **Member**, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2006 - 2007  **Associate Director**, Residency Training Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

**Member**, DRO Executive Committee

### Other Research and Professional Activities

#### RESEARCH PROJECT

**2012 Feb**  Retrospective analysis of radiosurgery for brainstem metastases.

**2011 Jun**  1200-36 BIBW 2992 with or without daily temozolomide in the treatment of patients with recurrent malignant glioma.

**2011 May**  **Co-Investigator**. A Phase II Study of PX-866 in patients with Glioblastoma Multiforme at time of first relapse or progression. **Collaborator(s):** PI: Mason W, Laperriere N, Sahgal A, Co-In Millar BA, Williams L.


**2008**  A proposal to investigate the relationship between treatment complications and radiosurgery dose-volume histograms (DVH_s) in patients with brain metastases treated with the Perfexion Radiosurgery System. **Collaborator(s):** PI: Sahgal A, Millar BA.


*Pilot study with Phase I & II in development.*


*Sponsor: Canadian Brain Tumour Consortium.*

MRI changes with administration of O2 and CO2 in patients with brain tumours receiving radiotherapy: A pilot study. **Collaborator(s):** Menard C, Laperriere N, Millar BA, Kassner A, Crawley A, Fisher J, Mikulus D.

Neurocognitive late effects in adult survivors of childhood acute lymphoblastic leukaemia (ALL). **Collaborator(s):** Edelstein K, Hodgson D, Laperriere N, Millar BA, Nathan P, Spiegler B.

Pregnancy outcome after abdominal radiation therapy for childhoodmalignancy survivors: A descriptive study. **Collaborator(s):** Millar BA, Samiee S, Hodgson D, D’Agostino N, Ahmed S.

### STUDIES

**2010 Feb 4**  **Collaborator**. Phase III trial on Concurrent and Adjuvant Temozolomide chemotherapy in non-1p/19q deleted anaplastic glioma. The CANTON Intergroup trial. **Collaborator(s):** PI: Mason, Col’: Laperriere N, Menard C, Sahgal A, Millar BA.  

*Protocol Number: CEC.1.*

**2010 Jan 14**  **Collaborator**. A Phase I study of Mk-0752, a Notch Inhibitor, in Patients with Metastatic or Locally Advanced Breast Cancer and Other Solid Tumors. **Collaborator(s):** PI: Mason, Col’: Laperriere N, Menard C, Sahgal A, Millar BA.  

*Protocol Number: MK-0752-014.*


2008 Aug 30 Collaborator. Hypofractionated and Adaptive Stereotactic Radiotherapy (HFA-SRT) for Large-Burden Oligometastases to the Brain. Collaborator(s): PI: Dr. Menard. Col: Millar BA. No protocol #.


2007 Aug 23 Collaborator. Phase III Randomized Trial of Whole Brain RT in Addition to Radiosurgery in Patients with 1-3 Cerebral Mets. Collaborator(s): PI: Dr. Menard Col: Millar BA. N0574.

2007 May 22 Collaborator. Treatment of Patients with Newly Diagnosed Medulloblastoma, Supratentorial Primitive Neuroectodermal Tumor, or Atypical Teratoid Rhabdoid Tumor. Collaborator(s): PI: Dr. Laperriere Col: Millar BA. PEDS: (Sick kids study). protocol #SJMB03.


Principal Investigator. Revaluating the Feasibility and Clinical Impact of Telemedicine for Consultation and Follow Up in Patients Referred for Palliative Radiotherapy. Collaborator(s): PI: Millar BA. Protocol number: 08-0579-BE.
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

**FUNDED**

**2013 Jul - 2014 Jun**  

**2011 Jul - 2014 Jun**  
**Collaborator.** Feasibility of a prospective, randomized trials comparing surgery versus radiosurgery for the treatment of single brain metastases. Department of Neurosurgery, Toronto Western Hospital. REB #: 10-0486-C. PI: Zadeh, G. Collaborator(s): Menard C, Bernstein M, Laperriere N, Millar BA, Chung C. 32,500 CAD. [Clinical Trials]

**2007 Jul - 2015 Jun**  
**Collaborator.** A randomized phase III study of temozolomide and short-course radiation versus short-course radiation alone in the treatment of newly diagnosed glioblastoma multiforme in elderly patients. National Cancer Institute of Canada (NCIC). PI: Chung, C. Collaborator(s): Mason W, Millar BA, Laperriere N. 203,000 CAD. [Clinical Trials]

NON-PEER-REVIEWED GRANTS

**FUNDED**

**2010 Jul - present**  
**Collaborator.** Discovery of biomarkers to guide individualized therapy in patients with brain metastasis receiving radiotherapy. 10-0743-C. PI: Menard, C. Collaborator(s): Chung C (Co-I), Zadeh G (Co-I), Bernstein M (Coll), Laperriere N (Coll), Millar BA (Coll), Bristow R (Coll), Camphausen K (Coll), Foltz W (Coll), Damyanovich A (Coll), Stanescu T (Coll), Cho Y-B (Coll), Ruschin M (Coll), Kucharzyk W (Coll). [Clinical Trials]

**2013 Jul - 2018 Jun**  
**Collaborator.** A double-blind, placebo-controlled, randomized, Phase IIIb trial evaluating the efficacy and safety of standard of care (SOC) +/- continuous bevacizumab treatment following progression of disease in patients with glioblastoma after first (1st)-line treatment with radiotherapy, temozolomide and bevacizumab. PI: Mason, W. Collaborator(s): Laperriere N, Millar BA. [Clinical Trials]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


5. Al-Faraj E, Millar BA, Irwin MS, Gupta A. Isolated late CNS relapse in a young adult 10 years after initial treatment for neuroblastoma. J Pediatr Hematol Oncol. 2015 Jan;37(1):75-7. **Coauthor or Collaborator.**


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

Book Chapters


Letters to Editor

3. SUBMITTED PUBLICATIONS

Journal Articles
E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2012 Oct 16 Invited Speaker. CanMEDS, the canadian model and experience. IAEA. Vienna, Austria. Presenter(s): Dr. Barbara-ann Millar.


Presented Abstracts


2000 May  Management of Thyroid Cancer in North Trent. Millennium Meeting of British, American and Scandinavian Endocrine Surgeons. London. Authors: Millar BA, Harrison B.

Presented and Published Abstracts


Publication Details:


Publication Details:

2. NATIONAL

Presented Abstracts


2002 Oct

Presented and Published Abstracts

2015 Apr

Publication Details:

2010 Sep

Publication Details:

2010 Sep

Publication Details:

2010 Sep

Publication Details:

2010 Sep
Prognostic Factors and Outcomes for Elderly Patients with Glioblastoma Multiforme. 24th Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO). Vancouver, British Columbia.

Publication Details:

2006 Sep

Publication Details:
Barbara-Ann McLellan MILLAR


Publication Details:  

2005 Sep  Stereotactic Radiosurgery (SRS) and Radiotherapy (SRT) in Canada: A Survey. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Victoria, British Columbia.

Publication Details:  


Publication Details:  


Publication Details:  

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


4. LOCAL

Invited Lectures and Presentations


2008 Dec 8 University of Toronto Career Night. Podium Presentation. Authors: Millar BA, Giuliani M, Follwell M.


2004 Oct Introduction to Contouring in Pinnacle. Instructions for Radiation Oncologists. Radiation Medicine Program. Authors: Millar BA and Blanken A.


Presented Abstracts


5. OTHER

Presented and Published Abstracts

2009 Sep
Intensity modulated radiation therapy (IMRT) for skull base chordomas and chondrosarcomas: outcomes in the image guided era.

Publication Details:

2009 Sep
Late endocrine toxicity of radiation therapy in children treated for medulloblastoma or ependymoma.

Publication Details:

2009 May
Endocrine complications in children treated for medulloblastoma or ependymoma using radiation therapy: outcomes in the CT-planning era.

Publication Details:

2009
Assessing Radiation Oncology Residents in the CanMEDS Era: Developing a Multi-Source Feedback Program.

Publication Details:

2008 Sep
Radiation therapy for atypical and malignant meningiomas.

Publication Details:

2008 Sep
Neovascular glaucoma following stereotactic radiotherapy for choroidal melanoma: a dosimetric analysis.

Publication Details:

2008 Sep
Reirradiation for Recurrent Meningiomas: Outcomes and Complications.

Publication Details:

2008 Sep
Atypical and malignant meningiomas: Long-term results with radiation therapy.

Publication Details:

2008 Jun
Management of Radiation-Induced Meningiomas in patients who received Radiotherapy in Childhood.

Publication Details:

2007 Oct
Salivary gland sparing in pediatric patients receiving radiotherapy for tumours arising within the posterior fossa: optimization of treatment technique to minimize parotid dose.

Publication Details:

2007 Oct
MRS/I assessment of metabolic response to chemoradiotherapy in patients with Glioblastoma Multiforme.

Publication Details:

2006 Oct
Early MRI Changes for monitoring therapeutic response during Chemotherapy and Radiotherapy for Glioblastoma Multiforme.

Publication Details:

2005 Nov 23
Dexamethasone and brain tumours: alterations in cerebral perfusion and blood-tumour barrier kinetics shown by magnetic resonance department of radiology.

Publication Details:

2005 Oct
Fractionated stereotactic radiotherapy for vestibular schwannoma: single institutional experience at the Princess Margaret Hospital, Canada.

Publication Details:

2005 Oct
Development of fractionated stereotactic radiotherapy for meningioma.

Publication Details:

2005 Mar
Perfusion Computerized Tomography of Patients Undergoing Whole Brain Radiotherapy For Cerebral Metastases.
Publication Details:

2002 Fractionated Stereotactic Radiotherapy for the Management of Meningioma.

Publication Details:

2002 Treatment of Pelvic Lymph Nodes in Bladder Cancer using IMRT-A Feasibility Study.

Publication Details:

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2013 Apr - 2013 May Primary Supervisor. Medical student. Alison Yu.
2013 Jan Primary Supervisor. Medical student. Lukas Jakabowski.
2012 Jul Primary Supervisor. Chiara Saroli Palumbo, 2 weeks.
2011 Jan Primary Supervisor. Bill Ayach, West India.
2011 Jan Primary Supervisor. Oliver Holmes.
2011 Jan Primary Supervisor. Lauren O’Malley.
2010 Oct  Primary Supervisor. Jeffrey DAI.
2010 Sep - 2010 Oct  Primary Supervisor. Stephanie Casey.
2010 Aug - 2010 Sep  Primary Supervisor. Mira Goldberg, USA.
2010  Primary Supervisor. Derek Tsang.
2010  Primary Supervisor. Adam Gladwish.
2010  Primary Supervisor. Allison Kwan.

Postgraduate MD

2013 Apr - 2013 Jun  Primary Supervisor. Derek Tsang.
2013 Jan - 2013 Apr  Primary Supervisor. Adam Gladwish.
2012 Apr  Primary Supervisor. PGY4 Peds. Darwin Yip. Supervisee Institution: KRCC.
2012 Feb  Primary Supervisor. PGY4. Tatiana Conrad.
2012 Jan  Primary Supervisor. Yasir Alayed, Saudi.
2011 Dec  Primary Supervisor. PGY4. Eugene Hong.
2011 May  Primary Supervisor. PGY4. Sara Samiee.
2011 Feb  
**Primary Supervisor.** PGY4. Eman Aldhuhaiby. Supervisee Institution: University of Toronto.

2011 Jan - 2011 Mar  
**Primary Supervisor.** PGY2. Goldie Kurtz. Supervisee Institution: University of Toronto.

2011 Jan  
**Primary Supervisor.** PGY4. Fazilat Mohammad. Supervisee Institution: University of Toronto.

2011 - 2012  
**Primary Supervisor.** PGY2. Negin Shahid. Supervisee Institution: University of Toronto.

2011 - 2012  
**Primary Supervisor.** PGY2. Goldie Kurtz. Supervisee Institution: University of Toronto.

2011 - 2012  
**Primary Supervisor.** PGY2. Julia Skliarenko. Supervisee Institution: University of Toronto.

2010 Dec  
**Primary Supervisor.** PGY5. Ahyla Al-Jizani.

2010 Nov  
**Primary Supervisor.** PGY4. Darwin Yip.

2010 Oct  
**Primary Supervisor.** PGY4. Amanda Caissie. Supervisee Institution: University of Toronto.

2010 Oct  
**Primary Supervisor.** PGY3. Aman Sharma. Supervisee Position: Observer from India.

2010 Aug  
**Primary Supervisor.** PGY4. Allison Ashworth.

2010 Aug  

2010 Jul - 2010 Aug  
**Primary Supervisor.** Crystal Hann.

2010 Jul  
**Primary Supervisor.** PGY4. Meredith Giuliani. Supervisee Institution: University of Toronto.

2010 May - 2010 Jul  
**Primary Supervisor.** PGY4. Elisa Chan, Radiation Oncology. Supervisee Institution: University of Toronto.

2010 Apr  
**Primary Supervisor.** Marc-Emile Plourde.

2010 - 2011  
**Primary Supervisor.** PGY2. Erynn Shaw. Supervisee Institution: University of Toronto.

2009 Jul  
**Primary Supervisor.** PGY3. Junaid Yousef, Radiation Oncology Resident. Supervisee Institution: KRCC.

2009 Jun  
**Primary Supervisor.** PGY1. William Dubinski, Pathology. Supervisee Institution: University of Toronto.

2009 - 2010  
**Primary Supervisor.** PGY3. Jaclyn Barron, Radiation Oncology Resident. Supervisee Institution: KRCC.

2009 - 2010  
**Primary Supervisor.** PGY3. Jim Rose, Radiation Oncology Resident. Supervisee Institution: KRCC.

2009 - 2010  
**Primary Supervisor.** PGY3. Jonathan Ng, Radiation Oncology Resident. Supervisee Institution: KRCC.

Clinical Research Fellow (MD)

2014 - present  
**Primary Supervisor.** Matthew Mason.

2013 Jul - 2013 Nov  
**Primary Supervisor.** Inge Aivas.

2013 Jul - 2013 Nov  
**Primary Supervisor.** Sarah Samiee.

2013 Feb - 2013 Jun  
**Primary Supervisor.** Anne Marie Charpenter, Feb, April & June.

2013 Jan - 2013 Jun  
**Primary Supervisor.** Minh Thi “Mimi” Thieu.

2013 Jan - 2013 Jun  
**Primary Supervisor.** Eman Alduhaiby.

2012 Jul - 2012 Dec  
**Primary Supervisor.** Eman Alduhaiby.

2012 Jul - 2012 Dec  
**Primary Supervisor.** Anne Marie Charpenter.

2012 Jul - 2012 Dec  
**Primary Supervisor.** Minh Thi “Mimi” Thieu.

2011 Jul - 2012 Jun  
**Primary Supervisor.** Evelyn Herrmann.

2010 Jul - 2011 Jun  
**Primary Supervisor.** M Laurence.

2009 Feb - 2010 Jun  
**Primary Supervisor.** Matt Foote.

2009 - 2010  
**Primary Supervisor.** Heather McCarty.

2008 Jul - 2009 Jun  
**Primary Supervisor.** G Bahl.

2008 Jul  
**Primary Supervisor.** Mira Van Den Akker.
2. OTHER SUPERVISION

Undergraduate Education

Clinical


2008 May - 2008 Jun MRS students.

2008 - 2009 Seven Student's attended clinics (Total 63 hours. Overall teaching score 4.4).


2004 - 2006 Ambulatory Care clinical teaching for University of Toronto and elective medical students. Supervisee Institution: University of Toronto.

1999 - 2001 5th year medical students. Clinical Skills and Oncology teaching (1.5-2 hours every 3 months for 6 students). Supervisee Institution: Weston Park Hospital, University of Sheffield.

1993 - 1995 3rd year medical students. Clinical skills teaching (2 hours/week for 8-10 students). Supervisee Institution: Ninewell Hospital, University of Dundee.

Undergraduate MD

Didactic

2011 Jun CNS Lecture to Physics residents, PMH U of T (Invited).

2010 May Women in Medicine Event, Toronto (Invited).


2000 - 2001 Endocrine Tumours and CNS Tumours (2 hours/year to 6 therapy students). Supervisee Institution: Undergraduate Radiographers, School of Radiology (Therapeutic), University of Hallam, Sheffield.

Continuing Education

Clinical

2002 - 2003 Management of CNS and Paediatric Tumours (2 hours/year to 3 University of Toronto Radiation Oncology residents (ad hoc)).

Clinical Research Fellow (MD)

Didactic

2011 Jun CNS Session to Physics Residents (June 20, 2011).


2008 Radiotherapy Student - CNS clinic.

2003 Management of Paediatric Brain Tumours (1.5 hours to 10 University of Toronto radiation oncology residents).


1999 - 2001 Management of Thyroid Malignancies (one hour every six months to 8 Senior House
Officers).
Curriculum Vitae

Michael Frederick Milosevic

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B. Biographical Information

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Princess Margaret Cancer Centre
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1. EDUCATION

Degrees
1987 MD, Queen’s University at Kingston, Ontario
1983 BASc, Electrical Engineering, University of Waterloo, Waterloo, Ontario

Postgraduate, Research and Specialty Training
2010 Leadership Development for Physicians in Academic Health Centers. Harvard School of Public Health, Harvard University
2006 UHN-Rotman Leadership Development Program, Joseph L. Rotman School of Management, University of Toronto
1989 - 1992 Resident, Radiation Oncology, University of Toronto, Toronto, Ontario
1988 - 1989 Resident, Internal Medicine, Western University, London, Ontario
1987 - 1988 Intern, Internal Medicine, Queen’s University at Kingston, Ontario

Qualifications, Certifications and Licenses
1992 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1989 Licentiate, Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2012 - present Full Member, Institute of Medical Science, University of Toronto
2009 - present Professor, Department of Radiation Oncology, University of Toronto
2004 - present Clinician Scientist, Princess Margaret Cancer Centre and University Health Network, Toronto, Ontario
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2015 Gordon Richards Lecture, Targeting Cancer at the Biology Technology Interface, Canadian Association of Radiation Oncology (CARO). (Distinction)

Award for outstanding contributions in the field of radiation oncology.

LOCAL

Received

2015 Research Leadership Award, University of Toronto, Department of Radiation Oncology. (Distinction)

2012 Sustained Excellence in Research Award, University of Toronto, Department of Radiation Oncology. (Distinction)

2011 Postgraduate Advocacy and Mentorship Award, University of Toronto, Department of Radiation Oncology. (Distinction)

2005 Research Leadership Award, University of Toronto, Department of Radiation Oncology. (Distinction)

1991 W.J. Simpson Award, University of Toronto, Department of Radiation Oncology. (Distinction)

For academic excellence in resident research.

1983 Murata Erie Award, University of Waterloo. (Distinction)

For academic excellence in electronics.

1980 - 1981 Research Scholarship for Academic Standing, University of Waterloo. (Distinction)

Teaching and Education Awards

LOCAL

Received

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4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society for Clinical Oncology (ASCO)
American Society for Radiation Oncology (ASTRO)
Canadian Association of Radiation Oncology (CARO)
Canadian Medical Association (CMA)
European Society of Therapeutic Radiology and Oncology (ESTRO)
Ontario Medical Association (OMA)
Radiation Research Society (RRS)
Royal College of Physicians and Surgeons of Canada (RCPSC)

Administrative Activities

INTERNATIONAL
12th International Tumor Microenvironment Meeting
2010 Member, Organizing Committee

National Institutes of Health
2010 - 2014 Member, Bladder Cancer Task Force
2010 - 2014 Member, External Advisory Group, Memorial Sloan Kettering Cancer Center, New York.
NIH P01 Program Project: “Tumor Hypoxia Imaging: Laboratory and Clinical Studies”.

Radiation Therapy Oncology Group (RTOG)
2000 - 2004 Principal Investigator
Responsible for the co-ordination of RTOG studies activated at Princess Margaret Hospital.

Union for International Cancer Control (UICC)
2013 - present Member, Global Task Force for Radiotherapy in Cancer Control (GTFRCC) Secretariat.
GTFRCC is an initiative of the Union for International Cancer Control (UICC) with a mandate to develop an investment framework aimed at closing the gap between the availability of radiotherapy in low and middle income countries (LMICs) and developed nations.

World Congress of Brachytherapy
2016 Member, Gynecology Scientific Committee
NATIONAL

Accreditation Canada
2014 - 2015 **Member**, Accreditation Canada Radiotherapy/Cancer Care and Oncology Services Standards Working Group

Canadian Association of Provincial Cancer Agencies (CAPCA) and Canadian Partnership Against Cancer (CPAC)
2016 **Member**, Scientific Organizing Committee, Canadian Cancer Conference: Innovative Approaches to High Value Cancer Care in Canada
2007 - 2009 **Member**, Human Resources Joint Committee for the Cancer Workforce
2007 - 2009 **Member**, Cancer Workforce Scoping Study Steering Committee

Canadian Association of Radiation Oncology (CARO)
2009 - 2010 **Past-President**, Canadian Association of Radiation Oncology
2007 - 2009 **President**, Canadian Association of Radiation Oncology
2007 - 2008 **Chair**, CARO-Elekta Research Fellowship Competition
2005 - 2007 **President-Elect**, Canadian Association of Radiation Oncology
2003 - 2005 **Chair**, Manpower Committee
2001 - 2005 **Member**, Manpower Committee

Canadian Institute for Health Information (CIHI)
2014 - present National System for Incident Reporting Advisory Group

Canadian Medical Association
2008 Aug **Delegate to General Council**, Annual General Meeting, Montreal.
2006 Aug **Delegate to General Council**, Annual General Meeting, Charlottetown.

Canadian Partnership for Quality Radiotherapy (CPQR)
2010 - present **Chair**, CPQR Steering Committee
*CPQR is an alliance among the national professional organizations involved in the delivery of radiation treatment in Canada (Canadian Association of Radiation Oncology - CARO, Canadian Organization of Medical Physicists - COMP, Canadian Association of Medical Radiation Technologists – CAMRT), together with the Canadian Partnership Against Cancer – CPAC, for the purpose of assuring the availability of high-quality radiation treatment across the country.*

Canadian Strategy for Cancer Control (CSCC) and Canadian Association of Provincial Cancer Agencies (CAPCA)
2003 - 2005 **Member**, Human Resources Action Group (HRAG)

Fields Institute for Research in Mathematical Science
2006 - 2014 **Member**, Scientific Advisory Committee, Centre for Mathematical Medicine

Kidney Cancer Canada
2009 - 2014 **Member**, Medical Advisory Board

National Cancer Institute of Canada/Clinical Trials Group
2007 - 2008 **Co-Chair**, Grant Panel E - Biophysics, Imaging and Radiobiology
Prostate Cancer Alliance of Canada
1997 - 2001 
Member
Canadian Association of Radiation Oncologists representative. The Prostate Cancer Alliance of Cancer is a multidisciplinary organization with the mandate of providing a forum for information sharing and co-operation among organizations working in the prostate cancer field.

PROVINCIAL / REGIONAL
Cancer Care Ontario (CCO)
2014 - present Co-Chair, CCO Radiation Treatment Community of Practice - Gynecological Cancers
2014 - 2015 Co-Chair, CCO Cervical Cancer Pathway Working Group
2014 Member, CCO Ontario Cancer Plan IV Safety Working Group
2009 - 2012 Member, CCO Radiation Treatment Quality and Safety Committee
2009 - 2012 Member, CCO Radiation Oncology Program Advisory Committee

Health Quality Ontario (HQO)

Ontario Association of Radiation Oncologists (OARO)
2010 - 2014 Chair, Clinician Scientist Advisory Committee

University of Waterloo
2006 - present Member, Biomechanical Research Group, Department of Applied Mathematics, Waterloo, Ontario.

LOCAL
Princess Margaret Hospital
2012 - present Director, Research and Quality Committee, Radiation Medicine Program
2009 - present Co-Chair, Quality Committee, Radiation Medicine Program
2009 - present Member, Steering Committee, Radiation Medicine Program
2002 - present Chair, Research Committee, Radiation Medicine Program
1997 - present Group Leader, Gynecologic Oncology Site
2013 Co-Chair, 4th Annual Ontario Cancer Institute (OCI) Retreat
2009 - 2012 Associate Director, Radiation Medicine Program
2003 - 2012 Member, Senior Advisory Committee, Department of Radiation Oncology
2003 - 2012 Member, Senior Advisory Committee, Department of Radiation Oncology
2002 - 2012 Director of Research, Radiation Medicine Program
2000 Chair, Radiation Oncology Partners
1999 Treasurer, Radiation Oncology Partners
1998 Member, Inpatient Care Committee, Department of Radiation Oncology
1998 Member, Strategic Planning Committee, Department of Radiation Oncology
1993 - 1995 Member, Executive Committee, Radiation Oncology Partners
1992 - 1995 Member, Anti-Microbial Subcommittee, Pharmacy and Therapeutics Committee

University Health Network
Michael Frederick MILOSEVIC

2009 - present  Co-Chair, Radiation Treatment Radiation Safety Committee
2009 - present  Member, Cancer Program Quality Committee
2005 - present  Member, STTARR Executive Management Committee

The STTARR Research Program and the STTARR Innovation Centre at UHN, integrate molecular, cellular, animal and patient imaging with precision radiation research in a manner conducive to the rapid translation of novel treatment strategies from the laboratory to clinical evaluation.

2005 - present  Director, STTARR Core III
1999 - 2003  Member, Radiation Treatment Radiation Safety Committee
1999 - 2003  Member, Brachytherapy Radiation Safety Group
1999 - 2003  Member, External Beam Radiation Safety Group
1999 - 2003  Member, Oncology Ethics Review Board

University of Toronto
2005 - present  Key Mentor, Excellence in Radiation Research for the 21st Century (EIRR21), CIHR Research Training Program, Faculty of Medicine, Department of Radiation Oncology, Toronto.

2011 May  Co-Chair, Organizing Committee, IMRT Insights: On Target, On Track, Faculty of Medicine, Department of Radiation Oncology, Continuing Education, Toronto, Ontario.
2010 Jun  Co-Chair, Organizing Committee, IMRT Insights: Transforming Practice through Collaboration, Faculty of Medicine, Department of Radiation Oncology, Continuing Education, Toronto, Ontario.
2009 Jun  Member, Organizing Committee, Target Insight III, Faculty of Medicine, Department of Radiation Oncology, Continuing Education, Toronto, Ontario.
2006  Chair, Department of Radiation Oncology Search Committee
2005 - 2012  Member, Post-Graduate Education Committee, Faculty of Medicine, Department of Radiation Oncology, Postgraduate MD
2003 - 2012  Member, Department of Radiation Oncology Fellowship Management Committee
2002 - 2012  Member, Department of Radiation Oncology Research Committee
1999  Chair, Department of Radiation Oncology Search Committee

Peer Review Activities

ASSOCIATE OR SECTION EDITING

Editor
2011 - 2014  International Journal of Radiation Oncology Biology Physics
2010 - 2013  International Journal of Radiation Biology

GRANT REVIEWS

Reviewer
2006  National Cancer Institute of Canada/Clinical Trials Group, Grant Panel E - Biophysics, Imaging and Radiobiology
Cancer Care Manitoba
Cancer Research UK

MANUSCRIPT REVIEWS

Reviewer
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2016


Precis: The objective of this grant is to develop a pre-clinical assay for late intestinal radiation toxicity to facilitate the safe clinical translation of new combined treatment approaches with radiation and new molecular therapeutics.

2015 - 2020

Co-Investigator. Integrative Systems-Level Imaging (ISLI), Canadian Foundation for Innovation (CFI) and Ontario Research Fund (ORF). PI: Jaffray, D. Collaborator(s): Joshua A; Jurisica J; Mikulis D; Milosevic M; Murphy K; Rogalla P; Valliant J; Wilson B; Wouters B. 5,734,904 CAD. [Grants]

Precis: Many of the diseases with the greatest impact on the Canadian health care system are united by basic underlying processes: inflammation is a key component in cancer, cardiovascular disease and arthritis, while microvascular perfusion and tissue oxygenation impact cancer care and neuroscience studies. An image-based understanding and ability to
measure pharmacokinetics and drug delivery will thus impact numerous therapeutic approaches. The aim of this grant is to develop tools and methods to non-invasively image and quantify these important determinants of disease and treatment outcomes. $ CAD over 5 years.

2014 - 2019  
*Précis: The main objectives are to expedite the evaluation of novel anti-cancer agents in patients and characterize the effects of these new agents on their targets using clinically relevant biochemical, pathological, immunological, molecular, and/or imaging markers of biologic response. $351,397 USD annually for 5 years.*

2014 - 2019  
**Principal Investigator.** A research pipeline for hypoxia-directed precision cancer medicine. Project 4: Hypoxia-induced activation of bone marrow derived myeloid cells in human cancer. Terry Fox New Frontiers Program Project Grant. 6,688,975 CAD. [Grants]
*Précis: The goal of this program is to improve patient outcome by targeting hypoxia in cancer through a translational pipeline spanning the research continuum from basic biology to clinical trials with short, medium and long-term goals for implementing hypoxia-directed personalized medicine strategies. Total: $1,337,795 annually for 5 years. Project 4: $178,291 annually for 5 years.*

2014 - 2019  
**Collaborator.** Image-based quantitative assessment of tumor hypoxia. Canadian Institute for Health Research (CIHR) and US National Cancer Institute (NCI). PI: D Jaffray. 1,923,621 CAD. [Grants]
*Précis: The main objective is to establish standardized methods for quantitating hypoxia in human tumors using DCE CT/MR and PET imaging. $384,724 CAD annually for 5 years.*

2014 - 2017  
**Co-Investigator and Steering Committee Member.** Radiation oncology peer review: A national quality improvement initiative. Canadian Partnership Against Cancer (CPAC). PI: M Brundage. 746,120 CAD. [Grants]
*This grant will accelerate the upstage of radiation treatment peer review across Canada and improve the overall quality and safety of care provide to patients. $308,736 year 1, $241,992 year 2, $195,392 year 3.*

2013 - 2018  
**Co-Investigator.** PANTHER: Prostate Cancer Canada program project in targeting aggressive and lethal cancers. Project 4: Radioresistance and cell plasticity. Prostate Cancer Canada. Movember Team Grant. PI: R Bristow. 5,000,000 CAD. [Grants]
*Précis: A joint grant between the Princess Margaret Cancer Centre and the Vancouver Prostate Centre to develop novel therapeutics targeting treatment resistance in aggressive prostate cancer. Program Lead: R Buttyan.*

2013 - 2016  
**Co-Applicant.** Improving quality and patient safety in radiation therapy by integrating multi-disciplinary criteria into an artificial intelligence systems. Canadian Institute for Health Research (CIHR) and Natural Sciences and Engineering Research Council of Canada (NSERC) Collaborative Health Research Program (CHRP). PI: T Purdie. Collaborator(s): D Aleman, JP Bissonnette, S Breen, T Craig, D Letournea, C McIntosh, M Sharpe. 651,060 CAD. [Grants]
*This objective of this grant is to develop artificial intelligence systems for early detection of anomalies in radiotherapy treatment planning. $217,020 annually for 3 years.*

2013 - 2016  
*This objective of this grant is to explore the heat activated release of cisplatin from liposomes.*
as a means of improving the effectiveness of radiotherapy to treat cervical cancer. $109,495 annually for 3 years.

2012 - 2017  
**Principal Investigator.** Canadian Partnership for Quality in Radiotherapy. Canadian Partnership Against Cancer (CPAC). 1,186,110 CAD. [Grants]  
This grant will support the universal availability of high quality and safe radiotherapy across Canada through sustainable system performance improvement and the development of consensus-based guidelines and indicators to aid in radiation treatment program development and evaluation. $237,222 annually for 5 years.

2012 - 2015  
**Principal Investigator.** Clinician Scientist Award. Ontario Association of Radiation Oncologists (OARO). 255,000 CAD. [Grants]  
This peer-reviewed award provides personal salary support for research to offset clinical activity. $85,000 annually for 3 years.

2012 - 2013  
**Principal Investigator.** Targeting the Hedgehog pathway as a strategy to overcoming resistance to chemoradiation in cervical cancer. Astra Zeneca Inc. RAZCER Research Award. Collaborator(s): H MacKay, RP Hill. 22,700 CAD. [Grants]  
This project will explore the importance of Hedgehog signaling in cervical cancer, and the potential role of Hedgehog inhibition as a modulator of radiation response.

2011 - 2014  
**Co-Investigator.** Translational team award for high impact clinical trials. Ontario Institute for Cancer Research (OICR). Translational Team Award. Collaborator(s): A Oza. 1,000,000 CAD. [Grants]  
The objective of this award is to build translational research capacity for high impact clinical trials at UHN, including support for the clinical translation of bioluminescence imaging of tumor metabolism. $250,000 annually for 4 years.

2011 - 2012  
**Co-Investigator.** Tumor targeted radiotherapy for prostate cancer. Canadian Cancer Society. PI: C Menard. Collaborator(s): T Craig, K Brock, T Stanescu, W Foltz, T van der Kwast, R Bristow, M Haider, C Catton. 744,000 CAD. [Grants]  
The objective of this study is to examine the feasibility of MR-guided tumor targeted radiotherapy for prostate cancer in relation to technical performance, tumor control and toxicity. $248,000 annually for 3 years.

2011 - 2012  
**Co-Investigator.** Hypoxia imaging in patients with high-risk localized prostate cancer using [18F]FAZA PET and MRI. Canadian Association of Radiation Oncologists (CARO). Abbott-CARO Uro-Oncologic Radiation Award (ACURA). PI: C Menard. 20,000 CAD. [Grants]  
This study will determine to what extent [18F]FAZA PET of the prostate gland can resolve inter- and intra-patient variability in uptake consistent with hypoxia related signatures measured on multi-parametric MRI and biopsy.

2010 - 2014  
The objective of this award is to understand how exposure to hypoxia affects the ability of tumour cells to resist treatment and to metastasize. $149,828 annually for 4 years.

2009 - 2014  
**Co-Principal Investigator.** Hypoxia in human tumours: clinical and experimental studies. Canadian Institutes of Health Research (CIHR). Terry Fox New Frontiers Program Project Grant. Collaborator(s): B Wouters, R Bristow, A Fyles, D Jaffray , R Bristow. 4,986,500 CAD. [Grants]  
The objective of this award is to investigate the role that hypoxia and the tumor microenvironment play in tumor progression and resistance to treatment. Total $997,300
annually for 5 years, Project 1 $274,000 annually, Project 2 $280,500 annually, Project 4 $197,000 annually.

2009 - 2014  
**Co-Applicant.** Adapting to hypoxia in cancer through the unfolded protein response. Canadian Institutes of Health Research (CIHR). PI: B Wouters. Collaborator(s): D Hedley, M Koritzinsky. 949,500 CAD. [Grants]  
The objective of this award is to investigate the role that the unfolded protein response and autophagy play in cellular response to hypoxia. $189,900 annually for 5 years.

2009 - 2014  
**Co-Investigator.** Research excellence in radiation medicine for the 21st century. Canadian Institutes of Health Research (CIHR). Training Grant. PI: FF Liu. 1,950,000 CAD. [Grants]  
The objective of this award is to foster research training of clinicians and scientists in the radiation medicine sciences. $390,000 annually for 5 years.

2009 - 2012  
**Co-Investigator.** Robotic positioning for image-guided surgery and radiation therapy. Canada Foundation for Innovation (CFI). Collaborator(s): D Jaffray. 16,030,169 CAD. [Grants]  
This is an infrastructure award to support the development of a fully integrated MR-guided radiation therapy suite (both external beam and brachytherapy) for precision dose targeting and intervention.

2009 - 2012  
To determine CGH array biomarkers of prostate cancer radiotherapy response. $193,282 annually for 3 years.

2008 - 2013  
The main objectives of this Cooperative Agreement Award are to expedite the evaluation of novel anti-cancer agents in patients and characterize the effects of these new agents on their targets using clinically relevant biochemical, pathological, immunological, molecular, and/or imaging markers of biologic response. $628,383 USD annually for 5 years.

2008  
This project will evaluate multiparametric MRI against established in vivo methods (Pimonidazole/ polarographic electrodes) to obtain spatially correlated measures of hypoxia in prostate cancer.

2007 - 2010  
This award focuses on theoretical mathematical modeling of the dynamics of anti-angiogenic treatment in combination with radiotherapy and/or chemotherapy. Model validation and refinement will incorporate pre-clinical and clinical imaging and histologic analyses. $142,973 annually for 3 years.

2007 - 2009  
**Co-Applicant.** The electronic living laboratory for interdisciplinary cancer survivorship research: bridging the gap for chronic cancer care (ELLICSR). Canada Foundation for Innovation (CFI). PI: P Catton. Collaborator(s): G Devins, B Gallie, D Hodgson, D Howell, A
This infrastructure award is to build a research environment to explore cancer survivorship, including the long-term consequences of cancer and its treatment.

2006 - 2011
**Collaborator.** Early therapeutics development with a phase II emphasis (NIH/NCI Investigational New Drug Phase II Consortium). National Cancer Institute (USA). PI: A Oza. 7,475,000 USD. [Grants]
The objective of this collaboration is to investigate combinations of radiotherapy and novel biologically-targeted treatments using both clinical and correlative molecular endpoints. $1,495,000 USD annually for 5 years.

2005 - 2008
**Co-Investigator.** Integration of diagnostic and interventional MRI for the study of persistent prostate cancer after external beam radiotherapy. United States Department of Defence. Prostate Cancer Research Program. PI: C Menard. Collaborator(s): A Damyanovich, R Bristow, K Brock. 294,600 USD. [Grants]
The goal of this award is to test the hypothesis that clinical integration of diagnostic and interventional MRI can be optimized with supine positioning, and will enable the spatial delineation and biological characterization of local prostate cancer persistence following radiotherapy. $98,200 USD annually for 3 years.

2005 - 2006
**Collaborator.** A single cohort study to develop a technique for external beam radiotherapy after radical prostatectomy based on MRI-delineation of the clinical target volume. Canadian Association of Radiation Oncologists (CARO). Abbott-CARO Uro-Oncologic Radiation Award (ACURA). PI: C Menard. 23,840 CAD. [Grants]

2004 - 2009
**Co-Principal Investigator.** Hypoxia in human tumours: clinical and experimental studies. National Cancer Institute of Canada (NCIC). Program Project Grant. Collaborator(s): R Hill (Co-PI), A Fyles (Co-PI). 5,935,000 CAD. [Grants]
The objective of this award is to investigate the role that hypoxia and the tumor microenvironment play in tumor progression and resistance to treatment. $1,187,000 annually for 5 years total, $156,700 annually for Project 1, $277,000 annually for Project 5.

2004 - 2007
**Co-Principal Applicant.** STTARR - Spatio-Temporal Targeting and Amplification of Radiation Response. Canada Foundation for Innovation (CFI). Collaborator(s): R Bristow, D Jaffray. 9,824,217 CAD. [Grants]
This was an infrastructure award to support the development of a state-of-the-art Canadian facility for investigating the dynamics of tumour biology and precision image-guided radiotherapy at the molecular, animal and human levels, with rapid translation of information among these three domains.

2004 - 2007
**Co-Principal Applicant.** STTARR - Spatio-Temporal Targeting and Amplification of Radiation Response: Imaging and animal support infrastructure enhancement. Canada Foundation for Innovation (CFI). Collaborator(s): R Bristow, D Jaffray. 11,418,914 CAD. [Grants]
An infrastructure award to support enhanced imaging-based approaches to furthering the application of radiation therapy in cancer. The award includes enhanced capacity for imaging isotope production, and other facilities for testing new therapeutic modalities through imaging and intervention in small animals, including a dedicated animal surgical suite.

2004
**Co-Principal Investigator.** Magnetic resonance imaging using ultra-small superparamagnetic iron oxide for pelvic lymph node target definition in high risk prostate cancer. Canadian Prostate Cancer Research Initiative. Idea Grant. Collaborator(s): R Dinniwell (Co-PI), M Haider, D Jaffray, P Warde. 36,069 CAD. [Grants]
The objective of this award was to develop detailed knowledge of pelvic lymph node distribution in men with prostate cancer using a novel lymph node imaging agent, as a guide
to targeted lymph node irradiation.

2004  

2003 - 2005  

2002  
**Collaborator.** The potential use of BOLD MRI as a non-invasive measure of tumour hypoxia in prostate cancer. Canadian Prostate Cancer Research Initiative. Idea Grant. PI: M Haider. Collaborator(s): T Roberts. 49,692 CAD. [Grants]

2001 - 2003  

2001 - 2003  

2001  
**Principal Investigator.** A clinical study of the effect of recombinant human erythropoetin (rHuEPO) on tumor oxygenation in prostate cancer. Anemia Institute for Research Education. Collaborator(s): C Parker, P Warde, A Toi, J Sweet. 39,000 CAD. [Grants]

2000  
**Co-Investigator.** Implementing prostate core biopsies during radiotherapy to determine genetic and microenvironmental biomarkers relevant to prostate cancer radioresistance and metastatic spread. Princess Margaret Hospital. Cancer Impact Team. PI: R Bristow. Collaborator(s): D Hedley, P Warde, R Khokha. 114,000 CAD. [Grants]

2000  

1999 - 2004  
**Co-Principal Investigator.** Hypoxia in tumours: clinical and experimental studies. National Cancer Institute of Canada (NCIC). Program Project Grant. Collaborator(s): A. Fyles (Co-PI). 2,918,000 CAD. [Grants]  
*Project 3 (Multi-modality treatment in patients with high risk cervix cancer). $583,600 annually for 5 years total, $181,600 annually for Project 3.*

1996 - 1999  
Co-Principal Investigator. Predictive assays in cervix cancer: assessment of hypoxia, interstitial fluid pressure and GSH levels. Princess Margaret Hospital Foundation (The). Collaborator(s): A. Fyles (Co-PI), D. Hedley, R. Hill. 45,460 CAD. [Grants]

Principal Investigator. Development of a technique to measure interstitial fluid pressure in human tumours. Princess Margaret Hospital Foundation (The). 18,260 CAD. [Grants]

NON-PEER-REVIEWED GRANTS

Funded

2010 - 2012

Principal Investigator. Canadian Partnership for Quality Radiotherapy (CPQR). Canadian Partnership Against Cancer (CPAC). 200,000 CAD. [Grants]

CPQR is an alliance among the national professional associations involved in the delivery of radiation treatment in Canada (Canadian Association of Radiation Oncology - CARO, Canadian Organization of Medical Physicists - COMP, Canadian Association of Medical Radiation Technologists – CAMRT), together with the Canadian Partnership Against Cancer – CPAC, for the purpose of assuring the availability of high-quality radiation treatment across the country. $100,000 annually for 2 years.

2007 - 2011

Principal Investigator. Phase I/II Study of Sorafenib and Palliative Radiotherapy in Patients with Advanced Renal Cell Carcinoma and Symptomatic Bony Metastases. Bayer Canada Inc. 750,000 CAD. [Industrial Grants]

The objective of this award is to evaluate the antiangiogenic drug sorafenib as an adjunct to palliative radiotherapy in patients with bone metastases from renal cell carcinoma. The study incorporates both clinical and biologic endpoints. $114,000 annually for 2 years.

2005 - 2007

Principal Investigator. Biologically-Targeted, Image-Guided Radiotherapy for Cervix Cancer. Princess Margaret Hospital Foundation (The). Giovanni and Concetta Guglietti Family Cancer Fund. 750,000 CAD. [Grants]

The objective of this award is to investigate novel strategies for using high-precision, image-guided radiotherapy to treat women with cervix cancer, through a combination of anatomic and biologic tumor targeting. $250,000 annually for 3 years.

1999 - 2002


$50,000 annually for 3 years.

Principal Investigator. Predictive assays in cervix cancer: Assessment of hypoxia, interstitial fluid pressure and tissue and plasma biomarkers of hypoxia (Accruing). [Clinical Trials]

Principal Investigator. A phase I/II study of cisplatin and radiation in combination with sorafenib in cervical cancer (Analysis). [Clinical Trials]

Principal Investigator. A phase I/II study of sorafenib and palliative radiotherapy in patients with advanced renal cell carcinoma and symptomatic bony metastases (Analysis). [Clinical Trials]

Principal Investigator. Implementation of optimized magnetic resonance image-guided intra-uterine brachytherapy in cervical cancer (Analysis). [Clinical Trials]

Principal Investigator. Hypoxia and clinical outcome after radiotherapy for invasive bladder
cancer (Analysis). [Clinical Trials]

**Principal Investigator.** A feasibility study of hypoxia imaging in patients with cervix cancer using positron emission tomography (PET) with 18F-fluoroazomycin arabinoside (18F-FAZA) (Accruing). [Clinical Trials]

**Principal Investigator.** A feasibility study of hypoxia imaging in patients with prostate cancer using positron emission tomography (PET) with 18F-fluoroazomycin arabinoside (18F-FAZA) (Accruing). [Clinical Trials]

### D. Publications

#### 1. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


Michael Frederick MILOSEVIC


Case Reports


Commentaries

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Commentaries


Monographs


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2015 The hypoxia ‘driver phenotype’ in human cancers. Manchester Academic Health Science Centre, Manchester University, and the Christie Hospital NHS Trust. Manchester, United Kingdom.

2015 Image guided biological targeting of human cancers. Taiwan Joint Cancer Conference. Taipei, Taiwan, Province Of China.

2015 MR guided brachytherapy for cervical cancer. Taiwan Joint Cancer Conference. Taipei, Taiwan, Province Of China.

2015 The hypoxia ‘driver phenotype’ in prostate cancer. Coffey-Holden Prostate Cancer Academy Meeting. La Jolla, California.


2014 From opportunity to action: Motivating global radiotherapy investment. UICC Global Task Force on Radiotherapy for Cancer Control (GTRC). UICC World Cancer Conference. Melbourne, Australia.


2013 Quality and safety in radiation medicine: European and Canadian Perspectives. CARO ESTRO Symposium. Joint Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO) and Canadian Organization of Medical Physicists (COMP). Montreal, Quebec.

2013 Programmatic requirements for radiotherapy. UICC Global Task Force on Radiotherapy for Cancer.
Control (GTFRCC). Amsterdam, Netherlands.


2013  PhD Defense Opponent: Tord Hompland, Functional magnetic resonance imaging of the microenvironment and microenvironment associated metastatic potential of tumors. Radiation Biology and Tumor Physiology Group, Department of Radiation Biology, Institute for Cancer Research, The Norwegian Radium Hospital, Oslo University Hospital. Norway.


2011  Target volume changes during PDR brachytherapy for cervix cancer. 3D GYN GEC ESTRO Meeting, University of Aarhus. Aarhus, Denmark.

2011  Dynamic contrast enhanced CT and MR in cervix cancer. 3D GYN GEC ESTRO Meeting, University of Aarhus. Aarhus, Denmark.


2008  Radiation oncology in Canada: Waiting and workload. Liverpool Hospital Cancer Therapy Centre. Sydney, Australia.


2008  Angiogenesis and hypoxia in prostate cancer: Relevance to radiotherapy and biological treatment targeting. 59th Annual Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Adelaide, Australia.


2008  Contouring for post-prostatectomy radiotherapy. 59th Annual Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (RANZCR). Adelaide, Australia.


2007  Clinical trials of angiogenesis inhibitors and radiation. International Advisory Board on Drugs and Radiotherapy - Pfizer. New York, United States.


2007  Adapting to change in cervix cancer. Department of Radiation Oncology, University of California. San Diego, California.


2006  Prostate cancer hypoxia in patients and the impact of androgen withdrawal: Implications for disease progression and radiation response. Department of Defence Innovative Minds in Prostate Cancer Today (IMPaCT) Meeting. Atlanta, Georgia.


2005  Interstitial fluid pressure (IFP) and vascular targeting with ZD6126. The Tumor Microenvironment: Hypoxia, Angiogenesis and Vascularulation. 9th International Workshop. Oxford, United Kingdom.
2004  Prostate cancer hypoxia correlates with poor patient outcome following treatment with radiotherapy. 46th Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Atlanta, Georgia.


2001  Performance of a cervix cancer prognostic index that includes hypoxia. The Tumor Microenvironment and its Impact on Cancer Therapies. 7th International Workshop. Lake Lanier, Georgia, United States.


2001  Prostate cancer is hypoxic. 48th Annual Meeting of the Radiation Research Society. San Juan, Puerto Rico.

2001  Measurement of acute toxicity of combined weekly cisplatin and radiation therapy for cancer of the cervix. 43nd Annual Meeting of the American Society for Therapeutic Radiology and Oncology. San Francisco, California.

2001  A polarographic electrode study of tumor oxygenation in localized prostate cancer. 43nd Annual Meeting of the American Society for Therapeutic Radiology and Oncology. San Francisco, California.


2000  Tumor size and oxygenation are independent predictors of nodal and metastatic disease in patients with newly diagnosed cervix cancer. 42nd Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Boston, Massachusetts.


1999  The relationship between IFP, oxygen tension, and survival following radiation in cervix cancer. 11th International Congress of Radiation Research. Dublin, Ireland.


Urethral carcinoma in women: results of treatment with primary radiotherapy. 39th Annual Meeting of the American Society for Therapeutic Radiology and Oncology. Orlando, Florida.

Interstitial fluid pressure measurements in lymph node metastases from head and neck cancers. 11th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Vancouver, British Columbia.


The measurement of interstitial fluid pressure in cervix cancer. 43rd Annual Meeting of the Radiation Research Society. San Jose, California.

Presented Abstracts


A national system for incident reporting in radiation therapy: Development of a taxonomy and severity


Near misses reflect different failure modes than actual incidents in the field of radiation therapy. 2nd ESTRO Forum. Geneva, Switzerland. Lam C, Muraj Z, Man K, Milosevic M.


Cuartero J, Mackay H, Milosevic M, Murphy J, Kamel-Reid S, Pintilie M, Clarke B.


Media Appearances


2. NATIONAL

Invited Lectures and Presentations


2015 Radiation Incident Reporting in Canada: Current State and Future Direction. Association quebecoisse des physician(ne)s medicaux cliniques. Montreal, Quebec, Canada.


**Visiting Professor.** Harmonizing radiotherapy quality and safety in Canada. Department of Radiation Oncology, Nova Scotia Cancer Centre and the Atlantic Canada Oncology Group Meeting. Halifax, Nova Scotia.

2011 Canadian Partnership for Quality Radiotherapy. Quality and Safety in Radiation Oncology, COMP Winter School. Mont Tremblant, Quebec.

2011 Canadian Partnership for Quality Radiotherapy, Canadian Association of Provincial Cancer Agencies (CAPCA) Board Meeting.

2011 Bladder cancer, Resident Refresher Course. 25th Annual Scientific Meeting of the Canadian Association of Radiation Oncology. Winnipeg, Manitoba.


2011 A phase I/II study of the angiogenesis inhibitor sorafenib in cervix cancer patients treated with radiotherapy. 25th Annual Scientific Meeting of the Canadian Association of Radiation Oncology. Winnipeg, Manitoba.

2009 Hypoxia and Angiogenesis in Human Tumors: Challenges and Opportunities. McGill University Department of Oncology. Montreal, Quebec.


2009 Radiation oncology in Canada: Savour the present but look to the future. Presidential address, 23rd Annual Scientific Meeting of the Canadian Association of Radiation Oncology. Quebec City, Quebec.

2009 Prostate cancer hypoxia and early biochemical failure after radiotherapy. Presented as one of the top eight peer-reviewed papers at the 23rd Annual Scientific Meeting of the Canadian Association of Radiation Oncology. Quebec City, Quebec.


2008  Imaging tumor vasculature and hypoxia in radiation oncology. 22nd Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO). Montreal, Quebec.


2006  Hypoxia and Angiogenesis in Cervix Cancer: Mature Results of a Prospective Study. Presented as one of the top five peer-reviewed papers at the 20th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Calgary, Alberta.


2004  Prostate cancer hypoxia adversely influences outcome following treatment with radiotherapy. 18th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Halifax, Nova Scotia.


2001  Measurement of acute toxicity of combined weekly cisplatin and radiation therapy for cancer of the cervix. 15th Annual Meeting of the Canadian Association of Radiation Oncologists. Quebec City, Quebec.


1998 Movement of the tumour and uterus with change in the position of patients undergoing radiotherapy for cervix cancer. 12th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Toronto, Ontario.


1995 Carcinoma of the female urethra-results of primary radiotherapy. 9th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Montreal, Quebec.

1991 The significance of malignant peritoneal cytology in stage I endometrial carcinoma: A meta-analysis. 5th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Quebec City, Quebec.

Presented Abstracts


2015 Plerixafor inhibits myeloid cell recruitment and improves the radiocurability of cervical cancer. 29th Annual Meeting of the Canadian Association of Radiation Oncology (CARO). Kelowna, Canada. Presenter(s): Chaudary N, Pintilie M, Hill RP, Milosevic M.

2015 Metformin use is associated with lower cervical cancer-specific mortality. 29th Annual Meeting of the Canadian Association of Radiation Oncology (CARO). Kelowna, Canada. Presenter(s): Han K, Pintilie M, Lipscombe L, Lega I, Milosevic M, Fyles A.


Vaginal dose and patient reported sexual adjustment with MR-guided brachytherapy for cervical cancer. 28th Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO). St. John’s, Newfoundland and Labrador. Croke J, Fyles A, Carlone M, Han K, Levin W, Manchul L, Williamson D, Xie J, Milosevic M.


Impact of image registration surrogates on the PTV geometry for bladder radiotherapy. 28th Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO). St. John’s, Newfoundland and Labrador. Kong V, Rosewall T, Craig T, Milosevic M, Bristow R, Chan S, Chung P.


Phase I/II study of palliative radiation and sorafenib for patients with metastatic renal cell carcinoma and painful bone metastases. CARO Annual Scientific Meeting 2013. Montreal, Quebec. Han K, Leung E, Cho
Towards Canadian consensus on key quality indicators for radiation treatment programs using a modified delphi process. CARO Annual Scientific Meeting 2013. Montreal, Quebec. Cao J, Tyldesley S, Bass B, Milosevic M, Brundage M.


Identifying important radiotherapy error trends through the use of a structured incident taxonomy. CARO Annual Scientific Meeting 2013. Montreal, Quebec. Lam C, Muraj Z, Man K, Milosevic M.


Fyles A, Milosevic M.


2011 Plan conformity and effective PTV margin in patients receiving whole pelvis IMRT for gynecologic cancer. CARO Annual Scientific Meeting 2011. Winnipeg, Manitoba. Lam TKM, Cho YB, Yan J, Fyles A, Milosevic M.


Media Appearances


2011 Mar 16 Health-related effects of radiation exposure from nuclear power plant damage in Japan. CBC News Network.

2011 Mar 15 Health-related effects of radiation exposure from nuclear power plant damage in Japan. CBC National News.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2015 Interstitial fluid pressure and drug delivery in cancer. Centre for Pharmaceutical Oncology, Leslie Dan Faculty of Pharmacy UofT. Toronto, Ontario, Canada.


Michael Frederick MILOSEVIC


2013 Prostate cancer hypoxia to guide personalized medicine. 4th Annual OCI Retreat. Huntsville, Ontario.

2013 Targeting the tumor microenvironment during radiotherapy. 4th Annual OCI Retreat. Huntsville, Ontario.


1992 The role of adjuvant pelvic radiotherapy in stage I and II endometrial cancer. 6th Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Ottawa, Ontario.

Media Appearances


4. LOCAL

Invited Lectures and Presentations


2016 Canadian community practice CARO. ESTRO-CARO Teaching Course on Image-Guided cervix radiotherapy – with a special focus on adaptive brachytherapy. Toronto, Ontario, Canada.

2016 Clinical approaches to target hypoxia. Radiobiology Course. Princess Margaret Cancer Center. Ontario, Canada.


2011  Canadian Partnership for Quality Radiotherapy. RTi3. Department of Radiation Oncology Continuing Medical Education, University of Toronto. Toronto, Ontario. (Continuing Education).


Vascular targeting to improve radiation response: Panacea or peril? Target Insight II: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio, Department of Radiation Oncology Continuing Medical Education, University of Toronto. Toronto, Ontario. (Continuing Education).


The management of high risk prostate cancer: The radiation perspective. GU Oncology 2004, Continuing Medical Education, University of Toronto. Toronto, Ontario. (Continuing Education).


Tumor hypoxia: Where do we go from here? Target Insight: Innovative Strategies to Improve Target Definition in Radiation Oncology, Department of Radiation Oncology Continuing Medical Education, University of Toronto. Toronto, Ontario. (Continuing Education).

Predictive factors in gynecologic cancer. Future Directions in Radiation Oncology. Department of Radiation Oncology Continuing Medical Education, University of Toronto. Toronto, Ontario. (Continuing Education).

The relationship between interstitial fluid pressure and blood flow in cervix cancer: A bioengineering analysis. Department of Biomedical Engineering, University of Toronto. Toronto, Ontario.

Media Appearances

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2011  Co-Supervisor. B. Sc. S Mahon. *Communicating clinical information in IGRT practice to facilitate an individualized approach to online image matching guidelines in gynecological sites.*


Graduate Education


Undergraduate MD


Postdoctoral Research Fellow (PhD)


2. OTHER SUPERVISION

Undergraduate Education

2010 - 2012  R Glicksman, Summer Student. *Audit of cervix and prostate cancer hypoxia databases.*

2010  J Detsky, Summer Student. *FAZA PET imaging of hypoxia in cervix cancer.*


Graduate Education

Thesis Committee Member

2014 - present  S Ekdawi. Imaging to track the intratumoral distribution of liposomes for drug delivery.
2010 - present  J Stewart. Spatially modulated dose delivery for small animal radiotherapy.
2010 - 2014  S Stapleton. Predicting the transport of liposomes in solid tumors.
2009 - 2014  M Velec. Deformable registration and dose accumulation using 4D CBCT for liver SBRT.

Undergraduate MD

2003  M Joshi. Increasing accrual to clinical trials.

Postgraduate MD


Clinical Research Fellow (MD)

2012  K Han. A prospective pilot study of the utility of dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI), diffusion-weighted MRI (DWI), and fluorodeoxyglucose positron emission tomography (FDG PET) imaging in brachytherapy for cervical cancer. Awards: Recipient of a CIHR-Terry Fox Foundation EIRR21 Research Training Program scholarship ($30,000 CAD), the CARO-Elekta Research Fellowship ($75,000 CAD) and an RSNA Research and Education award ($50,000 USD) for her fellowship project.
2011  P Wong. Treatment outcome of patients with uterine leiomyosarcoma.
2011  M Yap. PET imaging of tumor hypoxia.
2010  L Walsh. Treatment outcome of patients with cervix cancer following radiotherapy.
2009  A Li. MR-guided brachytherapy for cervix cancer.
2009  F Huang. IMRT as an alternative to brachytherapy for cervix cancer.
2001  C Doll. Tumor microenvironment in cervix cancer.
2001  C Parker. Hypoxia in prostate cancer.
Curriculum Vitae

Gerard Christopher Morton
MB,MRCPI,FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone  (416) 480-6165
Email        gerard.morton@sunnybrook.ca

1. EDUCATION

Degrees
1985              MB, BCh, Medicine, National University of Ireland, Dublin, Ireland
1985              BAO, Medicine, National University of Ireland, Dublin, Ireland

Postgraduate, Research and Specialty Training
1993 - 1994        Fellow, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1989 - 1992        Clinical Oncology Training Program, St Luke’s Hospital, Dublin, Ireland
1987 - 1988        Residency, Internal Medicine, University College Galway, Dublin, Ireland
1986 - 1987        Residency, Internal Medicine, University College Cork, Cork, Ireland
1985 - 1986        Internship, Internal Medicine, University College Cork, Cork, Ireland

Qualifications, Certifications and Licenses
1994              Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1994              Certification, College of Physicians and Surgeons of Ontario, Ontario, Canada, License / Membership #: 66201
1992              Fellow of the Faculty of Radiologists, Clinical Oncology, Royal College of Surgeons in Ireland, Ireland
1988              Member, Internal Medicine, Royal College of Physicians of Ireland, Ireland

2. EMPLOYMENT

Current Appointments
2015 Feb - present    Consultant Oncologist, Oncology, The Scarborough Hospital, Toronto, Ontario, Canada
Gerard Christopher MORTON

2011 - present  Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2007 - present  Staff, Dept of Surgery, North York General Hospital, Toronto, Ontario, Canada
1995 - present  Radiation Oncologist, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2013 Feb - 2015  Head - Radiation Oncology, Radiation Oncology, Simcoe Muskoka Regional Cancer Program (SMRCP), Barrie, Ontario, Canada

UNIVERSITY - RANK
1996 - 2011  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
1995 - 1996  Lecturer, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Teaching and Education Awards

LOCAL

Received

2010 - 2011  Best Academic Half-Day, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2010  Best Guest Lecture, Dept of Radiation Oncology, Faculty of Medicine, Medical Radiation Sciences Program, University of Toronto, Toronto, Ontario, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1997 - present  American Brachytherapy Society
1997 - present  Canadian Brachytherapy Group
1994 - present  American Society for Therapeutic Radiology and Oncology
1993 - present  Canadian Association of Radiation Oncology
1993 - present  Canadian Medical Association
1993 - present  European Society of Therapeutic Radiation Oncology
1993 - present  Ontario Medical Association
2014  Member, American Brachytherapy Society Education Task Force
2014  Associate Editor, Brachytherapy
2014  Chair, Royal College of Physicians & Surgeons of Canada - AFC Brachytherapy Working Group
Administrative Activities

INTERNATIONAL
American Brachytherapy Society
2011 - 2013 Member, Board of Directors

American Society of Clinical Oncology
2012 - present Member, Hormone therapy for prostate cancer consensus panel

Radiation Therapy Oncology Group
2004 - present Principal Investigator, Centre Principal Investigator
( Ontario Representative).

NATIONAL
Canadian Association of Radiation Oncologists
2015 - present Ontario Director, Board of Canadian Association of Radiation Oncologists, Ontario, Canada.
2009 Member, Annual Scientific Meeting,Organizing Committee, Ontario, Canada.
2005 - 2011 Chair, ACURA Advisory Board
2001 Chair, RADIANT Program, Canada.

Canadian Brachytherapy Group
2008 - 2010 President, Canadian Brachytherapy Group

Genito-Urinary Radiation Oncologists of Canada (GUROC)
2001 - present Member, Steering committee

Royal College of Physicians and Surgeons of Canada
2014 - present Chair, Brachytherapy AFC Committee, Faculty of Medicine, Dept of Radiation Oncology, Ontario, Canada.
2010 - present Member, Radiation Oncology Specialty Committee, Canada.
( Ontario Representative).
2014 AFC Brachytherapy Working Group, Faculty of Medicine, Dept of Radiation Oncology, Radiation Oncology, Ontario, Canada.
2001 - 2006 Member, Examination Board in Radiation Oncology

PROVINCIAL / REGIONAL
Cancer Care Ontario
2010 - present Member, Prostate Disease Pathway Management Initiative, Ontario, Canada.
2009 Member, Models of Care of Steering Committee, Ontario, Canada.
2007 - 2009 Chair, Program in Evidence Based Care: Image Guided HDR Brachytherapy for Cervical Cancer, Ontario, Canada.

College of Physicians and Surgeons of Ontario
2015 - present Assessor, College of Physicians and Surgeons of Ontario, Ontario, Canada.

Ontario Association of Radiation Oncologists
Gerard Christopher MORTON

2008 - 2012  **Chair**, Ontario Association of Radiation Oncologists

**Ontario Medical Association**
2009  **Chair**, Section of Radiation Oncology

**Simcoe-Muskoka Regional Cancer Program**
2013 - 2014  Regional Lead,  Radiation Oncology, Ontario, Canada.

**LOCAL**

**Odette Cancer Centre**

**Sunnybrook Health Sciences Centre**
2003 - 2009  **Member**, Research Ethics Board, Toronto, Ontario, Canada.

**University of Toronto**
1996 - 2000  **Member**, Oncology II Research Ethics Board, Toronto, Ontario, Canada.

**Peer Review Activities**

**EDITORIAL BOARDS**

**Associate Editor**
2014 - present  Brachytherapy

**North American Editor**
2015 - present  Clinical Oncology (R Coll Radiol)

**GRANT REVIEWS**

**External Grant Reviewer**
2014  Motorcycle Ride for Dad, Motorcycle Ride for Dad
2014  Prostate Cancer Canada Network
2014  Prostate Cancer, UK, Prostate Cancer

**Chair**
2014  Discovery Grant Panel - Prostate Cancer Canada Network

**MANUSCRIPT REVIEWS**

**Reviewer**
2015  Brachytherapy, Number of Reviews: 4
2015  Clinical Oncology, Number of Reviews: 20
2015  International Journal of Radiation Oncology Biology Physics, Number of Reviews: 1
2015  Journal of Urology, Number of Reviews: 3
2015 PLOS ONE, Number of Reviews: 2
2015 Radiotherapy and Oncology, Number of Reviews: 1
2014 Brachytherapy, Number of Reviews: 4
2014 International Journal of Radiation Oncology Biology Physics, Number of Reviews: 1
2014 International Journal of Urology, Number of Reviews: 1
2014 Journal of Contemporary Brachytherapy, Number of Reviews: 2
2014 Journal of Urology, Number of Reviews: 1
2014 Radiotherapy and Oncology, Number of Reviews: 2
2014 Urologic Oncology, Number of Reviews: 4
2007 - 2014 Canadian Journal of Urology, Number of Reviews: 8
BMC Urology
Clinical Oncology
Journal of the Canadian Urologic Association

ABSTRACT REVIEWER
Reviewer
2014 American Brachytherapy Society, ABS Scientific Meeting
2014 ASTRO - GU Track Abstract Reviewer, GU Track Abstract Reviewer

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded
2013 Jul - 2013 Dec Principal Investigator. A Randomized Phase II Trial of High Dose-Rate Brachytherapy as Monotherapy in Low and Intermediate Risk Prostate Cancer. CARO-ACURA award. 30,000 CAD


NON-PEER-REVIEWED GRANTS

FUNDED

2013  Principal Investigator. RTOG 0815: A Phase III Prospective Randomized Trial of Dose-Escalated Radiotherapy With or Without Short-Term Androgen Deprivation Therapy for Patients With Intermediate-Risk Prostate Cancer RT. [Clinical Trials]

2013  Principal Investigator. RTOG 0924. Androgen Deprivation Therapy and High Dose Radiotherapy With or Without Whole-Pelvic Radiotherapy in Unfavorable Intermediate or Favorable High Risk Prostate Cancer: A Phase III Randomized Trial. [Clinical Trials]

2013  Principal Investigator. RTOG 0526. A Prospective Phase II Trial of Transperineal Ultrasound Guided Brachytherapy for Locally Recurrent Prostate Adenocarcinoma Following External Beam Radiotherapy. [Clinical Trials]


  Principal Investigator. ASCENDE-RT. A randomized phase III study comparing androgen suppression and pelvic EBRT followed by a high dose 3-d conformal boost versus androgen suppression and pelvic EBRT followed by a 125Iodine brachytherapy implant boost for subjects with intermediate and high risk localized prostate cancer. BC Cancer Agency. [Clinical Trials]

  Principal Investigator. Multi-Institution Phase II study of high dose-rate brachytherapy for intermediate risk prostate cancer. ACURA Award. [Clinical Trials]

  Principal Investigator. One-arm, multi-center, international prospective study to assess the safety and efficacy of BioProtect biodegradable implantable balloon in prostate cancer subjects undergoing radiotherapy. BioProtect Inc. [Clinical Trials]

  Principal Investigator. Phase II study: Neoadjuvant docetaxel followed by salvage RT plus 2-year hormone therapy for residual or recurrent prostate adenocarcinoma following radical prostatectomy (Docetaxel Prostate). Sanofi-Aventis Inc. [Clinical Trials]

  Principal Investigator. A phase I/II study of single fraction high dose-rate (HDR) brachytherapy and hypofractionated external beam radiotherapy in intermediate risk carcinoma of the prostate. ACURA and Motorcycle Ride for Dad Awards. [Clinical Trials]
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Gerard Christopher MORTON


Gerard Christopher MORTON


Conference Publications


Gerard Christopher MORTON


Other Publications

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Editorials


Online Resources


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Jun 28 Invited Speaker. World Congress of Brachytherapy. San Francisco, California, United States.


2016 Jan 23 Invited Speaker. NRG Oncology Semi Annual Meeting. Atlanta, Georgia, United States.

2015 Nov 7 Invited Speaker. MRI to improve efficacy and reduce toxicity with Prostate HDR for High Risk Disease/Role of MRI in Prostate Brachytherapy. MD Anderson/ American Brachytherapy Society Conference. Houston, Texas, United States.


2014 **Visiting Professor.** Department of Radiation Oncology, University of Rochester. Rochester, New York, United States.


2013 Apr **Invited Speaker.** The latest advancements in prostate HDR brachytherapy. Elekta Web Education Program. United States.

2012 **Invited Lecturer.** How can we best use HDR brachytherapy to treat intermediate and high risk prostate cancer? UK and Ireland Prostate Brachytherapy Group. Leeds, United Kingdom.


2010 Brachytherapy Contouring Workshop. Annual Scientific meeting of the American Brachytherapy Society. Atlanta, Georgia, United States.


2008 Practical Workshop on Prostate High Dose-Rate Brachytherapy. World Congress of Brachytherapy. Boston, Massachusetts, United States.


2008 Salvage Options for Recurrent Prostate Cancer. The Radiotherapy Group of New South Wales Meeting. Sydney, Australia.


2005 HDR Brachytherapy of Prostate Cancer: Technical and Clinical Aspects. Micro-and Mini-Dosimetry and
International Prostate Cancer Treatment Workshops, Centre for Medical Radiation Physics, University of Wollongong. Wollongong, Australia.

2005

2005
**Visiting Professor.** Dept of Radiation Oncology and Urology, St George Hospital. Sidney, Australia.

2004

2004

2004

**Presented Abstracts**

2014

2014
Single 15 Gy High-dose-rate Brachytherapy Boost for Treatment of Prostate Cancer: Long-term Results of Changes in Health-related Quality of Life and Toxicity. Annual scientific meeting of the American Brachytherapy Society.

2014
Salvage MRI Guided and Tumor-targeted HDR Prostate Brachytherapy after External Beam Radiotherapy. Annual scientific meeting of the American Brachytherapy Society. San Diego, California, United States. (Trainee Presentation).

2014
Preliminary results of a pilot study of focal salvage HDR prostate brachytherapy in patients with local recurrence after definitive external-beam radiotherapy. Annual scientific meeting of the American Brachytherapy Society. San Diego, California, United States.

2013
**Collaborator.** Concomitant Hypofractionated IMRT Boost for High-Risk Prostate Cancer: 5 Year Results. Presenter(s): .

2013
**Senior Responsible Author.** Does Prostate Biopsy after HDR Brachytherapy Have Any Clinical Significance?

2013
Which is the best radiation treatment for low risk prostate cancer? A comparison of stereotactic body radiotherapy, standard external beam radiotherapy or low dose rate brachytherapy.

2013
Comparison of Biochemical and Toxicity Outcomes From a Contemporaneous Cohort Study of Low-Risk Prostate Cancer Treated With Different Radiation Techniques.

2011

2011

2011

2011


2010 Long-term results of an RTOG phase II trial (00-19) of external beam radiation therapy combined with permanent source brachytherapy for intermediate risk clinically localized adenocarcinoma of the prostate. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Diego, California, United States.


2008 Acute toxicity of single fraction HDR brachytherapy with hypofractionated external beam radiotherapy in intermediate risk prostate cancer. World Congress of Brachytherapy. Boston, Massachusetts, United States.


2007 A multicentre phase II study of high dose-rate brachytherapy boost in combination with external beam


2003 Impact Of New Software Tool In Treatment Planning For Prostate High-Dose Rate (HDR) Brachytherapy. 45th American Association of Physicists in Medicine (AAPM) Annual Meeting. San Diego, California, United States.


2003 An investigation of reoxygenation in high risk prostate cancer following high dose-rate (HDR) brachytherapy. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Copenhagen, Denmark.

2001 How does histologic grade change over time on repeat biopsy in untreated, favorable grade localized prostate cancer. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

2001 Salvage radiotherapy for rising PSA or clinically palpable local recurrence following radical prostatectomy. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.


2. NATIONAL

Invited Lectures and Presentations

2015 Nov 20  **Invited Speaker.** Which brachytherapy method is best for boost? GU Radiation Oncologists of Canada Bi-Annual Meeting. Toronto, Ontario, Canada.

2015 Nov 20  **Invited Speaker.** Prostate HDR Brachytherapy Workshop. GU Radiation Oncologists of Canada Bi-Annual Meeting. Toronto, Ontario, Canada.

2015 Sep 11  **Invited Speaker.** Responding to the evidence: meeting the growing demand for prostate brachytherapy. Canadian Association of Radiation Oncologists Annual Scientific Meeting. Kelowna, British Columbia, Canada.

2014  **Invited Speaker.** Has HDR Monotherapy for prostate cancer come of age? Quebec Brachytherapy Symposium. Quebec, Canada. Presenter(s): Gerard Morton.


2014  **Invited Speaker.** Debate: LDR is becoming Obsolete for Prostate Cancer Brachytherapy. Prostate Cancer Forum. Montreal, Quebec, Canada. Presenter(s): Gerard Morton.


2013  **Invited Speaker.** High dose rate brachytherapy to optimize dose delivery for prostate cancer. GU Radiation Oncologists of Canada. Montreal, Quebec, Canada.

2013  **Invited Speaker.** HDR Brachytherapy Research at Sunnybrook, doing more with less. Best of ACURA, Annual Scientific Meeting of the Canadian Association of Radiation Oncologists. Montreal, Quebec, Canada.


2009  **HDR Brachytherapy Workshop.** GU Radiation Oncologists of Canada Meeting. Toronto, Ontario, Canada.


2008  **High Dose-Rate Brachytherapy for Prostate Cancer.** Nucletron Essentials in Brachytherapy Workshop. Quebec City, Quebec, Canada.

2007  **Prostate HDR Brachytherapy.** GU Radiation Oncologists of Canada Consensus Conference. Toronto, Ontario, Canada.

2007  **Prostate HDR Brachytherapy: the Nuts and Bolts.** Canadian Brachytherapy Group Workshop. Toronto, Ontario, Canada.

2006  **Visiting Professor.** Dept of Radiation Oncology, Memorial University of Newfoundland. St John’s, Newfoundland and Labrador, Canada.

2005  **Prostate Contouring Workshop.** Issues and Controversies in Prostate Cancer. Mont Tremblant, Quebec, Canada.
Minimising acute effects of treatment: changing perspectives and challenges. Radiation Medicine Program, University of Toronto. King City, Ontario, Canada.

Prostate Radiotherapy: IMRT and HDR. Canadian Prostate Cancer Network Annual Meeting. Toronto, Ontario, Canada.


Prostate High Dose-Rate Brachytherapy – the World Experience. Genito-Urinary Radiation Oncologists of Canada (GUROC) Meeting. Montreal, Quebec, Canada.

Canadian Consensus on Prostate Cancer. Congress on Uro-Oncology. Ixtapa, Mexico.


Visiting Professor. Cross Cancer Institute, Dept of Radiation Oncology, University of Edmonton. Edmonton, Alberta, Canada.

Brachytherapy Boost in Combination with External Beam Radiotherapy for Prostate Cancer. Canadian Brachytherapy Group Annual Meeting. Edmonton, Alberta, Canada.


Presented Abstracts


2010 Acute and late toxicity of pelvic radiotherapy and concomitant hypofractionated IMRT boost combined with hormonal therapy for high risk prostate cancer. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Vancouver, British Columbia, Canada.

2009 Active surveillance with selected delayed intervention for localized prostate cancer: outcomes after thirteen years of follow-up. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada.

2009 Can high dose-rate brachytherapy be given as a single fraction when used as a boost with external beam radiotherapy (EBRT) to treat prostate cancer? A comparison of two fractionation schedules. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada.

2009 Prospective study evaluating salvage radiotherapy plus 2-year androgen suppression for post-radical prostatectomy patients with PSA relapse. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec, Canada.


2007 Comparing Gleason Scores (GS) between initial and follow-up biopsy in untreated low to intermediate grade clinically localised prostate adenocarcinoma. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists (CARO-COMP) Joint Annual Scientific Meeting. Toronto, Ontario, Canada.

2007 How does prostate high dose-rate (HDR) brachytherapy combined with supplemental external beam affect patients’ Quality of Life? Results from a Prospective Canadian Multicentre Study. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists (CARO-COMP) Joint Annual Scientific Meeting. Toronto, Ontario, Canada.

2006 Quality of life after combined postoperative salvage radiotherapy and androgen suppression for recurrent adenocarcinoma of the prostate. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.

2006 Comparative study of dosimetry between high dose-rate and permanent prostate implant brachytherapies in patients with prostate adenocarcinoma. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.

2006 Prospective assessment of genitourinary and gastrointestinal toxicity of post-operative radiotherapy to the prostate bed following radical prostatectomy for pathologic T3 and/or positive surgical margins. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.
2006  Interfraction motion measured using 3D ultrasound and gold seed localization. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.


2006  A 3D imaging technique for brachytherapy planning and treatment in a single high dose-rate radiation operating suite. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Calgary, Alberta, Canada.


2004  A dosimetric comparison of high dose-rate (HDR) and low dose-rate (LDR) prostate brachytherapy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Halifax, Nova Scotia, Canada.

2003  Hypofractionated IMRT boost for prostate carcinoma with on-line targeting of the prostate gland: patient specific PTV margins and acute toxicity results. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003  Dosimetric comparison of 125I and 103Pd for breast permanent implant as an adjuvant technique. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003  Inefficacy of salvage radiotherapy for clinically isolated local recurrence of prostate adenocarcinoma at the prostate bed following radical prostatectomy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003  Uterine perforation detection during selectron insertion with routine pelvic CT. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003  High dose-rate (HDR) brachytherapy boost for high risk localized prostate cancer: feasibility and analysis of acute toxicity. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003  Is there a progression of histologic grade from radical prostatectomy to local recurrence in patients with clinically isolated local recurrence following RP? Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003  An investigation of the effects of high dose-rate brachytherapy on prostate cancer oxygenation. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2003  PSA doubling time (PSADT) of untreated, clinically localized low to intermediate grade prostate adenocarcinoma. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

2002 Role of serial bone scans for the follow-up of low to intermediate grade clinically localized prostate cancer managed with a watchful observation protocol. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.


2002 Change in Gleason Score on repeat biopsy in untreated low to intermediate grade, clinically localised prostate adenocarcinoma. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

2002 Efficacy of post-operative adjuvant radiotherapy (RT) for pathological T3 and/or positive resection margin prostate carcinoma with undetectable post-operative PSA following radical prostatectomy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.

2002 Assessment of prostate cancer microvasculature using dynamic magnetic resonance imaging. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada.


2000 PSA doubling time of prostate carcinoma managed with watchful observation alone. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Edmonton, Alberta, Canada.

2000 How does histologic grade change over time in untreated localized prostate cancer? Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Edmonton, Alberta, Canada.


1999 Dosimetric effect of post implant prostate swelling. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

1999 Watchful observation of asymptomatic favourable grade prostate carcinoma with selective delayed intervention based on PSA, histologic and/or clinical progression. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

1996 Whole abdominal radiotherapy alone or preceded by 2 cycles of cisplatin in the post-operative management of ovarian cancer, with chemotherapy at time of relapse. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Halifax, Nova Scotia, Canada.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2015 Nov 11 Distinguished Speaker. Meeting the Growing Need for Prostate Brachytherapy. Credit Valley Regional Cancer Centre. Toronto, Ontario, Canada.


Barrie, Ontario, Canada. Presented at evening symposium to oncology nurses, , Ontario.


2013 **Invited Lecturer.** Prostate HDR Brachytherapy: what, why and how? Queens University, Kingston. Ontario, Canada.


2011 Prostate HDR Brachytherapy Workshop. GUROC meeting. Toronto, Ontario, Canada.

2010 **Visiting Professor.** Dept of Radiation Oncology, Northern Ontario School of Medicine. Thunder Bay, Ontario, Canada.


2010 **Visiting Professor.** Dept of Radiation Oncology, Northern Ontario School of Medicine. Thunder Bay, Ontario, Canada.

2010 High Dose-Rate Brachytherapy for Prostate Cancer. Grand Rounds, Durham Regional Cancer Centre. Oshawa, Ontario, Canada.

2010 Clinical Trials. Canadian Prostate Cancer Network. Toronto, Ontario, Canada.

2010 **Visiting Professor.** Dept of Radiation Oncology, Northern Ontario School of Medicine. Thunder Bay, Ontario, Canada.


2009 How we find better treatment through research. Annual Summit, Motorcycle Ride for Dad. Ottawa, Ontario, Canada.

2009 **Visiting Professor.** Dept of Radiation Oncology, Northern Ontario School of Medicine. Thunder Bay, Ontario, Canada.


2008 Brachytherapy for Prostate Cancer. Interdisciplinary Uro-Oncology Rounds. Surrey, British Columbia, Canada.


2008 **Visiting Professor.** North Eastern Ontario Regional Cancer Centre, Dept of Radiation Oncology. St John’s, Ontario, Canada.
2005 Visiting Professor. Hamilton Regional Cancer Centre, Dept of Radiation Oncology, McMaster University. Hamilton, Ontario, Canada.

2002 Prostate Brachytherapy – the ABCs. Medical Grand Rounds, University of Saskatchewan. Saskatoon, Saskatchewan, Canada.

2002 Prostate Brachytherapy – is it worth the trouble? Interdisciplinary Oncology Rounds, University of Saskatchewan. Saskatoon, Saskatchewan, Canada.

2002 Update on Prostate Brachytherapy. Regional Uro-Oncology Meeting. Huntsville, Ontario, Canada.

2001 Prostate Brachytherapy in Early Stage Prostate Cancer. Oncology Grand Rounds, Queens University. Kingston, Ontario, Canada.


Media Appearances

2008 Apr 30 Ride for Dad Funds Important Research. The Ottawa Citizen. Ottawa, Ontario, Canada.

Lay/Public Presentations


Media Presentations


Other Presentations

2013 Visiting Professor. Queen’s University, Kingston. Ontario.

4. LOCAL

Invited Lectures and Presentations

Media Appearances

2004 "Journey to a Cure". City TV. Toronto, Ontario, Canada.


5. LAY

Invited Lectures and Presentations


6. OTHER

Presented Abstracts


2012 Dose volume analysis of grade 2+ late GI toxicity on RTOG 0126 after high-dose 3DCRT or IMRT. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Massachusetts, United States.

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2014 Jul - present AFC Diploma in Brachytherapy, Faculty Development, Royal College Physicians & Surgeons of Canada, Royal College of Physicians & Surgeons of Canada

Development of National Training course in Brachytherapy with Royal College Diploma Certification.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2016 Mar - 2016 Apr Primary Supervisor. Medical Student. Robert Murphy, Medical Science. Analysis of Outcome measures after Prostate Cancer Treatment - Chart Review.
Postgraduate MD


2009 Primary Supervisor. Clinical Fellow. G Tsang. Prospective study of changes in health-related quality of life following single fraction HDR brachytherapy.


2007 Primary Supervisor. R Holly. Use of in-room cone-beam CT scan to correct for catheter displacement in prostate HDR brachytherapy.

2007 Primary Supervisor. R Holly. Use of megavoltage cone-beam planning for patients undergoing HDR prostate brachytherapy and hip prostheses.

2007 Primary Supervisor. S Myrehaug. Use of megavoltage cone-beam planning for patients undergoing HDR prostate brachytherapy and hip prostheses.


Continuing Education

2013 Primary Supervisor. Radiation Therapist. L D’Allimonte. Significance of biopsy findings following HDR brachytherapy.

Clinical Research Fellow (MD)


A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre, Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416.480.4834
Email sten.myrehaug@sunnybrook.ca

1. EDUCATION

Degrees

2001 - 2005 MD, Special Training in Research, Medicine and Dentistry, University of Alberta
1997 - 2001 BSc with Distinction, Faculty of Science, University of Alberta

Postgraduate, Research and Specialty Training

2010 - 2011 Clinical Research Fellowship, Radiation Oncology Branch, National Cancer Institute, National Institutes of Health

Qualifications, Certifications and Licenses

FRCPC, Radiation Oncology, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments

2015 Jul - present Assistant Professor, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2004

**Gold Humanism Honor Society Award**, Arthur P. Gold Foundation. (Distinction)

**NATIONAL**

Received

1997

**Governor-General's Academic Medal**, Governor General of Canada (Camrose Composite High School). (Distinction)

**LOCAL**

Received

2005

**Dianne Dompe Memorial Scholarship**, University of Alberta, Faculty of Medicine and Dentistry. (Distinction)

2004 - 2005

**Dean's Honour Roll**, University of Alberta, Faculty of Medicine and Dentistry. (Distinction)

2002

**Jason Lang Scholarship**, University of Alberta, Faculty of Medicine and Dentistry. (Distinction)

1997 - 2001

**Dean's Honour Roll**, University of Alberta, Faculty of Science. (Distinction)

1997

**Entrance Scholarship**, University of Alberta, Faculty of Science. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

**Professional Associations**

- Member, American Society of Radiation Oncology
- Member, AOSpine
- Member, Arthur P. Gold Foundation Gold Humanism Honor Society
- Member, Canadian Association of Radiation Oncology
- Member, Society for Neuro-Oncology

**Administrative Activities**

**NATIONAL**

**Canadian Cancer Society Research Institute**

2015 - present

QA Lead - SC-24 Clinical Trials

2011 - 2015

**Durham Regional Cancer Centre Representative**, NCIC-CTG

**LOCAL**

**Durham Regional Cancer Centre**

2011 - 2015

**Clinical Trials Lead**, Department of Radiation Oncology

2001 - 2015

**Member**, CNS Program Development

**University of Toronto**

2009 - 2010

**Chief Resident**, Department of Radiation Oncology

2007 - 2008

**Senior Resident**, Odette Cancer Centre, Department of Radiation Oncology
C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


D. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts

Presented and Published Abstracts
2004 Oct Single nucleotide polymorphisms in radiation response genes correlate with clinical late toxicity in patients treated with three-dimensional conformal radiotherapy (3DCRT) for adenocarcinoma of the prostate. European Society for Therapeutic Radiology and Oncology Annual Scientific Meeting. Amsterdam, Netherlands.

Publication Details:

2. NATIONAL

Presented and Published Abstracts

Publication Details:

2007 Nov Expert Opinion in Treatment Approaches for Illustrative Cases of Thymoma. Canadian Association of
Sten MYREHAUG


Publication Details:

2004 Sep
Association of radiation and tissue homeostasis response gene polymorphisms with clinical late toxicity in patients treated with three-dimensional conformal radiotherapy (3DCRT) for adenocarcinoma of the prostate. Canadian Association of Radiation Oncologists 2004 Annual Scientific meeting. Halifax, Nova Scotia.

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2016 Feb

4. LOCAL

Part of Teaching course

2015 Oct 29
Lecturer. Presenter(s): Dr. Myrehaug, Dr. Soliman. Cranial SRS Program at Grand River - Education Session.
CURRICULUM VITAE

BRIAN O’SULLIVAN

Co-Chair
Head and Neck Steering Committee
US National Cancer Institute

Bartley-Smith / Wharton Chair in Radiation Oncology
Department of Radiation Oncology,
Princess Margaret Hospital,
University Health Network
University of Toronto

Professor,
Department of Radiation Oncology,
University of Toronto.

Professor,
Department of otolaryngology / Head and Neck Surgery
University of Toronto.

Clinician-Scientist,
Ontario Cancer Institute
University Health Network

Clinician-Scientist,
Ontario Association of Radiation Oncologist
Ministry of Health

Commissionor
International Commission on Radiation Units & Measurements
A. Date Curriculum Vitae is Prepared: July 1st, 2016

B. Biographical Information

CONTACT INFORMATION

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Princess Margaret Hospital
Department of Radiation Oncology
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Toronto, Ontario, Canada
M5G 2M9
Telephone (416) 946-2125
Fax (416) 946-6566
Email brian.osullivan@rmp.uhn.on.ca

EDUCATION

Degrees
1970 - 1976 M.B., B.CH., B.A.O. National University of Ireland at University College, Dublin, Ireland
1964 - 1970 Clongowes Wood Jesuit College, Naas, County Kildare, Ireland
1961 - 1964 Immaculate Heart of Mary School, Scarsdale, New York, United States
1960 - 1961 St. Killian’s German Preparatory School, Dublin, Ireland
1956 - 1960 L’Ecole Francaise de Berne, Switzerland

Postgraduate, Research and Specialty Training
1983 - 1984 Clinical Fellow, Radiation Oncology, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1982 - 1983 Chief Resident, Radiation Oncology, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1980 - 1982 Resident, Radiation Oncology, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1979 - 1980 Clinical Fellow, Medical Oncology, Princess Margaret Hospital, Toronto, Canada
1977 - 1979 Resident, Internal Medicine and Medical Oncology, St. Vincent’s University Hospital, Dublin, Ireland
1977 Jan - 1977 Jun Internship, Surgery, St. Vincent’s University Hospital, Dublin, Ireland
1976 Jul - 1976 Dec Internship, Medicine, St. Vincent’s University Hospital, Dublin, Ireland

Qualifications, Certifications and Licenses
2008 FFRRCRSI (Hon) Honorary Fellow, Faculty of Radiologists, Royal College of Surgeons in Ireland, Ireland
1999 F.R.C.P.I., Fellow, Internal Medicine, Royal College of Physicians in Ireland, Ireland
1984 F.R.C.P.C. Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1984 Diploma, American Board of Radiation Oncology, United States
1983 C.S.P.Q., Certified Specialist, Radiation Oncology, Province of Quebec, Canada
1978 M.R.C.P.I., Member, Internal Medicine, Royal College of Physicians in Ireland, Ireland
2. EMPLOYMENT

Current Appointments

2007 – Present  Clinician-Scientist, Ontario Association of Radiation Oncologist, Canada
2008 - Present  Leader, Head and Neck Site Team, Princess Margaret Hospital, University Health Network, Toronto, Canada
2005 - Present  Associate Member, Graduate Faculty, Institute of Medical Science, University of Toronto, Canada
2002 - Present  Professor, Department of Radiation Oncology, University of Toronto, Canada
2001 – Present  Clinician-Scientist, Ontario Cancer Institute, University Health Network, Toronto, Canada
1999 - Present  Bartley-Smith/Wharton Chair, Radiation Oncology, Princess Margaret Hospital, University of Toronto, Canada
1991 Jan - present  Head, Sarcoma Site Group, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1985 - Present  Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada

Previous Appointments

HOSPITAL

2001 - 2012  Associate Director, Strategy and Planning, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Canada
2001 - 2002  Head, IMRT Clinical Implementation, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Canada
1999 - 2008  Head, Sarcoma Site Team, Princess Margaret Hospital, University Health Network, Toronto, Canada
1995 - 2006  Head, Head and Neck Site Group, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Canada
1984 - 1985  Active Staff Member, Department of Radiation Oncology, Montreal General Hospital, Montreal, Canada
1984 - 1985  Active Staff Member, Department of Radiation Oncology, Royal Victoria Hospital, Montreal, Canada
1984 - 1985  Active Staff Member, Department of Radiation Oncology, Jewish General Hospital, Montreal, Canada
1984 - 1985  Consultant Member, Radiation Oncology, Queen Elizabeth Hospital, Montreal, Canada
1984 - 1985  Consultant Member, Radiation Oncology, St. Mary’s Hospital, Montreal, Canada
1984 - 1985  Consultant Member, Radiation Oncology, Reddy Memorial Hospital, Montreal, Canada
1984 - 1985  Consultant Member, Radiation Oncology, Montreal Children’s Hospital, Montreal, Canada
1984 - 1985  Active Staff Member, Division of Medical Oncology, Department of Internal Medicine, Montreal General Hospital, Montreal, Canada

Cross Appointment

UNIVERSITY - CROSS APPOINTMENT

2005 - Present  Professor, Department of Otolaryngology / Head & Neck Surgery, University of Toronto, Canada
1984 - 1985  Assistant Professor, McGill Cancer Centre, McGill University, Montreal, Canada

UNIVERSITY - RANK

1995 - 2002  Associate Professor, Department of Radiation Oncology, University of Toronto, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

2016


2014

2014 Best of ASTRO Award for “Refining UICC TNM Stage and Prognostic Groups for HPV-Related Oropharyngeal Carcinomas” which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, USA. (PI)

2014

The Roentgen Ray Lecturer, “Examining our report card: Have we answered all the questions about local management of soft tissue sarcoma?” Fox Chase Cancer Center. Philadelphia, USA, May 1, 2014. (Distinction)

2013

2013 Best of ASTRO Award for “The Changing Profile of Outcome in Long Term Follow-Up of a Randomized Trial for Locally Advanced Head and Neck Cancer” which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, USA.

2012

PA Shah Oration, Foundation for Head and Neck Oncology of India, India, Invited plenary lecture from an internationally recognized Head and Neck Oncologist at the annual meeting of the Foundation for Head and Neck Oncology, with life-time membership of the Foundation bestowed. October 2012

2012


2010

ARRO Best of ASTRO award for “Outcome of radiotherapy alone in HPV associated oropharyngeal cancer”. American Society for Therapeutic Radiology and Oncology (ASTRO) 52nd Annual Meeting, San Diego, California, USA.

2008

Honorary Fellow of the Faculty of Radiologists, Royal College of Surgeons in Ireland, Ireland. (Distinction) (FFRRCISI,Hons).

2007

Ira Spiro Distinguished Memorial Lecturer and Professor, Harvard Medical School, Department of Radiation Oncology, Massachusetts General Hospital

2007

Fellow of the American Society of Therapeutic Radiology and Oncology (FASTRO), United States. (Distinction)

FASTRO designation is based upon meritorious service to ASTRO and to the field of radiation oncology including leadership/service, research, patient care and education

2006

Gilbert Fletcher Distinguished Professor and Memorial Lecturer, University of Texas, MD Anderson Cancer Center, United States. (Distinction)

2005

Juan Del Regato Gold Medal Recipient and Lecturer, Juan Del Regato Foundation. (Distinction)

Since 1977 the del Regato Foundation has sponsored annual lectures by distinguished members of the radiation oncology community from throughout the world.

2005

Knight Fellowship and Memorial Lecturer, Queensland Cancer Fund. (Distinction)

“To bring to Queensland, Australia, an internationally known lecturer in the field of Clinical Cancer Management, from overseas (or from interstate if a suitable person is available) every second year”.
2005  Presidential Citation of the American Head and Neck Society, United States. (Distinction)

2004  Annual Oration in Radiation Oncology, Award of Honor, Radiological Society of North America, United States. (Distinction)

  Invited plenary lecture from an internationally recognized Radiation Oncologist at the annual meeting of RSNA.

2004  John H. Wineman Visiting Professorship, University of Michigan, United States. (Distinction)

2004  The Outstanding Presentations at ASTRO 2004 award, invited by the Radiological Society of North America (RSNA). Five year results of a randomized Phase III trial (SR-2) of pre-operative vs post-operative radiotherapy in extremity soft tissue sarcoma.

1999 – 2000  President, Connective Tissue Oncology Society. (Distinction)

  The only fully multidisciplinary international society in the world devoted to the advancement of knowledge and research in sarcoma. The membership comprises leading sarcoma specialists throughout the world.

NATIONAL

2016  Distinguished Visiting Professorship, Arnie Charbonneau Cancer Institute/Tom Baker Cancer Centre, Calgary, Alberta, Canada. (Distinction)


  The plenary speaker of Atlantic Radiotherapy Forum, attended by Radiation oncologists, radiation therapists, and physicists from all 4 Atlantic Provinces. (Distinction)

2004  Best Paper in Clinical and Population-based Oncology, Canadian Association of Radiation Oncologists, Canada. (Distinction)

2002  Gordon Richards Lecturer, Canadian Association of Radiation Oncologists (CARO), Canada. (Distinction)

  Annual Plenary (highlight) at CARO: endowed lecture by an internationally recognized Canadian radiation oncologist in memory of Professor Gordon Richards, founder of the Canadian Association of Radiologists.

1998  Order of Merit, National Cancer Institute of Canada, Canada. (Distinction)

  For activities as Chair of the Canadian Committee on Cancer staging.

1996  Margaret and Norman Gosse Professorship, Canadian Cancer Society and Faculty of Medicine, Dalhousie University, Halifax, Canada. (Distinction)

LOCAL


2013  Research Leadership Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada

2007 – present  Clinician Scientist, Ontario Association of Radiation Oncologists (OARO)

  To promote excellence and build capacity in radiation medicine research in Ontario by providing partial base salary support to highly qualified, academically motivated radiation oncologists with independent research programs supported by external peer-reviewed funding, or the potential to develop independent research programs with peer-reviewed funding.

1999 - present  Bartley-Smith/Wharton Chair in Radiation Oncology, University of Toronto, Canada. (Distinction)

  Responsibility for Academic Leadership in Head and Neck Oncology in the Department of Radiation
Oncology at the Princess Margaret Hospital, a University of Toronto Teaching Hospital. Award includes use of $2,000,000 endowed fund for Research under the control of the Chair. Total Amount: 2,000,000 CAD

2006

Award for Sustained Excellence in Research, Department of Radiation Oncology, University of Toronto, Canada. (Research Award)

2003

Best Annual Research Performance, Department of Radiation Oncology, University of Toronto, Canada. (Distinction)

Inaugural award of the University of Toronto.

1973 - 1974

Honours: Fourth Place in Class, University College, Ireland. (Research Award)

Third Year Medical Honours: Awarded University Scholarship Prize.

1973

Honours: Awarded University Scholarship Prize, University College, Ireland

1973

Recommended for publication, University College, Ireland. (Research Award)


1970 - 1971

Honours; Third place in class, University College, Ireland. (Research Award)

Pre-Medical Year, Awarded University Scholarship Prize.

Teaching Awards

INTERNATIONAL

2015

2015 Best of ASTRO Award for “Risk Stratification for Relapse in Human Papillomavirus–Unrelated Oropharyngeal Carcinoma Treated With Definitive Radiation Therapy with or without chemotherapy” which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, San Antonio, USA. (as the research supervisor of award recipient Shao Hui Huang)

2015

2015 ICHNO Press Release for ”'Cure' is a realistic goal in HPV-related oropharyngeal cancer with oligometastasis” was selected for one of the two most relevant and highly influential abstracts from 5th ICHNO (International Conference on Innovative Approaches in Head & Neck Oncology), Nice, France. (as the research supervisor of award recipient Shao Hui Huang)

2014

2014 Best of ASTRO Award for “Potential Cure in Oropharyngeal Cancer with Oligo-Metastasis” which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, San Francisco, USA. (as the research supervisor of award recipient Shao Hui Huang)

2011 May

ESTRO Best Poster Award, European Society of Therapeutic Oncology (ESTRO) 2011, London, United Kingdom. (as the research supervisor of award recipient Shao Hui Huang)

2010 Feb

ASTRO/ASCO/AHNS Abstract Award, 2010 Multidisciplinary Head and Neck Cancer Symposium, Chandler, USA (as the research supervisor of award recipient Shao Hui Huang)

2010

ARRO Best of ASTRO award for “Phase II study of intensity modulated radiation therapy for lower limb soft tissue sarcoma”. American Society for Therapeutic Radiology and Oncology, San Diego, USA (as the research supervisor of award recipient Colleen Dickie)

2009

ARRO Best of ASTRO award for “The relationship between location recurrence and radiotherapy treatment volume for soft tissue sarcoma treated with external beam radiotherapy and function preservation surgery”. American Society for Therapeutic Radiology and Oncology, San Diego, USA (as the research supervisor of award recipient Colleen Dickie)
LOCAL

2013 Jun  
**Distinguished Teaching Award**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada  
“Best AnnualScientific Rounds”, *Radiation Medicine Program*, Princess Margaret Hospital, University of Toronto.

2012 Jun  
**The Residents’ Award for Outstanding Teacher of the Year (2012)**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada

2012 Jun  
**The Outstanding Teacher of the Year (2012) - Radiation Medicine Program Education and Research Award**, Princess Margaret Hospital, Canada

2009 May  
**Distinguished Teaching Award**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada  
“Best Annual Scientific Rounds”, *Radiation Medicine Program*, Princess Margaret Hospital, University of Toronto.

2007 May  
**Distinguished Teaching Award**, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Canada  
“Best Annual Scientific Rounds”, *Radiation Medicine Program*, Princess Margaret Hospital, University of Toronto, based on marks evaluated from the Program at large over the academic year.

Visiting Professorships - Invited

2015 May  
Université Catholique de Louvain. St-Luc University Hospital

2014 Nov  
University of Hong Kong, Hong Kong, China

2014 May  
Cleveland Clinic, Department of Radiation Oncology, Cleveland, Ohio, USA

2014 May  
Fox Chase Cancer Centre, Department of Radiation Oncology, Philadelphia, USA

2013 Apr  
Harvard University, Department of Radiation Oncology, Dana Farber Cancer Center, Boston, USA

2013 Mar  
University of Pennsylvania, Department of Radiation Oncology, USA

2012 Oct  
Sun Yet-Sen Medical University, Department of Radiation Oncology, Guangzhou, China

2012 Apr  
Harvard Medical School, Massachusetts General Hospital, Head & Neck Program, Boston, USA

2010 Nov  
University of Hong Kong, Hong Kong, China

2008 Sept  
Saint Lukes Cancer Hospital, Dublin, Republic of Ireland

2008 Mar  
“The Irish Cancer Society Lecturer” and Visiting Professor, Irish Association for Cancer Research, Newcastle, County Down, Northern Ireland

2008 Mar  
Spanish Sarcoma Group – Aula Magna de la Casa de Convalescencia del Hospital Santa Creu y San Pau, Barcelona, Spain

2008 Feb  
Department of Human Oncology, University of Wisconsin, Madison, USA

2007 Dec  
University of Hong Kong, Inaugural Visiting Professor, Department of Clinical Oncology, Hong Kong, China

2007 Dec  
University of British Columbia, Department of Radiation Oncology, Vancouver Cancer Centre, Vancouver, Canada.

2007 July  
University of Brisbane, Princess Alexandra Hospital Cancer Collaborative Group, Brisbane, Australia

2007 June  
Catholic University of Louvain, Head and Neck Oncology Program, St -Luc University Hospital, Brussels, Belgium
2007 Apr
Harvard Medical School, Ira J Spiro Distinguished Memorial Lecturer, Massachusetts General Hospital, Sarcoma Program, Boston, USA

2007 Mar
Beth Israel Medical Center Albert Einstein College of Medicine, New York, NY, USA

2006 June
Peter MacCallum Cancer Centre, Melbourne University, Australia

2006 June
Cancer Institute of New South Wales, Trans Tasman Radiation Oncology Group (TROG), Queensland, Australia

2006 Feb
University of Singapore, Faculty of Medicine, National Cancer Centre and Ministry of Health, Singapore

2006 Jan
MD Anderson Cancer Center, Gilbert Fletcher Distinguished Professor, University of Texas, Houston, Texas, USA

2005 Dec
State University of New York, Department of Surgical Oncology and Department of Radiation Oncology, Roswell Park Cancer Institute, USA

2005 Nov
Queensland Cancer Fund, Brisbane, Australia

2005 Nov
James Cook University School of Medicine, North Queensland Cancer Research Forum, Townsville, Queensland, Australia

2005 Feb
University of Florida, Department of Radiation Oncology

2004 April
Queens University, Department of Oncology, Kingston, Ontario, Canada

2004 Mar
St-Luc University, Department of Radiation Oncology and the Radiobiology Laboratory, St-Luc University Hospital, Brussels, Belgium

2004 Feb
University of Michigan, 2nd Annual John H. Wineman Visiting Professor, Department of Radiation Oncology, Michigan, USA

2003 Oct
McMaster university, Hamilton, Ontario, Canada

2003 July
Emory University Atlanta, Georgia, USA

2002 Nov
Yale University, New Haven Connecticut, USA

2002 May
Harvard University, Department of Radiation Oncology, Dana Farber Cancer Center, Boston, USA

2000 Oct
University of Berne, Department of Orthopaedics, Switzerland

2000 Feb
University of Texas, Department of Surgery, MD Anderson Cancer Center, Houston, USA

1997 May
University of Berne, Klinik fur Radio-oncologie, Universtatsspital, Berne, Switzerland

1996 Nov
Dalhousie University, Faculty of Medicine, Halifax Nova Scotia, Canada

1996 Mar
University of British Columbia, Vancouver, British Columbia, Canada

1990 Sep
University of Otago, New Zealand

1987 Nov
Queen’s University, Kingston, Ontario, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2008 – present
American Society of Clinical Oncology

1995 - present
**Founding Member**, Connective Tissue Oncology Society

1988 - present
**Founding Member**, Canadian Association of Radiation Oncologists

1988 - present
European Society for Radiotherapy and Oncology
1987 - present    American Society for Therapeutic Radiology and Oncology

Administrative Activities

INTERNATIONAL

ICRU

2014 - present    Member, International Commission on Radiation Units & Measurements (ICRU)

US National Cancer Institute

2014 – present    Chair of Radiation Oncology and Co-Chair, Head and Neck Steering Committee

2006 - 2013    Member, Head and Neck Steering Committee

Union for International Cancer Control

2014 – present    Member, Global Task Force on Radiotherapy for Cancer Control (GTFRCC)

2004 - present    Coordinator, Prognostic Factor Advisory groups, Prognostic factors Committee, Geneva, Switzerland.


2004 - present    Coordinator, Annual Meeting UICC TNM Committee, Prognostic Factor Advisory groups, Geneva, Switzerland.

1999 - 2003    Member, UICC Prognostic Factors Committee, Geneva, Switzerland.

1999 - 2003    Member, UICC Prognostic Factors Committee, Geneva, Switzerland.


1995 - 1998    Member, Annual Meeting UICC TNM Committee

1993 - 1997    Member, American Joint Committee on Cancer Staging, Task Force For Soft Tissue Sarcoma for the Fifth Edition of the TNM Staging System

1993    International Co-ordinator, Nasopharyngeal Stage Classification Revision

Revision (Appointee by official request of the UICC/TNM Project Committee and the AJCC for the planned Fifth Revision of the TNM Staging System). Task completed with approval of world-wide revision 12 January, 1995 (AJCC) and May 2, 1995 (UICC)

American Joint Committee on Cancer (AJCC)


1999 - present    UICC Representative, Task Force for Bone Tumors for the 6th Edition of TNM

2000 - present    Member, American Joint Committee on Cancer Annual Meetings 1996, 1997, 1998 and Task force Meetings for Head and Neck cancer, Bone Tumors, and Soft Tissue Sarcomas

Center for Nasopharyngeal Cancer Research (NPC) Cancer Research (CNPCR)

2009 - present    Member, International Advisory Board, Hong Kong, China. Under the aegis of the Area of Excellence (AoE) scheme.
Advisory Board of Meta-Analysis of Chemotherapy in Nasopharyngeal Cancer

2010 – present  **Member**, Steering Committee, Meta-analysis of Chemotherapy in Nasopharyngeal Cancer, Department of Statistics, Institut Gustave Roussy, Paris, France

Trinity College, Dublin

2010 – Present  **External Examiner and Curriculum Development**, for BSc Discipline of Radiation Therapy, Trinity College, Dublin, Europe’s foremost program initiated by Mary Coffey from ESTRO

American College of Surgeons

2006 - 2009  **UICC Representative**, Commission on Cancer

2002 – 2006  **Member**, Sarcoma Committee

Sarcoma Alliance

2002 - present  **Member**, Medical Advisory Board, United States.

Connective Tissue Oncology Society

1996 - present  **Member**, Membership Committee

1996 - present  **Member**, Board of Directors

1996 - present  **Member**, Executive Committee

2000  **Judge**, Young Investigator Award at Annual Meeting

1999 Oct 24 - 2000  **President**, Membership Committee

  *By election of the Society Members, 1997 Annual Meeting Milan, Italy.*

1997 Nov - 1998 Nov  **Secretary**, Executive Committee

By *election of the members of the Society. In Milan, Italy (one year appointment).*

1996 Oct - 1997 Oct  **Treasurer**, Executive Committee

By *election of the members of the Society. In Toronto, Canada (one year appointment).*


1994 Sep  **Member**, Founding Committee, Boston, Massachusetts.  
  *(Multidisciplinary society to further communication between clinicians and scientists interested in sarcomas. First President: Dr. Herman Suit, Harvard University)*

American Society of Radiation Oncology (ASTRO), the American Society of Clinical Oncology (ASCO), and the American Society of Head and Neck Surgery (AHNS)

2016 Feb  **Member**, Program Committee, Fifth Multidisciplinary Head and Neck Cancer Symposium

2014 Feb  **Member**, Program Committee, Fourth Multidisciplinary Head and Neck Cancer Symposium

2010 Feb  **Member**, Program Committee, Second Multidisciplinary Head and Neck Cancer Symposium

2007 Jan  **Member**, Program Committee, First Multidisciplinary Head and Neck Cancer Symposium
American Society of Therapeutic Radiology and Oncology (ASTRO)

2004 - 2007  **Member**, Scientific Program Committee, Annual Meeting
2003 - 2004  **Member**, Scientific Program Committee, Annual Meeting

European Head and Neck Society (EHNS) and European Society of Therapeutic Radiology and Oncology (ESTRO)

2009 Feb  **Member**, Second Program Committee for the International Meeting on Innovative Approaches in Head and Neck Oncology (ICHNO)
2007 Feb 22 - 2007 Feb 24  **Member**, Program Committee, First International Meeting on Innovative Approaches in Head and Neck Oncology (ICHNO)
2007 Feb 22 - 2007 Feb 24  **Invited Faculty**, First International Meeting on Innovative Approaches in Head and Neck Oncology, Barcelona (ICHNO)

American College of Surgery Oncology Group

2004 - 2006  **Co-Chair**, Sarcoma Site Committee *(Co-Chair, with Dr Peter Pisters)*

American Society of Clinical Oncology (ASCO)

2003  **Chairman**, Sarcoma Program Committee for the Annual Scientific Meeting
2001 - 2003  **Member**, Scientific Program Committee, Sarcoma Committee
*Specific Appointment by invitation to the Sarcoma Sub-committee.*
**Consultant**, By invitation to the Scientific Program Sub-Committee for the 2001 ASTRO Annual Meeting

ECCO - ESMO - ESTRO European Cancer Congress (ECCO)

2012-2013  **Chair**, Sarcoma Program Committee for the Annual Scientific Meeting

TROG/NCIC CTG

2002 - 2006  **Chairman**, Independent Data Management Committee, Collaborative trial (TROG 03.01 / NCIC CTG ES 2) Trial in esophageal cancer

The Hong Kong Nasopharyngeal Study Group

2006 - 2012  **Chairman**, Data Safety Monitoring Committee of NPC-0501, Hong Kong
*Randomized trial to evaluate the therapeutic gain by changing the chemo-radiotherapy from concurrent-adjuvant to induction-concurrent sequence, and the radiotherapy from conventional to accelerated fractionation for advanced nasopharyngeal carcinoma.*

Interim Data Monitoring Committee (IDMC)

2004 May  **External Reviewer**, EORTC study 62961
**National Cancer Centre, Singapore**

2006 Feb 2 - 2006 Feb 9  
**Advisor**, Ministry of Health, Singapore.  
*Participated in Research and Administrative Seminars and Multidisciplinary Tumor Conferences at the National Cancer Centre, Singapore General Hospital, Tam Tock Seng Hospital; KK Hospital, and the National University Hospital.*

2006 Feb 2 - 2006 Feb 9  
**Reviewer**, Department of Radiation Oncology, Singapore.  
*Participated in Research and Administrative Seminars and Multidisciplinary Tumor Conferences at the National Cancer Centre, Singapore General Hospital, Tam Tock Seng Hospital; KK Hospital, and the National University Hospital.*

**Lent V Workshop on Late Toxicity Metrics and Working Standards**

2004 May 20  

2004 May 20  
**Member**, Annual Meeting UICC TNM Committee, Prognostic Factor Advisory groups, Rochester, New York. *(Chaired by A Trotti and S Bentzen).*

**Medical Research Council**

2004 May  
**External Reviewer**, VORTEX: A randomised trial of dose and volume of post-operative radiotherapy given to adult patients with extremity soft tissue sarcoma, United Kingdom.

**National Institutes for Health**

2003  
**Sub-Committee Chair**, Progress Review Group (PRG), Sarcoma Round Table Discussion, National Cancer Institute

2003  
**Chair**, Sub-Committee, Progress Review Group (PRG), Sarcoma Organ Site, National Cancer Institute

2002 Apr 14 - 2002 Apr 16  
**Member**, Late effects Criteria and applications workshop, St Petersburg, Florida.

1998 Nov  
**Member**, Sarcoma Strategy-Planning Meeting of the Cancer Therapy Evaluation Program, National Cancer Institute, Vancouver, Canada.

1996 Oct  
**Member**, Sarcoma Strategy-Planning Meeting of the Cancer Therapy Evaluation Program, National Cancer Institute, Bethesda, Maryland.

**LENT IV: Late effects Criteria and applications workshop**

2002 Apr 14 - 2002 Apr 16  
**Co-Chair**, “Assessment of fibrosis – state of the Art”, St Petersburg, Florida.  
*Co-Chair (Clinical aspects) with A. Davis for Topic Focus Group.*

2002 Apr 14 - 2002 Apr 16  
**Member**, Site Committee: Sarcoma/ Musculoskeletal, St Petersburg, Florida.

**Sarcoma Disease Site Group**

2002 Apr  
**Associate Leader**, Sarcoma Site, Commission on Cancer  
*Representing American Society of Therapeutic Radiology and Oncology (ASTRO)*

**International Society for Radiation Oncology**

2001 Feb  
**Member**, International Advisory Committee: For the International Congress of Radiation Oncology,
Melbourne, Australia.

American Board of Radiology

2000 - 2001  **Guest Examiner**, Head and Neck and Skin Oncology Section (Radiation Oncology)
*By Invitation.*

1996 - 1997  **Guest Examiner**, Head and Neck and Skin Oncology Section (Radiation Oncology)
*By Invitation.*

Multidisciplinary Sarcoma Symposium

1993  **Member**, Boca Raton, Florida.
*Led to the formation of the Connective Tissue Oncology Society.*

University of Bergen, Norway

2009 – 2013  **Thesis Defense Committee Member** for PhD (Nina Louise Jebsen), University of Bergen, Norway

Other Organizations

2011  **Member**, International Advisory Board
*Areas of Excellence Scheme of the Government of China for the University of Hong Kong Program in Nasopharyngeal Cancer Translational Research.*

2005 Dec  **Member**, Trial Management Committee for the TRACE, San Francisco.
*(Tirapazamine, Radiation and Cis-Platin Evaluation) EFC5512 Study, a second industry sponsored FDA registration trial to confirm the anticipated results of “Headstart” (EFC4690).*

2005 May  **Member**, Trial Management Committee for the TRACE, Orlando.
*(Tirapazamine, Radiation and Cis-Platin Evaluation) EFC5512 Study, a second industry sponsored FDA registration trial to confirm the anticipated results of “Headstart” (EFC4690).*

2004 Dec  **Member**, Trial Management Committee for the TRACE, Nice, France.
*(Tirapazamine, Radiation and Cis-Platin Evaluation) EFC5512 Study, a second industry sponsored FDA registration trial to confirm the anticipated results of “Headstart” (EFC4690).*

*(EFC4690 Phase III randomized trial of concomitant radiation, cisplatin, and tirapazamine (SR259075) versus concomitant radiation and cisplatin in patients with advanced head and neck cancer). This is an industry sponsored FDA phase III randomized registration trial that evaluates the role of the hypoxic cell cytotoxin, Tirapazamine in the management of locally advanced head and neck cancer. The trial is open in 88 centres world-wide and on four continents. (Anticipated accrual complete in April 2005 with target of 850 patients). Numerous Meetings (San Francisco, Vancouver, Copenhagen, New Orleans, Nice).*

2002 - 2004  **Member**, Radiotherapy quality assurance and hands on radiotherapy data evaluation for the HeadStart (EFC4690) Study in collaboration with the Quality Assurance Review Center (QARC), Providence, Rhode Island.
*Required numerous site meetings in Providence.*

1999 Sep  **Member**, Conference on Prognostic Factors and staging in Cancer Management: Contribution of Artificial Neural Networks and Other Statistical Methods, Arlington, Virginia.
NATIONAL

National Cancer Institute of Canada/Clinical Trials Group

2006 - present Co-Chair, Head and Neck Site Group Working Group
Co-Chair (with Dr R Gilbert).

1987 - present National Representative, Radiation Oncology, an Executive Committee of the Canadian Sarcoma Group Reporting

1994 Jul - 1996 Member, Quality Assurance Committee, Kingston.

Canadian Sarcoma Group

1997 - present Member, Executive Committee and Simultaneous member of the NCIC CTG Executive of the Sarcoma Disease Site Committee

2000 - present Co-Chairman, Subcommittee on Local Management the NCIC CTG Executive of the Sarcoma Disease Site Committee
Co-Chairman (with R. Turcotte, University of Montreal).

2000 Feb 26 - 2000 Feb 27 Member, Organising Committee for the Third National Workshop of the Canadian Sarcoma Group “Sarcomas: Molecular markers to therapeutics”

Other Organizations

1996 - present Member, Canadian Soft Tissue Sarcoma Bank Research Committee
(To review scientific applications from investigators for access to tissue for research).

1997 Jun Member, Workshop Planning Committee for Workshop “National Initiative to Improve Cancer Survival Information”, Ottawa, Canada.

1997 Apr Chairman, Organizing Committee for the Workshop “Canadian Leadership Consultation on Cancer Staging”, National Cancer Institute of Canada (NCIC)
Final report (primary author: O’Sullivan B) of the Leadership Consultation on Cancer Staging in Canada has been approved by the Advisory Committee on Cancer Staging, the Association of Provincial Cancer Agencies, and the Canadian Council on Health Services Accreditation and has been endorsed by the Board of the NCIC. Approved recommendation requires all cancer programs in Canada to record and centrally report the TNM stage on every cancer patient.

1997 Feb Representative of the Canadian Association of Radiation Oncologists, Meeting of the Planning Group for a Coalition for the Framework for Cancer Surveillance in Canada

National Cancer Institute of Canada

1996 Nov Member, NCIC Workshop on Surveillance Systems for Cancer Control in Canada, Kananaskis, Alberta.

1995 Nov Member, NCIC Organising Committee, Workshop on the Pathologist’s Role in the Staging of Cancer, Toronto.
A workshop sponsored by the National Cancer Institute of Cancer and the Laboratory Centre for Disease Control).

1995 - 1998 Chairman, Canadian Committee on Cancer Staging (CCCS), The Subcommittee on Staging of the Advisory Committee on Cancer Control

1992 - 2001 Chairman, Site Specific Advisory Group for Head and Neck tumors of the Canadian Committee on Cancer Staging

1992 - 2001 Chairman, Site Specific Advisory Group for Bone and Soft Tissue tumors of the Canadian Committee
Brian O’SULLIVAN: CV (July 1’2016)

CONFIDENTIAL DOCUMENT

on Cancer Staging

1992 - 1998 Member, Canadian Committee on Cancer Staging (CCCS), reporting to the Advisory Committee on Cancer Control
1991 Member, Canadian ad hoc TNM stage classification Committee

22nd Annual Meeting of the Eastern Great Lakes Head and Neck Oncology Association

1998 Nov 7 Scientific Program Chair, Toronto, Canada.
1998 Nov 7 President, Toronto, Canada.

Sponsored by the Continuing Education Department, Faculty of Medicine, University of Toronto for AMA Category I credits and MOCOMP credits of the Royal College of Physicians and Surgeons of Canada.

Health Canada

1997 Jun Member, Workshop on "National Initiative to Improve Cancer Survival Information", Ottawa.

Royal College of Physicians and Surgeons of Canada

1992 - 1994 Member (ex-officio, Specialty Committee on Radiation Oncology) as Chief Examiner for the specialty of Radiation Oncology.
1990 - 1994 Member, Board of Examiners in Radiation Oncology
1990 - 1993 Local Co-ordinator, Royal College Examination in Radiation Oncology

PROVINCIAL / REGIONAL

Ontario Cancer Institute /Princess Margaret Hospital

2001 - present Member, Radiation Medicine Steering Committee
1998 - present Member, Radiation Medicine Program Senior Advisory Committee
2004 - 2006 Chairman, Super Team I (Head and Neck and Central Nervous System), Radiation Medicine Program (multidisciplinary team comprising radiation oncology, radiation therapy, and medical physics).

Province of Ontario

2012 - present Project Lead, E-Outcome Head & Neck Project, Cancer Care Ontario
2000 - present Representative of the Princess Margaret Hospital, Radiation Waiting List Working Group, Faculty of Medicine, Department of Radiation Oncology
A collaborative initiative of the Ontario Ministry of Health, The Institute for Clinical Evaluative Sciences(ICES, Ontario), the Princess Margaret Hospital, Toronto, and Cancer Care Ontario.
1997 - present Member, Ontario Cancer Treatment Practice Guidelines Initiatives, Sarcoma Disease Site Group, Cancer Care Ontario
LOCAL

Princess Margaret Hospital

2011  
Member, Ambulatory Care Redesign Committee, Oncology

2011 - 2012  
Chair, Strategic Planning Committee, Radiation Medicine Program, 5-year plan

2007 - 2008  
Chair, Strategic Planning Committee, Princess Margaret Hospital Oncology Program, 5-year plan

2007 - 2008  
Chair, Strategic Planning Committee, Oncology Program, 5 year plan.

2002 - 2003  
Chair, Strategic Planning Committee, Radiation Medicine Program, 5-year plan

2001 - 2006  
Chairman, Strategic Planning Working Group, Radiation Medicine Program

1999 - 2003  
Member, Cancer Registry Committee

1992 - 1995  
Representative Ambulatory Care Committee, Standing Committee of the Medical Advisory Committee

1989 - 1990  
Coordinator/Liaison Officer, Radiation Services, Standing Committee of the Medical Advisory Committee  
*(A position created during the 1989/1990 Ontario provincial RT workload crisis to monitor statistics and to assist the Chief of the Department of Radiation Oncology in the management of radiotherapy workload).*

1989 - 1990  
Member, Task Force to assess recruitment and retention of Radiation Technologists, Standing Committee of the Medical Advisory Committee

University of Toronto

2002 - 2004  
Member, Academic Promotions Committee, Faculty of Medicine, Dept of Radiation Oncology

2001 - 2004  
Member, Decanal Promotions Committee, Faculty of Medicine

1996 - 2000  
Member, Research Fellowship Selection Committee, Faculty of Medicine, Dept of Radiation Oncology

Peer Review Activities

EDITORIAL BOARDS

Chief Editor

2009 May - present  
UICC Manual of Clinical Oncology

Associate Editor

2009  
UICC TNM Cancer Staging Manual 7th edition

2005  
Journal of Clinical Oncology

2003  
Radiotherapy & Oncology

2003  
Annual of Surgical Oncology

2001  
Soft tissue and Bone, Annals of Surgical Oncology

2000  
8th edition of the Manual of Clinical Oncology, UICC, Geneva

1999 - 2000  
2nd edition of “Prognostic Factors in Cancer” Textbook, UICC, Geneva

1996 - 1998  
7th edition of the Manual of Clinical Oncology, UICC, Geneva
Guest Editor


Member

1996 - present  Journal Sarcoma, an international multidisciplinary journal for connective tissue oncology


GRANT REVIEWS

External Referee

2011 – 2012  US NCI (Transoral resection of Pharyngeal Cancer)

2010  Danish Cancer Society, Renewal of the DAHANCA Head and Neck Program Project

2009  UK NCR1 Trial

2006 – 2012  Hong Kong NPC Study Group

2005  Australia Queensland Cancer Fund

2004  EORTC

2002 – 2006  TROG

MANUSCRIPT REVIEWS

Associate Editor

Journal of Clinical Oncology

Radiotherapy and Oncology

Annals of Surgical Oncology

Reviewer

Radiotherapy and Oncology

International Journal of Radiation Oncology, Biology, Phys

Cancer

European Journal of Cancer

Head and Neck

Sarcoma

Journal of Clinical Oncology

Clinical Oncology

Annals of Oncology
Brian O’SULLIVAN: CV (July 1’2016)

Annals of Surgical Oncology
New England Journal of Medicine
Lancet
The Lancet Oncology

PRESENTATION REVIEWS

Abstract Reviewer

2014
2014 Multidisciplinary Head and Neck Cancer Symposium (ASTRO Head and Neck Meeting)

2013
Sarcoma, European Cancer Congress

2003 - 2004
Connective Tissue Oncology Society (Annual Meetings 2003, 2004)

2002
American Society of Therapeutic Radiology and Oncology for Head and Neck, Sarcoma (2002 scientific meeting)

2001
American Society of Therapeutic Radiology and Oncology for Head and Neck, Sarcoma, and Skin cancer (2001 scientific meeting)

2000
American Society of Therapeutic Radiology and Oncology for Head and Neck, Sarcoma and Benign Diseases (2000 scientific meeting)

1998 - 2001
Connective Tissue Oncology Society (Annual Meetings)

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2015-2016

2011 - 2014
Co-Investigator. Is the improvement in survival for HPV associated head and neck cancer due to the addition of chemotherapy to radiotherapy or to a more treatment-sensitive cancer? Canadian Institutes of Health Research (CIHR). PI: Hall, Steven. Collaborators: Brian O’Sullivan, Fei-Fei Liu, Bayardo Perez-Ordonez, Patti Groome, Dongsheng, Tu, Maura Gillison. 238,721 CAD. [Grants].

2009 - 2011

2008 - 2013

2008 - 2011

2008 - 2010
Co-Investigator. The Ontario Clinical Practice Guideline #5-6a: the impact on physicians, practice and patients. National Cancer Institute of Canada (NCIC). CCS(Ontario Division). PI: Hall, S. Collaborators: Investigators: Groome P (Queens University, Kingston Ontario), O’Sullivan B (Princess Margaret Hospital, University of Toronto), Irish J (Princess Margaret Hospital, University of Toronto), Gilbert R (Princess Margaret Hospital, University of Toronto), Gregg R (Queens University, Kingston Ontario),
2005 - 2008  
**Competitive funding for development and testing of promising new cancer therapies from the Government of Ontario.**

2004 - 2007  
**Principal Investigator.** Early detection, treatment variations and treatment delay in cancers of the oral cavity. Canadian Institutes of Health Research (CIHR). Collaborators: Principal investigators: Browman George P (McMaster University, Hamilton), Hall Stephen F (Queens’ University, Kingston), Irish Jonathan (University of Toronto), Mackillop William J (Queens’ University, Kingston), O’Sullivan Brian (University of Toronto). 520,596 CAD. [Grants].

2003 - 2006  
**Co-Investigator.** New Measures for quantifying soft tissue fibrosis. Canadian Institutes of Health Research (CIHR). ITM - 66113. PI: Davis A. Collaborators: O’Sullivan B (University of Toronto), Bell RS (University of Toronto), Hill R (University of Toronto), Lee P (University of Toronto), Levin W (University of Toronto), McCready D (University of Toronto), Wunder J (University of Toronto). 298,263 CAD. [Grants].

2001 Jan - 2006  
**Co-Investigator.** Interdisciplinary health research team in musculoskeletal neoplasia. Canadian Institutes of Health Research (CIHR). 84031. PI: Bell RS. Collaborators: Davis AM (University of Toronto), Bramwell V (University of Western Ontario), Hill R (University of Toronto), Malkin D (University of Toronto), Andrusilus I (University of Toronto), Wunder JS (University of Toronto), Kandel R (University of Toronto), Alman B (University of Toronto), O’Sullivan B (University of Toronto), Greenberg M(University of Toronto), Turcotte R (University of Montreal), Masri B (University of British Columbia). 5,997,985 CAD. [Grants].

2000 Jan  

2000 Jan  
**Co-Investigator.** The process and outcomes of care for soft tissue sarcoma of the extremities. Canadian Institutes of Health Research (CIHR). MOP - 43912. PI: Paszat L. Collaborators: O’Sullivan B (University of Toronto), Groome P (Queens’ University, Kingston), Mackillop W (Queens’ University, Kingston), Bramwell V (University of Western Ontario), Austin P (Institute for Clinical Evaluative Sciences). 216,439 CAD. [Grants].

1999 - 2002  
**A collaborative study involving radiation biology (Hill RP), radiation oncology (O’Sullivan B), surgical oncology (Bell R) and cellular transplantation therapy (A. Keating) at the Ontario Cancer Institute / Princess Margaret Hospital, University of Toronto.**

Collaborators include experts in head and neck and limb surgery (Gullane P, Wunder J, Bell R, Neligan P), clinical and experimental radiation oncology (O’Sullivan B and Waldron J) and cellular transplantation techniques developed from bone marrow transplantation adapted to mesenchymal cell therapy (Keating A, medical and hematology oncology). Other collaborators on this Grant include expertise in interpretation of mesenchymal tissue and wound pathology (Kandel R), vasculosity of healing tissue (Pang C), the use of viral transfection to provide markers for tracking transplanted cells (Sandhu K) and the development of valid instruments for measuring relevant clinical outcomes following surgery and radiotherapy (Davis A).

1999 - 2001  
Two year renewal Award: March 1999.

1996 - 1999

1993 Oct
Principal Investigator. A Phase III study of pre-operative external beam radiotherapy compared to post-operative external beam radiotherapy in the local management of curable extremity soft tissue sarcoma. National Cancer Institute of Canada (NCIC). Clinical Trials Group. SR 2. [Grants]
Trial Committee: Brian O’Sullivan (Chair), Aileen Davis, Robert Bell, Karen Goddard, Robert Turcotte, Pierre Chabot. $300,000 as per case funding.

1992 - 1999
Collaborator. Sarcoma Tumour Bank/Correlative Clinical Database. National Cancer Institute of Canada (NCIC). PI: Andrulis, IL and Bramwell, V. Collaborators: Dr. B. O’Sullivan (Radiation Oncologist), other Surgical Oncologists, and Basic Scientists. 855,000 CAD. [Grants]
Award $120,000 Annual and $15,000 Equipment.

1990 - 1993
Contract Grant to Patterns of Fractionation Study Group, American College of Radiology.

1987 Mar - 1989 Mar

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Brian O’SULLIVAN: CV (July 1’2016)


Brian O’SULLIVAN: CV (July 1’2016)


**Published Abstracts**


Brian O’SULLIVAN: CV (July 1’2016)


42. Giuliani ME, Baer H, O’Sullivan B, Le L, Catton P, Hope A, Alibhai S, David H. Elderly patients with advanced head and neck cancer less likely to receive radiation therapy. Accepted for Poster Presentation at the American Society for Therapeutic


96. Diaz-Padilla I, Waldron J, Hope A, Chen EX, Chan K, Kim J, O’Sullivan B, Abdul Razak AR, Chin SF, Siu LL. Phase I trial of albumin-bound paclitaxel (A), cisplatin (P) and 5-fluorouracil (F) as induction chemotherapy (IC) followed by concurrent chemotherapy (CRT) with carboplatin (Cb) in patients (pts) with locally advanced squamous cell carcinoma of the head and neck (S), ECCO Annual Meeting, Stockholm, Sweden, European Journal of Cancer 47 (Suppl 1) S547, A8511, September 2011.


Brian O'SULLIVAN: CV (July 1’2016)


166. Dickie CI, Parent AL, Griffin AM, Wunder JS, Ferguson PC, Chung PWM, Catton CN, O’Sullivan B. Measuring interfraction and intrafraction motion with cone beam computed tomography (CBCT) and an optical localization system (OLS) for lower extremity soft tissue sarcoma patients treated with preoperative intensity modulated radiation therapy (IMRT). American Society for Therapeutic Radiology and Oncology, Boston, USA September 2008.


169. Dickie CI, Parent AL, Griffin AM, Wunder JS, Ferguson PC, Chung PWM, Catton CN, O’Sullivan B. Measuring interfraction and intrafraction motion with cone beam computed tomography (CBCT) and an optical localization system (OLS) for lower extremity...


196. Phimolsarnti RP, Griffin AM, Ferguson PC, Catton CN, Chung PW, Bell RS, Wunder JS, O’Sullivan B. Outcome following limb salvage surgery and external beam radiotherapy for high grade soft tissue sarcomas of then groin and axilla. American Society of Therapeutic Radiology and Oncology, Los Angeles, USA October 2007.

198. Phimolsarnti RP, Griffin AM, Ferguson PC, Catton CN, Chung PW, Bell RS, Wunder JS, O'Sullivan B. Outcome following limb salvage surgery and external beam radiotherapy for high grade soft tissue sarcomas of then groin and axilla. Connective Tissue Oncology Society, Seattle, USA November 2007.


221. Clarkson PW, Griffin AM, Catton CN, O'Sullivan B, Ferguson PC, Wunder JS, Bell RS. Comparison of outcomes of soft tissue sarcoma arising in the popliteal fossa or posterior thigh. Canadian Orthopaedic Association, Montreal, June 2005.


2. NON-PEER-REVIEWED PUBLICATIONS

Books Edited


Book Chapters


In Preparation


Invited Manuscripts


E. Invited Presentations and Special Lectures

1. INTERNATIONAL


2016 Feb Invited speaker. Head and Neck Cancer Gone Viral: a quandary demanding response. MD Anderson Cancer Center, Houston, TX, USA.


2015 Nov Panelist. Recurrent and/or metastatic head and neck cancer. In: 5th Trends in Head and Neck Oncology, Lisbon
2015 Nov  
**Invited speaker.** Recurrent and/or metastatic head and neck cancer: when and how to irradiate. In: 5th Trends in Head and Neck Oncology, Lisbon Portugal, Nov 7, 2015.

2015 Nov  
**Invited speaker.** Treatment of viral-associated HNC (OPC & NPC). In: 5th Trends in Head and Neck Oncology, Lisbon Portugal, Nov 6, 2015.

2015 Nov  

2015 Oct  

2015 July  

2015 July  

2015 July  

2015 July  
**Invited speaker.** Advanced (stage III & IV) oropharyngeal squamous cell carcinoma: treatment de-escalation. In: the 5th IAOO Annual Meeting, Sao Paulo, Brazil, July 9, 2015.

2015 July  
**Invited speaker.** Impact of HPV Status In Carcinogenesis, Prognosis and Patient Counseling. In: the 5th IAOO Annual Meeting, Sao Paulo, Brazil, July 11, 2015.

2015 June  

2015 June  

2015 May  
**Invited speaker.** "Horses for Courses": Incorporating Non-Anatomic Prognostic Factors into TNM for personalized management of HPV-driven Oropharynx cancer. Scientific seminar of the Radiation Oncology Dept. in collaboration with the Cancer Center. Université Catholique de Louvain. St-Luc University Hospital

2015 Mar  
**Invited speaker.** Practical and Methodological Issues to Improve the UICC/AJCC TNM: Example of NPC. The 7th Chinese National Nasopharyngeal Carcinoma Conference. Hangzhou, China. March 27, 2015.

2015 Feb  
**Invited speaker.** The ongoing search for optimal multimodality therapy for nasopharyngeal carcinoma. 5th International Conference on Innovative Approaches in Head and Neck Oncology (ICHNO), Nice, France, Feb 12-14, 2015.

2015 Feb  

2014 Nov  
**Invited speaker.** The established role of IMRT in primary and recurrent NPC. University of Hong Kong. The Croucher Foundation Advanced Study Institute on Advances in Nasopharyngeal Carcinoma Studies. Hong Kong, China. Nov 3, 2014.

2014 Sep  

2014 Sep  

2014 Sep  


2014 May  **Invited Speaker.** Examining our report card: Have we answered all the questions about local management of soft tissue sarcoma? The Roentgen Ray Lecturer. Fox Chase Cancer Center. Philadelphia, USA, May 1, 2014.


2014 Mar  **Invited Speaker.** Perspectives in de-escalating non-surgical management of oropharyngeal cancer: Danish Society for Head and Neck Oncology Annual Scientific Meeting. Copenhagen, Dan mark, March 7, 2014.


2013 Nov  **Invited Speaker.** The challenges in addressing the West’s fastest emerging cancer: HPV-related oropharyngeal carcinoma. 22nd Asia Pacific Cancer Conference, Oct 31-Nov 2, 2013, Tianjin, China.


2013 Oct  **Invited Speaker.** Treatment de-intensiﬁcation in HPV/P16+ H&N cancer is justified in a subset of patients. Controversies in Head and Neck Oncology Symposium. Oct 19, 2013, Berlin, Germany.

2013 Oct  **Invited Speaker.** The Ongoing Search for Optimal Multimodality Therapy for NPC. Hong Kong Nasopharyngeal Cancer Symposium. Oct 16, 2013 Hong Kong, China.


2013 Jun  **Invited Speaker (Abstract discussant).** HPV/p16 topics in head and neck cancer. ASCO 2013, June 2, 2013, Chicago, USA.


2013 Mar  Invited Speaker. The Enigma of Distant Metastases in HPV-driven Oropharyngeal cancer. Cancer Center Grand Round. Department of Radiation Oncology, University of Pennsylvania, USA

2013 Mar  Invited Speaker: Optimizing Multidisciplinary Local Management of Extremity Soft Tissue Sarcoma. Radiation Oncology Conference. Department of Radiation Oncology, University of Pennsylvania, USA

2012 Dec  Keynote Speaker: Meet the professor. 34th AROICON 2012. Kolkata, India.


2012 Oct  Course Director: Radiotherapy workshop: Adaptive radiotherapy and contouring. Indian Federation of Head & Neck Oncology. Ahmedabad, India

2012 Oct  Keynote Speaker. Dr. P.A. Shah Oration: Challenges in minimizing morbidity after radiotherapy. Indian Federation of Head & Neck Oncology. Ahmedabad, India


2012 Oct  Facilitator. Stump the Faculty. IFHNOS 2012 World tour 12th National Conference of FHNO October 1-31 Global Continuing Education program.


2012 May  Invited Speaker. HPV positive vs HPV negative oropharyngeal carcinoma: deescalating vs intensified treatment. ESTRO Conference. Barcelona, Spain.


2011 Sep 10 Invited Speaker. Best quality evidence for improving the UICC TNM: balancing the science with the achievable. The First Symposium on Cancer Staging and Prognostication in China. Hong Kong, China. O’Sullivan B.


2011 Jun 22 Invited Speaker. The current state of physical/spatial and molecular targeting in the treatment of nasopharyngeal carcinoma. 5th International Symposium on Nasopharyngeal Carcinoma. Penang, Malaysia. O’Sullivan B.

2011 May 9 Invited Speaker. How should we manage patients with loco-regionally advanced head and neck cancer who are not suitable for chemo-radiotherapy. 2011 Annual Meeting, European Society for Therapeutic Radiology and Oncology (ESTRO). London, United Kingdom. O’Sullivan B.


2010 Nov 19 Invited Speaker. An Update on Clinical Treatment of NPC. The Areas of Excellence Scheme Research Symposium, The Center for Nasopharyngeal Carcinoma Research, The University of Hong Kong. Hong Kong, China. O’Sullivan B.


2010 Nov Keynote Speaker. Hong Kong Head and Neck Group and “Area of Excellence” Visiting Professor, University of Hong Kong. Hong Kong, China.

2010 Sep 16 Invited Speaker. Enigmas and challenges in the diagnosis and treatment of HPV-related oropharyngeal cancer. 29th Annual Meeting of the European Society of Therapeutic Oncology (ESTRO). Barcelona, Spain. O’Sullivan B.


2010 Jun 18 Invited Speaker. Radiation Oncology of Head and Neck Cancer: the state, and reality, of the science. 4th World
2010 Jun 17 **Invited Speaker.** Clinical Relevance of Concurrent Chemoradiotherapy. 4th World Conference of the International Federation of Head and Neck Oncologic Societies (IFHN). Seoul, Korea, Republic Of. O’Sullivan B.


2009 Dec 4 **Invited Speaker.** Lessons learnt from experience of conducting clinical trials – how to ensure successful completion and quality control. Scientific Symposium on Clinical Trials for Nasopharyngeal Carcinoma - The Hong Kong Nasopharyngeal Cancer Study Group and Central Coordination Committee (Clinical Oncology) Hong Kong Hospital Authority. O’Sullivan B.


2008 Oct 18  **Invited Speaker.** Treatment of Primary and Recurrent tumors of the Nasopharynx. Tenth Annual Meeting of the Brazilian Society of Radiation Oncology. Recife, Brazil. O’Sullivan B.


2008 Oct 17  **Invited Speaker.** Current approaches to the treatment of soft tissue sarcoma. Tenth Annual Meeting of the Brazilian Society of Radiation Oncology. Recife, Brazil. O’Sullivan B.

2008 Sep 26  **Invited Speaker.** Radiotherapy: Why, When & How? Symposium on Multiple Disciplines in Sarcoma Management, Annual Scientific Meeting of the Faculty of Radiologists, Royal College of Surgeons in Ireland. Dublin, Ireland. O’Sullivan B.

2008 Sep 26  **Keynote Speaker.** An Introduction to IMRT in Head & Neck Cancer. Symposium on New Technology in Radiation Oncology. Annual Scientific Meeting of the Faculty of Radiologists, Royal College of Surgeons in Ireland. Dublin, Ireland. O’Sullivan B.

2008 Sep 26  **Plenary Lecturer.** Diagnostic & Therapeutic Radiology in the Multidisciplinary Management of Soft Tissue Sarcomas. The Honorary Fellow’s Lecture to the Faculty of Radiologists, Annual Scientific Meeting of the Faculty of Radiologists, Royal College of Surgeons in Ireland. Dublin, Ireland. O’Sullivan B.

2008 Sep 25  **Invited Speaker.** Challenges in realising the benefits of targeted treatment for head and neck cancer. Saint Lukes Hospital Visiting Professor Lecture. Dublin, Ireland. O’Sullivan B.

2008 Sep 25  **Invited Speaker.** NPC: Head and Neck’s most unusual mucosal cancer. Saint Lukes Hospital Visiting Professor Lecture. Dublin, Ireland. O’Sullivan B.

2008 Sep 25  **Invited Speaker.** The changing nature and management of oropharyngeal cancer. Saint Lukes Hospital Visiting Professor Lecture. Dublin, Ireland. O’Sullivan B.

2008 Sep 20  **Invited Speaker.** How to give a Talk. Annual Scientific Seminar of the Association of Residents In Radiation Oncology, 50th Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Boston, Massachusetts. O’Sullivan B.

2008 Sep  **Invited Speaker.** What is the standard of care for unresected locally advanced HNSCC? Radiotherapy and a targeted agent with or without chemotherapy? 27th Annual Meeting of the European Society of Radiation Oncology (ESTRO). Goteborg, Sweden. O’Sullivan B.


2008 Jul 19  **Invited Speaker.** Radiation Medicine Quality Standards for Head and Neck Oncology. 7TH International Head and Neck Cancer Conference. San Francisco. O’Sullivan B.


2008 Mar 13  **Keynote Lecturer:** Spanish Sarcoma Group – Aula Magna de la Casa de Convalescencia del Hospital Santa Creu y
2008 Mar 1  
**Keynote Speaker.** “The Irish Cancer Society Lecturer” and Visiting Professor, Irish Association for Cancer Research. Newcastle, County Down, Northern Ireland, United Kingdom.

2008 Mar 1  
**Invited Speaker.** The management of head and neck cancer in the era of Molecular Oncology. Irish Cancer Society Lecture, Irish Association for Cancer Research. Newcastle, County Down, Northern Ireland. O’Sullivan B.

2008 Feb 15  
**Invited Speaker.** Opportunities to optimize the local management of soft tissue sarcoma. Department of Radiation Medicine, University of Wisconsin. Madison. O’Sullivan B.

2008 Feb 15  
**Invited Speaker.** NPC: Head and Neck’s most unusual mucosal cancer. Department of Radiation Medicine, University of Wisconsin. Madison. O’Sullivan B.

2008 Feb 15  
**Invited Speaker.** O’Sullivan B.

2008 Dec 14  
**Invited Speaker.** The changing management of oropharyngeal cancer. Queen Mary Hospital, University of Hong Kong. O’Sullivan B.

2008 Dec 12  
**Invited Speaker.** The local management of soft tissue sarcoma. Queen Mary Hospital, University of Hong Kong. O’Sullivan B.

2008 Dec 11  
**Keynote Speaker.** Staging and Prognostic Factors in NPC: from Ho to the UICC and AJCC. Inaugural Visiting Professorship Lecture, Department of Clinical Oncology, University of Hong Kong, Queen Mary Hospital. O’Sullivan B.

2008 Dec 11  
**Invited Speaker.** Molecular Targeting in Head and Neck SCC: observations, challenges, and opportunities. Address to the Hong Kong Head and Neck Society, Excelsior Hotel. Hong Kong, China. O’Sullivan B.

2007 Nov 25  

2007 Nov  

2007 Oct  
**Invited Speaker.** Multidisciplinary Collaborative Approaches for Planning and Delivery of Radiotherapy for Soft Tissue Sarcoma. 49th Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Los Angeles, California. O’Sullivan B.

2007 Jul 31  
**Invited Speaker.** Evolving tools for Guidance in decision making, treatment delivery and post treatment surveillance in the management of NPC. East-West Symposium on Nasopharyngeal Carcinoma, Twin Waters Resort. Sunshine Coast, Queensland, Australia. O’Sullivan B.

2007 Jul 31  
**Round Table Discussant.** Intricacies of RT technique and delivery of NPC. East-West Symposium on Nasopharyngeal Carcinoma, Twin Waters Resort. Sunshine Coast, Queensland, Australia. O’Sullivan B. with Drs June Corry, Anne Lee, and Joseph Wee.

2007 Jul 30  
**Keynote Speaker.** Evolving knowledge about the biology and management of Nasopharyngeal Carcinoma. Princess Alexandra Hospital Cancer Collaborative Group 2007 Seminar Series. Brisbane, Australia. O’Sullivan B.

2007 Jul 27  
**Invited Speaker.** Management Dilemmas of Incurable/Recurrent Head and Neck Cancer. 9th Annual Scientific Meeting of the Australia New Zealand Head and Neck Society. Brisbane, Australia. O’Sullivan B.

2007 Jun 15  

2007 Jun  

2007 Apr 9  
**Invited Speaker.** Soft Tissue Sarcoma: no longer one disease scenario. Ira J Spiro Distinguished Memorial Lecturer, Ether Dome, Massachusetts General Hospital, Harvard Medical School. O’Sullivan B.
2007 Apr 9  **Distinguished Memorial Lecturer.** Soft Tissue Sarcoma. Harvard Medical School, Ira J Spiro Distinguished Memorial Lecturer, Massachusetts General Hospital.


2006 Jun 5  **Visiting Professor.** Melbourne University Peter MacCallum Cancer Centre.

2006 May 19  **Invited Speaker.** Cancer Institute of New South Wales Plenary Lecturer, Trans Tasman Radiation Oncology Group (TROG), 18th Annual Meeting. NCIC current activities; future directions and potential collaborations. Lindeman Island, Queensland, Australia. **O’Sullivan B.**

2006 Feb 17  **Invited Speaker.** IMRT approaches in soft tissue sarcoma: opportunities and challenges. University of Texas MD Anderson Cancer Center 4th International Target Delineation Symposium for IMRT/#D CRT Treatment Planning. **O’Sullivan B.**

2006 Feb 9  **Invited Speaker.** Refining the local management of soft tissue sarcoma. Health Manpower Development Plan Visiting Expert in Radiation Oncology, Ministry of Health, National University Hospital lecture. Singapore. **O’Sullivan B.**


2006 Jan 11  Keynote Speaker. Refining the local management of soft tissue sarcoma. Department of Radiation Oncology Resident Teaching Rounds, Gilbert Fletcher Distinguished Professor, University of Texas, MD Anderson Cancer Center. Houston, Texas. O’Sullivan B.

2006 Jan 11  Keynote Speaker. Realising the optimum from fractionated radiotherapy in HNSCC: evidence and challenges. Gilbert Fletcher Distinguished Lectureship, Department of Radiation Oncology, University of Texas, MD Anderson Cancer Center. Houston, Texas. O’Sullivan B.

2006 May  Invited Speaker., Cancer Institute of New South Wales, Trans Tasman Radiation Oncology Group (TROG). Queensland, Australia. O’Sullivan B


2005 Dec 12  Invited Speaker.. State University of New York, Department of Surgical Oncology and Department of Radiation Oncology, Roswell Park Cancer Institute. December 12-14th 2005.


2005 Nov 17  Invited Speaker. The UICC Approach to Prognostic Factor Classification. Symposium: Staging and Prognosis, at the 32nd Annual Scientific Meeting of the Clinical Oncological Society of Australia (COSA). Brisbane, Australia. O’Sullivan B.


2005 Nov 11  Visiting Professor. James Cook University School of Medicine, North Queensland Cancer Research Forum. Townsville, Queensland, Australia.


2005 Oct 8  **Invited Speaker.** Interactive “Refresher Course” on soft tissue sarcomas. 56th Annual Scientific Meeting, of the Royal Australian and New Zealand College of Radiologists (RANZCR). Sydney, Australia. **O’Sullivan B.**

2005 Oct 7  **Invited Speaker.** Contouring Workshop for the Quality Assurance Review Center (QARC) IMRT benchmark head and neck case. 56th Annual Scientific Meeting, of the Royal Australian and New Zealand College of Radiologists (RANZCR). Sydney, Australia. **O’Sullivan B.** with Peters L.

2005 Oct 6  **Invited Speaker.** The management of head and neck cancer in the era of image guidance. Keynote address to the Royal Australian and New Zealand College of Radiologists (RANZCR), 56th Annual Scientific Meeting. Sydney, Australia. **O’Sullivan B.**


2005 May 24 **Invited Speaker.** The Management of Sarcoma of the Head and Neck. 43rd Annual Meeting of the American Society of Neuroradiologists. **O’Sullivan B.**


2005 Apr  **Invited Speaker.** Radiation oncology controversies and new approaches in the management of skull base tumors. 16th Annual Meeting of the North American Skull Base Society. **O’Sullivan B.**


2005 Feb 26  **Keynote Speaker.** The management of nasopharyngeal carcinoma in the era of image guidance. 35th Annual Radiation Oncology Clinical Research Seminar, University of Florida. **O’Sullivan B.**


2004 Feb 12  **2nd Annual John H. Wineman Visiting Professor and Lecturer.** What is the best method of irradiating soft tissue sarcoma following the Canadian trial ? Department of Radiation Oncology, University of Michigan. **O’Sullivan B.**


2004  **Keynote Speaker.** Radiotherapy in the management of soft tissue sarcomas: when and which volume to which dose? Department of Radiation Oncology and the Radiobiology Laboratory, St-Luc University Hospital. Brussels, Belgium. **O’Sullivan B.**
2004  Invited Speaker. “Meet the Professor Luncheon”. Annual Meeting of the American Society of therapeutic Radiology and Oncology. Invitation from the Radiation Oncology Residents and President of ASTRO.


2003  Invited Speaker. “Meet the Professor Luncheon”. Annual Meeting of the American Society of therapeutic Radiology and Oncology. Invitation from the Radiation Oncology Residents and President of ASTRO.


2002 May 10  Invited Speaker. Harvard University, Department of Radiation Oncology, Dana Farber Cancer Center. Boston, Massachusetts, United States.


2001 Apr  Invited Speaker. What are the new questions in the radiotherapy of soft tissue sarcomas. 25th Anniversary Meeting of the EORTC Soft tissue and Bone Sarcoma Group. Aarhus, Denmark. O’Sullivan B.


2001  Invited Speaker. “Meet the Professor Luncheon”. Annual Meeting of the American Society of therapeutic Radiology and Oncology. Invitation from the Radiation Oncology Residents and President of ASTRO.


<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Details</th>
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<tr>
<td>2000 Oct</td>
<td><strong>Visiting Professor.</strong> Department of Orthopaedics, University of Berne, Switzerland.</td>
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<tr>
<td>2000 Aug</td>
<td><strong>Invited Panelist (speaker).</strong> Panel on the Management of Advanced Larynx Cancer. 5th International Conference on Head and Neck Cancer. San Francisco. <strong>O’Sullivan B.</strong></td>
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<tr>
<td>2000 Feb</td>
<td><strong>Visiting Professor and Speaker.</strong> Pre-operative vs Post-operative radiotherapy in Soft tissue Sarcoma — results of the SR2 Trial. Department of Surgery, MD Anderson Cancer Center, University of Texas. <strong>O’Sullivan B.</strong></td>
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<tr>
<td>2000 Feb</td>
<td><strong>Visiting Professor.</strong> University of Texas, Department of Surgery, MD Anderson Cancer Center.</td>
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<td>1998 Feb</td>
<td><strong>Invited Speaker.</strong> The UICC Staging Classification of Carcinoma of the Nasopharynx. UICC Workshop on Nasopharyngeal Carcinoma. Singapore. <strong>O’Sullivan B.</strong></td>
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<td>1997 May 2</td>
<td><strong>Keynote Speaker.</strong> University of Berne, Klinik fur Radio-oncologie, UniverstatsSpital. Zurich, Switzerland. <strong>O’Sullivan B.</strong></td>
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<tr>
<td>1996 Dec</td>
<td><strong>Invited Speaker.</strong> The management and prevention of xerostomia in head and neck radiotherapy. Emory University. Atlanta, Georgia. <strong>O’Sullivan B.</strong></td>
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<tr>
<td>1995 Sep</td>
<td><strong>Invited Speaker.</strong> Discussion of Pre-op vs. Post-op Radiotherapy in Soft Tissue Sarcoma / Update on Canadian Sarcoma Group Activities. First Scientific Meeting of the Connective Tissue Oncology Society. Boston, Massachusetts. <strong>O’Sullivan, B.</strong></td>
<td></td>
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<tr>
<td>1995 Apr 28</td>
<td><strong>Invited Speaker.</strong> Laryngeal Cancer: are experts expert and do they design ethical studies. Meeting in honour of Professor William Duncan on the occasion of his retirement, Edinburgh University. Scotland. <strong>O’Sullivan B.</strong></td>
<td></td>
</tr>
<tr>
<td>1994 Feb</td>
<td><strong>Invited Speaker.</strong> Outcome following radiotherapy in verrucous carcinoma of the larynx. Symposium on verrucous cancer of the larynx, Second World Congress on Larynx Cancer. Sydney, Australia. <strong>O’Sullivan, B.</strong></td>
<td></td>
</tr>
</tbody>
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1993 Feb  

1990 Sep 13  
**Invited Speaker.** Ethical Dilemmas in handling Patient Backlogs in Radiotherapy Practice. Division of Radiation Oncology, Christchurch Hospital. Christchurch, New Zealand. O’Sullivan, B.

1990 Sep 12  
**Invited Speaker.** Studies on the design of Clinical Trials in Cancer. Oncology Service Seminars. Christchurch, New Zealand. O’Sullivan, B.

1990 Sep 11  
**Keynote Speaker.** Approach to the management of Head and Neck Cancer. Head and Neck Seminar, Department of Oncology, Faculty of Medicine, University of Otago. Christchurch, New Zealand. O’Sullivan, B.

1990 Sep  
**Invited Speaker.** Bias in Clinical Trials: How Expert Physicians wish to be treated if they had cancer. Invited Keynote address, Lecture to conjoint session of Royal Australasian Diagnostic Radiologists and Radiation Oncologists (New Zealand Branch) with the International Society of Radiology and Radiat. Christchurch, New Zealand.

1990 Sep  

1990 Sep  

1990 Sep  

1990 Sep  

1990 Sep  

1990 Sep  
**Invited Speaker.** University of Otago. New Zealand.

### 2. NATIONAL

**Invited Lectures and Presentations**

2016 Mar  

2015 June 12  

2014 Jan 9  

2013 Apr  

2011 Oct 20  
**Invited Speaker.** HPV-Associated Oropharyngeal Carcinoma: How should we address the Wester World’s fastest growing cancer? Oncology Grand Rounds, Royal Victoria Hospital (McGill University). Montreal, Quebec.

2011 Apr 29  
**Invited Speaker.** Primer on the current role of radiotherapy in the treatment of desmoids tumours. 2011 Annual Meeting, Canadian Society of Surgical Oncology. Toronto, Canada. O’Sullivan B.

2010 Oct 16  

2010 Oct 16  
**Invited Speaker.** Radiation therapy for fibromatosis. Western Canadian Sarcoma Conference. Vancouver, British

2007 Dec 6  Invited Speaker. Reaffirming the role of Pre-operative Radiotherapy in the management of Soft Tissue Sarcoma. Vancouver Cancer Centre, Radiation Oncology Rounds, University of British Columbia. O’Sullivan B.


2002  Invited Speaker. IMRT in Head and Neck Cancer. The Royal College of Physicians and Surgeons of Canada Lecturer at the 26th Annual Meeting of the Eastern Great Lakes Head and Neck Oncology Association. O’Sullivan B.


2000 Feb  Invited Speaker. Loco-regional Control in soft tissue sarcomas – Canadian (NCIC-CTG SR2) and Toronto Experience. Third National Workshop of the Canadian Sarcoma Group “Sarcomas: Molecular Markers to Therapeutics”. O’Sullivan B.

1999  Invited Speaker. Performing at the Specialty Exams: suggestions from a former Chief Examiner. Canadian Association of Radiation Oncology, Residents section. O’Sullivan B.


1996 Nov  Invited Speaker. The multidisciplinary controversies in laryngeal carcinoma. Faculty of Medicine, Dalhousie University. Halifax, Nova Scotia, Canada. O’Sullivan B.

1996 Nov  Invited Speaker. Unknown Primary in Head and Neck Oncology. Department of Radiation Oncology, Dalhousie University. O’Sullivan B.

1996 Nov  Invited Speaker. Treatment of Carcinoma of the Oropharynx. Department of Medicine, Dalhousie University. O’Sullivan B.

1996 Mar  
**Invited Speaker.** The management of carcinoma of the tonsillar region. BC Cancer Agency. Vancouver, British Columbia. *O’Sullivan B.*

1996  
**Invited Speaker.** What factors affect specialists’ recommendations for the treatment of laryngeal cancer? Annual Margaret and Norman Gosse Lecturer in Cancer, Canadian Cancer Society, and Faculty of Medicine, Dalhousie University. Halifax, Nova Scotia. *O’Sullivan B.* Public Lecture to the Canadian Cancer Society.

1994 Sep 17  
**Invited Speaker.** Current Approaches to the Management of Soft Tissue Sarcomas Symposium. Canadian Association of Pathologists Annual Meeting. Royal College of Physicians and Surgeons of Canada. *O’Sullivan, B.*

1993 Sep 12  
**Chairman and Speaker.** Symposium: Advances in Diagnosis and Treatment of Soft Tissue Sarcoma. Canadian Association of Radiation Oncologists, Royal College of Physicians and Surgeons of Canada. Vancouver. *O’Sullivan, B.*

1990 Dec 9  

1987 Sep 12  

3. PROVINCIAL / REGIONAL

2014 Jan 23  
**Invited Speaker.** Clinical Trial in Head and Neck Cancer. Cancer Care Ontario Head and Neck Community of Practice, CCO Offices, Toronto. *O’Sullivan B.*

2010 Dec 16  

2010 Dec 16  
**Invited Speaker.** A model for a Provincial Prospective Outcomes Database. Cancer Care Ontario Head and Neck Community of Practice, CCO Offices. Toronto. *O’Sullivan B.*

2010 May 26  

2007 Mar 2  

2004 Apr 21  
**Speaker and Co-Chair.** Local Management of soft tissue sarcoma: what approach following SR2? Oncology Rounds, Queens University. Kingston. *O’Sullivan B.*

2003 Oct 3  

2000 Mar  

1996 Oct  
**Invited Speaker.** Current clinical protocols in sarcoma. Second Annual Meeting of the Connective Tissue Society. *O’Sullivan B.*

1995 Feb 16  
**Invited Speaker.** The management of laryngeal cancer. Oncology Grand Rounds, Queen’s University. Kingston, Ontario, Canada. *O’Sullivan B.*

1995 Jan 23  
**Invited Speaker.** Population based Outcome Studies in Laryngeal Cancer - 1995 update. Radiation Treatment Program Committee of the Ontario Cancer Treatment and Research Foundation (OCTRf), OCTRF Head Office. Toronto. *O’Sullivan, B.*

1994 Jan  
**Invited Speaker.** Topic: Standards of treatment “Factors influencing the choice of treatment, and the outcome of treatment in Larynx Cancer in Ontario during the past decade”. Ontario Cancer Treatment and Research
4. LOCAL

Invited Lectures and Presentations

2015 May  

2014 Nov  

2014 Nov  
**Invited Speaker.** Exploiting the principles of radiotherapy to optimize management of head and neck cancer. In: A Tribute to Professor Bernard J Cummings Symposium. Department of Radiation Oncology, University of Toronto. Nov 13, 2014

2013 Oct  
**Invited Speaker.** Prognostic value of pre-treatment neutrophil in head and neck cancer. Head and Neck Translational Research Meeting. Princess Margaret Hospital, Toronto, Oct 24, 2013

2013 May  

2013 Apr  
**Invited Speaker.** Assembling the Jigsaw Puzzle: Understanding the Behavior of HPV-positive Oropharyngeal Cancer. HN Translational Research Meeting, April 30, 2013

2013 Apr  

2013 Mar  
**Invited Speaker.** General Principal of Head & Neck Cancer Management. HN IGRT course, March 28, 2013.

2009 Jun 5  

2003 Sep  
**Course subcommittee Chair.** The role of radiotherapy in soft tissue sarcoma. 3rd Princess Margaret Hospital Oncology Course, University of Toronto. O’Sullivan B.

1999 Jun 4  
**Invited Speaker.** Conformal therapy. Keynote Address, Future Directions in Radiation Oncology University of Toronto, Faculty of Medicine Continuing Education Course. O’Sullivan B. (Continuing Education).
F. Research Supervision

GRADUATE STUDENT

Stephanie Shaw, PhD (2011-2014)
Department of Speech Language Pathology, Faculty of Medicine, University of Toronto, PhD Thesis Co-supervision

Nina Louise Jebsen, PhD (2008-2013)
University of Bergen, Bergen, Norway, 1st opponent of PhD Thesis Defense Committee

Colleen Dickie, MSc (2007-2010)
Department of Radiation Therapy, Faculty of Health, Social Care & Education, Anglia Ruskin University, Cambridge, United Kingdom

Anthony Griffin, MSc (2003-2006)
Institute of Medical Science, Faculty of Medicine, University of Toronto, MSc Thesis Co-supervision, 2006

Jolie Ringash, MSc (1996-1999)
Master’s of Science (Clinical Epidemiology), University of Toronto, Toronto, Ontario, MSc Thesis Co-supervision

POSTGRADUATE MD

2016 Apr-June  Primary Supervisor, Dr. Francesca Caparrottie, Clinical Fellow
2016 Jan – Mar  Primary Supervisor, Dr. Salam Billan
2015 Oct – Dec  Primary Supervisor, Dr. Anupam Rishi
2015 July – Sept Primary Supervisor, Dr. Francesca Caparrottie, Clinical Fellow
2015 May – June Primary Supervisor, Dr. Shrinivas Rathod, Clinical Fellow
2015 Jan – April Primary Supervisor, Dr. Satiavani Ramasamy, Clinical Fellow
2014 Oct – Dec  Primary Supervisor, Dr. Ibrihim Atean, Clinical Fellow
2014 July – Sept Primary Supervisor, Dr. Shrinivas Rathod, Clinical Fellow
2014 May – June Primary Supervisor, Dr. Issa Mohamad, Clinical Fellow
2013 – 2014 Nov – Apr Primary Supervisor, Dr. Irene Karam, Clinical Fellow
2013 July – Oct  Primary Supervisor, Dr. Eric Tran, Clinical Fellow
2013 June       Primary Supervisor, Dr. Felipe Rey, Clinical Fellow
2013 Mar - May  Primary Supervisor, Dr. Matthew Mason, Clinical Fellow
2012 Oct - 2013 Feb Primary Supervisor, Dr. Felipe Rey, Clinical Fellow
2012 Jul - 2012 Oct Primary Supervisor, Dr. Salil Vengalil, Clinical Fellow
2012 Mar - 2012 Apr Primary Supervisor, Dr. Ameen Al-Omair, Clinical Fellow
2011 Dec - 2012 Mar Primary Supervisor, Dr. Isabelle Gauthier, Clinical Fellow
2011 Sep - 2011 Dec  Primary Supervisor, Dr. Gary Mok. Clinical Fellow
2011 Aug - 2011 Sep  Primary Supervisor, Dr. Jeppe Friborg. Clinical Fellow
2011 Jan - 2011 Jul  Primary Supervisor, Dr. Albert Tiong. Clinical Fellow
2010 Dec                  Primary Supervisor, Dr. Karen Chu. Clinical Fellow
2010 Jul - 2010 Nov     Primary Supervisor, Dr. Meredith Johnston. Clinical Fellow
2010 May - 2010 Oct     Primary Supervisor, Dr. Fionnuala Houghton. Clinical Fellow
2010 Jan - 2010 Apr     Primary Supervisor, Dr. Pranshu Mohindra. Clinical Fellow
2009 Jul - 2009 Sep     Primary Supervisor, Dr. Ashok Nikapota. Clinical Fellow
2009 Jan - 2009 Jun     Primary Supervisor, Dr. Indranil Mallick. Clinical Fellow
2008 Nov - 2008 Dec     Primary Supervisor, Dr. Christian Stevens. Clinical Fellow
2008 Jul - 2008 Oct     Primary Supervisor, Dr. Yongjin Wang. Clinical Fellow
2006 Jul - 2007 Jun     Primary Supervisor, Dr. David Hwang. Clinical Fellow
2004 Jul – 2005 Jun     Primary Supervisor, Dr. Shiroma Disilva. Clinical Fellow
2003 Jul – 2004 Jun     Primary Supervisor, Dr. Gabrielle Studer. Clinical Fellow
2002 Jul – 2003 Jun     Primary Supervisor, Dr. Ian Ward. Clinical Fellow
2001 Jul – 2002 Jun     Primary Supervisor, Dr. Jerome Coffey. Clinical Fellow
2000 Jul – 2001 Jun     Primary Supervisor, Dr. Pippa Riddle. Clinical Fellow
1999 Jul – 2000 Jun     Primary Supervisor, Dr. Momo Tin. Clinical Fellow
Curriculum Vitae

Lawrence Frank Paszat

A. Date Curriculum Vitae is Prepared: 2016 APRIL 20

B. Biographical Information

Primary Office Institute for Clinical Evaluative Sciences
2075 Bayview Avenue, Room G1-06
Toronto, Ontario, Canada
M4N 3M5
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Fax 416-480-6048
Email lawrence.paszat@ices.on.ca

1. EDUCATION

Degrees
1997 MSc, Public Health School, University of Michigan
1980 MD, McMaster University
1977 BA, University of Toronto

Postgraduate, Research and Specialty Training
1982 - 1985 Radiation Oncology, McMaster University
1980 - 1982 Internal Medicine, McMaster University

Qualifications, Certifications and Licenses
1988 General License, The College of Physicians and Surgeons of Ontario
1986 Fellow, Royal College of Physicians and Surgeons of Canada
1985 Therapeutic Radiology, American Board of Radiology
1985 Radiation Oncology, College of Physicians of Quebec
1985 Radiation Oncology, Royal College of Physicians and Surgeons of Canada

2. EMPLOYMENT

Current Appointments
2009 Jan 1 - present Associate Professor, Department of Epidemiology, Dalla Lana School of Public Health, University of Toronto
2006 Sep 1 - present Senior Scientist, Institute for Clinical Evaluative Sciences
2003 Apr 1 - present Associate Professor, Radiation Oncology, University of Toronto
Previous Appointments

HOSPITAL
1995 - 2000 Radiation Oncologist, Kingston General Hospital
1988 - 1995 Oncologist, Metropolitan General Hospital, Windsor
1985 - 1988 Radiation Oncologist, Montreal General Hospital & Montreal Children’s Hospital

RESEARCH
2000 - 2006 Scientist, Institute for Clinical Evaluative Sciences

UNIVERSITY
1995 Sep 1 - 2000 Jan 31 Assistant Professor, Radiation Oncology, Faculty of Medicine, Queen’s University at Kingston
1995 Sep 1 - 2000 Jan 31 Assistant Professor, Community Health and Epidemiology, Queen’s University at Kingston

UNIVERSITY - CROSS APPOINTMENT
2000 Feb 1 - 2003 Mar 31 Assistant Professor, Health Policy, Management and Evaluation, University of Toronto

UNIVERSITY - RANK
2000 Feb 1 - 2003 Mar 31 Assistant Professor, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

PROVINCIAL / REGIONAL
Received

2005 Jan - 2010 Clinician Scientist Salary Award, Ontario Ministry of Health and Long Term Care, Ontario, Canada. (Research Award)
Amount of $201,000.00 awarded annually. Total Amount: 1,809,000 CAD

1999 Jul - 2004 Jun Career Scientist - 5 Year Salary support, Renewable, Ontario Ministry of Health and Long Term Care, Ontario, Canada. (Research Award)
Amount awarded over five (5) years. Total Amount: 300,000 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

INTERNATIONAL
National Cancer Institute
2000 - 2004 Member, Prospective Data Collection and Research Review Panel, United States.
Lawrence Frank PASZAT

NATIONAL

National Cancer Institute of Canada
2000 - 2004  Member, Research Proposal Review Panel L (Health Promotion and Health Services Research)

Royal College of Physicians and Surgeons of Canada
1992 - 1995  Member, Examining Board in Radiation Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
2008 - 2013  Member, Clinical Advisory Committee, Ontario Cervix Cancer Screening Program
2007 - 2009  Member, Clinical Advisory Committee, Ontario Colon Screening Program
2007 - 2008  Member, Technical Working Group for Colorectal Cancer Screening
2004 - 2009  Member, Ontario Task Force on Large Bowel Endoscopic Services
2002 - 2004  Member, Screening Research Committee
2002 - 2003  Member, Surgical Oncology Outcomes Task Force
2002 - 2003  Member, Breast Cancer Surgery Quality Indicators Panel
2001 - 2003  Member, Division of Preventive Oncology Management Committee
1991 - 1995  Chair, Radiation Treatment Program Committee

LOCAL

Institute for Clinical Evaluative Sciences
2000 - present  Member, Cancer Program
2003 - 2004  Chair, Cancer Theme Group
2002 - 2004  Member, Diagnostic Testing Committee
2002 - 2003  Chair, Education Committee, Faculty of Medicine, Dept of Radiation Oncology
2000 - 2004  Member, Positron Emission Tomography (PET) Committee

Odette Cancer Centre
2014 - present  Member, Haematology Site Group
2000 - 2013  Member, Breast Cancer Site group, Toronto, Ontario.

Sunnybrook Health Sciences Centre
2011 - 2013  Member, Research Ethics Board
2000 - 2003  Member, Health Information Committee

University of Toronto
2007 - present  Member, Health Sciences Research Ethics Board

Peer Review Activities

GRANT REVIEWS

Reviewer
2008 - 2016  Canadian Institutes of Health Research
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


In high density First Nations (FN) or Metis communities, to understand health policy factors that impact cancer screening; to assess community readiness and the health system’s capacity for the delivery of cancer screening; to work with regional partners and FN and Metis communities to learn from and compare locally administered tailored cancer screening interventions and then develop a comprehensive action plan to improve cancer screening for FN and Metis communities.

The main goal is to examine the modeled outcomes and cost effectiveness in Ontario of a high risk lung cancer screening program, to assess the reactions and perceptions of many stakeholder groups, map screening processes in focus groups, develop a pilot plan and produce a business case to support funding of a single site pilot.

2012 Oct - 2015 Sep  
**Co-Investigator.** The influence of Diabetes on Cancer Screening and Prognosis. Canadian Institutes of Health Research (CIHR). MOP 123263. PI: Lipscombe L. Collaborator(s): Austin PC, Hux JE, Jaakkimainen RL, Krzyzanowska, **Paszat L**, et al. 215,140 CAD

2012 Jul - 2015 Jun  
**Co-Investigator.** A population-based outcome and economic evaluation of interventions for gastric cancer. Canadian Institutes of Health Research (CIHR). Operating. PI: Coburn, Natalie. 123,928 CAD. [Grants]

2012 Jul - 2013 Jun  

2011 Jul - 2016 Jun  

2011 Jul - 2013 Jun  
**Co-Investigator.** Improving the quality of colonoscopy: Development and pilot testing of endoscopist audit and feedback tool derived from health administrative data. Canadian Cancer Society Research Institute (CCSRI). Operating. PI: Tinmouth J. 186,758 CAD. [Grants]

2009 Jul - 2013 Jun  
**Co-Investigator.** Phase-specific and lifetime costs of cancer in BC and ON. Canadian Cancer Society Research Institute (CCSRI). Operating. PI: Krahn M. 674,546 CAD. [Grants]

2009 Jul - 2011 Jun  

2008 Jul - 2011 Mar  

2008 Jul - 2011 Jun  

2008 Jul - 2011 Jun  

2008 Jul - 2011 Jun  
**Co-Investigator.** A Phase II study of adjuvant Permanent Breast Seed Implant (PBSI) for Ductal Carcinoma in Situ (DCIS). Canadian Breast Cancer Foundation (CBCF). Operating. PI: Pignol, Jean-Philippe. Collaborator(s): Co-Investigators: **Paszat L**, Caudrelier JM, Cygler


2006 Jul - 2008 Jun  **Co-Investigator.** Development and validation of a method to differentiate screening from surveillance and diagnostic colonoscopy in health administrative databases in three Canadian provinces. National Cancer Institute of Canada (NCIC). PI: Sewitch M.


2004 Jul - 2005 Jun  Co-Investigator. Quality indicators for end-of-life breast cancer care: testing the use of
administrative databases in two provinces. Canadian Institutes of Health Research (CIHR).


*Role: This grant proposal was written and submitted during Dr. Hodgson’s two-year Linton Fellowship under mentorship of Dr. Paszat.*

*Role: Co-investigator and Instigator of study concept and design originally as part of a group grant proposal led by Dr. Paszat.*

*Role: Health Services Research Co-Investigator, and Acting Principal Investigator during absence of Dr. Benk throughout 2002-2004.*

*Role: Health Services Research Co-Investigator, and Member of Thesis Committee for Dr. E. Rakovitch.*


1999 Jul - 2001 Jun **Principal Investigator.** Surveillance Mammography after Primary Treatment for Breast Cancer...
Cancer. Canadian Coordination Office for Health Technology Assessment. Collaborator(s):
26,000 CAD. [Grants]

1999 Apr - 2000 Mar Principal Investigator. Identification via Electronic Databases of Cohort and Record 
Collaborator(s): Co-Investigators: Mackillop WJ, Groome PA, O’Sullivan B, Bell RS, Kandel 
R, Bramwell V, Holowaty EJ. 30,000 CAD. [Grants]

2. SALARY SUPPORT AND OTHER FUNDING

Personal Salary Support

2005 - 2010 Clinician Scientist Salary Award. Ontario Ministry of Health and Long Term Care. 1,005,000 
CAD. Ontario, Canada.

300,000 CAD. Ontario, Canada.

D. Publications

1. MOST SIGNIFICANT PUBLICATIONS

K, van Walraven C. Outcomes of surveillance mammography after treatment of primary breast cancer: a population-


3. Paszat L, Vallis KA, Benk VM, Groome PA, Mackillop WJ, Wielgosz A. A population-based case-cohort study of the 
Impact Factor 4.337. Principal Author.

4. Paszat L, Rabeneck L, Kiefer L, Mai V, Ritvo P, Sullivan T. Endoscopic follow-up of positive fecal occult blood testing 
Author.

variation in screening for cancer, glucose and cholesterol in Ontario: a cross-sectional study. CMAJ Open. 

Bonin M, Chang MC, Robertson SJ, Slodkowska E, Fong C, Anderson JM, Jamshidian F, Miller DP, Cherbavaz DB, 
Shak S, Paszat L. A population-based validation study of the DCIS Score predicting recurrence risk in individuals 
Responsible Author.
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Identification of a Latin American-specific BabA adhesin variant through whole genome sequencing of Helicobacter pylori patient isolates from Nicaragua.
Thorell K, Hosseini S, Palacios Gonzáles RV, Chaotham C, Graham DY, Paszat L, Rabeneck L, Lundin SB, Nookaew I, Sjöling Å.
BMC Evol Biol. 2016 Feb 29;16(1):53

Colorectal cancer mortality reduction is associated with having at least 1 colonoscopy within the previous 10 years among a population-wide cohort of screening age.
Stock D, Paszat LF, Rabeneck L.


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83. Look Hong NJ, Gagliardi AR, Bronskill SE, **Paszat LF**, Wright FC. Multidisciplinary cancer conferences: exploring obstacles and facilitators to their implementation. J Oncol Pract. 2010 Mar;6(2):61-8. **Coauthor or Collaborator.**


88. Rabeneck L, **Paszat LF**. Circumstances in which colonoscopy misses cancer. Frontline Gastroenterology. 2010;1:52-8. **Senior Responsible Author.**


Lawrence Frank PASZAT


**Case Reports**

3. NON-PEER-REVIEWED PUBLICATIONS

Health Technology Assessments


Research Reports

E. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education
2012 Jul - present  Primary Supervisor. MSc. Dr. Danielle Vicus. Supervisee Institution: University of Toronto. 1) Risk of subsequent high risk Human Papilloma Virus related health events in a cohort treated by cervical excisional procedures and 2) Is cervical cancer screening effective in preventing mortality from cervical cancer in all age groups?.


2009 Jul - 2011 Jun Primary Supervisor. MSc. Dr. Iwa Kong. Outcomes of young women with DCIS. Completed 2011.


2001 - 2003 Primary Supervisor. MSc. Ms Ruby Tatla, MSc Research Fellow, Cancer Care Ontario,
Toronto Sunnybrook Regional Cancer Centre.


**Undergraduate MD**


**Postgraduate MD**


2006 - 2008 **Primary Supervisor.** Dr. Janice Kwon, Asst Prof. Gynaecology/Oncology, University of Western Ontario. *Endometrial cancer outcomes.*

2001 - 2002 **Primary Supervisor.** Dr. Hannah Carolan, Resident in Radiation Oncology, Residency research project. *Hormones may break their bones: Is there an increased risk of hip fracture in men with prostate cancer treated with androgen ablation?* Completed 2002.

2001 - 2002 **Primary Supervisor.** Dr. Yvonne Gray, Research Fellow of Cancer Care Ontario, Toronto Sunnybrook Regional Cancer Centre. *Population-based study of the outcomes of endoscopic colorectal screening among men and women in Ontario, 50-59 years of age.* [CIHR/NCIC].


1996 - 1998 **Primary Supervisor.** Dr. Patrick Cheung, Resident in Radiation Oncology, Queen’s University.

**Postdoctoral Research Fellow (PhD)**

2007 Sep - 2008 Dec **Primary Supervisor.** Dr Helen Mathers, Surgical Fellow. Completed 2008.

2. OTHER SUPERVISION

**Graduate Education**

**Thesis Committee Member**

2003 - 2004 **MSc.** Dr. Phil Barnsley, Graduate Student, University of Ottawa. *Breast reconstruction and surveillance mammography.*

2001 - 2002 **MSc.** Dr. Philip Haigh. *Treatment of differentiated thyroid cancer.*


Curriculum vitae

Dr David Payne

A. Date: 2016 December 31

B. Biographical Information

Address: Department of Radiation Oncology
Princess Margaret Hospital
610 University Ave
Toronto, Ontario M5G 2M9
Telephone: (416) 946-2129
Fax: (416) 946-6561
Email: david.payne@rmp.uhn.on.ca
Date Last Updated: December 2015

1. EDUCATION

Degrees

1962-66 BSc Mathematics and Physics (Honours) University of Toronto, Ontario, Toronto Canada
1966-67 MSc Mathematics and Computer Science, University of Toronto, Ontario, Canada
    Supervisors A Newman, CC Gotlieb
1971-74 MD McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training

1975-77 Resident, Department of Medicine McMaster University, Hamilton, Ontario, Canada
1977-78 Resident, Department of Medicine Toronto Western Hospital, Toronto, Ontario, Canada
1977-78 Resident, Department of Medicine Princess Margaret Hospital, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

1978-2016 Fellow, Royal College of Physicians Canada - Internal Medicine Membership #195007
1979-2016 Fellow, Royal College of Physicians Canada - Radiation Oncology Membership #195007
1986-2016 Diplomate, American Board of Radiology, Radiation Oncology
1974-2016 Member, College of Physicians and Surgeons of Ontario
Membership #28048

1. EDUCATION

Current Appointments
2011-2016 Consultant Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
1979-2011 Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada

CONSULTING
2011-2016 Consultant Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada

UNIVERSITY
1979-87 Lecturer, Department of Radiology, University of Toronto
1987-95 Assistant Professor, Department of Radiation Oncology, University of Toronto
1995-2011 Associate Professor, Department of Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

None

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
1978-2016 Fellow, Royal College of Physicians Canada - Internal Medicine
Membership #195007
1979-2016 Fellow, Royal College of Physicians Canada - Radiation Oncology
Membership #195007
1974-2016 Member, College of Physicians and Surgeons of Ontario
Membership #28048
1979-2011 Member, Canadian Association for Radiation Oncology
1985-95 Member, European Society for Therapeutic Radiology and Oncology
1985-2001 Member, International Association for the Study of Lung Cancer
1986-2016 Diplomate, American Board of Radiology, Radiation Oncology
Administrative Activities

INTERNATIONAL

1980-85  Radiation oncologist, Lung Cancer Study Group
         National Institutes of Health, USA
1985-90  Chairman, Radiation Oncology Committee
         Lung Cancer Study Group
         National Institutes of Health, USA
1989-91  International Scientific Program Committee
1991-93  International Scientific Program Committee
         7th World Conference on Lung Cancer. Colorado Springs, 1994
1991-02  NIH (US) Intergroup Working Cadre on Lung Cancer
         Treatment Strategy
1994-03  Executive Committee, Collaborative Ocular Melanoma Study
         National Institutes of Health, Washington DC USA
         Association for the Study of Lung Cancer. Copenhagen
1996-97  International Scientific Program Committee
         8th World Conference on Lung Cancer. Dublin, July 1997

NATIONAL

1987-89  Director, Canadian Association of Radiation Oncologists
1990    Scientific Program Director, Annual Meeting of Canadian
         Association of Radiation Oncologists, Toronto
1993-2001 Chairman, Site Specific Advisory Group for Lung Tumours
         Canadian Committee on Cancer Staging
         National Cancer Institute of Canada
1993-2001 Site Specific Advisory Group for Ophthalmic Tumours
         Canadian Committee on Cancer Staging, National Cancer Institute of Canada
1993-95  President, Canadian Association of Radiation Oncologists

PROVINCIAL / REGIONAL

1993-2001 Radiation Therapy Advisory Committee, Healing Arts and Radiation Protection
         Committee, Ministry of Health, Ontario, Canada

LOCAL

Peer Review Activities

ASSOCIATE OR SECTION EDITING

EDITORIAL BOARDS

           Association for the Study of Lung Cancer. Copenhagen
GRANT REVIEWS
MANUSCRIPT REVIEWS
PRESENTATION REVIEWS

Other Research and Professional Activities

C. Academic Profile

1. RESEARCH STATEMENTS

2. TEACHING PHILOSOPHY

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

none current

D. Research Funding

none current

NON-PEER-REVIEWED GRANTS

none current

2. SALARY SUPPORT AND OTHER FUNDING

none current

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS

[Presented in reverse chronological order]
1. [Author(s) – CV holder’s name bolded]. [Title of article]. [Journal name]. [Rest of citation]. [Status – only if in press]. Impact Factor [Impact Factor], (Trainee Publication, [Trainee Details] – only if it is a trainee publication). [Role].

Most significant publication details.
2. PEER-Reviewed Publications

Journal Articles


Carcinoma of the maxillary antrum: a retrospective analysis of 110 cases 
Radiother Oncol 57: 167-173, 2000

27 Lakosha H, Simpson ER, Patterson B, Minden M, Payne D, Lipton J 
Acute lymphoblastic blast crisis as an ocular manifestation of chronic granulocytic leukemia 

Payne D, Cummings B 
A phase II study of Biotene in the treatment of postradiation xerostomia in patients with head and neck cancer 
Support Care Cancer 8: 203-208, 2000

29 Tune CE, Liavaag PG, Freeman JL, van den Brekel MW, Shpitzer T, Kerrebijn JD, Payne D, Irish JC, Ng R, Cheung RK, Dosch HM 
Nasopharyngeal brush biopsies and detection of nasopharyngeal cancer in a high-risk population 
J Natl Cancer Inst 91: 796-800, 1999

The influence of age on the delivery tolerance and efficacy of thoracic irradiation in the combined modality treatment of limited stage small cell lung cancer 

Randomized study of chemotherapy and surgery versus radiotherapy for stage IIIA non-small cell lung cancer 
A National Cancer Institute of Canada Clinical Trials Group study National Cancer Institute of Canada Clinical Trials Group (NCIC-CTG), Queen’s University, Kingston, Canada K7L 3N6 

T1 glottic cancer managed by external beam radiotherapy: the influence of pretreatment hemoglobin on local control 

Ethmoid sinus cancer: twenty-nine cases managed with primary radiotherapy 

34 Payne DG 
Tumours of the eyelid – a rational approach 
Ophthalmic Practice 16: 122-129, 1998

35 Payne DG, Van Houtte P 
Cancer bronchopulmonaire non à petites cellules: indications actuelles de la radiothérapie exclusive 

36 Payne DG 
Is there a role for induction radiotherapy for stage IIIA NSCLC? 
Lung Cancer 18(S2): 52-54, 1997

37 Chow E, Payne DG, Keane T, Panzarella A, Izard M 
Enhanced control by radiotherapy of cervical lymph node metastases arising from nasopharyngeal carcinoma compared with nodal metastases from other head and neck squamous cell carcinomas 

38 Hayter CRR, Payne DG, Ege GP 
Radiation oncology in Canada 1895-1995 


43 Tsang RW, Liu F-F, Wells W, Payne DG. Results of treatment by radiotherapy. Lentigo maligna of the head and neck: Arch Derm 130: 1008-1012, 1994


51 Payne DG. Le rôle de la radiothérapie dans le cancer bronchopulmonaire. Rev Mal Réspir 10: 401-422, 1993


54 Warde P, Payne DG Does thoracic irradiation improve survival and local control in limited stage small cell carcinoma of the lung - a meta-analysis J Clin Oncol 10: 890-895, 1992


60 Payne DG, Feld R Concurrent radiotherapy and chemotherapy in lung cancer at the Princess Margaret Hospital Antibiot Chemother Basel 41: 96-101, 1988


80 Payne D, Simpson WJ, Keen CW, Platts ME Malignant astrocytoma: hyperfractionation and standard radiotherapy with chemotherapy in a randomized prospective clinical trial Cancer 50: 2301-2306, 1982


Case Reports

Abstracts


Books

Books Edited

Book Chapters


Manuals

Editorials

Commentaries

Letters to Editor


Monographs

Multimedia

Other Publications

3. NON-PEER-REVIEWED PUBLICATIONS


Journal Articles

Case Reports

Abstracts

Books

Books Edited

Book Chapters

Manuals
Editorials

Commentaries

Letters to Editor

Monographs

Multimedia

Other Publications

4. SUBMITTED PUBLICATIONS
None current

G. Presentations and Special Lectures
None current

H. Teaching and Design
None current

J. Creative Professional Activities
None current
Curriculum Vitae

Ian Poon
Radiation Oncologist

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information
Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-4951
Fax 416-480-6002
Email ian.poon@sunnybrook.ca

1. EDUCATION

Degrees
1991 - 1995 MD, Dept of Medicine, University of Ottawa, Ottawa, Ontario, Canada
1989 - 1991 BSc, with Distinction, Life Sciences, Queen’s University at Kingston, Kingston, Canada

Postgraduate, Research and Specialty Training
2000 - 2001 Clinical Fellowship, Radiation Oncology, Intensity Modulated Radiation Therapy (IMRT) and 3D Conformal, Radiation Oncology, University of California, San Francisco, San Francisco, California, United States
1996 - 2000 Residency, Radiation Oncology Program, Princess Margaret Hospital, Toronto, Ontario, Canada
1995 - 1996 Internship, Kingston General Hospital, Kingston, Ontario, Canada

Qualifications, Certifications and Licenses
2001 Fellow, Royal College of Physicians, Ontario, Canada, License / Membership #: 561639
2000 Certification, American Board of Radiology (ABR), License / Membership #: 47970

2. EMPLOYMENT

Current Appointments
2006 - present Consultant, Oncology, Toronto East General Hospital, Toronto, Ontario, Canada
2003 - present Active Staff Radiation Oncologist, Radiation Oncology, Faculty of Medicine, Odette Cancer Centre, Toronto, Ontario, Canada
Ian POON

2003 - present  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2001 - 2003  Active Staff Radiation Oncologist, Hamilton Regional Cancer Centre, Hamilton, Ontario

UNIVERSITY
2001 - 2003  Assistant Professor, Medicine, McMaster University, Hamilton, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2002 - 2003  RTOG Young Investigators Award, The Radiation Oncology Group, United States. (Research Award)
             Total Amount: 1,500 USD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2001 - present  Royal College of Physicians and Surgeons of Canada, 561639
2000 - present  Canadian Association of Radiation Oncology (CARO), 407
1995 - present  Ontario Medical Association (OMA), 0568469
2001  American College of Radiology, 47970

Administrative Activities

PROVINCIAL / REGIONAL

Cancer Care Ontario
2005 - present  Member, Head and Neck Committee

LOCAL

Toronto-Sunnybrook Regional Cancer Centre
2007 - 2008  Chair, Radiation Oncology Associates Group, Ontario, Canada.
2006 - 2011  Leader, Head & Neck Site Group, Ontario, Canada.
2006 - 2007  Vice Chair, Radiation Oncology Associates Group, Ontario, Canada.

University of Toronto
Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer
2016  
Radiotherapy and Oncology

2014  
Radiotherapy & Oncology

2012 - 2013  
Radiotherapy & Oncology

2012  
Clinical Oncology

2012  
Head and Neck

2012  
Journal of Skin Cancer

2008 - 2010  
Clinical Oncology

2008 - 2010  
Radiotherapy & Oncology

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


The therapeutic benefit of stereotactic body radiotherapy (SBRT) in early stage lung cancer has been largely based on its’ cytocidal effect combined with the recent ability to selectively target the primary tumour.


Principal Investigator. A study evaluating mucosal toxicity in head and neck cancer patients undergoing radical radiation with or without concurrent chemotherapy. Hamilton Regional Cancer Centre Foundation. Research Grant. Collaborator(s): Wright J, Hodson I, Sathyja J, Sagar S, Browman G. 12,000 CAD. [Grants]

NON-PEER-REVIEWED GRANTS

FUNDED

Co-Principal Investigator. Consortium for Oligometastases Research (CORE). Elekta AB. PI: Sahgal, Arjun. 157,700 CAD. [Industrial Grants]

Developing oligometastases international database and research consortium.
2010 - 2012  **Co-Investigator.** Stereotactic body radiotherapy for oligometastases a phase I feasibility study. REB#253-2010. PI: Cheung, Patrick. Collaborator(s): Sahgal A, Chung H, Chu H, **Poon I**, Chow E. [Clinical Trials]

**D. Publications**

1. **MOST SIGNIFICANT PUBLICATIONS**


      This study describes the patient perspective on their potential difficulties enrolling patients into de-escalation studies in HPV positive head and neck cancer because their primary concern is surviving their cancer first over reducing toxicities.


      This interesting pilot work showed that microscopic tumour extension in oral tongue cancer may be less common that previously thought using a pathological whole specimen methodology that will also serve as the gold standard (through a three-dimensional tumour reconstruction) to compare the accuracy of imaging modalities. This work was partly supported by the Ontario Institute of Cancer Research (OICR).


      This work demonstrates that novel features, such as PET and CT texture, are able to distinguish between cancerous and normal tissue with high accuracy. Not only does the use of these features improve segmentation, outperforming standard thresholding methods, but their success suggests that there is more information present in PET-CT than is available through SUV and CT density. These results motivate our current work to investigate a) how to further standardize and improve PET-CT segmentation, and b) To further investigate novel PET-CT features for treatment response and quantification of cancer.


      This paper is a retrospective comparison of the dosimetric improvements seen with inverse planned intensity modulated therapy over a simple forward planned intensity modulated treatment in NPC. Unlike other dosimetric studies that compare different planning methods, this study uniquely reviewed the dosimetric data of patients treated with the two different planning methods. The results (published in an internationally read journal) show that although there are dosimetric advantages to inverse planning in locally advanced NPC forward planned IMRT is a very reasonable and effective method of planning and treatment in countries with limited resources.

This work represents the only lymph node atlas that incorporates the anatomic variation of head and neck cancer patients to create a lymph node clinical target volume. Unlike the consensus documents from co-operative groups, the research methodology is performed in a way that meets the specific needs of the radiation oncologist. Over 500 T2 weighted MR images were fused using easily recognizable axial imaging landmarks.

2. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


6. McEwen S, Rodriguez AM, Martino R, **Poon I**, Dunphy C, Rios JN, Ringash J. "I didn’t actually know there was such as thing as rehab": Survivor, family, and clinician perceptions of rehabilitation following treatment for head and neck cancer. Support Care Cancer. 2016;24(4):1449-1453. **Coauthor or Collaborator.**


11. Brotherston D, **Poon I**. SBRT treatment of multiple recurrent auricular squamous cell carcinomas following surgical and conventional radiation treatment failure. Cureus. 2015;7(9):e323. **Co-Principal Author.**


Book Chapters

Cited


Gevorgyan A, Wong K, Poon I, Blanas N, Enepekides DJ, Higgins KM

Gevorgyan A, Wong K, Poon I, Blanas N, Enepekides DJ, Higgins KM

Scientific Letter


3. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Review Article


4. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented and Published Abstracts


Publication Details:


Publication Details:

2014 Sep Inherent margin due to tumor shrinkage can decrease target delineation margin protocols in IMRT treatment for head and neck carcinomas. American Society for Radiation Oncology (ASTRO). San Francisco, California, United States.

Publication Details:

2014 Sep Presenter. A multinational report on image-guided stereotactic body radiation therapy for

Publication Details:

2011

Publication Details:

2011

Publication Details:

2010
Intra-treatment FDG positron emission tomography responses assessment of advanced head and neck cancer treated with radiation +/- chemotherapy. Molecular Imaging in Radiation Oncology (MIRO). Brussels, Belgium.

Publication Details:

2010

Publication Details:

2010

Publication Details:

2009
Publication Details:

2009

Publication Details:

2009

Publication Details:

2009

Publication Details:

2008

Publication Details:

2006

Publication Details:

2002
A population-based three dimensional atlas of the head and neck lymph nodes for conformal (IMRT) radiotherapy. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. New Orleans, Louisiana.

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2008 Pilot study to assess intra-treatment FDG-PET parameters that predict for loco regional control in advanced head and neck cancer treated with chemoradiation. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

2003 Use of inflammatory serum markers as an objective measure of acute and sub-acute mucositis receiving radiation ± chemotherapy for head and neck cancer. Canadian Association of Radiation Oncology(CARO) Annual Scientific Meeting. Montreal, Quebec.

2000 Dose volume histogram comparison of inverse planned and forward planned IMRT in nasopharyngeal
Carcinoma. Canadian Association of Radiation Oncology (CARO). Edmonton, Alberta.


Presented and Published Abstracts


Publication Details:


Publication Details:

2015 Stereotactic ablative radiotherapy (SABR) for pulmonary oligometastases and oligopression. Canadian Association of Radiation Oncology (CARO). Kelowna, British Columbia, Canada.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2012
A randomized comparison of lung stereotactic body radiation therapy (SBRT) delivered over 4 or 11 days - acute toxicity and quality of life. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:

2012

Publication Details:

2012

Publication Details:

2011

Publication Details:

2010

Publication Details:

2009
A comparison of two immobilization systems for stereotactic body radiation therapy (SBRT) of lung tumours. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009
The use of an automated segmentation algorithm as a method for whole tumour ROI definition to improve the accuracy and stability of intra-treatment FDG assessment in head and neck cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.
2009
Radiation treatment planning for positron emission tomography (PET) coregistered with CT may alter recurrence patterns as compared with CT planning alone for patients with Stage III non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009
Co-registered multi-modality pattern analysis segmentation system (COMPASS) for radiation targeting of Head and Neck cancer using FDG PET/CT. Canadian Organization of Medical Physicists (COMP) Annual Meeting. Vancouver, British Columbia.

Publication Details:

2008
A pilot study to assess intra-treatment PDG-PET parameters that predict for locoregional control in advanced head and neck cancer treated with chemoradiation. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2008

Publication Details:

2007
Variability in identification of positive nodes for head and neck cancers: Comparison of CT alone with PET/CT. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

Publication Details:

2007

Publication Details:

2006
Acute phase response reactants as an objective measure of mucosal toxicity in head and neck cancer.
patients undergoing radical radiation therapy with or without concurrent chemotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta.

Publication Details:


Publication Details:


Publication Details:

2003 The use of inflammatory serum markers as an objective measure of acute and sub-acute mucositis receiving radiation ± chemotherapy for head and neck cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:


Publication Details:


Publication Details:
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts


Publication Details:


Publication Details:

4. LOCAL

Invited Lectures and Presentations


2014 Mar 27 **Invited Speaker.** Stereotactic body radiotherapy - the evolution of radiation oncology. Markham Stouffville Hospital Oncology Dept. Markham, Ontario, Canada. Presenter(s): Poon, Ian.


2002 A population-based three dimensional atlas of the head and neck lymph nodes for conformal (IMRT) radiotherapy. TSRCC Grand Rounds, Toronto-Sunnybrook Regional Cancer Center. Toronto, Ontario. (Continuing Education).

2000 A comparison between inverse planned and forward planned intensity modulated radiation therapy in nasopharyngeal carcinoma. TSRCC Grand Rounds, Toronto-Sunnybrook Regional Cancer Center. Toronto, Ontario. (Continuing Education).

**Presented Abstracts**


**5. OTHER**

**Presented Abstracts**

1999 A direct cost comparison between conventional four field external beam radiotherapy versus conformal radiotherapy in prostate cancer. Royal College of Physicians and Surgeons of Canada. Canada.

**Presented and Published Abstracts**

1999 A direct cost comparison between conventional four field external beam radiotherapy versus conformal radiotherapy in prostate cancer. Royal College of Physicians and Surgeons. Canada.

*Publication Details:*

F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


2010 Sep - 2010 Dec  Primary Supervisor. BA. Tuyen Le, University of Waterloo. Patient preference for oropharyngeal cancer treatment de-escalation.

Undergraduate MD


Postdoctoral Research Fellow (PhD)


Clinical Research Fellow (MD)


Other


2. OTHER SUPERVISION

Undergraduate Education

2008 - 2009  B. Sc. Candi Flynn, University of Waterloo. Supervisee Position: Medical Student, Supervisee Institution: U of T. The value of periodic follow-up in the detection of recurrences following radical treatment in locally advanced head and neck cancer. Awards: Heart & Stroke Foundation of Ontario Master’s Studentship Award ($18,500 for 1 year); Schulich Graduate Scholarship, U of Western Ontario ($6,600).

Graduate Education

Thesis Committee Member


Postdoctoral Research Fellow (PhD)

Ian POON


Clinical Research Fellow (MD)

Secondary Supervisor
2015 Jun - 2016 Jun Farha, George. Supervisor(s): Lee, Justin; Poon Ian.
Business Address: Peel Regional Cancer Centre
Credit Valley Hospital
2200 Eglinton Avenue West
Mississauga, ON  L5M 2N1

Email Address: jradwan@cvh.on.ca

Nationality: Canadian

Languages Spoken: English, Polish, French
EDUCATION

University Degrees

1972 – 1973  Sir George Williams University  
             Montreal, Quebec

1973 – 1979  Medical Academy of Warsaw  
             Warsaw, Poland

June 1979  Graduated MD

Internship

                       Memorial University, St. John’s, Newfoundland

Postgraduate Training

July 1982 – June 1985  Resident in Internal Medicine  
                       University of Calgary  
                       Calgary, Alberta

July 1985 – June 1987  Resident in Radiation Oncology  
                       University of Toronto  
                       Toronto, Ontario

July 1987 – June 1988  Resident in Radiation Oncology  
                       University of Western Ontario  
                       London, Ontario

July 1988 – June 1989  Chief Resident, Radiation Oncology  
                       University of Ottawa  
                       Ottawa, Ontario

July 1989 – December 1989  Clinical Fellow, Radiation Oncology  
                          University of Ottawa  
                          Ottawa, Ontario
January 1990 – December 1990  Clinical Fellow, Radiation Oncology  
University of Toronto  
Toronto, Ontario

January 1991 – June 1991  Clinical Assistant, Radiation Oncology  
Toronto, Ontario

Specialty Qualifications/Licenses Held

1979  ECFMG  
No. 304-065-6

1980  MCCEE

1983  LMCC  
No. 56342

1984  American Board of Internal Medicine  
Certification Examination  
No. 099153

1984  General License  
Province of Ontario  
No. 327369

1991  FRCPC  
Radiation Oncology  
No. 327369

1991  American Board of Radiology  
Certification in Radiation Oncology  
No. 31522

ACADEMIC/EMPLOYMENT HISTORY

Academic Appointments  
(dates, rank & position, department & institution)

March 2007 – Present  Active Staff  
Peel Regional Cancer Centre  
Credit Valley Hospital  
Mississauga, Ontario
Member, Department of Radiation Oncology  
Consultant, Radiation Oncology  
London Regional Cancer Centre  
Cancer Care Ontario

Active Staff  
London Health Sciences Centre  
London, Ontario

1992 – Present  
Assistant Professor  
Department of Oncology  
University of Western Ontario  
London, Ontario

1998 – 2000  
Chairman, Genitourinary Multidisciplinary Team

1998 – 2000  
NCIC Genitourinary Group  
Representative for London Regional Cancer Centre  
London, Ontario

1996  
Visiting Lecturer and Hospital Privileges  
University of Toronto  
Toronto, Ontario

1992 – 1996  
Courtesy Staff  
Stratford Hospital  
Stratford, Ontario

1997 – 2001  
Courtesy Staff  
Sarnia General Hospital  
220 North Mitton Street  
Sarnia, Ontario

**AWARDS, HONOURS & FELLOWSHIPS**

November 1998  
Chair, GU Multidisciplinary Team Accreditation Standards

2002  
Department of Radiation Oncology, Certificate of Merit for Outstanding participation in clinical trials
CONTINUING EDUCATION

Conference Attendance & Professional Development


2009  Genitourinary Cancers Symposium, American Society of Clinical Oncology, (ASCO), Feb 26-28, 2009, Orlando FL.

2009  New Insights 2009, The Royal College of Physicians and Surgeons of Canada (CPSO), Certification Program, October 6, 2009, Toronto, ON.


2004, 2008

1997  HDR and LDR Brachytherapy Techniques for Oncologists Fall Uro-oncology Retreat, UWO, 1997

1998  American Society for Therapeutic Radiation Oncology (ASTRO)

European Society for Therapeutic Radiation Oncology (ESTRO)

National Cancer Institute of Canada (NCIC)

Issues and Controversies in Prostate Cancer

1999  National Cancer Institute of Canada (NCIC)

European Society for Therapeutic Radiation Oncology (ESTRO)

Issues and Controversies in Prostate Cancer

Communication Workshop (Breast Cancer Patients), UWO

1999, 2003  American Society for Therapeutic Radiation Oncology (ASTRO)
2000

Issues and Controversies in Prostate Cancer, Radiation Therapy Oncology Group (RTOG), Montreal, March 15-19
Canadian Urological Association, Kelowna, June
ESTRO Conference, Istanbul, September 19-23

2001

Radiation Therapy Oncology Group (RTOG)
Tampa, Florida, February 8-11
National Cancer Institute of Canada, April
Biostatistics Workshop, London Regional Cancer Centre
London, Ontario July 17
Evolving Issues in Oncology
Ontario GU Radiation Oncology Retreat, October 12-14
Uro-Oncology Fall Retreat, UWO
ESTRO Conference, Lisbon, October 21-25
American Society for Therapeutic Radiation Oncology (ASTRO), November 4-8

2002

National Cancer Institute of Canada (NCIC), April
ESTRO Conference, Prague, September 17-21
Prostate Cancer Radiotherapy 2002, Montreal, QC, December 5-7

2003

Radiation Therapy Oncology Group (RTOG), Montreal, PQ, June
1st Annual Conference on Current Problems in Urology, Banff,
Alberta, April 10-13
3rd International Prostate Cancer Congress
Bermuda, July 17-20


Multi Disciplinary Tumour Boards, Mississauga, ON, Credit Valley Hospital.


Oncology Grand Rounds, Mississauga, ON, Credit Valley Hospital.

2007


February 14-16, 2008

May 1, 2008  ASCO+ASTRO 2008 Genitourinary Cancers Symposium, “Role of Hormonal Therapy in Prostate Cancer”.

June 12, 2008  Toronto Breast Cancer Symposium, Metro Toronto Convention Centre, Toronto, ON.

September 22-25, 2008  ASTRO-Boston Convention and Exhibition Centre, Boston, MA, “50 Years of Learning, Caring and Collaboration in the Treatment of Cancer Patients.”

October 1, 2008  Princess Margaret Hospital 50th Anniversary Gynae Day, University of Toronto, Toronto, ON.

Continuing Education attended

June 10-11, 2004  Faculty of Medicine, University of Toronto Continuing Education, Toronto, Ontario “Controversies in the etiology, detection and treatment of breast Cancer: 2004”

October 26, 2007  Regional Oncology Educational Day: Novotel Hotel, Mississauga, ON

2007  The 2nd Ontario Thoracic Cancer conference 2007, Niagara-on-the-Lake, ON.

SCHOLARLY AND PROFESSIONAL ACTIVITIES

Professional Society Memberships/Offices held

Member  College Physicians and Surgeons of Ontario
Member  Canadian Medical Protective Association
Member  Ontario Medical Association
Member  American Society of Therapeutic Radiation Oncology (ASTRO)
Member  Canadian Association of Radiation Oncologists (CARO)

Visiting Professorships

1998  Guest Lecturer, University of Toronto
Cross appointment with the University of Toronto

Roles in Conferences

1993 – 1995  Continuing Medical Education (Oncology)
Dr. John S. Radwan
571 Canyon Street, Mississauga, Ontario  L5H 3L8
(H) 905-891-1728  ♦  (B) 905-813-1100 ext. 5000 ♦   (Fax) 905-813-3962

Organizer/Presenter of “Annual Cancer Symposium”
Faculty of Medicine, University of Western Ontario, London

October 26, 2007
Regional Oncology Educational Day: Novotel Hotel, Mississauga, ON, “Long Term Follow-up of the Cancer Patient”, Presented to nurses, pharmacists, primary care, palliative care and specialty physicians, and the public.

Service to Community
See list of invited presentations

COMMITTEE MEMBERSHIPS

University
1993 – 1995 Organizer/Presenter Continuing Medical Education Oncology Symposium, University of Western Ontario
1992 – February 2007 Department of Oncology Medical Staff Committee

Departmental (Internal)
June 2004 – February 2007 RO Associate Group – Ad Hoc Billing Review Committee
2002 60th Anniversary of Cobalt at London Regional Cancer Centre, French Language Video
2001 – February 2007 Member, Radiation Oncology Associate Group, London Regional Cancer Centre
1992 Member, HDR Brachytherapy Subcommittee
1993 – 1994 Member, Simulator Selection Committee
1994 – 1995 Equipment (LINAC) Selection Committee and Users Group Representative
1994 Quality Assurance for Radiotherapy (LRCC)
1998 Member, Environmental Committee (LRCC)
1998 GU Representative for London Regional Cancer Centre

Hospital, Research, Community (External)

2002 Medical Associates Provincial Representative

1999 – 2002 NCIC – Genitourinary Committee

1994 – 1995 Ontario Cancer Treatment & Research Foundation Planning User Group for Community Cancer Centres Accreditation Process

TRAINEE SUPERVISION

The following is a sampling of the numbers of students taught each year. Details are not available to me prior to 2001.

Dec 3, 2001 to March 3, 2002
Sujana Movva
Joan Dafoe
Jaime Blackwood
Fawaz Siddigi
Chen Lin Yung
Wendy Lai
Raffeala Profiti
Marijana Drandic
Chee Yeow Tan
Ajana Macbride
Jeff Tanguay
Karmdeep Guram
Shoba Sujana Kumar
Abeer Syal
Haren Treasurer
Batya Grundland
Chris McLean

March 3, 2002 – June 2, 2002
Guido Hockman
Darren Cargill
Charles Cho
Charles Scott
Loredana DiSanto
Anna Mayer
Laura Snell
Nirit Bernhard
Heather Cox
Erin Norriw
Namita Gill
Jason Ashley
Paul Engels
Allison Suk
Kim Gilmour
George Kim
Laurie Dusseauult
Phebe Gray
Kavi Chatoorgoon

June 3, 2002 to Sept. 2002
Hashmat Khan
Omer Chaudhary
Mark Baumgartner
Eric Davenport
Radu Butan
Mae Chiang
Zishan Allibhai
Jordan Cuthbert
Darrin Payne
Haley Bos
Anita Mody
Geoff Bellingham
Jessica Wylie
Lisa Biersack
Farrah Kassam
Erin Lovett
Abdel Lawendy
Jasper Yuen
Tuhina Biswas
Tiffany Wells
Cyrus Hsia
Arthur Cheung
Matei Andreoiu
Ben Shore
Sameen Uddin
Varsha Thakur
Kirsten Grabowska
Jessica Hopkins
Sabastian Rodrigues-Elizalde
Justin Jagger
Peter Mack
Arthur Cheung
Karmdeep Guram
Leslie Morvay
Scott Hamilton
Chinedu Onochie
Gary Peysar
Mike Roman
Edward Wong
Patrick Sullivan
Blayne Welk
David McAlduff
Cyrus Hsia
Jasper Yuen
Scott Millington
Robert Arntfield
Chris Chu
Susan Scarrow
Chris Ryerson
Kristen Jones
Mark Mastso
Anne Martin
Julie Hogan
Maryanne Rockx
Shachar Sade
Monka Winnicki
Rahim Ladak
Andrew Touw

December 2002 – March 2003
Yaniv Berliner
Alison MacLeod
Nowell Fine
George Condrut
Jeffrey Goldstein
Kalesha Hack
Ann Tan
Mae Chiang
Peter Chang
Megan Milliken
Rishi Narine
Vikas Agarwal
David Mula
Gabriel Chan
Rebecca Herman
Eva Kogan
Neely Bakshi
Tania Principi
Shannon Dunlop
Noor Ladhani
Katherine Enright
Amanda Selk
Winnie Wee

Birinder Singh
Charlotte Ng
Sarah Graydon
Melanie Hnatiuk
Rebecca Cash

March 2003 – June 2003

David Palma
Jenny Boismer
Elizabeth Au-Yeung
John Sostaric
Elizabeth Mahon
Naomi Nohara
Jackson Poon
Sonja Payne
Eric Bruder
Donna Kim
Tomas Jimenez
Maithili Shetty
Ziv Harel
Hari Vasan
George Chami
Seng Thipphavong
Jonathan Ting
Karen Papay
Doug Mack
Karen Visser
Victoria Lee
Dave Ouellette
James Andrews
Frank Min
Philip Joseph
Jackie Bellaire
Boris So
Darren Kagal
June 2003 – August 2003
Savtaj Brara
Ying Zhang
Bill Tong
Illiana Lega
Andrea Lo
Maria Luisa Hincapie
Gerard March
Aaron Tan
Alan Kahn
Kris Rainkie
Andrew Pearce
Shauna Duigenan
Sarah Bacopulos
Monica Bhayana
Dave Nagal
Samantha Yeap
Chetna Tailor
Matt Snider
Gladys Chan
Gita Wahi
Joel Price
Nabil Sultan
Farhan Siddiqui
Youssef Aimalki
Khurram Khan
Adrian Gooi
Eman Loubani
Meivys Garcia
Aaron Jackson

Sept. 2003 – Nov. 2003
Lillian Barra
Robert Laberge
Ian Weinroth
Chen Tong Yung
David Patrick
Chun Khai Chong
Simon Shanfield
Luc Dubois
Tim Heerema
Anna Labuda
David Bottoni
Aariel Shafro
Daniel Grushka
Mariam Ghali
Clare Bastedo
Raymond Lim
Craig Ainsworth  
Jeffrey Rader  
Sumontra Chakrabarti  
Luke Bearss  
Nadre Nimigan  
Mun Jye Poi  
Robert Humphrey  
Nina Ghosh  
Tom Warren  

Eldon Loh  
Nadim Haidar  
Bankaj Bhatia  
Kim Johnson  
Ryan Punambolam  

Christopher Mo Chu  
Suzanne Richter  
Joanne Hamilton  
David Ng  
Jana Malhotra  
Angela Caines  
Catherin Ho  
Quang Nguyen  
Dmitry Guller  
Benjamin Klein  
Silvy Mathew  

CONTRIBUTIONS TO TEACHING AND EDUCATION

Teaching Portfolio

2000 – 2001  
S.C.O.P.E. Supportive Care in Oncology Partnership and Education  
An Adult Based Learning Model with Realistic Learning Goals and Objectives, Identifying Meaningful Outcomes Involving Community Nurses and Pharmacists  
This included evaluation of learning

1992 – 2003  
Clinical Instruction  
Ongoing Clinical Instruction Lectures, Case Evaluation for Radiation Oncology Residents, Urology Residents, Gynecology Residents
2000 – Present

4th Year Clinical Elective Students and Clinical Clerks and Supervisor for Clinical Clerks, Radiation Oncology and Urology Residents. Annual Core Oncology Lectures in Gynecology and Urology. Lectures in Gynecological Malignancy for Gyn-Oncology Residents

Overall Educational Responsibilities

1. Supervision and teaching of residents rotating on service (breast, gynecological and urological)
2. Participation in resident rounds/quality assurance/Grand Rounds
3. Participation in mock orals and written Board Examination preparation
4. Individual teaching sessions at a resident’s request
5. Teaching of off-service residents rotating through Radiation Oncology
6. Teaching of affiliated staff (i.e. in-service for radiation therapy technicians)
7. Participation in Medical School Oncology Lecture Series
8. Teaching CORE Oncology Lectures (Gynecological Cancer)

Instruction Objectives

For the Instructor:

1. Offers process of clearly conceptualizing content, teaching methodology and evolution with focus on expected outcome
2. Provides methods of communicating ideas and expectations to students and other instructors
3. Offers a process for planning sequential knowledge, skills and attitude

For the Student:

1. Logical frame of reference indicating what will be done and what will be tested
2. Afford a clear understanding of what the instructor expects of them
3. Allows an opportunity for self-evaluation

Radiation Oncology Residents Completing Clinical Rotations (2-3 months duration)

Post-graduate teaching – Radiation Oncology

July 2000 – June 2001  P. Leco
July 2001 – June 2002  P. Leco, A. Chan, E. Brecevic

Post-graduate teaching – Urology

1997  G. Peers
1998  P. Luke
1999  J. Riddell, J. Izawa
2000  S. Paulter
2001  M. al-Omar
2002  B. Vukula

PUBLICATIONS

JOURNAL ARTICLES

Peer Reviewed


ABSTRACTS

Peer-reviewed


INVITED PRESENTATIONS

September 1997
Prostate Cancer Information and Support Group
Early Detection and Treatment
London Health Sciences Centre
London, Ontario

April 1998
The Role of Hormone Therapy in Treating Prostate Cancer
London Regional Cancer Centre
London, Ontario

September 1988  Prostate Cancer Information Series  
Prostate Cancer: What it is and how it is treated  
London Health Sciences Centre, University Campus  
London, Ontario

January 2000  Gynecology Session  
Canadian Radiation Oncology Preparation Course  
Four Points Sheraton  
London, Ontario

June 2000  Canadian Urological Association Annual Meeting  
Treatment of Impotence Post Radiation Therapy  
Kelowna, British Columbia

July 24, 2000  Published Interview for the London Free Press. “Study to Target Prostate Cancer”.

October 2001  University of Western Ontario Uro-Oncology Fall Retreat  
Update – Radiation Therapy in Bladder Cancer  
Muskoka, Ontario

October 2001  Issues and Controversies in Prostate Cancer  
Moderator on Hormonal Therapy  
Huntsville, Ontario

2001 – 2002  Guest Host – Fred Sexton Health Radio Show, CJBK  
Issues in Prostate Cancer, Bladder Cancer and Fertility  
London, Ontario

August 2002  Recent Advances in the Management of Prostate Cancer  
The Post Prostatectomy PSA – What to Do?  
Muskoka, Ontario

September 2002  Ontario GU Radiation Oncology Retreat  
Debate: “This house believes that neoadjuvant hormones are not indicated prior to radiotherapy for men with intermediate risk prostate cancer”.  
Huntsville, Ontario

December 2002  Grand River Regional Cancer Centre  
“Appreciation of IMRT in Radiation Oncology”  
Kitchener, Ontario

April 2003  1st Annual Conference on Current Problems in Urology
The Fairmont Banff Springs Hotel
Banff, Alberta

May 2003
Side Effects of Hormonal Therapy in Prostate Cancer
Department of Nursing, LRCC

May 2003
What Men Need to Know About Prostate Cancer – Spouses.
Early Detection Network of Waterloo Regional and Waterloo
Region Public Health

April 2007
Lecture Adjuvant Treatment for Prostate CA, Oncology Rounds,
Credit Valley Hospital, Mississauga, ON.

CURRENT STUDIES

Oct 26/09 to present
A Randomized Trial of a Shorter Radiation Fractionation Schedule
for the Treatment of Localized Prostate Cancer, Principle
Investigator, (PROFIT), (Prostate Fractionated Irradiation Trial)

Updated: January 31, 2012
Curriculum Vitae

Eileen Rakovitch

A. Date Curriculum Vitae is Prepared: 2016 August 23

B. Biographical Information

Primary Office: Sunnybrook Health Sciences Centre
Odette Cancer Centre
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada

Telephone: 416-480-4974
Fax: 416-480-6002
Email: eileen.rakovitch@sunnybrook.ca

1. EDUCATION

Degrees
1998 - 2004 MSc, Clinical Epidemiology, Health Policy, Management and Evaluation, University of Toronto
1985 - 1989 MD, Dept of Medicine, University of Toronto
1982 - 1984 BSc, Mathematics, Arts and Science, University of Toronto

Postgraduate, Research and Specialty Training
1995 - 1997 Research Fellow, Center for Radiological Research, Columbia University, NY, New York, Supervisor(s): Dr. Eric Hall
1992 - 1995 Residency, Radiation Oncology, Department of Radiation Oncology, University of Toronto
1989 - 1990 Residency, Internal Medicine, Department of Medicine, University of Toronto

Qualifications, Certifications and Licenses
1997 License, New York
1996 Certification, Radiation Oncology, American Board of Radiology
1995 Fellow, Royal College of Physicians and Surgeons of Canada
1990 License, College of Physicians and Surgeons of Ontario
1989 Licentiate, Medical Council of Canada
2. EMPLOYMENT

Current Appointments

2013 Apr - present  Consultant, Surgery, North York General Hospital, Toronto, Ontario, Canada
2013 - present    Senior Scientist, Sunnybrook Research Institute (SRI), Toronto, Ontario
                      Evaluative Clinical Sciences
2008 - present    Adjunct Scientist, Institute for Clinical Evaluative Sciences, Toronto, Ontario
2007 - present    Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario
2007 - present    Associate Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario
1997 - present    Active Staff, Odette Cancer Centre, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario

Previous Appointments

CONSULTING
2011 - 2012    Consultant, General Division, Department of Medicine, The Scarborough Hospital, Scarborough, Ontario

RESEARCH
2004 - 2012    Clinician Scientist, Sunnybrook Research Institute (SRI), Toronto, Ontario
                      Evaluative Clinical Sciences

UNIVERSITY - CROSS APPOINTMENT
2006 - 2007    Assistant Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario

UNIVERSITY - RANK
1999 - 2007    Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario
1997 - 1999    Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
1995    RSNA/Siemens Medical System Research Fellow Scholarship, Columbia University. (Research Award)
     Center for Radiological Research.
1995    Young Oncologist Travel Award, American Radium Society. (Distinction)
     “The Effect of Mitomycin C on the Development of Late Bowel Toxicity Following Chemoradiation for Locally Advanced Carcinoma of the Cervix”. Supervisor: Dr. A. Fyles.

LOCAL
Received
2011 Feb - present  LC Campbell Chair in Breast Cancer Research, Sunnybrook Research Institute, Toronto,
Ontario. (Peer Reviewed Research Award)
2014 Sep - 2015 Sep Sunnybrook Team Awards, Sunnybrook Health Sciences Centre. (Sunnybrook Team Awards; Louise Temerty Breast Cancer Centre team) Demonstrating exceptional teamwork and collaboration that has resulted in excellence in our work with valuable contributions to the mission and vision of Sunnybrook.

2012 Rose Award, Sunnybrook Foundation, Ontario, Canada. (Distinction)

2007 Research Leadership Award, University of Toronto. (Distinction) Department of Radiation Oncology.

1986 Medical Research Council Summer Scholarship, University of Toronto. (Distinction) Supervisor: Dr. K.I. Pritchard.

1985 Honours List, University of Toronto. (Distinction)

1985 Scarborough College General In-Course Scholarship, University of Toronto. (Distinction) Faculty of Arts and Sciences.

Teaching and Education Awards

LOCAL
Received

2015 Residents Award for Excellence in Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD, Core Program)

2009 Postgraduate Advocacy and Mentorship Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

2004 Postgraduate Classroom Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

Student/Trainee Awards

INTERNATIONAL
Received

2010 Fellowship Award, Awardee Name: Iwa Kong. Australia and Asia Pacific Clinical Oncology Research Development (ACORD) Workshop

NATIONAL
Received

2009 Scholarship, Awardee Name: Iwa Kong. Canadian Institutes of Health Research The Terry Fox Foundation Strategic Training Initiative for Excellence in Radiation Research for the 21st Century (EIRR21).

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2001 - present American Society of Clinical Oncology (ASCO)
1997 - present American College of Radiology
Administrative Activities

INTERNATIONAL

National Cancer Institute

2007  **Member**, DCIS: Strategies to Integrate Tumor Biology and Population Science (Working Group)

NATIONAL

Canadian Breast Cancer Research Alliance

2004 - 2006  **Member**, DEX Grants Review Panel

National Cancer Institute of Canada/Clinical Trials Group

2015 - present  **Member**, Breast Disease Site Executive Committee
2004  **Member**, Health Promotion and Health Services Grant Panel
2004  **Member**, Grants Panel
2001 - 2006  **Member**, Breast Site Group Executive Committee

LOCAL

Odette Cancer Centre

2013 Apr - present  **Medical Director**, Louise Temerty Breast Cancer Centre
2013 - present  **Chair**, Breast Site Group
Department of Radiation Oncology.
2011 - present  **Member**, Breast Surgeon Search Committee
2008 - present  **Chair**, Breast Site Group
2006 - 2008  **Co-Chair**, Breast Site Group

Sunnybrook Health Sciences Centre

2012 - 2013  Search Committee, Head of Radiation Oncology

Toronto-Sunnybrook Regional Cancer Centre

2011 - present  **Member**, Rapid Diagnostic Unit Steering Committee
2011 - present  **Member**, Plastic Surgeon Search Committee
2002 - present  **Member**, Radiation Oncology Associates
2004 - 2006  **Secretary**, Radiation Oncology Associates
2002 - 2003  **Member**, Strategic Planning Committee
2001  **Member**, Search Committee, Head of Radiation Oncology
1999 - 2002  **Member**, Clinical Trials Committee

University of Toronto
2009 - present  Excellence in Radiation Research for the 21st Century Mentor (CIRR), CIHR Training Program in Radiation Medicine, Ontario, Canada.

2009  Resident Selection Committee

2009  **Member**, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2003 - 2006  **Member**, Breast Symposium Organizing Committee, Faculty of Medicine, Dept of Medicine, Continuing Education

2001 - 2004  **Member**, Executive Committee, Faculty of Medicine, Dept of Radiation Oncology

2000 - 2004  **Member**, Resident Selection Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1999 - 2004  **Member**, Research Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology

1998 - 2004  **Member**, Postgraduate Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

**Peer Review Activities**

**GRANT REVIEWS**

**External Grant Reviewer**

KWF Kankerbestrijding, Dutch Cancer Society, Preventing over treatment of low grade Ductal Carcinoma In Situ of the breast by replacing intensive treatment for active surveillance

**MANUSCRIPT REVIEWS**

**Reviewer**

Clinical Oncology
European Journal of Cancer
International Journal of Radiation, Biology and Physics
Journal of Clinical Oncology
Journal of the National Cancer Institute
The Oncologist

**C. Research Funding**

**1. GRANTS, CONTRACTS AND CLINICAL TRIALS**

**PEER-REVIEWED GRANTS**

**FUNDED**


2014 Jul - 2019 Jul  **Co-Investigator**. The Prostate Cancer Program Project in Rapid Development of Novel Diagnostic Markers for Early Prostate Cancer (PRONTO). Prostate Cancer Canada. Movember Team Grant. PI: Bartlett J. Collaborator(s): Berman D (Co-PI), Buttyan R (Co-PI), Earle C (Co-PI), Loblaw A (Co-PI), Bauman G, Boutros P, Finelli A, Lapointe J, Park P,

2013 Jul - 2015 Jun

1) Molecular Progression of DCIS to Invasive/Recurrent Disease
2) Predictive Biomarkers of Invasion in DCIS
3) Imaging of Ductal Carcinoma in Situ.

2012 - 2015


2011 - 2016


2011 - 2016


2011 - 2014


Strategic Plan Initiative, Ductal Carcinoma In Situ Project, Sunnybrook Research Institute (SPI-DCIS-SRI).

2010 - 2014


2010 - 2013


2010 - 2013


2010 - 2011


2009 - 2011

Co-Investigator. A survivorship question: Does surveillance mammography after the treatment of unilateral primary breast cancer reduce the odds of dying from breast cancer?


2002 - 2004  
**Co-Investigator.** Chromosome17 telomere lengths and progression of DCIS. Canadian Breast Cancer Foundation (CBCF). PI: Done S. Collaborator(s): Rakovitch E, Squire J, Pintilie M. 176,830 CAD. [Grants]

2002  

2001 - 2004  

2000 - 2003  

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2013 - present  

2006 - 2007  

2006  

2001  

1998  
**Principal Investigator.** Perception of risk among women with ductal carcinoma in situ and early invasive breast cancer. Toronto-Sunnybrook Regional Cancer Centre. Radiation Oncology Research Fund. Collaborator(s): Redelmeier D. 6,000 CAD. [Grants]

1997  
**Principal Investigator.** The management of prostate cancer: A comparison of the patterns of practice of urologists and radiation oncologists in Canada and the United States. Abbott Laboratories. Collaborator(s): Fleschner N. 10,000 CAD. [Industrial Grants]

1996  
**Principal Investigator.** Taxol and pulsed brachytherapy. Columbia Cancer Center. Breast Cancer Research Program. Collaborator(s): Hall ES. 20,000 CAD. [Grants]
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


# Book Chapters


# NON-PEER-REVIEWED PUBLICATIONS

## Journal Articles


# SUBMITTED PUBLICATIONS

## Journal Articles


# Presentations and Special Lectures

## INTERNATIONAL

### Invited Lectures and Presentations


- **2015 May 30** Correlation between the DCIS Score and traditional clinicopathological feature in the prospectively designed Ontario population-based validation study. American Society of Clinical Oncology (ASCO). Chicago, Illinois, United States. Presenter(s): Rakovitch E.
2015 Mar  
Risk after local excision alone for DCIS patients. 14th St. Gallen International Breast Cancer Conference.  

2014 Dec 12  
A large prospectively--designed study of the DCIS score: Predicting recurrence risk after local excision for ductal carcinoma in situ patients with and without irradiation. San Antonio Breast Cancer Symposium.  

2014 Sep 17  

2012  

2011  

2010 Jun  
**Supervisor.** Outcomes of young women with ductal carcinoma in situ treated with breast-conserving surgery and radiotherapy: A population-based analysis. American Society of Therapeutic Radiation Oncology. Presenter(s): Iwa Kong. (Trainee Presentation). 

2008  

2008  

2006  

2006  

2006  
Experimental Validation of the Inner Shell Ionisation Model to Predict the Radiosensitisation Induced by the IDU and BrDU Halogenated Pyrimidine. 48th American Association of Physics in Medicine (AAPM) Annual Meeting. Orlando, Florida. 

2005  

2005  
Modele d’ionisation en couche profonde et effet radiosensibilisateur de pyrimidines halogenes - Validation radiobiologique. Terme Colloque International de Radiobiologie Fondamentale et Appliquee (CIRFA). Orford, Quebec. 

2003  
Comparison of 103Pd and 125I Seeds Permanent Implant for Adjuvant Breast Brachytherapy. World Congress on Medical Physics and Biomedical Engineering. Sydney, Australia. 

2003  
Photoelectric and Electron Knock-On Auger Cascades might be the Primary Cause of Halogenated Pyrimidines Radiosensitisation. World Congress on Medical Physics and Biomedical Engineering.
Sydney, Australia.


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2015 Validation of the long-term quality of life breast cancer scale (LTQOL-BC) by health care professionals. MASCC / ISOO International Symposium on Supportive Care in Cancer. Copenhagen, Capital, Denmark.

Publication Details:

2014

Publication Details:

2013

Publication Details:

2012 Jun

Publication Details:

2012 Jan

Publication Details:

2012
A Novel Tool for Constructing Virtual Tissue Microarrays (TMSs), An Evaluation of its Use in Optimizing TMA Construction for Ductal Carcinoma In Situ (DCIS).

Publication Details:

2011 Jun
Risk of Diabetes with Tamoxifen Treatment in Older Breast Cancer Survivors. American Diabetes Association Annual Meeting. Lipscombe L, Austin PC, Kalkar SR, Fischer HD, Paszat L, Rakovitch E,
Anderson G, Rochon PA.

Publication Details:

2010 Supervisor. Outcomes of Young Women with Ductal Carcinoma In Situ Treated with Breast-Conserving Surgery and Radiotherapy: A Population-Based Analysis.

Publication Details:

2009 Dosimetric comparision of boost techniques for adjuvant breast radiotherapy.

Publication Details:

2009 Outcomes of young women with dcis treated with breast-conserving surgery and radiotherapy: A population-based analysis.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2007 The impact of acute skin toxicity and breast radiation technique on quality of life: results of a phase III trial.

Publication Details:

2007
Acute tolerance, feasibility and quality assurance results of a phase i/ii clinical trial of permanent breast 103PD seed implant (PBSI) as accelerated partial breast irradiation.

Publication Details:

2007
HER 2 neu over-expression predicts invasive recurrence following breast-conserving surgery for ductal carcinoma in situ of the breast (DCIS).

Publication Details:

2007
Clinical and treatment-related factors associated with acute toxicity in post-mastectomy radiation.

Publication Details:

2006
Interim report of a permanent breast 103PD seed implant (PBSI) phase I/II trial for accelerated partial breast irradiation.

Publication Details:

2006
Experimental validation of the inner shell ionisation model to predict the radiosensitisation induced by the IDU and BRDU halogenated pyrimidine.

Publication Details:

2006
Reduction of total body exposure in breast radiotherapy using breast imrt or virtual wedge - importance in the prevention of the leukemia in combined chemo-radiation regimens for breast cancer.

Publication Details:

2006
Quality assurance of partial breast irradiation using permanent breast 103PD seed implant (PBSI).

Publication Details:

2006
Reduction of moist desquamation in the infra-mammary fold using breast intensity modulated radiation therapy – result of a phase III multicentre trial.
**Publication Details:**

2006

The measurement of acute radiation dermatitis in patients undergoing radiotherapy for breast cancer.

**Publication Details:**

2006

Microinvasion is not associated with an increased risk of local recurrence in patients with ductal carcinoma in situ treated with breast conserving therapy.

**Publication Details:**

2006

Plenary 1: phase iii randomized study of intensity modulated radiation therapy versus standard wedging technique for adjuvant breast radiotherapy.

**Publication Details:**

2005

Immediate tolerance of permanent breast 103PD seed implant (PBSI) as the sole adjuvant treatment of early stage breast cancer.

**Publication Details:**

2005

Permanent breast 103PD seed implant (BPSI) as adjuvant partial breast irradiation.

**Publication Details:**

2005

The significance of multifocality in ductal carcinoma in situ (DCIS).

**Publication Details:**

2005

The use of radiation in the treatment of DCIS is not influenced by the type of health care system.

**Publication Details:**
2005 Prospective evaluation of pulmonary toxicity using CT density pulmonary function and symptom assessment.

*Publication Details:*

2005 Permanent breast seed implant using 103Pd as the sole adjuvant radiation treatment for early stage breast cancer: Interim analysis of an ongoing Phase I/II clinical trial.

*Publication Details:*

2004 A breast permanent implant (BPI) for partial breast irradiation using 103Pd stranded seeds: A comparison of a 'free hand' versus a 'fiducial needle' technique.

*Publication Details:*

2004 Virtual wedge and intensity modulated radiotherapy reduce the magnitude of scattered radiation during adjuvant breast radiation.

*Publication Details:*


*Publication Details:*

2004 Pilot studies of partial breast irradiation using a breast permanent implant (BPI) of 103-Palladium stranded seeds.

*Publication Details:*

2004 Virtual wedge and intensity modulated radiotherapy reduce the magnitude of scattered radiation during adjuvant breast radiation.

*Publication Details:*


*Publication Details:*
2003 A permanent breast seed implant as adjuvant radiation therapy: A dosimetric comparison between 103Pd and 125I emitters.

*Publication Details:*


*Publication Details:*

2003 Inverse planning improves the 3D dose distribution homogeneity more compared to forward planning for Breast IMRT.

*Publication Details:*

2003 Dosimetric comparison of 125I and 103PD for breast permanent implant as an adjuvant technique.

*Publication Details:*

2003 Axillary node dissection in the management of ductal carcinoma in situ.

*Publication Details:*

2003 Comparison between forward and inverse planning for breast IMRT.

*Publication Details:*

2003 Are routine secondary pathology reviews still necessary in the management of ductal carcinoma in situ?

*Publication Details:*

2003 Predictors of axillary node dissection in ductal carcinoma in situ: A population-based analysis.

*Publication Details:*

2002 IMRT Removes the dose hot spots induced by conventional wedged irradiation technique for adjuvant breast irradiation: Potential impact on acute skin toxicity.

*Publication Details:*
Pignol JP, Aznar M, Sixel K, **Rakovitch E**, Benk V. IMRT Removes the dose hot spots induced by conventional wedged irradiation technique for adjuvant breast irradiation: Potential impact on acute skin toxicity.

2001 Improving dose homogeneity in breast irradiation: A dose volume histogram analysis.

Publication Details:

2000 Individualized management approach using the biological behavior of cancer.

Publication Details:

2000 PSA doubling time of prostate carcinoma managed with watchful observation alone.

Publication Details:


Publication Details:

1998 Enhanced taxol sensitivity and DNA fragmentation with p53 abrogation in colorectal carcinoma cells.

Publication Details:

1996 Effect of p53 abrogation on taxol induced cell kill and taxol radiosensitization.

Publication Details:

1996 Mitomycin C increases the development of late bowel toxicity following chemoradiation for locally advanced carcinoma of the cervix.

Publication Details:

1996 Should we fractionate radiotherapy for benign disease? Worked examples for the eye and brain.

Publication Details:

1996 Mitomycin C increases the incidence of serious late bowel complications in patients with locally advanced carcinoma of the cervix.

Publication Details:
Rakovitch E, Fyles A, Pintilie M, Leung P. Mitomycin C increases the incidence of serious late bowel complications in patients with locally advanced carcinoma of the cervix.

### Media Appearances


### 2. NATIONAL

#### Invited Lectures and Presentations


2010 Apr A population-based outcomes analysis of young women treated with breast-conserving surgery and radiation for DCIS: Is there a difference in outcomes among commonly used fractionation schemes? Canadian Association of Radiation Oncologists (CARO). Presenter(s): Iwa Kong. (Trainee Presentation).


2001  

2000  

2000  

1999  
**Defining the Role of Tamoxifen in DCIS: A Decision Analytic Model.** Canadian Association of Medical Oncologists (CAMO).

1999  
**A Comparison of Three Breast-Conserving Treatments With Mastectomy As Initial Treatment for Ductal Carcinoma In Situ.** Canadian Association of Radiation Oncologists Annual Meeting (CARO). Montreal, Quebec.

1998  

1996  

Presented and Published Abstracts

2010  

*Publication Details:*

2008  

*Publication Details:*

2008  

*Publication Details:*

1998  
**Watchful observation of asymptomatic, favorable grade, prostate carcinoma with selective delayed intervention based on the rate of PSA increased and/or clinical progression.**

*Publication Details:*
Media Appearances


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2016 Apr 19  **Invited Speaker.** Improving Recurrence Risk Prediction in Ductal Carcinoma in Situ. Radiation Oncology Grand Rounds, Schulich School of Medicine & Dentistry. London, Ontario, Canada.

2016 Apr 8  **Invited Speaker.** Update in the management of DCIS. 56th Annual Course for Practicing Surgeons, Update in General Surgery, University of Toronto. Toronto, Ontario, Canada.

2 Day Workshop


4. LOCAL

Invited Lectures and Presentations

2016 May 27  Radiotherapy for Breast Cancer. AHD Medical Oncology Training Program, University of Toronto.


F. Research Supervision

1. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2012 - present  **MSc.** Sonal Gandhi.

2016 Apr  **PhD.** Simmyung Yook, Pharmaceutical Sciences.  *Lu-labeled Gold Nanoparticles for*

Curriculum Vitae

Andrew Michael Rauth

A. Date Curriculum Vitae is Prepared: 2016 August 17

Only includes Activities from August 1958 to August 2016

B. Biographical Information

Mailing
Department of Medical Biophysics
Room 418 9th floor, Research
Ontario Cancer Institute
610 University Ave
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-9462977
Fax 416-9462984
Email rauth@uhnres.utoronto.ca

1. EDUCATION

Degrees
1958 Sep - 1962 Jun PhD, Biophysics, Yale University, Connecticut, United States, Supervisor: Prof. Franklin Hutchinson
1954 Sep - 1958 Jun BSc, Bachelor of Science (Honors), Physics, Brown University, Rhode Island, United States, Supervisor: Prof. Phillip J. Bray

Postgraduate, Research and Specialty Training
1962 Jun - 1965 Jun Postdoctoral Fellow, Physics, Ontario Cancer Institute, Ontario, Canada, Supervisor: Prof. H.E. Johns

2. EMPLOYMENT

Current Appointments
2000 Nov - present Professor Emeritus, Medical Biophysics and Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2000 Nov - present Research Scientist Retired, Research and Teaching, Princess Margaret Cancer Center, Toronto, Ontario, Canada
Previous Appointments

RESEARCH

1996 Jul - 1997 Apr  Acting Division Head, Ontario Cancer Institute, Ontario, Canada
1992 Jun - 1995 Jun  Co-Chair/Research, OCI/PMH Capital Campaign (Part-time), Ontario Cancer Institute, Ontario, Canada
1989 Jan - 2000 Oct  Research Scientist, Ontario Cancer Institute, Ontario, Canada
1965 Jun - 1989 Jan  Physicist, Physics, Ontario Cancer Institute, Toronto, Ontario, Canada
1962 Jun - 1965 Jun  Postdoctoral student, Ontario Cancer Institute, Ontario, Canada

Helped build, test and use a large grating type ultraviolet light monochromator for biological studies.

UNIVERSITY

1998 Jun - 2000 Jun  Chair, Faculty Full-time Committee, University of Toronto, Toronto, Ontario, Canada
1992 Jun - 1994 Jun  Chair, Dean's Fund Committee, University of Toronto, Toronto, Ontario, Canada
1986 Jun - 1987 Jan  Acting Chair, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1981 Jun - 1986 Jun  Graduate Coordinator, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1975 Jun - 1978 Jun  Graduate Secretary, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada

1979 Jan - 2000 Oct  Full Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1974 Jan - 1979 Jan  Associate Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1965 Jun - 1974 Jan  Assistant Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Teaching and Education Awards

LOCAL

Received

2012 Sep - 2012 Dec  Classroom Teaching Award 2012, Dept of Radiation Oncology, Faculty of Medicine. (Undergraduate Education)
2010 Sep - 2010 Dec  Classroom Teaching Award 2010, Dept of Radiation Oncology, Faculty of Medicine. (Undergraduate Education)
2007 Sep - 2007 Dec  Classroom Teaching Award 2007, Dept of Radiation Oncology, Faculty of Medicine, Department of Radiation Oncology/Michener Institute. (Undergraduate Education)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1995 Apr - present  Member (currently Emeritus), American Association for Cancer Research
1969 Apr - present  Member (currently Emeritus), Radiation Research Society
1962 Apr - present  Member, Sigma Xi
Administrative Activities

INTERNATIONAL
United States Department of Defense – Breast Cancer Grant Review Panel
2010 Sept – 2012 Aug  Member, panel

International Congress of Radiation Research
1986 Apr - 1991 Sep  Chair, Local Arrangements Committee

International Journal of Radiation Oncology- Biology-Physics
1990 Apr - 2003 Mar  Member, Editorial Board

NCI
1987 Apr - 1988 Mar  Member, Ad Hoc Reviewer Committee, United States.

NATIONAL
Cancer Research Society
1996 Apr - 1998 Mar  Member, Grants Panel Committee

National Cancer Institute of Canada
1982 Apr - 1983 Mar  Member, Grant Panel D, Canada.
1976 Apr - 1980 Apr  Member, Grant Panel D, Canada.

Radiation Research Society
1980 Apr - 1983 Mar  Member, Council
1980 Apr - 1981 Mar  Member, Membership Committee
1978 Apr - 1981 Apr  Member, Editorial Committee

Medical Research Council
1999 Apr - 2002 Mar  Member, Cancer B Committee
Ad Hoc Reviewer.

Medical Research Council
1989 Apr - 1993 Mar  Member, Grants Panel, Cancer

Radiation Research
1991 Apr - 1992 Mar  Member, Editorial Committee
Associate Editor (Acting).

Radiation Research Society
1992 Apr - 1993 Mar  Member, Program Committee
1987 Apr - 1993 Mar  Member, Finance Committee
1979 Apr – 1981 Mar  Member, Education and Training Committee
Andrew Michael RAUTH

University of Toronto
1992 Apr - 1993 Mar Member, Basic Sciences Review Committee, Toronto, Ontario, Canada.
1991 Apr - 1994 Mar Member, Faculty Research Grants Committee, Toronto, Ontario, Canada.
1990 Apr - 1991 Mar Member, Degree Committee, Division IV, Graduate School, Toronto, Ontario, Canada.
1968 Jan - 2016 Jun Chair, Graduate Examination Activities, Toronto, Ontario, Canada.

Peer Review Activities

ASSOCIATE OR SECTION EDITING
Associate Editor
Associate Editor

EDITORIAL BOARDS
Co-Editor

MANUSCRIPT REVIEWS
Reviewer
1965 Jun - 2016 Jun Radiation Journals, Nanoparticle Journals, Number of Reviews: ~600 papers

Other Research and Professional Activities

THESIS PROJECT

C. Academic Profile

1. RESEARCH STATEMENTS

1957 Sept. - present Key Theory / Methodology: Applying the quantitation and experimental testing of theory of the physical sciences to problems in the biological sciences.

Research Interests: My current research interests have been in the areas of hypoxic cell radiosensitizers, bioreductively activated drugs, hypoxic cell toxins, mechanisms of drug action, micro-particle and nano-particle drug delivery systems, oxygen measurements and in vitro and in vivo drug testing and radiation biology. I have been involved for the last fourteen years in developing and teaching the Radiation Biology and Radioprotection Course for Radiation Therapists in the Joint Program for Radiation Therapist Training of the Michener Institute and the University of Toronto.
Research Experience Summary: 1. The determination of the average energy loss per inelastic event (60 +/- 10 ev) for 20 kev electrons passing through thin films of materials of low atomic number. 2. Early evidence for DNA repair systems for UV damage in mammalian cells using caffeine. 3. Demonstration of hypoxic cell-specific radio-sensitization of KHT solid mouse tumors in vivo using metronidazole. 4. Demonstration of the toxicity of a pure nitrosoimidazole (1-CH3–2-nitrosoimidazole) towards mammalian cells in vitro. 5. Demonstration that cells with low DT-diaphorase activity are mitomycin C-resistant and that this loss of activity is due to a specific point mutation (bp609 C/T). 6. Present research interests focus on nanoparticle carriers for the delivery and release of cancer chemotherapeutic agents, e.g. doxorubicin and mitomycin C, to primary and metastatic tumors e.g. breast tumors, brain tumors and prostate tumors. Recently interest has focused on the ability of MnO2 particles to modify the tumor microenvironment.

Fields of Application: Biomedical Aspects of Human Health

Disciplines Trained In: Physics

Areas of Research: Breast Cancer

Research Specialization Keywords: bio-reductive drugs, carcinogenesis, hypoxic cell toxins, in vitro cell culture, in vivo studies, mechanism of drug action, oxygen measurements, radiation sensitizers, radiobiology, tumor biology, nanoparticles

Research Disciplines: Biology and Related Sciences.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2006 Jun – 2008 Jun Co-Investigator Biodegradable nanoparticles for targeted drug delivery to lymphatic metastatic cancer cells. CIHR (High Risk Seed Grant) 150,00 CAD Operating Grant


*Operating Grant (in vitro studies).*

1991 Apr - 1994 Mar **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants] 
*Operating Grant (in vitro studies).*

1988 Apr - 1991 Mar **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants] 
*Operating Grant (in vivo studies).*

[Grants] 
*Operating Grant (in vivo studies) Group Grant to Physics Division, OCI.*

1986 Apr - 1988 Mar **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants] 
*Operating Grant (in vivo studies).*

1984 Apr - 1986 Mar **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants] 
*Operating Grant (in vivo studies).*

[Grants] 
*Operating Grant (in vivo studies), Group Grant to Physics Division, OCI.*

[Grants] 
*Operating Grant (in vivo studies), Group Grant to Physics Division, OCI.*

1982 Apr - 1984 Mar **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants] 
*Operating Grant (in vivo studies).*

[Grants] 
*Operating Grant (in vivo studies), Group Grant to Physics Division, OCI.*

1980 Apr - 1982 Mar **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants] 
*Operating Grant (in vivo studies).*

[Grants] 
*Operating Grant (in vivo studies), Group Grant to Physics Division, OCI.*

1978 Apr - 1980 Mar **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants] 
*Operating Grant (in vitro studies).*

1977 Apr - 1980 Mar **Principal Applicant.** Hypoxic Cell Radiation Sensitizers. MA-2234. [Grants] 
*Operating Grant (in vitro studies).*

1977 Apr - 1978 Mar **Co-applicant.** Radiation Sensitizers and Bioreductive Drugs. [Grants] 
*Operating Grant.*

1977 Apr - 1978 Mar **Principal Applicant.** Radiation Sensitizers and Bioreductive Drugs. MRC MA-2234. [Grants]
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1976 Apr - 1977 Mar **Principal Applicant.** Radiation Sensitizers. MRC MA-2234. [Grants]
*Operating Grant (in vitro studies).*

1975 Apr - 1976 Apr **Principal Applicant.** Radiation Sensitizers. MRC MA-2234. [Grants]
*Operating Grant (in vitro studies).*

[Grants]
*Operating Grant (in vitro studies), Group Grant to Physics Division, OCI.*

[Grants]
*Operating Grant (in vitro studies), Group Grant to Physics Division, OCI.*

1973 Apr - 1974 May **Principal Applicant.** UV AND DNA Repair. MRC MA-2234. [Grants]
*Operating Grant.*

1972 Apr - 1973 Apr **Principal Applicant.** UV AND DNA Repair. MRC MA-2234. [Grants]
*Operating Grant.*

1969 Apr - 1972 Apr **Co-applicant.** UV and DNA Repair. MRC MA-2234. [Grants]
*Operating Grant.*

1966 Apr - 1969 Mar **Co-applicant.** UV effects on mammalian cells. MRC MA-2234. [Grants]
*Operating Grant.*

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**E. Publications**

1. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Andrew Michael RAUTH


Andrew Michael RAUTH


Andrew Michael RAUTH


68. Cowan DS, McClelland RA, Rauth AM. Isolation and characterization of a cell line resistant to 5-[3-(2-nitro-1-imidazoyl)-propyl]-phenanthridinium bromide (2-NLP-3), a DNA-intercalating hypoxic cell radiosensitizer and cytotoxin. Biochemical pharmacology. 1995;50(1):61-68. **Coauthor or Collaborator.**


71. Brezden CB, Hedley DW, Rauth AM. Constitutive expression of P-glycoprotein as a determinant of loading with fluorescent calcium probes. Cytometry. 1994;17(4):343-348. **Coauthor or Collaborator.**


74. Foster FS, Lockwood GR, Ryan LK, Harasiewicz KA, Berube L, Rauth AM. Principles and applications of ultrasound backscatter microscopy. IEEE transactions on ultrasonics, ferroelectrics, and frequency control. 1993;40(5):608-617. **Coauthor or Collaborator.**

75. Mirzayans R, Sabour M, Rauth AM, Paterson MC. Hyperresistance to 4-nitroquinoline 1-oxide cytotoxicity and reduced DNA damage formation in dermal fibroblast strains derived from five members of a cancer-prone family. British journal of cancer. 1993;68(5):838-844. **Coauthor or Collaborator.**

76. Kuehl BL, Buchwald M, Rauth AM. Characterization of a set of Chinese hamster ovary variant cell lines demonstrating differing sensitivity to mitomycin C. Oncology research. 1993;5(6-7):213-221. **Coauthor or Collaborator.**


92. Laderoute K, Wardman P, Rauth AM. Molecular mechanisms for the hypoxia-dependent activation of 3-amino-1, 2, 4-benzotriazine-1, 4-dioxide (SR 4233). Biochemical pharmacology. 1988;37(8):2585-2593. **Coauthor or Collaborator.**


111. Taylor YC, Rauth AM. Oxygen tension, cellular respiration, and redox state as variables influencing the cytotoxicity of the radiosensitizer misonidazole. Radiation research. 1982;91(1):104-123. Co-Principal Author.


Andrew Michael RAUTH


131. Rauth AM. Some biological applications of an electric heating tape. Laboratory practice. 1974;23(2):64-65. Principal Author.


Andrew Michael RAUTH


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


<table>
<thead>
<tr>
<th>Year Range</th>
<th>Type</th>
<th>Supervisor</th>
<th>Institution</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974 Jun - 1978 Jun</td>
<td>Primary Supervisor</td>
<td>PhD. Steven J. Molnar</td>
<td>University of Toronto</td>
<td>Studies of a leucyl-tRNA synthetase mutant of Chinese hamster ovary cells.</td>
</tr>
<tr>
<td>1971 Sep - 1974 Sep</td>
<td>Primary Supervisor</td>
<td>MASc. Steven J. Molnar</td>
<td>Eastern Cereal and Oilseed Research Centre, Agriculture and Agri-Food Canada, Ottawa</td>
<td>Mutation Studies in Mammalian Cells.</td>
</tr>
<tr>
<td>1968 Sep - 1971 Jun</td>
<td>Primary Supervisor</td>
<td>MASc. Sandra J. Shuve</td>
<td>University of Toronto</td>
<td>Effects of Phleomycin on Mouse L Cells Project.</td>
</tr>
<tr>
<td>1966 Sep - 1969 Jun</td>
<td>Primary Supervisor</td>
<td>PhD. Masaharu Domon</td>
<td>University of Toronto</td>
<td>Effects of UV Light on Mouse L cells Project.</td>
</tr>
</tbody>
</table>
Curriculum Vitae

Dr. Sarah Jane Rauth

BSc(Hons), MSc, MD.
BIOGRAPHICAL INFORMATION:

Name: Sarah Jane Rauth

Birth Date: July 15, 1969

Birth Place: Toronto, Ontario, Canada

Citizenship: Canadian/American

Business Address: Department of Radiation Oncology, Princess Margaret Hospital, 610 University Avenue, Toronto, Ontario. M5G 2M9

Business Phone: (416) 946-2131

Home Address: 21 Dale Ave. #819 Toronto, Ontario M4W 1K3

Home Phone: (647) 343-7479

E-Mail: sarah.rauth@rmp.uhn.on.ca

EDUCATION:

2000-2004 Medical Doctor
Queen’s University
Kingston, Ontario
Awarded May 2004

1997-2000 Diploma in Pre-Medical Sciences
Post-Baccalaureate Pre-Medical Program
School of General Studies
Columbia University in the City of New York
New York, New York
Awarded May 2000.
1993-1996  Master of Science  
  Anatomy and Neurobiology/Neuroscience  
  Dalhousie University  
  Halifax, Nova Scotia  
  Awarded October 1996.

1988-1992  Bachelor of Science (Honours in Biology)  
  Acadia University  
  Wolfville, Nova Scotia  

**Licensure:**

2004  MCCQE Part 1  
2005  MCCQE Part 2

**APPOINTMENTS:**

**Hospital Appointments:**

2008  Chief Resident  
  Department of Radiation Oncology  
  University of Toronto  
  Toronto, Ontario

2004-2009  Resident  
  Department of Radiation Oncology  
  University of Toronto  
  Toronto, Ontario

**Research Appointments:**

2002  Summer Student,  
  Radiation Oncology Research Unit,  
  Kingston Regional Cancer Centre, Kingston Ontario.  
  Independent research on clinical evaluation of prognostic factors in oncology.
2001
Summer Student,
Radiation Oncology Research Unit,
Kingston Regional Cancer Centre, Kingston Ontario.
Independent research on clinical evaluation of prognostic factors in oncology.

1996-2000*
Staff Research Associate,
Center for Radiological Research, Department of Radiation Oncology, Columbia Presbyterian Hospital, New York, New York.

1996-1998
Manager of H.C. Irving Radiation Facility, Center for Radiological Research, Department of Radiation Oncology Columbia Presbyterian Hospital, New York, New York.

* September 1998-August 1999 one year academic leave of absence to complete pre-medical requirements at Columbia University, School of General Studies and prepare for the Medical College Admissions Test.

Honours and Awards Received:

2002
Ivan Smith Student Fellowship
Kingston Regional Cancer Centre
Kingston, Ontario

1994
Phyllis Horton Student Bursary
Alzheimer’s Society of Nova Scotia
Halifax, Nova Scotia.

1993
Sister Christine Gaudet Student Bursary
St. Michael’s Hospital
Toronto, Ontario.

1993-1996
Dalhousie Graduate Scholarship
Dalhousie University
Halifax, Nova Scotia.
ADMINISTRATION AND COMMITTEES:

Residency Committees:

2008          Radiation Medicine Awards Committee, Radiation Medicine Program, University of Toronto, Toronto, Ontario

2008-present  External Relations Committee, Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

2008          Resident Selection Committee, Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

2008-2009     Postgraduate Medical Education Committee, Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

2007–present  Resident Member at Large, Canadian Association of Radiation Oncology, Education Committee.

2006          Radiation Medicine Awards Committee, Radiation Medicine Program, University of Toronto, Toronto, Ontario

2006          Resident Selection Committee, Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

2005-2006     Postgraduate Medical Education Committee, Department of Radiation Oncology, University of Toronto, Toronto, Ontario.

Medical School Committees:

2002-2003     President, Internal Executive Committee, Student’s Medical House Incorporated, Queen’s University, Kingston Ontario.
2001-2002
Secretary,
Internal Executive Committee, Student’s Medical House Incorporated, Queen’s University, Kingston Ontario.

Graduate School Committees:

1995-1996
Anatomy Department Representative,
Dalhousie Association of Graduate Students. Dalhousie University, Halifax, Nova Scotia.

1993-1995
Student Representative,
Department of Anatomy and Neurobiology. Dalhousie University, Halifax, Nova Scotia.

Undergraduate Committees:

1992
Student Member, Election Review Committee.
Acadia University Wolfville, Nova Scotia.

1991-1992
Student Member, Judicial Board.
Acadia University Wolfville, Nova Scotia.

SOCIETY MEMBERSHIPS:

2007-present
Member in Training
American Society of Therapeutic Radiology and Oncology

2005-present
Resident Member,
Canadian Association of Radiation Oncology

2002-2003
Student Member,
Radiation Research Society

1997-2002
Associate Member,
Radiation Research Society

1994-1997
Student Member,
Society for Neuroscience

1994-1997
Student Member,
Canadian Association of Anatomists,
1994-1997    Student Member  
Canadian Society for Neuroscience

1994-1997    Student Member,  
Canadian Federation of Biological Sciences

PRESENTATIONS AND PUBLICATION:

PEER-REVIEWED PUBLICATIONS:

Manuscripts:

Peer Reviewed Publications:

protein tyrosine phosphatase HmLAR2 in interbranch repulsion in a leech 

Schizosaccharomyces pombe rad9+ alter hydroxyurea resistance, radioresistance 

Molecular cloning and tissue specific expression of Mrad9, a murine orthologue of 

cholinesterase containing neurons in the ventromedial periaqueductal gray of the 
rat. (Thesis).

in the Developing Chick Brain. (Thesis)

Submitted Publications:

1. Rauth, S.J. The Palliative Care Experience in the United Kingdom and Canada 
(“Room for a View”, CMAJ).

2. Rauth, S.J., and A. Bezjak. The role of radiation therapy in the treatment of solid 
pericardial metastases, Short Communication, (Lung Cancer).
Publications In-Preparation:

1. Rauth, S.J., D. Wiljer, C. Palmer and G. Kane. The Role of the Virtual Coach in Learning Radiation Treatment Planning. (Medical Education)

2. Rauth, S.J., C. Bell, M. Doherty. Regional Breast Radiotherapy: Are We Covering All Nodes At Risk?


Abstracts:


PRESENTATIONS (Peer reviewed selected by competition):


RESEARCH PROJECTS: (Ongoing)

1. A Pilot and Feasibility Study to Investigate the Use of an Intravaginal Stent to Prevent Vaginal Stenosis Following Gynecological Radiation Therapy.
   Supervisor: Dr. Wilfred Levin (Accruing patients, PMH)

2. Extending our Educational Reach: A feasibility study investigating the integration of on-line educational resources and face-to-face teaching at the national meeting of the Canadian Association of Radiation Oncology (CARO).
   Principle Investigator: Joyce Nyhof-Young (Grant submitted to Pfizer, June 2008)
   Supervisor: Dr. Mary Doherty (Poster Presentation, CARO 2007)

4. Predictive Power of Cervix Volume for Loco-Regional Control in Squamous Cell Carcinoma of the Uterine Cervix Treated with Definitive Radiotherapy: A Systematic Review of the Literature 
   Supervisor: Dr. William Mackillop (Abstract accepted ESTRO 2008).

TEACHING:

**Didactic:**

**2008**

Introduction to Clinical Oncology, Staging and Diagnostics for Radiotherapy Students, Radiation Medicine Program, University of Toronto. (2 hours)

**2008**

Academic Half-Day, Department of Radiation Oncology, University of Toronto, Introduction to Academic Half-Day and Drill (1 hour)

**2008**

Academic Block, Department of Radiation Oncology, University of Toronto, Stress Management and Introduction to Call at Princess Margaret Hospital (1 hour).

**2008**

Academic Block, Department of Radiation Oncology, University of Toronto, Interprofessional Practice and Radiotherapy, with Kate Palmer (1 hour).

**2007**

Second Year Medical Students, University of Toronto, Cancer Staging and Introduction to Radiation Oncology (1 hour).

**1995**

Tutorial Leader, Embryology for Medical Students, Department of Anatomy and Neurobiology, Dalhousie University, Halifax, Nova Scotia.
Laboratory Instructor:
1995-1996 Laboratory Assistant, General Histology and Oral Histology for Dental Students, Department of Anatomy and Neurobiology, Dalhousie University, Halifax, Nova Scotia.

1994 Laboratory Assistant, Histology for Medical Students Department of Anatomy and Neurobiology, Dalhousie University, Halifax, Nova Scotia.

1994 Laboratory Assistant, Neuroanatomy for Occupational and Physical Therapy Students, Undergraduate and Graduate Students, Department of Anatomy and Neurobiology, Dalhousie University Halifax, Nova Scotia.

1992 Laboratory Assistant, Embryology II, Department of Biology, Acadia University, Wolfville, Nova Scotia.

1991-1992 Laboratory Assistant, Histology I and II, Department of Biology, Acadia University, Wolfville, Nova Scotia.

1991 Laboratory Assistant, Histochemistry, Department of Biology, Acadia University, Wolfville, Nova Scotia.

February 2009
A. Date Curriculum Vitae is Prepared: 2016 July 29

B. Biographical Information

Primary Office
Radiation Medicine Program, Department of Radiation Oncology
Princess Margaret Hospital, University Health Network
610 University Ave., Rm 5-917
Toronto, Ontario, Canada
MSG 2M9

Telephone (416) 946-2919
Fax (416) 946-6561
Email jolie.ringash@rmp.uhn.on.ca

1. EDUCATION

Degrees
1999 MSc, Clinical Epidemiology, University of Toronto, Canada
1993 MD, McMaster University, Canada
1990 BSc, Chemistry, McMaster University, Canada

Postgraduate, Research and Specialty Training
1997 - 1999 Fellowship, Head and Neck Cancer, University of Toronto, Toronto, Ontario, Canada
1996 - 1997 Chief Resident, Radiation Oncology, McMaster University, Hamilton, Ontario, Canada
1994 - 1996 Resident, Radiation Oncology, Hamilton Regional Cancer Centre, Hamilton, Ontario, Canada
1993 - 1994 Postgraduate Year 1, Internal Medicine, McMaster University, Hamilton, Ontario, Canada

Qualifications, Certifications and Licenses
1997 - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1997 - present Medical License, College of Physicians and Surgeons of Ontario, Canada
2010 Privacy for Physicians - Passed, University Health Network, Canada
2009 Certificate for "Qualitative Research: An Introduction", Wilson Centre Atelier, Canada
2009 Certificate of Training: UHN Principles of Clinical Research Practice, University Health Network, Canada
2007 Certificates: Introduction to GCP, Investigator Responsibilities, Safety Reporting, Ethics and
the Ethics Research Board, Investigator Responsibilities for Informed Consent, National Cancer Institute of Canada/Clinical Trials Group, Canada

2000
Certificate Protection of Human Research Subjects, National Institutes of Health, United States

1995
Licentiate, Medical College of Canada, Canada

2. EMPLOYMENT

Current Appointments

2014 Jul 1 - present
Professor, Surgery, Otolaryngology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

2013 Jul - present
Professor, Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

2013 Jul - present
Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

1999 - present
Staff Radiation Oncologist, Radiation Medicine Program, Princess Margaret Hospital/Cancer Centre, University Health Network, Toronto, Ontario, Canada

Previous Appointments

UNIVERSITY - CROSS APPOINTMENT

2011 Nov - 2013 Jun
Associate Professor, Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

2007 Jul - 2011 Oct
Associate Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

1999 - 2007
Assistant Professor, Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK

2007 Jul - 2013 Jun
Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

1999 Jul - 2007 Jun
Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2014
2014 Best of ASTRO Award, American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. (Distinction)
"Refining UICC TNM Stage and Prognostic Groups for HPV-Related Oropharyngeal Carcinomas" which offers to most relevant and highly influential abstracts from American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting, USA.

2012 Sep
ISOQOL Outstanding Article of the Year Award, Collaborator, International Society for Quality of Life Research (ISOQOL). (Research Award)
honours the single best article dedicated to health-related quality of life research that was published in a peer-reviewed journal during the previous year; awarded for “Patterns of reporting health-related quality of life outcomes in randomized clinical trials: Implications for
“clinicians and quality of life researchers”, published in Quality of Life Research 2011.

NATIONAL

Received

2015 Mar

**Leading Practice**, Co-Lead and Medical Director of the Program, Accreditation Canada, Canada. (Distinction)

Awarded to "The Head and Neck Cancer Survivorship Program". This award recognizes practices that are: 1.Innovative and creative; 2.Client- or family-centred; 3.Evaluated; 4.Able to demonstrate intended results; 5.Sustainable; 6.Adaptable by other organizations.

2014 Aug

**2014 Survivorship Award**, Radiation Oncologist, Canadian Association of Radiation Oncology (CARO). (Research Award)


1997

**Award, Resident Research Poster**, Canadian Association of Radiation Oncologists, Canada. (Research Award)

1990

**Prize**, Chemical Institute of Canada, Canada. (Distinction)

1990

**Prize**, Canadian Society of Chemistry, Canada. (Distinction)

1989

**Research Award**, Natural Sciences and Engineering Research Council of Canada (NSERC), Canada. (Research Award)

1987

**Scholarship**, Canadian Chartered Accountants’, Canada. (Distinction)

1987

**Shad Valley**, Canada. (Distinction)

(National programme for young scientists and entrepreneurs).

1987

**University Entrance Award**, Jack Stupp/ Consumers Distributing, Canada. (Distinction)

1986

**Interchange on Canadian Studies**, Canada. (Distinction)

1985 - 1987

**Governor General’s Award**, Canada. (Distinction)

1985

**Forum for Young Canadians**, Ottawa, Canada. (Distinction)

PROVINCIAL / REGIONAL

Received

1991

**Ivan H. Smith Memorial Studentship**, Cancer Care Ontario, Canada. (Distinction)

(Oncology).

LOCAL

Received

2000

**Augusta Stowe-Gullen Postgraduate Award**, University of Toronto, Canada. (Research Award)

1996

**Elected Chief Resident by staff and peers**, McMaster University, Canada. (Distinction)

1992

**Vandenberg Travel Award, Faculty of Health Sciences**, McMaster University, Canada. (Distinction)

(Infectious Disease).

1990

**Crispin Calvo Prize**, Canada. (Distinction)

(thermodynamics).

1990

**J.L.W. Gill Prize**, Canada. (Distinction)

(area average).

1990

**Michael J. Morton Prize**, Canada. (Distinction)
Jolie RINGASH

(inorganic chemistry).

1987 - 1990 George and Nora Elwin McMaster Scholar, McMaster University, Canada. (Distinction) (held for 3 years).

1987 Honour Crest, Neelin High School, Canada. (Distinction)

1986 General Proficiency Award, Canada. (Distinction)

1985 - 1987 Certificate of Highest Standing, Canada. (Distinction) (held for 3 years).

Nominated

2015 Jun Local Impact Award 2014/15, Team member, University Health Network. (Distinction) Awarded to an individual, initiative or team that has transformed practice at UHN.

LOCAL

Received

2015 Oct Sustained Excellence in Research, University of Toronto Department of Radiation Oncology, Ontario, Canada. (Research Award, Specialty: Radiation Oncology) Awarded annually to the department member felt to have made the greatest and most consistent impact on the research environment over his or her career.

2015 Jul - 2016 Jun Research Productivity - Radiation Oncology, Princess Margaret Cancer Centre Radiation Medicine Programme, Toronto, Ontario, Canada. (Research Award) Awarded to the radiation oncologist with the best research productivity (grants, clinical trials, number and impact of publications) during the academic year.

Teaching and Education Awards

LOCAL

Received

2008 Jun Research Project Supervisor Award Recipient, Radiation Medicine Programme Annual Education Awards, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada. (Postgraduate MD, Clinical Fellow) For best supervision of resident/fellow research project.

2006 Jul Postgraduate Medical Education Research Supervision Award, Research Supervisor, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto Department of Radiation Oncology, Toronto, Canada. (Postgraduate MD, Specialty: Radiation Oncology) Awarded to research supervisor for a medical student, resident or fellowship research project on the basis of student nomination and judgement of the value of the research.

2005 Research Project Supervisor Award Recipient, Radiation Medicine Programme Annual Education Awards, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada 2005, 2006.

Nominated

2012 Jun Professional Mentor Award, Dept of Radiation Oncology, Faculty of Medicine, The Princess Margaret Hospital, Radiation Medicine Programme, Toronto, Ontario, Canada. (Faculty Development) Awarded for mentorship of a colleague.
2005  **Mentorship Award, Radiation Medicine Programme Annual Education Awards**, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Canada

**Student/Trainee Awards**

**NATIONAL**  
**Received**

2014 Aug  **2014 CARO Book Prize**, Radiation Oncology Resident, Awardee Name: Jonathan Klein. Canadian Association of Radiation Oncology (CARO)  
"Effect of Stereotactic Body Radiotherapy for Liver Cancer on Quality of Life." for best poster in clinical care and epidemiology.

2008 Jun  **PSI Resident Research Award**, Primary Supervisor, Awardee Name: Louis Fenkell. Physicians’ Services Foundation, Canada  
Dosimetric comparison of IMRT versus 3-D conformal radiotherapy in the treatment of cancer of the cervical esophagus.

2008 Jan  **AstraZeneca Exhibit Prize**, Awardee Name: Karen Wong. RANZCR annual scientific meeting, Australia  
Awarded to the exhibit by a Radiation Oncologist which is judged to have made the most significant contribution to the scientific program.

**LOCAL**  
**Received**

2008 Apr  **Resident Research Day – Best Poster Award**, Awardee Name: Zahra Kassam. University of Toronto, Canada

4. **PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

**Professional Associations**

2004 - present  International Society of Quality of Life  
1999 - present  Canadian Medical Association  
1998 - present  Society for Medical Decision Making  
1997 Jul - present  **Fellow**, Royal College of Physicians and Surgeons of Canada, 505213  
1997 - present  American Society of Clinical Oncology  
1995 - present  American Society for Therapeutic Radiology and Oncology  
1994 - present  Canadian Association of Radiation Oncologists  
1993 - present  Ontario Medical Association

**Administrative Activities**

**INTERNATIONAL**

6th International Workshop on the Biology, Prevention and Treatment of Head and Neck Cancer  
2002  **Member**, Organizing Committee, Measuring and Reporting Quality of Life in Head & Neck Cancer Workshop, McLean, United States.
Jolie RINGASH

American Head and Neck Society
2015 Sep 1 - 2016 Jul 20 Program Committee for the 9th International Conference on Head & Neck Cancer, Seattle, Washington, United States.

European Organization for Research and Treatment of Cancer (EORTC)
2008 - present **Member**, PROBE: Patient-reported Outcomes and Behavioural Evidence, International Advisory Board, Belgium.

International Society for Quality of Life Research (ISOQOL)

National Cancer Institute (USA)
2009 - present **Member**, Head and Neck Cancer Previously Untreated, Locally Advanced (PULA) Task Force, United States.
2009 - present **Chair**, Head and Neck PULA Sub-committee on QOL/Outcomes, United States.

Trans-Tasman Radiation Oncology Group
2002 - 2007 **Member**, Trial Management Committee, Phase III Randomized Trial of Concomitant Radiation, Cisplatin and Tirapazamine (SR 259075) versus Concomitant Radiation and Cisplatin in Patients with Advanced Head and Ne, Australia. *(International trial run jointly by the Trans-Tasman Radiation Oncology Group and Sanofi-Synthelabo/Sanofi-Aventis, France).*

Trans-Tasman Radiation Oncology Group (TROG)
2002 - 2007 **Quality of Life Coordinator**, Phase III Randomized Trial of Concomitant Radiation, Cisplatin and Tirapazamine (SR 259075) versus Concomitant Radiation and Cisplatin in Patients with Advanced Head and Neck Cancer: “HEADSTART”, Australia. *(International trial run jointly by the Trans-Tasman Radiation Oncology Group and Sanofi-Synthelabo/Sanofi-Aventis, France).*

NATIONAL
Canadian Association of Radiation Oncologists
2004 - 2005 **Member**, Outcomes Working Group

Canadian Cancer Society Research Institute (CCSRI)
2013 Sep - 2016 Sep End 3 Development Committee - Quality of Life, Canada.
2013 Jul 1 - 2016 Jul 1 Advisory Council on Research (ACOR), Canada.

Canadian Centre for Applied Research in Cancer Control (ARCC)
2009 - present **Member**, Centre for Applied Research in Cancer Care (Health Economics, Services, Policy and Ethics), Canada.
2009 - 2010 Jun **Co-Lead**, Patient and Families Programme *(with Dr. Richard Doll, UBC).*

National Cancer Institute of Canada/Clinical Trials Group
2006 - present **Co-Chair**, QOL Committee, Canada.
2005 - present **Member**, Quality of Life Committee, Canada.
Jolie RINGASH

2005 - present Member, Gastrointestinal Site Group Executive Committee, Canada.
2005 - 2006 Chair, QOL Committee Workshop Organizing Committee, Toronto, Ontario, Canada.

NCIC Clinical Trials Group
2015 Sep 1 - 2018 Aug 31 Strategic Executive Advisory Council (SEAC), Canada.

PROVINCIAL / REGIONAL

Cancer Care Ontario
2014 Dec 10 - 2016 Jul Gastrointestinal Disease Site Group (Co-Chair, Radiation Oncology), Ontario, Canada.
2014 Sep 9 - 2016 Sep 30 Survivorship Advisory Committee, Canada.
2013 Mar 15 - 2016 Jul Gastrointestinal Disease Site Group, Ontario, Canada.

Cancer Care Ontario (CCO)
2011 Sep - present Co-Investigator, ON-PROS: Provincial Initiative to Incorporate Patient Reported Outcomes in Routine Clinical Care, Toronto, Ontario, Canada.

Ontario Institute for Clinical Evaluative Sciences (ICES)
2001 - 2002 Member, PET Advisory Committee, Ontario, Canada.

LOCAL

Hamilton Regional Cancer Centre
1995 - 1996 Member, Quality Assurance Committee

McMaster University
1996 - 1997 Member, Radiation Oncology Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Hamilton, Ontario, Canada.

Princess Margaret Cancer Centre
Director, Site Group Leader, Palliative Radiation Oncology Programme

Princess Margaret Hospital
2012 May - present Head and Neck Cancer Translational Research Executive Committee, Toronto, Ontario, Canada.
2011 Sep - present Medical Lead, Head and Neck Cancer Survivorship Programme, Toronto, Ontario, Canada.
2006 - 2007 Member, Radiation Oncology Partners’ Executive Committee
2005 - 2008 Manager, Department of Radiation Oncology Partners Social Fund
2003 - 2007 Chair, Data Safety Monitoring Board

Residency Programme
2007 Apr 16 Royal College programme review, Faculty of Medicine, Dept of Medicine, Oncology (Medical), Postgraduate MD, Canada.

The Princess Margaret Cancer Centre
2014 Jul 1 - 2015 Feb 1 Site Lead, Palliative Radiation Oncology Programme
University Health Network

2011 Sep - present  **Member**, Biobank Disease Management Committee, Gastroesophageal Cancer
2006 Jul - 2010 Jun  **Coordinator**, Medical Oncology Resident Radiation Oncology Rotation, Faculty of Medicine, Dept of Medicine, Oncology (Medical), Postgraduate MD
2002 - 2003  **Chair**, Radiation Medicine Programme Data Safety Monitoring/Serious Adverse Events Committee
2001 - 2006  **Member**, Department of Radiation Oncology Clinical Trials Committee
2001 - 2003  **Member**, Research Ethics Board (Oncology)
1999 - 2001  **Member**, Oncology Pharmacy Subcommittee
1999 - 2000  **Member**, Lung/Thoracic Oncology Site Group Quality Team

University of Toronto

2006 - present  **Member**, Clinical Epidemiology Institute (CME event) Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Continuing Education
2003 - present  **Member**, Clinical Epidemiology Program Executive Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2002 - present  **Member**, Clinical Epidemiology Graduate Programme Admissions Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2013 Jul - 2016 Jun 30  Appeals Committee, Faculty of Medicine, Multilevel Education, Toronto, Ontario, Canada.
2009 - 2010 Jun  **Dept. of HPME representative**, Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2008  **Member**, Medical Radiation Sciences MHSc Admissions Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education
2007  **Member**, Search Committee for Chair, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Multilevel Education
2006 Jul - 2010 Jun  **Associate Programme Director**, Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2006 Jul - 2010 Jun  **Member**, Curriculum Committee, Clinical Epidemiology Programme, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2006 Jul - 2010 Jun  **Member**, Faculty Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2006 - 2010 Jun  **Chair**, Clinical Epidemiology Graduate Programme Admissions Committee, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Graduate Education
2006 - 2007  **Member**, Medical Oncology Residency Education Committee, Faculty of Medicine, Dept of Medicine, Oncology (Medical), Postgraduate MD
2005 Jul - 2010 Jun  **Member**, Academic Board of the Governing Council
2005 Jul - 2010 Jun  **Member**, Faculty Council, Faculty of Medicine, Multilevel Education
2005 - 2007  **Member**, Division of Medical Oncology Fellowship Programme Committee, Faculty of Medicine, Dept of Medicine, Oncology (Medical), Postgraduate MD
2005 - 2006  **Member**, Department of Radiation Oncology Graduate Executive Committee, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education
2005 - 2006  **Member**, Department of Radiation Oncology Full Time Clinical Appointment Committee
2003 Jul - 2006 Dec  Co-Course Supervisor, HAD 5301 Introduction to Clinical Epidemiology, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology, Graduate Education, Toronto, Ontario, Canada.
2003 - 2006  **Member**, Department of Radiation Oncology Executive Committee
2001  **Member**, Radiation Oncology Clinical Epidemiology Working Group
2000 - 2001  **Member**, Oncology II Ethics Committee
Peer Review Activities

ASSOCIATE OR SECTION EDITING

Editor
2015 Jan - present International Journal of Radiation Oncology, Biology and Physics, Head and Neck Section

EDITORIAL BOARDS

Member
2013 Jan 1 - 2015 Dec 31 Journal of Clinical Oncology

Member
2007 - 2010 Medical Decision Making
2003 - 2011 European Journal of Cancer

GRANT REVIEWS

External Grant Reviewer
2013 Nov 4 US NCI Head and Neck Cancer Site Steering Committee, External expert requested for QOL review of major multi-centre clinical trial: RT0G 1333: A Randomized Phase II Trial for Patients with p16 Positive, Non-Smoking Associated, Locoregionally Advanced Oropharyngeal Cancer, Number of Reviews: 1

2012 Jun 13 - 2013 Jun 14 P01 Special Emphasis Panel Review Meeting, National Institute of Health (USA) National Cancer Institute, Number of Reviews: 10

2004 Canadian Institutes of Health Research, Randomized Controlled Trials Grant

Reviewer
2015 Apr 1 - 2015 May 8 European Organization for Research and Treatment of Cancer (EORTC), EORTC Protocol Review Committee - special invited reviewer (Quality of Life), Number of Reviews: 1

2013 Jun 4 Canadian Cancer Society - Research Institute Innovations Grant Competition, Number of Reviews: 11

2011 - 2012 Canadian Cancer Society Research Institute, Innovation grant competition

2006 - 2010 University of Toronto, Faculty of Medicine Research Grants Committee

2005 - 2006 Canadian Breast Cancer Research Initiative, Development & Exploratory Grant Review Board

2001 - 2003 National Cancer Institute of Canada, Annual Grant Competition

Associate Chair

2008 University of Toronto, Faculty of Medicine Research Grants Committee

Chair

2009 - 2010 University of Toronto, Faculty of Medicine Research Grants Committee

MANUSCRIPT REVIEWS

Reviewer
2011 - present British Medical Journal
1999 - present American Journal of Cancer
1999 - present Cancer
1999 - present Clinical Oncology
1999 - present European Journal of Cancer
Jolie RINGASH

1999 - present Evidence Based Medicine
1999 - present Head & Neck
1999 - present International Journal of Radiation Oncology, Biology and Physics
1999 - present Journal of Clinical Oncology
1999 - present Journal of General Internal Medicine
1999 - present Medical Care
1999 - present Medical Decision Making
1999 - present Quality of Life Research
1999 - present Radiotherapy and Oncology
1999 - present Values in Health

PRESENTATION REVIEWS
poster & oral presentation judge
2012 Oct 17 - 2012 Oct 19 EORTC 3rd annual conference on Quality of Life and Symptoms in Clinical Trials, Number of Reviews: 16

ABSTRACT REVIEWER
Reviewer
2013 Mar - 2014 Aug Canadian Association for Radiation Oncology (CARO), Number of Reviews: 80
2012 Sep - 2012 Sep 30 European Organization for Research and Treatment of Cancer, EORTC QOL in Clinical Trials Conference, Number of Reviews: 20

Other Research and Professional Activities

RESEARCH, TEACHING, INTERNATIONAL COLLABORATION
Travel & academic visits in Africa, Australia and Bhutan.

TRACK CO-CHAIR FOR FUNCTIONAL AND QUALITY OF LIFE RESEARCH
2015 Apr 1 - 2016 Jul 21 Track Co-Chair. Track Co-Chair. American Head and Neck Society 9th International Meeting, Seattle, Washington, United States. Collaborator(s): Kate Hutcheson (Co-Chair); Drs. Robert Ferris and Jonathan Irish, meeting co-Chairs. Responsible with co-Chair Kate Hutcheson of developing a plenary symposium of international invited (funded) speakers; integrating speakers knowledgeable in this area into main sessions (panels, educational sessions, research presentations, etc) to provide the functional/QOL perspective; and developing 5 educational courses related to functional/QOL issues; attended the meeting as track co-chair to insure smooth functioning of the planned events; spoke/chaired at several of the sessions, including co-Chairing the track Plenary.

C. Academic Profile

1. RESEARCH STATEMENTS
My primary research goal is to define, measure and improve the quality of life and health utility of patients with neoplasms of the head and neck. Advances in radiotherapy techniques and the advent of combined modality treatment have led to significant improvements in survival and local control of head and neck tumours over the past eight years. However, more intense treatment leads to a worsening of acute and late toxicities. Recent recognition of the excellent prognosis of human papillomavirus (HPV)-associated cancers has led to interest in de-intensification. Quality of life (QOL) questionnaires and utility measures can be used to determine the patients’ perspectives on the value of their treatment and well-being. Measurement of QOL along with local control and survival outcomes can lead to a better understanding, and hopefully improvement, of the therapeutic ratio of treatment strategies for head and neck neoplasms.

My QOL research has focused on the development, validation and evaluation of instruments suitable for measuring QOL and utilities in this specialized population, including a novel instrument designed to measure the QOL impact of enteral feeding during head and neck cancer therapy. I have measured the information needs of patients, the attitudes of nasopharyngeal cancer specialists toward QOL, and the clinical significance of changes in QOL and utility scores. I have also written a systematic review of all QOL instruments available for head and neck cancer patients, and am currently involved in systematic review of the QOL results according to treatment strategy.

As a result of my programme of research, I have been invited to be a methodology consultant and have been influential as a proponent of QOL research for head and neck cancer. I was appointed as inaugural Chair of the Outcomes subcommittee of the Previously Untreated, Locally Advanced (PULA) focus group within the U.S. NCI Head and Neck Cancer Group in 2009, and additionally serve as a member of PULA. This Outcomes committee consists of recognized experts and has recently drafted a manuscript outlining the recommended patient- and clinician- reported instruments for outcome assessment in head and neck cancer.

I have served as QOL coordinator and a member of the Trial Management Committee on a major international head and neck cancer clinical trial, the “HEADSTART” trial, conducted jointly by the Trans-Tasman Radiation Oncology Group (TROG) and Sanofi-Aventis [Phase III randomized trial of concomitant radiation, cisplatin and tirapazamine (SR259075) versus concomitant radiation and cisplatin in patients with advanced head and neck cancer]. We are currently in the process of publishing this data. It will be the first large randomized head and neck cancer trial (850 patients) to report QOL for patients treated with concurrent chemoradiotherapy. I am also currently the QOL coordinator for randomized trials in Canada (the recently closed HD.6) and in the USA (RTOG 1016, ECOG 3311), looking at the role of EGFR inhibitors in the treatment of head and neck cancer, particularly HPV-related oropharynx cancer.

As a practicing head and neck radiation oncologist, I combine an understanding of the highly technical aspects of modern therapy with methodologic expertise in outcomes measurement. This has helped me to introduce QOL methodology into the clinical and research setting locally and internationally. I have taught extensively in this area and have mentored trainees and peers.

My secondary research goal is to improve the frequency and methodology of health outcome measurement for patients with cancer. In recent years, the health care professions, governmental agencies and patient advocacy groups have realized the value of assessing additional outcomes besides survival. Access to and quality of care, the efficacy of new technology, continuous quality enhancement, acute and late toxicity, cost-utility assessments and patient reported outcomes are all examples of outcomes of interest. Creative sources of data, such as the use of administrative databases, may be required to answer outcomes-oriented research questions. Structured reviews and evidence-based guidelines are tools for dissemination of research results to hopefully close the loop and bring change to clinical
I am currently a co-applicant of the CCS-RI grant supporting a centre for Applied Research in Cancer Control (ARCC), a national collaboration emphasizing the interplay of economics, ethics, and policy in cancer care.

I have a broad understanding of outcomes assessment and have taught frequently on this topic. My research has focused primarily on patient reported outcomes, toxicity and medical decision-making. I have participated in population-based research on the outcomes of screening mammography and was the principal author of a national practice guideline on the same topic. I have also studied technology assessment for diagnosis, treatment and target definition (ultrasound and PET), and the value of new technology in radiotherapy delivery (conformal radiotherapy and IMRT). I have successfully attracted a number of international fellows and graduate students who have presented and published work completed under my supervision, and who will disseminate their expertise throughout the world.

My tertiary research goal is to improve the therapeutic ratio for patients requiring upper abdominal radiotherapy for stomach cancer; I have developed and published novel treatment techniques designed to reduce acute toxicity, including conformal and IMRT techniques, and am currently completing the phase II portion of a phase I/II study of novel chemoradiotherapy with IMRT in this disease. I was also among the first to demonstrate the effectiveness of adjuvant radiotherapy outside of a clinical trial. This research programme has led to a major ongoing project investigating the link between radiotherapy technique, late toxicity, and QOL in cancer survivors, and to a leadership position in a planned phase III international randomized trial of adjuvant therapy in gastric cancer (TROG-AGITG “TOPGEAR”/NCIC-CTG GA.1).

Beyond my primary clinical areas of focus, head and neck and gastrointestinal malignancy, I have served as a consultant and collaborator with colleagues interested in outcomes within other areas of oncology and within health care generally. I am regularly contacted by physicians elsewhere in North America and the world for advice regarding the measurement of treatment outcomes in clinical research. I am currently QOL coordinator for 4 internal, 1 national and 3 international trials. I have been a member of the NCIC-CTG QOL committee since 2005, and was named co-Chair of this committee in August 2006. In June of 2006, I participated as a representative of the NCIC-CTG QOL committee in a special meeting with members of the U.S. Food and Drug Administration on regulatory guidance for the use of patient reported outcomes (such as QOL) in research. Since 2008, I have been an international advisor and collaborator on an international initiative by the EORTC to retrospectively analyze pooled QOL data from EORTC and NCIC-CTG trials.

2. TEACHING PHILOSOPHY

Educational Endeavors

1. To provide international and national leadership in the assessment of quality of life for patients with head and neck neoplasms
   i. To educate regarding the importance of QOL and to promote inclusion in clinical trials
   ii. To improve and develop the methodology of QOL and utility research at levels appropriate to training by working with a broad spectrum of students from the undergraduate, graduate, post-graduate and clinician levels
   iii. To improve the quality of assessment and reporting of patient-related outcomes in head and neck cancer through research presentations and continuing medical education

2. To provide international and national leadership in outcome assessment, both in oncology and, through the clinical epidemiology programme, within related health fields and professions
   i. To promote the assessment of health outcomes and advance the profile of health outcomes research within oncology
   ii. To provide mentorship and collaborative opportunities to trainees and practicing oncologists interested in
developing skills in health outcome assessment

iii. To educate the community and government stakeholders regarding the value of population-based interventions and new medical technologies

3. To promote an interest and understanding of radiotherapy at the undergraduate level by providing undergraduate electives in radiation oncology

4. To provide mentorship and research experience to junior radiation oncologists by supervising radiation oncology residents and fellows

5. To encourage participation in research by allied health professionals by providing opportunities for research mentorship and collaboration.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2014 Apr - present **Co-Principal Investigator.** Development and pilot evaluation of a rehabilitation consult for survivors of head and neck cancer. CCS-RI Innovation Grants. PI: McEwen, Sara and **Ringash, Jolie.** Collaborator(s): Davis, Aileen; Jones, Jennifer; Martino, Rosemary; Poon, Ian; Rodriguez Ana Maria. 199,930 CAD. [Grants]

Survivors of head and neck cancer (HNC) can have rehabilitation needs different from those of other cancer survivors, such as problems with swallowing, speech, sensation and cognitive function. Dr. McEwen proposes a pilot study of an intervention that incorporates a rehabilitation consultant into aftercare for HNC patients, to better identify the patients’ special needs and assign a customized personalized rehabilitation plan to aid their recovery and improve their quality of life. She will design this intervention after consultation with patients and their doctors and others involved in their care. The intervention has the potential to be used more broadly with different cancers.


International trial to evaluate the role of transoral resection/robotic surgery in good prognosis oropharyngeal cancer.

2011 Jun - present **Co-Chair QOL.** RTOG 1016: Phase III trial of radiotherapy plus cetuximab versus chemoradiotherapy in HPV-associated oropharynx cancer. Radiotherapy Oncology Group. PI: Trotti A, Gillison M. Collaborator(s): Co-Chair, Quality of Life: **Ringash J.** [Clinical Trials]

Per case funding.


Secondary analysis of QOL data from pooled dataset of all baseline QOL data obtained from closed clinical trials from EORTC and NCIC-CTG.
2007 Dec - present  **QOL Coordinator.** NCIC HN.6: A phase III study of standard fractionation radiotherapy with concurrent high-dose cisplatin versus altered fractionation concomitant boost radiotherapy with panitumumab in patients with locally advanced stage III and IV squamous cell carcinoma of the head and neck. National Cancer Institute of Canada (NCIC). CTG Trial. PI: Siu L, Waldron J. Collaborator(s): Quality of Life Coordinator: Ringash J. [Clinical Trials]

Per-case funding.


$185,000 over 3 years.


*Randomized trial of best supportive care with or without single fraction radiotherapy for palliation of pain or discomfort due to liver cancer.*


*NCIC-CTG grant application; Mar 1, 2014 to Feb 28, 2019.*

2013 Sep - 2014 Aug  **Co-Principal Investigator.** Developing a model for an integrated rehabilitation consultation process with survivors of head and neck cancer. University of Toronto Faculty of Research Grants. Grant Miller Fund. PI: McEwen, Sara and **Ringash, Jolie**. Collaborator(s): Davis, Aileen; Jones, Jennifer; Martino, Rosemary. 24,465 CAD. [Grants]

*Development of a novel role, rehabilitation navigator, for survivors of head and neck cancer after completion of treatment.*


*Pilot study of intensified assessment and treatment by a speech language pathologist before, during and after concurrent curative chemoradiotherapy for head and neck cancer, to assess potential impact on duration of enteral feeding and associated costs.*

2013 Feb - 2015 Jan  **Principal Investigator.** Exploring the Unmet Survivorship Needs in Patients with Head and Neck Cancer. Princess Margaret Hospital Foundation (The). Collaborator(s): Catton, Pamela;
Cheng, Terry; Giuliani, Meredith; Jones, Jennifer; McQuestion, Maurene; Waldron, John. 175,866 CAD. [Donations]

Cross-sectional mixed-methods assessment of comprehensive survivorship needs in head and neck cancer survivors and their caregivers (survey and qualitative interviews).

2013 Jan - 2017 Dec

The goal of this project is to evaluate the effectiveness of preoperative chemoradiotherapy versus preoperative chemotherapy for the management of resectable gastric cancer. This randomized trial is conducted in collaboration between NCIC-CTG, TROG and AGITG.

2012 Oct - 2015 Mar

Co-Principal Investigator. Measures of Work Productivity for Cancer Survivors who Return to Work. Canadian Centre for Applied Research in Cancer Control (ARCC) Centre (funded by CCSRI). ARCC Funding Competition 2012. PI: Dewa, Carolyn; Jones, Jennifer; Ringash, Jolie. Collaborator(s): Hoch, Jeffrey; McQuestion, Maurene. 46,648 CAD. [Grants]
Cross-sectional pilot mixed-methods study comparing 4 instruments for assessment of work productivity to determine which is most acceptable and valid in head and neck cancer survivors.

2012 - 2019

Co-Investigator. NCIC-CTG GA.1/TROG-AGITG “TOPGEAR”: Phase III trial of neoadjuvant chemoradiotherapy vs chemotherapy alone, followed by surgery and adjuvant chemotherapy, in potentially resectable gastric cancer. Canadian Institutes of Health Research (CIHR), NCIC-Clinical Trials Group (Canada), Trans-Tasman Radiation Oncology Group (Australia/NZ). CIHR operating grants. PI: Leung T (Australia), Wong R (Canada). Collaborator(s): Quality of Life Coordinator (Canada): Ringash J. 2,664,529 CAD. [Clinical Trials]
Phase III international clinical trial in collaboration between Australia/New Zealand, Europe and Canada.

2011 Sep - 2018 Sep

Canadian component of phase III international clinical trial in collaboration between Australia/New Zealand, Europe and Canada.

2011 - 2015


2010 Aug - 2015 Feb

$6,445,910 (in 1st year).

2010 - 2011

Co-Investigator. A Phase I/II study of high dose rate brachytherapy for the palliation of rectal cancer. Canadian Radiation Oncology Foundation. PI: Wong KSR. Collaborator(s): Bayley A,
Sanofi – Aventis Research Innovation Award CASARIA 2010 – 2011.

2009 - 2014  

2009 - 2012  

2009 - 2012  

2009 - 2012  
(CIHR $357,495, partner Bayer HealthCare Pharmaceuticals $572,000).

2009 - 2011  

2008 - 2012  
QOL Coordinator. Phase I/II Trial of Radiation Therapy and Sorafenib for Treatment of Unresectable Liver Metastases. University of Toronto. PI: Dawson LA. Collaborator(s): Quality of Life Coordinator: Ringash, J. [Clinical Trials]

2007 - 2010  
QOL Co-Coordinator. A Multi-Institutional Phase II Study of Neoadjuvant Gemcitabine and Oxaliplatin with Radiation Therapy in Patients with Pancreatic Cancer. PI: Zalupski M. Collaborator(s): Co-Quality of Life Co-Coordinators: Ringash J, Wei A. [Clinical Trials]

2007 - 2010  

2003 - 2006  

2003 - 2004  
Jolie RINGASH


2000 - 2002 **Site Investigator.** NCIC SC.18: Phase III double-blind, placebo-controlled randomized comparison of megestrol acetate (Megace) versus an N-3 fatty acid (EPA) enriched nutritional supplement versus both for the treatment of cancer cachexia and anorexia (closed). National Cancer Institute of Canada (NCIC). PI: MacDonald J. Collaborator(s): Institutional Principal Investigator (Princess Margaret Hospital): **Ringash, J.** [Clinical Trials] Clinical Trials Group (NCIC-CTG) Trial. Per-case funding.

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2012 - present **Co-Investigator.** Risk factors associated with distant metastatic disease in patients with head and neck squamous cell carcinoma. University of Toronto. PI: Jaskolka J. Collaborator(s): **Ringash J,** Kotecha S. [Clinical Trials]

2005 - present **Principal Investigator.** Conformal abdominal radiotherapy: long-term renal and hepatic toxicity and quality of life. University of Toronto. Department Radiation Oncology. [Clinical Trials]

2005 - present **Co-Investigator.** Analysis of Single Nucleotide Polymorphisms in Patients with and without Swallowing Dysfunction, following Radical Radiotherapy for Head and Neck Cancer: A Pilot Study. University of Toronto. PI: Kim J, Liu F-F. Collaborator(s): Quality of Life Coordinator: **Ringash, J.** [Clinical Trials]


2002 - present **Principal Investigator.** Prospective phase I/II study of adjuvant radiochemotherapy for gastric cancer. University of Toronto. Department Radiation Oncology. [Clinical Trials]

2009 - 2011 **Co-Investigator.** Psychosocial Distress Screening among H&N Cancer Patients: a Pilot Study. University of Toronto. PI: de Ruiter J, Li M. Collaborator(s): **Ringash, J.** [Clinical Trials]

2009 - 2010 **Co-Investigator.** Functional and quality of life outcomes after mandibular reconstruction for osteoradionecrosis with osseocutaneous free flaps. University of Toronto. PI: Hofer S, Payne C. Collaborator(s): **Ringash, J.** [Clinical Trials]

2008 - 2010 **Principal Investigator.** Management and Outcome in Elderly Head and Neck Cancer Patients: A Single Institution Cohort Study. University of Toronto. [Clinical Trials]
<table>
<thead>
<tr>
<th>Year Range</th>
<th>Role</th>
<th>Description and Collaborators</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 - 2011</td>
<td>Co-Investigator</td>
<td>Translating Quality of Life (QOL) Data from Randomized Clinical Trials into Improved Patient Care: Oncologists’ Attitudes and Educational Needs around the Value, Interpretation and Application of QOL Data. PI: Brundage, Michael. Collaborator(s): Ringash, Jolie. [Clinical Trials]</td>
</tr>
<tr>
<td>2007 - 2010</td>
<td>Principal Investigator</td>
<td>Randomized Pilot Study of J- vs. G-tubes for Enteral Feeding in Head and Neck Cancer Patients. University of Toronto. [Clinical Trials]</td>
</tr>
<tr>
<td>2006 - 2010</td>
<td>Co-Principal Investigator</td>
<td>Auditing the Clinical Outcome Data for Head and Neck Radiotherapy Treatment. University of Toronto. Collaborator(s): Co-Principal Investigators: Ringash J, O'Sullivan B. [Clinical Trials]</td>
</tr>
<tr>
<td>2006 - 2008</td>
<td>Principal Investigator</td>
<td>IMRT for Cervical Esophageal Cancer. University of Toronto. [Clinical Trials]</td>
</tr>
<tr>
<td>2005 - 2011</td>
<td>Co-Investigator</td>
<td>Impact of CN11 reconstruction on shoulder dysfunction and QOL of H&amp;N cancer patients. University of Toronto. PI: Goldstein D, Davis A. [Clinical Trials]</td>
</tr>
<tr>
<td>2005 - 2011</td>
<td>Principal Investigator</td>
<td>Non-respiratory Organ Motion Assessment by Cine MRI in Upper Abdomen in Normal Conditions and After Pharmacological Gastric Peristalsis Inhibition in Healthy Volunteers. University of Toronto. [Clinical Trials]</td>
</tr>
</tbody>
</table>
| 2005 - 2007 | Principal Investigator     | Development of a Quality of Life (QOL) Module for Nasopharyngeal Cancer (NPC). Collaborator(s): Principal Investigators: Zee BCY, Tung SY, Ringash J. [Clinical Trials]  
Joint initiative of Hong Kong and Toronto investigators. |
| 2004 - 2008 | Principal Investigator     | Quantification of organ motion and set-up error during conformal radiotherapy of gastric carcinoma. University of Toronto. [Clinical Trials] |
| 2003 - 2010 | QOL Coordinator            | Phase I/II trial of Stereotactic Radiotherapy for Unresectable Colorectal Cancer Liver Metastases and Hepatobiliary Carcinoma. University of Toronto. PI: Dawson L.A. Collaborator(s): Quality of Life Coordinator: Ringash, J. [Clinical Trials] |
| 2003 - 2005 | Co-Investigator            | Prognosis of endometrial cancer in HNPCC vs. sporadic patients. University of Toronto. PI: Kieser K, Gallinger S. Collaborator(s): Ringash, J. [Clinical Trials] |
| 2002 - 2011 | QOL Coordinator            | Intensity Modulated Radiotherapy (IMRT) for Nasopharyngeal Cancer. University of Toronto. PI: Bayley A. Collaborator(s): QOL coordinator: Ringash, J. [Clinical Trials] |
2. SALARY SUPPORT AND OTHER FUNDING

Philanthropic Program Support


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


This phase III randomized controlled trial was among the first trials in head and neck cancer to adopt a strategy of toxicity reduction, attempting to identify treatment strategies associated with lower survivorship burden. The combination of the EGFR-inhibitor panitumumab with altered-fractionation radiotherapy was hypothesized to improve progression-free survival over the current standard, high dose cisplatin with concurrent standard fractionation radiotherapy. Quality of life, swallowing experience and observer-rated swallowing function were important secondary trial endpoints. While this study failed to show a significant benefit for the primary PFS endpoint, perhaps more importantly it also failed to demonstrate any functional or QOL benefit to the novel and expensive agent, leading to a recommendation that treatment should not change until a more effective and/or lower toxicity drug is available.


This manuscript presents a subgroup analysis of the international phase III randomized trial lead by the Trans-Tasman Radiation Oncology Group. As both treatment arms of the trial produced equivalent survival and quality of life results, a subgroup of patients with known p16/HPV status were pooled across arms, and quality of life was examined according to p16/HPV status. This paper is the first clinical trial report of a dramatically differing quality of life experience among patients with HPV-associated squamous cell carcinomas, relative to their peers with smoking and alcohol-associated cancers. Patients with HPV-associated cancer had better baseline quality of life but had a more severe and abrupt drop on treatment, with subsequent recovery. This paper suggests the need to develop better supportive care strategies and reduce the toxicity of treatment for this good-prognosis subgroup of head and neck cancer patients.


This paper reviewed the current state of late toxicities, survivorship and non-cancer related death issues for head and neck cancer patients, and outlined areas of current need for research and programme development.

This paper was written under the auspices of the Head and Neck Cancer Steering Committee of the US NCI, and presents guidelines for validated and accepted tools for measuring functional and quality of life outcomes in patients with head and neck cancer.


This paper presents the quality of life results from a major phase III randomized trial led by the NCIC-CTG, and demonstrated unequivocably that the addition of a new agent to cetuximab in patients undergoing palliative chemotherapy for K-RAS wild-type, heavily-pretreated colorectal cancer worsened quality of life.


This paper reported the pain relief and quality of life results for patients with symptomatic liver tumours treated with a single fraction of palliative radiotherapy in a single institution, single-arm phase II trial. The favourable results of this study led directly to the current CCTG phase III randomized trial He.1, comparing single fraction radiation to best supportive care for such patients.


This paper represents the culmination of a 7 year process in which we developed a new QOL instrument suitable for measuring the effects of enteral feeding. This instrument has now been accepted as a member of the FACIT/FACT (Functional Assessment of Chronic Illness Therapy/Functional Assessment of Cancer Therapy) suite of instruments, and has been requested for use by several investigators nationally and internationally.


This report was one of the first to provide prospective QOL data acquired in a head and neck cancer clinical trial. We were able to show that intensified radiotherapy could be given with excellent clinical outcomes, and despite some degree of increased acute toxicity, with good overall QOL results.


This paper incorporated both original data and literature review to propose a “rule of thumb” for the interpretation of the significance of QOL data. It led to several similar suggested “rules” and recognition by the QOL community that improving the understandability of our data is critical to the future use of QOL for decision-making at all levels.
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Jolie RINGASH

13. McEwen S, Rodriguez AM, Martino R, Poon I, Dunphy C, Rios JN, Ringash J. “I didn’t actually know there was such a thing as rehab”: Survivor, family, and clinician perceptions of rehabilitation following treatment for head and neck cancer. Supportive Care in Cancer. 2015 Nov 18. Co-Principal Author.


58. De Almeida JR, Vescan AD, Gullane PJ, Gentili F, Lee JM, Lohfeld L, Jolie Ringash, Thom A, Witterick IJ. Development of a Disease-Specific Quality of Life Questionnaire for Anterior and Central Skull Base Pathology - The Skull Base Inventory (SBI). Laryngoscope. 2012 Sep 1;122(9):1933-1942 (Trainee publication, Dr. John De Almeida, ENT Surgery Resident/MSc candidate, Canada). Coauthor or Collaborator.


96. Taremi M, Ringash J, Dawson LA. Upper Abdominal Malignancies: Intensity-Modulated Radiation Therapy, in IMRT, IGRT, SBRT – Advances in the Treatment Planning and Delivery of Radiotherapy. Front Radiat Ther Oncol. 2007;40:272-288 (Trainee publication, Dr. Moji Taremi, Radiation Oncology resident (co-supervised with Dr. Laura Dawson)). Coauthor or Collaborator.


Book Chapters


Editorials


Commentaries

Letters to Editor


In Preparation


Theses


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters

1. Stomach Cancer. In: Oncology Course Notes for the Radiation Sciences Students (Radiation Therapy) of the Medical Radiation Sciences Program at the University of Toronto. 2002. Principal Author.

In Preparation

1. Ringash J. Time trade-off per day or per lifetime? a comparison of two utility assessment methods. Principal Author.


### 4. SUBMITTED PUBLICATIONS

**Journal Articles**


Jolie RINGASH


Manuscript


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Education).


2013 Oct 19 Invited Speaker. Influencing Policy and Practice: Case Studies Across the Cancer Care Continuum. Society for Medical Decision Making. Baltimore, Maryland, United States. Presenter(s): Claire Snyder (Chair), Deborah Kamin, Electra Paskett, Jolie Ringash, Robert Smith. Dinner symposium with presentations and panel discussion.


2011 Sep Speaker. NCIC-CTG QOL Committee: Update and Results. EORTC PROBE QOL Committee. Brussels, Belgium. Presentation to international QOL experts of advisory committee (15) and graduate students (4). (Continuing Education).

2011 Apr Invited Speaker. QOL and Clinical Trials in 2001. The Trans-Tasman Radiation Oncology Group, Annual Scientific Meeting. Adelaide, Unknown, Australia. guest speaker for meeting, lecture to about 200 radiation oncologists from Australia and New Zealand. (Continuing Education).


2009 Mar Speaker. NCIC-CTG QOL Committee: Update and Results. PROBE meeting, EORTC QOL Group. Brussels, Belgium. (Continuing Education).


2009 Panelist. Treatment Morbidities and Survivorship. The International Academy of Oral Oncology, 2nd World Congress. Toronto, Canada. (Continuing Education).


2008

**Invited Speaker.** The NCIC-CTG QOL Committee. PROBE meeting, EORTC QOL Group. Brussels, Belgium. Lecture to international advisory board of oncologists and cancer researchers. (Continuing Education).

2005


2005

**Co-chair.** Therapeutic Challenges in Nasopharyngeal Carcinoma. East-West Symposium on Nasopharyngeal Carcinoma. Toronto, Canada.

2004

**Visiting Professor.** Putting the Quality in Quality of Life. Pamela Youde Nethersole Eastern Hospital Cancer Centre. Hong Kong, China.

2003 Mar


2003

Quality of Life Measurement for Radiation Patients. Radiation Oncology Update for Therapists. Houston, United States.

2002


2002


2002


2002

Tirapazamine in Head and Neck Cancer: Quality of Life Assessment in the EFC4690 Trial. TROG investigators’ meeting. Sydney, Australia.

2002


2002

**Co-Chair.** Workshop #2: Standards for Reporting QOL. 6th International Conference on Head and Neck Cancer. McLean, United States.

**Presented Abstracts**

2016 Sep 25


2016 Sep 25


2016 Sep 25


2014 Oct 17

**Presenter.** Routine Clinical Quality of Life Measurement for Head and Neck Cancer Patients: Example from a Province-wide Oncology Initiative. International Society for Quality of Life Research. Berlin,

2004  Twice-daily radiation for head and neck cancer: Impact of enteral feeding. ISOQOL. Hong Kong, China.


2003  **IMRT for adjuvant radiation in gastric cancer: a preferred plan?** American Society for Therapeutic Radiology and Oncology (ASTRO). Salt Lake City, United States.


1999  Utility assessment for laryngeal cancer patients: time trade-off per day or per lifetime? Society for Medical Decision Making (SMDM). Reno, United States.

**Presented and Published Abstracts**


*Publication Details:*

2016 Apr 29  **not a presenter.** The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. European Society for Therapeutic Radiology and Oncology (ESTRO). Milan, Italy.

*Publication Details:*

2016 Apr 29  **not a presenter.** Impact of Comorbidity, Polypharmacy and HPV status in Elderly Patient with Oropharyngeal Cancer. European Society for Therapeutic Radiology and Oncology (ESTRO). Milan, Italy.
Presenter(s): Caparrotti F.

**Publication Details:**


**Publication Details:**

2016 Feb 25 **not a presenter.** Dysphagia intervention for patients with head and neck cancer treated with radiotherapy with or without chemotherapy: A systematic review. Dysphagia Research Society. Tucson, Arizona, United States. Presenter(s): Elissa Greco. poster presentation. (Trainee Presentation)

**Publication Details:**
Greco E, Simic T, **Ringash J, Tomlinson G, Martino R.** Dysphagia intervention for patients with head and neck cancer treated with radiotherapy with or without chemotherapy: A systematic review. Coauthor or Collaborator.


**Publication Details:**
Fu T, ... **Ringash J.**... Witterick I. Neoadjuvant radiation improves margin status compared to adjuvant radiation among patients with non-squamous cell carcinoma sinonasal malignancies. Coauthor or Collaborator.

2016 Jan 21 **supervisor, not a presenter.** Prospective evaluation of quality of life (QOL) during a phase I/II study of adjuvant chemotherapy with image-guided high-precision radiotherapy for completely resected gastric cancer. ASCO 2016 Gastrointestinal Cancers Symposium. San Francisco, California, United States. Presenter(s): Rebecca Goody. poster presentation. (Trainee Presentation)

**Publication Details:**
Goody R, ... **Ringash J.** Prospective evaluation of quality of life (QOL) during a phase I/II study of adjuvant chemotherapy with image-guided high-precision radiotherapy for completely resected gastric cancer. Senior Responsible Author.

2015 Dec 16 **not a presenter.** Impact of Comorbidity, Polypharmacy and HPV status in Elderly Patient with Oropharyngeal Cancer. ESTRO. Turin, Italy. Presenter(s): Francesca Caparrotti. ESTRO annual meeting.

**Publication Details:**

2015 Oct 18 **not a presenter.** Impact of Comorbidity, Polypharmacy and HPV status in Elderly Patient with Oropharyngeal Cancer. ESTRO.
Publication Details:

2015 Oct 18
Impact of surgical margins on outcomes in oral cavity squamous cell carcinomas following postoperative intensity modulated radiation therapy. Poster Discussion. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Hosni A.

Publication Details:

2015 Oct 18
Clinical outcomes following reirradiation in head and neck cancers in the intensity modulated radiation therapy era. Poster Discussion. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Ramasamy S.

Publication Details:

2015 Oct 18
Outcome predictors for major salivary gland carcinoma following postoperative radiation therapy. Poster Presentation. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Hosni A. (Trainee Presentation)

Publication Details:

2015 Oct 18
Cervical lymph node calcification on its own following radiation therapy is not predictive for neck recurrence in oropharyngeal carcinoma. Poster Presentation. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Rathod S.

Publication Details:

2015 Oct 18
Tumor size as prognostic factors in squamous cell carcinoma of the nasal vestibule. Poster Discussion. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Atean I.

Publication Details:
2015 Oct 18  
**Natural course following failure after definitive chemo-radiation therapy in HPV-related and HPV-unrelated oropharyngeal cancer.** Poster Presentation. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Rathod S.

*Publication Details:*  

2015 Oct 18  
**Reaffirming Metastatic Risk Profiles in Human Papillomavirus-related Oropharyngeal Cancer Following Definitive Radiation Therapy with or without Chemotherapy.** Poster Discussion. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): O’Sullivan B.

*Publication Details:*  

2015 Oct 18  
**Risk stratification for relapse in human papillomavirus-unrelated oropharyngeal carcinoma treated with definitive radiation therapy with or without chemotherapy.** Poster Presentation. American Society for Therapeutic Radiology and Oncology (ASTRO) 57th Annual Meeting. San Antonio, Texas, United States. Presenter(s): Huang SH.

*Publication Details:*  

2015 Oct 1  
**co-author, not a presenter.** Health benefits and incurred costs from early dysphagia intervention for patients receiving chemoradiotherapy for head and neck cancer: Preliminary findings. Dysphagia Society. Presenter(s): Rosemary Martino.

*Publication Details:*  

2015 Sep 8  
**co-author.** Neoadjuvant radiation improves margin status compared to adjuvant radiation among patients with non-squamous cell carcinoma sinonasal malignancies. North American Skull Base Society. United States. Presenter(s): Terence Fu. (Trainee Presentation)

*Publication Details:*  

2015 Jun 2  
**Presenter.** Quality of life (QOL) in a phase III randomized trial of standard fractionation radiotherapy (SFX) with concurrent cisplatin (CIS) versus accelerated fractionation radiotherapy (AFX) with panitumumab (PMab) in patients (pts) with locoregionally advanced squamous cell carcinoma of the head and neck (LA-SCCHN): NCIC Clinical Trials Group HN.6 (NCT00820248). ASCO 2015. Chicago, Illinois, United States. Presenter(s): Ringash J. Poster presentation.
Publication Details:

2015 Jun 1
Social media as a key tool to recruit rare disease patients for clinical researchers. SMDM meeting 2015.

Publication Details:

2015 Jun 1

Publication Details:

2015 Jun 1
Email communication practices and preferences among patients and providers in a large comprehensive cancer center. ASCO 2015. Chicago, Illinois, United States. Presenter(s): Cook N. Poster discussion presentation.

Publication Details:
Cook N, Ringash J, Kryzanowska M. Email communication practices and preferences among patients and providers in a large comprehensive cancer center. J Clin Oncol. 2015 May 20;33(15). suppl; abstr 6519. Coauthor or Collaborator.

2015 May 30

Publication Details:

2015 May 26

Publication Details:
Knox J, Brade A, Dawson L, Pintilie M, Mackay H. Concurrent Cisplatin/5FU/IGRT: High Survival, Low Late Toxicity for Post-operative Gastric Cancer Patients (Phase I/II Clinical Trial). 2015 Mar 6. **Principal Author.**

2015 Mar 1 Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. ASTRO 2015.

**Publication Details:**

2015 Mar 1 Postradiotherapy cervical lymph node calcification alone is not an adverse feature for neck recurrence in oropharyngeal carcinoma. ASTRO 2015.

**Publication Details:**


**Publication Details:**

2015 Feb 15 Outcomes following unilateral neck irradiation for oropharyngeal cancer stratified by HPV status. ICHNO. Feb 12-14, 2015 podium presentation.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2014 Sep 9 Potential Cure in HPV-related Oropharyngeal Cancer with Oligometastases. ASTRO 2014. abstract #1055, poster discussion.

Publication Details:


Publication Details:

2014 Sep 9 Patient-reported outcomes: Correlation of MDASI-HN and clinical support required for patients receiving curative head and neck chemoradiation therapy. ASTRO 2014.

Publication Details:

2014 Sep 9 Prospective Longitudinal Assessment of Quality of Life for Liver Cancer Patients Treated with Stereotactic Body Radiation Therapy. ASTRO 2014. abstract #2392.

Publication Details:

2014 Sep 9 Treatment Dilemmas forof Synchronous and Metachronous Prostate and Rectal Cancers. ASTRO 2014. abstract #2430, poster.

Publication Details:


Publication Details:

2014 Sep 9 Role of radiation therapy in management of nasal and sinonasal squamous cell carcinomas. ASTRO 2014. abstract #2841.

Publication Details:

Publication Details:


Publication Details:

2014 Apr 4 Definitive radiation therapy for advanced stage oral cavity squamous cell carcinoma. 2014 European Society for Therapeutic Radiology and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria. April 4-8, 2014 (poster).

Publication Details:

2014 Apr 2 Effect of completion-time windows in the analysis of health-related quality of life (HRQOL) outcomes in radiotherapy clinical trial. ASCO 2014.

Publication Details:

2014 Feb 4 Understanding the age-dependent cancer burden on pre-treated health-related quality of life of cancer patients using the EORTC QLQ-C30: A pooled analysis of randomized controlled trials. ASCO 2014.

Publication Details:


Publication Details:

2014 A Mapping Algorithm of Health Preferences from EORTC QLQ C30 to Health Utility Index Mark 3 (HUI3) in Advanced Colorectal Cancer. GI ASCO meeting. San Francisco. poster.

Publication Details:
Zalcberg J, Hoch J, Mittman N. A Mapping Algorithm of Health Preferences from EORTC QLQ C30 to Health Utility Index Mark 3 (HUI3) in Advanced Colorectal Cancer. 2013 Oct 31. **Coauthor or Collaborator.**

2014 Hypoxemia in Adult Patients with Dysphagia: Can it be reliably measured? Dysphagia Research Society.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2013 Oct A Randomized Controlled Trial of Lorazepam to Reduce Organ Motion in Patients Receiving Upper Abdominal Radiotherapy. ASTRO 2013. Atlanta.

**Publication Details:**

2013 Jun 17 Significance of baseline Quality of Life scores in predicting clinical outcomes in an international phase III trial of advanced pancreatic cancer: NCIC CTG PA.3.

**Publication Details:**


Publication Details:

2013 Jan 30 Outcomes following stereotactic body radiotherapy for patients with Child-pugh b/c hepatocellular carcinoma. ASCO GI meeting. San Francisco.

Publication Details:

2013 Health-related quality of life in head-and-neck cancer treated with radiation therapy with or without chemotherapy: A systematic review. ASTRO annual meeting 2013. Atlanta. abst 3053.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

*Publication Details:*


*Publication Details:*


*Publication Details:*

2012 Jun  Impact of p16 status on the QOL effects of chemoradiation for locally advanced oropharynx cancer: Results of TROG 02.02. ASCO 2012. Chicago, United States.

*Publication Details:*


*Publication Details:*

2012 Jan  P16 status does not influence the QOL effects of chemoradiation for locally advanced oropharynx cancer: Results of TROG 02.02. American Society for Radiation Oncology (ASTRO) Head & Neck Meeting. Phoenix, United States.

*Publication Details:*
Principal Author.

2012 Jan
Quality of life (QoL) assessment in patients (pts) with k-RAS wild-type (WT) chemotherapy refractory metastatic colorectal cancer (mCRC) treated with cetuximab (CET) + brivanib alaninate (BRIV) or placebo: Results of the NCIC clinical trials group and AGITG CO.20 trial. American Society of Clinical Oncology (ASCO) GI Meeting. San Francisco, United States.

Publication Details:

2012 Jan
Correlates Of Depression And Anxiety In Patients With Head And Neck Cancer Undergoing Radiation Therapy. American Society for Radiation Oncology (ASTRO) Head & Neck Meeting. Phoenix, United States.

Publication Details:

2012
Phase II trial of palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases. ASTRO 2012 meeting. Boston.

Publication Details:

2012
Joint modeling of longitudinal health-related quality of life data and overall survival. ISOQOL 2012.

Publication Details:

2012
The Added Clinical Value of Health-Related Quality of Life Research: Major Outcomes of the Pooled Analysis of Phase III Randomised Clinical Trials. ISOQOL 2012 meeting.

Publication Details:

2011 Oct

Publication Details:
2011 Oct

Publication Details:

2011 Sep
Is There Any Added Value in the Pooled Analysis of over 120 Large Scale Phase III Randomized Clinical Trials in Health Related Quality of Life? ECCO16-ESMO36-ESTRO30 European Multidisciplinary Cancer Congress. Stockholm, Sweden.

Publication Details:

2011 Jun
RTOG 1016 Dental Effects Health Scale and Dental Count Tools for Clinical Trials: Development and Opportunities for Validation and Utilization. MASSC.

Publication Details:

2011 May

Publication Details:

2011 A phase III study of cetuximab (CET) plus either brivanib alaninate (BRIV) versus placebo in patients with chemotherapy-refractory KRAS wild-type (WT) advanced colorectal cancer (aCRC): The NCIC CTG/AGITG CO.20 trial. American Society of Clinical Oncology (ASCO) Annual Meeting. Chicago. (Trainee Presentation)

Publication Details:
2011 Outcomes following sequential trials of stereotactic body radiotherapy (SBRT) for hepatocellular carcinoma (HCC). American Society of Clinical Oncology (ASCO) Annual Meeting.

Publication Details:


Publication Details:


Publication Details:

2010 Oct Clustering of Health-related Quality of Life (HRQOL) items in Metastatic Prostate Cancer Patients. 17th Annual Conference of the International Society for Quality of Life Research. London, United Kingdom.

Publication Details:

2010 May 25 Neuropsychological assessment in patients with head and neck cancer after radiotherapy or chemo-radiotherapy. IPOS 12th World Congress of Psycho-Oncology. Quebec City, Quebec, Canada.

Publication Details:


Publication Details:
Vercauteren J, Maringwa J, Coens C, Quinten C, Gotay C, Ringash J, King M, Osoba D, Flechtner H,

Coauthor or Collaborator.

2010

Cognitive functioning pre and post radiotherapy (RT), chemoradiotherapy (CRT) or bioradiotherapy (BRT) in patients with locally advanced squamous cell cancer of the head and neck (LA-SCCHN). American Society of Clinical Oncology (ASCO) Annual Meeting. Chicago, United States.

Publication Details:

2010


Publication Details:

2010


Publication Details:

2010

Making best use of existing clinical trials data- a global project on QOL: PROBE on behalf of the EORTC, the NCIC-CTG, MRC, the AGO. UICC. Shehnzen.

Publication Details:
Bottomley A, Gotay C, Osoba D, Ringash J, Schmucker-Von Koch J. Making best use of existing clinical trials data- a global project on QOL: PROBE on behalf of the EORTC, the NCIC-CTG, MRC, the AGO. 2010. UICC, Shehnzen 2010. Coauthor or Collaborator.

2010


Publication Details:

2010


Publication Details:

2010 Distress screening and psychosocial referral in patients with head and neck cancer. IPOS 12th World Congress of Psycho-Oncology. Quebec City, Quebec, Canada.

Publication Details:


Publication Details:

2009 Jun The Association between Age and Gender with Health Related Quality of Life for Cancer Patients Stratified by Disease Severity: A Meta-analysis of Randomized Controlled Trials. Multinational Association of Supportive Care in Cancer (MASCC). Rome.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009

Publication Details:

2009
A methodological investigation to define a clinically relevant cut-off point in the ordinal scale of the EORTC QLQ-C30 questionnaire. 14th ISPOR Annual International Meeting. Orlando, Florida.

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009

Publication Details:

2009
Final results of an expanded cohort phase I study of individualized stereotactic body radiotherapy of liver metastases. ASCO/ASTRO Gastrointestinal Cancers Symposium.

Publication Details:

2009
Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009 Health-Related Quality of Life indicators and overall Quality of Life: results from a cluster analysis on baseline EORTC QLQ-C30 data from 6739 cancer patients. American Society of Clinical Oncology (ASCO) Annual Meeting. Orlando, Florida, United States.

Publication Details:

2008 Late Adverse Events after Abdominal Radiotherapy. Oak Brook, Ill: Radiological Society of North America: Radiology. (Trainee Presentation)

Publication Details:


Publication Details:

2008

Adjuvant chemoradiation for gastric adenocarcinoma with infusional 5-fluorouracil and cisplatin: Update of a phase I study. American Society of Clinical Oncology (ASCO) Annual Meeting. (Trainee Presentation)

**Publication Details:**

2008

Quality Of Life during Adjuvant Chemoradiation For Gastric Adenocarcinoma. American Society for Radiation Oncology (ASTRO) Annual Meeting. Boston, United States.

**Publication Details:**

2008


**Publication Details:**

2008

Feasibility of reducing radiation dose to the brachial plexus (BP) for nasopharyngeal cancer (NPC) patients treated with IMRT. American Society for Radiation Oncology (ASTRO) Annual Meeting. Boston, United States.

**Publication Details:**

2008

Intensity-modulated Radiation Therapy for Nasopharyngeal Carcinoma: Analysis of Quality of Life in a Prospective Phase II Study. American Society for Radiation Oncology (ASTRO) Annual Meeting. Boston, United States. (Trainee Presentation)

**Publication Details:**

2008

Do dose and experience of toxicity affect quality of life (QOL) during adjuvant chemoradiation for gastric adenocarcinoma? International Society for Quality of Life Research Meeting. Montevideo, Uruguay. (Trainee Presentation)

**Publication Details:**

Publication Details:


Publication Details:

2008 Differences in Feeding Tube Requirements for Patients Treated with IMRT Versus Two Dimensional Radiation Techniques for Advanced Head and Neck Cancer. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Goteborg, Sweden.

Publication Details:


Publication Details:

2008 Intensity-modulated Radiation Therapy for Nasopharyngeal Carcinoma: Analysis of Quality of Life in a Prospective Phase II Study. RANZCR Annual Meeting. (Trainee Presentation)

Publication Details:

2008 A Randomized Comparison of Enteral Feeding for Head and Neck Cancer Patients: a Pilot Study. RANZCR Annual Meeting.

Publication Details:


Publication Details:
The truths and myths of radiotherapy for verrucous carcinoma of larynx. American Society for Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States.

Publication Details:


Publication Details:


Publication Details:

Temporo-spatial changes of enlarged cervical lymph nodes during head and neck cancer IMRT imaged with daily on-line cone-beam CT. American Society for Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States.

Publication Details:

Randomized trial of cone beam CT evaluating inter- and intra-fraction setup error of head and neck cancer patients treated with a skin-sparing mask compared to a standard S-frme mask. American Society for Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States.

Publication Details:

Changes in position and size of parotid glands assessed with daily cone-beam CT during image-guided IMRT for head and neck cancer: Implications of rdose received. American Society for Radiation Oncology (ASTRO) Annual Meeting. Los Angeles, United States.

Publication Details:

Frequency and predictors of parotid sparing in a cohort of patients managed with bilateral neck IMRT for

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2007 Added value of health-related quality of life (QOL) outcomes in NCIC CTG clinical trials: Results from QOL committee workshop. International Society for Quality of Life Research Meeting.

Publication Details:


Publication Details:


Publication Details:

2006 Correlation between liver and kidney dose volume histograms (DVH) and late toxicity after adjuvant radiochemotherapy for gastric adenocarcinoma. American Society for Radiation Oncology (ASTRO) Annual Meeting. Philadelphia. (Trainee Presentation)

Publication Details:

2006 Audit of TNM staging data in a prospective point-of-care database for head and neck cancer. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting, Leipzig, Germany. (Trainee Presentation)

Publication Details:


Publication Details:

2006 Late toxicity after adjuvant radiochemotherapy for gastric adenocarcinoma. American Society of Clinical Oncology (ASCO) Annual Meeting. Atlanta, United States. (Trainee Presentation)

Publication Details:

2006 Phase II trial of preoperative (POP) irinotecan (I) + cisplatin (C) and radiotherapy for esophageal cancer. American Society of Clinical Oncology (ASCO) Annual Meeting. Atlanta, United States.
Publication Details:

2006
Tu-be or not tu-be? The QOL-EF tool for measuring the impact of enteral feeding on QOL. International Society for Quality of Life Research Meeting (ISQOLS) Annual Meeting. Lisbon, Portugal.

Publication Details:
Ringash J, Lemon B, Lockwood G, Bezjak A, Waldron J. Tu-be or not tu-be? The QOL-EF tool for measuring the impact of enteral feeding on QOL. The QLR Journal. 2006;A63:1752. **Principal Author.**

2006

Publication Details:

2006

Publication Details:

2006

Publication Details:

2005

Publication Details:

2005

Publication Details:

Publication Details:


Publication Details:


Publication Details:

**Publication Details:**

2005 Toxicity, Survival and Predictors of Outcome In Patients Receiving Adjuvant Chemoradiotherapy For Gastric Adenocarcinoma. American Society for Radiation Oncology (ASTRO) Annual Meeting. Denver, United States. (Trainee Presentation)

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

**Publication Details:**


**Publication Details:**

2004 Tolerability of the Intergroup 0099 regimen in locally advanced nasopharyngeal cancer with a focus on patients’ nutritional status. American Society of Clinical Oncology (ASCO) Annual Meeting. Atlanta, United States.

**Publication Details:**


**Publication Details:**

2003 Small Cell Carcinoma of the head and neck: experience of a single comprehensive cancer centre. European Cancer Conference (ECCO) meeting. Copenhagen, Denmark. (Trainee Presentation)

**Publication Details:**


**Publication Details:**


**Publication Details:**

2002


Publication Details:

2002

Quality assurance rounds for head and neck cancer patients managed with radiation therapy. European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Praha, Czech Republic.

Publication Details:

2000

Minimal important difference for quality of life measures is about five to ten percent of the instrument range. American Society for Clinical Oncology (ASCO) Annual Meeting. New Orleans, United States.

Publication Details:

1999


Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2011 Nov 28 Invited Lecturer. How Does Quality of Life Measurement Add Value to What is Learned from Cancer Clinical Trials? Symposium: Patient-reported Outcomes and Cancer Care, Examples from Across the Cancer Continuum; The Canadian Cancer Research Conference. Toronto, Canada. (Continuing Education).

**Invited Lecturer.** Quality of Life Measurement in NCIC-CTG Clinical Trials. Clinical Research Associate Lecture, NCIC-CTG annual spring meeting. Toronto, Ontario, Canada. Educational session for 100 clinical research associates (mainly nurses). (Continuing Education).

2008 Apr **Invited Speaker.** Added Value of QOL - Case Study #2: SR.2. NCIC Clinical Trials Group, Quality of Life Committee Educational Workshop. Toronto, Canada. Educational 3 hour session for about 150 oncologists. (Continuing Education).

2008 **Invited Speaker.** Quality of Life in the Era of Chemoradiation. The 8th Princess Margaret Hospital Conference: Developments in Cancer Management: Conquering Cancer in our Lifetime. Toronto, Canada. CME event for about 500 oncologists. (Continuing Education).


2006 May **Chair.** A Celebration of 20 Years of Quality of Life Research. NCIC Clinical Trials Group Symposium. Montreal, Canada. 3 hour session for about 200 oncologists. (Continuing Education).


2001 **Minimal Important Difference in QOL for Patients with Laryngeal Cancer.** National Cancer Institute of Canada Clinical Trials Group (NCIC-CTG) Quality of Life Committee. Montreal, Quebec.

2001 **Quality of Life and Radiation Oncology: Does the Hat Fit?** Symposium. Canadian Association of Radiation Oncologists. Quebec City, Quebec.

**Presented Abstracts**

2014 Aug 27 **Presenter.** Implementing a survivorship programme for head and neck cancer patients. Canadian Association for Radiation Oncology. St. John’s, Canada.


2007 **Assessment of non-respiratory stomach motion in fasting and postprandial states.** Canadian Association of Radiation Oncologists (CARO). Toronto.

2001 **Accuracy of ultrasound in localization of lumpectomy site.** Canadian Association of Radiation Oncologists (CARO). Quebec City.

2001 **Should 40-year-old women take tamoxifen to prevent breast cancer?** A quality adjusted decision analysis. Canadian Association of Radiation Oncologists (CARO). Quebec City.

2001 **Post-operative radiochemotherapy for gastric cancer: adoption and adaptation.** Canadian Association of Radiation Oncologists (CARO). Quebec City.

1999 **Quality of life and utility assessment for laryngeal cancer patients.** Canadian Association of Radiation Oncologists (CARO). Montreal.

**Presented and Published Abstracts**

2016 Sep **not a presenter.** Prognostic Value of Pretreatment Serum Lactate Dehydrogenase in HPV-related and HPV-unrelated Oropharyngeal Cancer. CARO. Banff, Alberta, Canada. Presenter(s): Huang, SH.

*Publication Details:*

2016 Sep not a presenter. Long-term quality of life of retroperitoneal sarcoma patients treated with pre-operative radiotherapy and surgery. CARO. Banff, Alberta, Canada. Presenter(s): Wong P.

Publication Details:

2016 Sep not a presenter. Impact of Lymph node density on distant metastasis in oral cavity cancer. CARO. Banff, Alberta, Canada. Presenter(s): Hosni A.

Publication Details:

2016 Sep not a presenter. Impact of Tumor Volume and the Surrogate Effect of Lymph Node Location on the Risk of Distant Metastasis in Nasopharyngeal Cancer. CARO. Banff, Alberta, Canada. Presenter(s): Rathod S.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Sep 9 Concurrent chemoradiotherapy for locally advanced head and neck cancer: impact of radiation technique,

**Publication Details:**

2015 Sep 9  
Natural course following failure after definitive (chemo-)radiotherapy in HPV-related and HPV-unrelated oropharyngeal cancer. CARO 2015. Kelowna, British Columbia, Canada. abst 155, Poster Discussion.

**Publication Details:**

2015 Sep 9  

**Publication Details:**

2015 Sep 9  

**Publication Details:**

2015 Sep 9  

**Publication Details:**

2015 Sep 9  

**Publication Details:**
Jolie RINGASH


*Publication Details:*


*Publication Details:*

2015 Sep 9  **Clinical outcomes following re-irradiation in head and neck cancers.** CARO 2015. Kelowna, British Columbia, Canada. abst 165, Poster Presentation.

*Publication Details:*

2014 Aug 1  **Patient Reported Outcomes: Correlation of MDASI-HN and clinical support required for patients receiving curative head and neck chemoradiotherapy.** CARO 2014. abstract# 151, poster.

*Publication Details:*

2014 Aug 1  **Effect of Stereotactic Body Radiotherapy for Liver Cancer on Quality of Life.** CARO 2014. abstract# 131, poster.

*Publication Details:*

2014 Aug 1  **Outcomes Following Re-irradiation for Recurrent Nasopharyngeal Carcinoma at a Canadian Cancer Centre.** CARO 2014. abstract# 155, poster.

*Publication Details:*

Publication Details:

2014 Aug 1 Health-Related Quality of Life Outcomes from Cancer Clinical Trials: What are the Factors Influencing Their Use in Oncology Practice? CARO 2014. abstract# 69, oral presentation.

Publication Details:

2014 Aug 1 Survival Predictor in Oropharyngeal Cancer Patients with Distant Metastasis. CARO 2014. abstract#150, poster.

Publication Details:

2014 Aug 1 Role of Radiotherapy in Management of Nasal and Sinonasal Squamous Cell Carcinoma. CARO 2014. abstract#156, poster.

Publication Details:


Publication Details:


Publication Details:

2014 Aug 1 Implementing a Survivorship Programme for Head and Neck Cancer Patients. CARO 2014. abstract# 64, oral presentation.

Publication Details:

2013 Aug 1 Clinical Outcomes of T4 Larynx Cancer Treated with Primary Radiotherapy Compared to Primary Laryngectomy. CARO-COMP 2013 Joint Scientific Meeting. Montreal, Quebec. abst 218.
Publication Details:

2013 Aug 1 Health Related Quality of Life in Head and Neck Cancer Treated with Radiation Therapy with or without Chemotherapy: A Systematic Review. CARO-COMP 2013 Joint Scientific Meeting. Montreal, Quebec. abst 222.

Publication Details:

2013 Aug 1 Does Lorazepam Reduce Organ Motion in Patients Receiving Upper Abdominal Radiotherapy? Results From a Randomized Trial. CARO-COMP 2013 Joint Scientific Meeting. Montreal, Quebec. abst 328.

Publication Details:

2013 Feb 7 CLINICAL USE OF HEALTH-RELATED QUALITY OF LIFE OUTCOMES FROM CANCER CLINICAL TRIALS: PRELIMINARY RESULTS FROM A SURVEY OF ONCOLOGISTS. Canadian Society for Epidemiology and Biostatistics conference 2013.

Publication Details:

2012 Sep The characteristics of cervical lymph node resolution following primary radiotherapy +/- chemotherapy for N2-N3 head and neck cancer. Pattern of Neck Response. CARO 2012.

Publication Details:

2012 Health Related Quality of Life in Head and Neck Cancer Treated with Radiation Therapy With or Without Chemotherapy. CARO 2012.

Publication Details:

2012 Health Related Quality of Life in Head and Neck Cancer Treated with Surgery With or Without Radiotherapy or Chemoradiotherapy. CARO 2012.

Publication Details:
Livergant J, Klein J, Ringash J. Health Related Quality of Life in Head and Neck Cancer Treated with Surgery With or Without Radiotherapy or Chemoradiotherapy. Radiotherapy & Oncology. 2012;104(Suppl
2012 Outcome of IMRT for Hypopharyngeal Cancer Compared to Conventional Radiotherapy. CARO 2012.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2010 Intensity-Modulated Radiotherapy (IMRT) and Concurrent Chemotherapy for Anal and Perianal Cancer: the Princess Margaret Hospital Experience. Canadian Association for Radiation Oncology (CARO) Annual Meeting.

Publication Details:

2009 Evaluation of infra-hyoid midline normal structure avoidance in locally advanced oropharynx squamous cell cancer treated with 70Gy/35F IMRT. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2009 Development of the University of Toronto Skull Base Inventory (UT-SBI) Quality of Life Questionnaire. National Association of Skull Base Surgery.
Publication Details:

2009
Tolerability of Intensity-Modulated Radiotherapy (IMRT) and Concurrent chemotherapy (CT) for Anal and Perianal Cancer: Preliminary report of acute toxicity. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009
Patterns of care in elderly head and neck cancer patients: A recent single institution experience. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009
Palliative Radiotherapy for Head and Neck Cancer: A Retrospective, single-institutional review. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec. (Trainee Presentation)

Publication Details:

2008
Prospective QOL for patients receiving stereotactic liver radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2008

Publication Details:

2008
Quality of Life in Patients with Nasopharyngeal Carcinoma after Intensity-modulated Radiation Therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec. (Trainee Presentation)

Publication Details:

2008
Feasibility of reducing radiation dose to the brachial plexus (BP) for nasopharyngeal cancer (NPC)
patients treated with IMRT. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

**Publication Details:**

2008 Delivery of less than intended cisplatin (CDDP) dose intensity in patients with locally advanced head and neck squamous cell carcinoma (LA-HNSCC) receiving concurrent chemoradiation (CRT) correlates with poorer outcome. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

**Publication Details:**

2008 Feeding tube requirements for advanced head and neck cancer (HNC) patients treated with IMRT versus two dimensional radiation techniques (2DRT). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

**Publication Details:**

2008 Preliminary results of a phase II study of single fraction palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

**Publication Details:**

2007 Determination of PTV margins for enlarged cervical lymph nodes based on changes observed in volume and location with daily on-line cone beam CT during a course of radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

**Publication Details:**


**Publication Details:**

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**
O'Sullivan B. Management of verrucous carcinoma of larynx: a reappraisal of the role of primary radiation. Radiother Oncol. 2007;84(Suppl 2):S64. **Coauthor or Collaborator.**

**2007**


**Publication Details:**

**2006**


**Publication Details:**

**2006**

Segment Weight Optimization Treatment Planning for Adjuvant Radiochemotherapy of Gastric Carcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)

**Publication Details:**

**2006**

Assessment of IMRT for Cervical Esophageal Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)

**Publication Details:**

**2006**


**Publication Details:**

**2006**

Predictors of Outcome in Cervical Esophageal Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)

**Publication Details:**

**2006**

Upper abdominal organ motion during conformal radiotherapy for gastric cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)
Publication Details:

2006
Late toxicity after adjuvant radiochemotherapy for gastric adenocarcinoma. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta. (Trainee Presentation)

Publication Details:

2006

Publication Details:

2006

Publication Details:

2006
What is the impact of 4D-CT on the planning of esophageal cancer (EC)? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta.

Publication Details:

2006
The development of an interprofessional mentorship program for faculty at the Department of Radiation Oncology, University of Toronto - a new beginning. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta.

Publication Details:

2006
Does contrast aid delineation of targets for radiotherapy in head and neck cancer (HNC)? Canadian Association of Radiation Oncology (CARO) Annual Meeting.

Publication Details:

2005
Survival Analysis for Cervical Esophageal Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Victoria, British Columbia. (Trainee Presentation)

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2005 Radiation target volume delineation (TVD) using FDG-PET and contrast enhanced CT (CECT) for patients with head and neck cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting, , BC. Victoria, British Columbia.
Publication Details:

2005

Publication Details:

2005

Publication Details:

2004

Publication Details:

2004

Publication Details:

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Publication Details:

2004

Publication Details:

2003
Publication Details:

2003
The McMaster HNRQ Demonstrates Clinically Important Change in Patients with Head and Neck Cancer and Xerostomia. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003

Publication Details:

2003
QOL for patients with feeding tubes: item reduction of a novel questionnaire. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003
Small Cell Carcinoma of the head and neck: experience of a single comprehensive cancer centre. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec. (Trainee Presentation)

Publication Details:

2003
Patterns of failure for squamous cell carcinoma of the soft palate managed with primary radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003
Examination of the effect of abutting MLC leaves in cord shielding for treatment of the upper third of the esophagus using an aperture based technique. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003
Fractionated stereotactic radiation therapy integrated into the management of nasopharyngeal cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003


Publication Details:

2003

Outcome and toxicity of postoperative short course adjuvant radiation (SCART) and chemotherapy following resection of adenocarcinoma of the rectum. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003

Recurrent nasopharyngeal cancer treated with fractionated stereotactic radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003

Squamous Cell Carcinoma of the Soft Palate Managed with Primary Radiation Therapy: Patterns of Nodal Failure. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2003

Patterns of failure for squamous cell carcinoma of the soft palate managed with primary radiation therapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2002


Publication Details:

2002

Regional lymph node failure patterns in N0 tonsillar cancer treated with primary external beam radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.
Publication Details:


Publication Details:

Chair

2014 Aug 26 Chair. CARO Theme Symposium. Canadian Association for Radiation Oncology. St. John’s, Canada. Presenter(s): Dr. Manuel Borod, Dr. Derek Puddester.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


2016 Apr 8 **Presenter.** Rationale for IGRT for Liver RT. Impact of Liver RT on Quality of Life. Liver RT Education Course. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Jolie Ringash, J.


2013 Nov 7 **Invited Speaker.** Facing Cancer Head On: A Disease Site Specific Survivorship Programme. Princess Margaret Cancer Centre Combined DMOH/RMP Rounds. Toronto, Ontario, Canada. Presenter(s): Jolie Ringash. Monthly rounds shared between Department of Medical Oncology and Radiation Medicine Programme.

2013 Jul 5 **Invited Speaker.** Vignettes: Practice Innovations: Standardization of H&N Nomenclature. Princess Margaret Cancer Centre QSRT Quality and Safety Planning Committee. Toronto, Ontario, Canada. Presenter(s): Jolie Ringash. Lecture to provincial attendees of this course. (Continuing Education).


2011 Nov 4 **Panelist.** Listening to Our Patients - Annual Wharton Day in Head and Neck Cancer. Toronto, Ontario, Canada. Panel discussion on QOL and survivorship for 100 health professionals, students & patients. (Continuing Education).

2011 Sep 29 **Speaker.** Living Well is the Best Revenge: QOL and HPV-Associated Oropharyngeal Cancer. RMP Rounds. Toronto, Ontario, Canada. Weekly academic rounds for about 100 health professionals & students. (Continuing Education).

2008 **Speaker.** Case Presentation. RMP Quality Assurance Rounds. Toronto, Ontario, Canada. Quarterly QA rounds, presented to group of 50 health care professionals & students. (Continuing Education).

2007 Mar 26 **Speaker.** Case Presentation. RMP Quality Assurance Rounds. Toronto, Ontario, Canada. Quarterly QA rounds, presented to group of 50 health care professionals & students. (Continuing Education).

2006 Nov **Speaker.** Tu-be or not Tu-be? Developing a therapy specific QOL instrument for enteral feeding. University Health Network Clinical Epidemiology Rounds. Toronto, Canada. Weekly academic research rounds for about 20 health professionals & students. (Continuing Education).


2006 Mar 30 **Speaker.** To Tube or not to Tube? RMP Rounds. Canada. Weekly academic departmental rounds for about 100 health professionals & students. (Continuing Education).
Presented Abstracts


1998 Jun  Principal Author. Protocol for a Randomized, Controlled Trial of Therapy for Adults with TNM Category T3/4 Laryngeal Carcinoma: Is Quality of Life in the First Two Years Post-treatment, as Measured by FACT, Better with Radiotherapy or Total Laryngectomy? A Canadian multi-centre trial. Fellows’ Research Day, University of Toronto Department of Radiation Oncology. Toronto. Ringash J.


Presented and Published Abstracts

2015 Aug 1  coauthor of work; not a presenter. Virtual Longitudinal Mentorship – a feasibility clinical research capacity building project for radiation oncology trainees in Ghana. Sunnybrook Education Meeting. Toronto, Ontario, Canada. Presenter(s): Horia Vulpe. (Trainee Presentation)

Publication Details:

5. OTHER

Presented and Published Abstracts

2015 May 25  coauthor of presenter, not a presenter. Predicting utility scores for myelofibrosis patients: Mapping the myelofibrosis symptom assessment form and myeloproliferative symptom assessment form to the EUROQOL-5D. Society for Medical Decision Making. United States. Presenter(s): Chang Ho Lee. (Trainee Presentation)

Publication Details:

G. Teaching and Design

Teaching and Education Report: Highlights and Summary
1) Nominee and recipient of multiple awards for mentorship and research supervision; supervisor of award recipients
- Postgraduate Medical Education Research Supervision Award, The University of Toronto Department of Radiation Oncology, 2006
- Research Project Supervisor Award Recipient, Princess Margaret Hospital Radiation Medicine Programme Annual Education Awards, 2008
- Awarded to students under my direct research supervision: Best Poster Award, University of Toronto Resident Research Day (Zahra Kassam, 2008); Most significant contribution by a Radiation Oncologist to the scientific program of the RANZCR annual scientific meeting (AstraZeneca Exhibit Prize; Karen Wong, 2008); PSI Resident Research Award
2) Committed to curriculum development and course leadership:
- Co-course director, HAD 5301 Introduction to Clinical Epidemiology (University of Toronto Graduate Programme in Clinical Epidemiology, Department of Health Policy, Management & Evaluation [HPME]), 2003 to 2006; continuous curriculum revision
- Co-course director, HAD 5302 Measurement (University of Toronto Graduate Programme in Clinical Epidemiology, Department of Health Policy, Management & Evaluation [HPME]), 2012

3) International lecturer on quality of life research and research methodology

4) Leadership roles in graduate, post-graduate, and continuing education:
- Clinical Epidemiology MSc/PhD programme in the department of Health Policy, Management & Evaluation: Associate programme director, 2006-2010; Chair, admissions committee, 2007-2010; Member of programme executive committee since 2003; Member of admissions committee since 2002
- Member of Medical Oncology residency and fellowship programme committees, 2006; Site coordinator, 2006-2010
- Chair, “A Celebration of 20 Years of Quality of Life Research”, NCIC Clinical Trials Group Symposium, 2006

5) Author of chapters in two student textbooks of Head and Neck Cancer Management (Outcome Assessment in Head and Neck Cancer; Quality of Life in Head and Neck Cancer Patients)

6) Consistently ranked highly by graduate students as an effective and enthusiastic lecturer/tutor in HAD 5301, HAD 5303, 5302 and Research Methods II

7) Ranked highly by medical residents and undergraduate students as a clinical teacher and role model

8) Supervisor of successful clinical and research trainees, including undergraduate (medical and pre-medical), graduate and post-graduate students (residents and fellows), in medicine and allied health professions

9) Leader and mentor of practicing quality of life researchers through my role as co-Chair of the Quality of Life Committee at the NCIC-Clinical Trials Group.

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2012 Jan - 2012 Apr HAD 5302 Measurement, Graduate Education, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology, The University of Toronto
I was co-course director with Dr. Ahmed Bayoumi for the 2012 (winter) session. Due to an unexpected absence of the previous instructors, it was required to revise the course format significantly into a “seminar” structure with small-group, self-directed principles. A small number (12) of graduate students requiring this course to proceed in a timely fashion through their MSc or PhD requirements were accepted. Dr. Bayoumi and myself worked from the notes and advice of prior instructors to revise the course format, using existing materials. I directly taught 3 sessions and was responsible for grading the final assignments. The course was successfully delivered with all students completing the course passing the required standard. Feedback from the course was positive.

2003 Jul - 2006 Jun HAD 5301 Introduction to Clinical Epidemiology, Graduate Education, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, Clinical Epidemiology, The University of Toronto
I was co-course director of this course (with Dr. David Urbach) from 2003-2006. The following description is copied from the website of the Department of Health Policy, Management & Evaluation (HPME), Faculty of Medicine, University of Toronto (http://www.hpme.utoronto.ca/English/page-1-793-1.html#5301)
HAD 5301H
Course Number HAD 5301H
Course Name: Introduction to Clinical Epidemiology and Health Care Research
Prerequisite: None
Delivery Format:
Summer - twice a week, 3 hour sessions, one half lecture/one half tutorial (offered to Clin Epi students only)
Winter - once a week, 3 hour sessions - one half lecture, one half tutorial. Non Clin Epi students have to submit a letter of intent and a letter from the supervisor by November 15.
Semester Offered: Summer and Winter
Instructors: Jolie Ringash, David Urbach

Description:
To introduce principles of epidemiology as applied to clinical research, emphasizing diagnosis, prognosis, treatment, the measurement of signs and symptoms of health and disease, and the evaluation of diagnostic, treatment and compliance-improving maneuvers.

Objectives:
1. To introduce the clinical epidemiology program and the courses offered
2. To develop an approach for addressing health research questions using appropriate research methods
3. To introduce the types of research designs used in clinical and epidemiologic research, including those using primary and secondary sources of data
4. To understand the threats to the validity of different study designs, and to become familiar with the methods used to enhance the validity of clinical research
5. To be able to critically appraise a biomedical research article
6. To be able to write a clinical research protocol

Evaluation:
Class participation 10%
Interim assignment 30%
Final assignment 60%

The interim assignment is a short (1000 word maximum) paper describing a clinical research question and a discussion of how analytic bias might affect the validity of a study designed to answer the research question. The topic for the interim assignment may be the same as the topic for the final assignment (see below).

The final assignment is to develop a research protocol around an area of clinical interest, including the following components/sections:
1. title page;
2. abstract;
3. background;
4. research question;
5. population of interest and sampling methods;
6. maneuver;
7. outcomes;
8. analysis;
9. limitations;
10. feasibility; and
11. significance.
The written assignment is limited to a maximum of 2500 words.

The course is taught in two sessions annually. The summer session serves the incoming class of MSc and PhD candidates in the Clinical Epidemiology programme (20-30 students annually). The winter session is available on a priority basis to Clinical Epidemiology students unable to attend the summer session (eg. due to leaves), to students in other programmes of HPME, or (space permitting) to others who apply as Special Students or Auditors. Typically, the winter session includes 10-20 students, including graduate students.
in the Departments of Public Health or the Institute of Medical Sciences (IMS), and clinical practitioners such as medical residents and fellows. This is an extremely popular course which maintains a waiting list and unfortunately, has to turn down students every year. The course has been so successful and well-known that in early 2006, we received an unsolicited invitation from Cambridge University Press to develop our curriculum into a textbook. During our course co-directorship, Dr. Urbach and I gradually revised or replaced the previous units of the course. In past years, the course was structured to teach critical appraisal. However, evidence-based medicine and critical appraisal have since become more accepted and are included in the curricula of most undergraduate health care programmes. Dr. Urbach and I concentrated on revising the course so that it now provides a series of introductory seminars on topics in clinical epidemiology. Most topics are covered in more detail in graduate courses within the programme. Thus, students in the Clinical Epidemiology graduate streams can better determine the more advanced courses that will suit their interests and the needs of their theses after experiencing the “Intro” course. As much as possible, each seminar was taught by a methodologic expert, usually one of the teachers of the advanced course in that seminar topic.

Twice annually, Dr. Urbach and I met specifically for the purpose of curriculum revision. After reviewing all evaluations from the most recent course, we identified 2-3 units as priorities for updating and revision. Revisions could be minor, such as changing an assignment to update the clinical scenarios, or major, such as developing a new unit, or substantially changing the focus of a seminar. All revisions were made according to our advice and vision, however we often benefitted from the involvement of the appropriate methodologic experts.

During my tenure as co-course director, we revised or newly wrote the following units:

Session 1 – History of Clinical Epidemiology and Study Design; Session 3 – Bias in Medical Research; Session 4 – Evidence Based Medicine and Critical Appraisal; Session 5 – Causation; Session 6 – Disease Frequency; Session 8 – Diagnostic Tests; Session 11 – Decision Analysis; Session 12 – Health Services Research; Session 13 – Guidelines and Overviews.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


Undergraduate MD

2016 Jun - 2016 Aug  

2004 May - 2004 Aug  
**Primary Supervisor:** Year 1. Mr. Adam Saporta. *Survival Analysis for Cervical Esophageal Cancer.* Completed 2004.

2003 May - 2003 Aug  

2002 Jul - 2005 Jun  

Postgraduate MD

2011 Sep - present  
**Primary Supervisor:** Core Program. Dr. Jonathan Klein. *A systematic review of QOL outcomes for head and neck cancer patients receiving primary radiotherapy with or without chemotherapy.*

2011 Sep - present  
**Primary Supervisor:** Core Program. Dr. Jonathan Livergant. *A systematic review of QOL outcomes for head and neck cancer patients receiving post-operative radiotherapy with or without chemotherapy.*

2010 - present  
**Primary Supervisor:** Core Program. Dr. Tatiana Conrad. *Mapping recurrences following post-operative chemoradiation for localized gastric cancer.*

2013 Sep - 2014 Dec  
**Primary Supervisor:** Core Program. Horia Vulpe. Supervisee Position: Radiation Oncology Resident, Supervisee Institution: University of Toronto. *Baseline Predictors of a Rocky Course of Radiation Treatment for Patients with Head and Neck Cancer.*

2011 Jul - 2012 Jun  
**Primary Supervisor:** Clinical Fellow. Dr. Gary Mok. Supervisee Position: Radiation Oncologist, Canada. *Outcome of IMRT for Hypopharyngeal Cancer Compared to Conventional Radiotherapy.* Completed 2012.

2011 Jul - 2012 Jun  
**Primary Supervisor:** Clinical Fellow. Dr. Isabelle Gaultier. Supervisee Position: Radiation Oncologist, Supervisee Institution: Sherbrooke University, Canada. *Outcome of IMRT for Hypopharyngeal Cancer Compared with Conventional Radiotherapy.* Completed 2012.

2008 - 2009  

2007 - 2008  
**Primary Supervisor:** Clinical Fellow. Dr. Karen Wong. Supervisee Position: Radiation Oncologist, Australia, Supervisee Institution: Liverpool Cancer Centre, Sydney, Australia. *IMRT for Nasopharyngeal Cancer: Analysis of Quality of Life in a Prospective, Phase II Trial.* Awards: AstraZeneca Exhibit Prize, RANZCR annual scientific meeting (Australia): awarded to exhibit by a radiation oncologist judged to have made the most significant contribution to the scientific program. Completed 2008.

2006 Jul - 2008 Jun  
**Primary Supervisor:** Clinical Fellow. Dr. Zahra Kassam. Supervisee Position: Radiation Oncologist, Supervisee Institution: The Princess Margaret Hospital and The University of Toronto. *A phase I Study of Adjuvant Chemoradiation for Gastric Adenocarcinoma with Infusional 5-fluorouracil and Bi-weekly Cisplatin.* Completed 2008.

2005 Jul - 2008 Jun  

2005 Jun - 2006 Jul  
**Primary Supervisor:** Clinical Fellow. Dr. Barbara Wysocka. Supervisee Position: Clinical


### Faculty Development


### 2. OTHER SUPERVISION

#### Graduate Education

**Thesis Committee Member**


2012 Jul - 2015 Jun  **PhD.** Julie Rouette. Supervisee Institution: Queen’s University. *Use of Patient Reported Outcome Data from Clinical Trials to Inform Cancer Care: An International Perspective.*
Collaborator(s): Michael Brundage, Jane Blazeby, Madeleine King.

2008 - 2011 Jun **MSc.** Dr. John de Almeida. Supervisee Position: Otolaryngology fellow. *Development of a QOL Instrument for Skull Base Surgery.* Collaborator(s): Dr. Ian Witterick, Dr. Gordon Guyatt, Dr. Fred Gentili, Dr. Al Vescan, Dr. Achille Thoma, Dr. Lynn Lohfeld. Completed 2011.


I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2006 Jul - present Goal: To improve the outcomes of head and neck (H&N) cancer through improved measurement of, and interventions focused on, quality of life (QOL).

My goal is to define, measure and improve the quality of life and health utility of patients with neoplasms of the head and neck. Advances in radiotherapy techniques and the advent of combined modality treatment have led to significant improvements in survival and local control of head and neck tumours over the past eight years. However, more intense treatment leads to a worsening of acute and late toxicities. Recent recognition of the excellent prognosis of human papillomavirus (HPV)-associated cancers has led to interest in de-intensification. Quality of life (QOL) questionnaires and utility measures can be used to determine the patients’ perspectives on the value of their treatment and well-being. Measurement of QOL along with local control and survival outcomes can lead to a better understanding, and hopefully improvement, of the therapeutic ratio of treatment strategies for head and neck neoplasms.

My creative professional activity in this area has included QOL research focused on the development, validation and evaluation of instruments suitable for measuring QOL and utilities in this specialized population, including a novel instrument designed to measure the QOL impact of enteral feeding during head and neck cancer therapy. I have measured the information needs of patients, the attitudes of nasopharyngeal cancer specialists toward QOL, and the clinical significance of changes in QOL and utility scores. I have also written a systematic review of all QOL instruments available for head and neck cancer patients, and am currently involved in systematic review of the QOL results according to treatment strategy.

As a result of these creative professional activities, I have been invited to be a methodology consultant and have been influential as a proponent of QOL measurement in head and neck cancer. I was appointed as inaugural Chair of the Outcomes subcommittee of the Previously Untreated, Locally Advanced (PULA) focus group within the U.S. NCI Head and Neck Cancer Group in 2009, and additionally serve as a member of PULA. This Outcomes committee consists of recognized experts and has recently drafted a manuscript outlining the recommended patient- and clinician- reported instruments for outcome assessment in head and neck cancer.

I have served as QOL coordinator and a member of the Trial Management Committee on a major international head and neck cancer clinical trial, the “HEADSTART” trial, conducted...
As a practicing head and neck radiation oncologist, I combine an understanding of the highly technical aspects of modern therapy with methodologic expertise in outcomes measurement. This has helped me to introduce QOL methodology into the clinical and research setting locally and internationally. I have taught extensively in this area and have mentored trainees and peers.

I have developed a novel QOL instrument for the measurement of issues related to enteral feeding in H&N cancer patients. This is timely and important, since more aggressive therapy has necessitated feeding support, but the patient well-being trade-offs between better maintenance of weight, vs. side effects of enteral feeding, are not well known. The questionnaire, initially know as “QOL-EF” has been accepted for inclusion into the popular Functional Assessment of Cancer Therapy (FACT) instrument suite administered by the FACIT group (http://www.facit.org/), and its use has been requested by several international investigators (Appendix 1).

I was an initiator, with site group leader Dr. Brian O’Sullivan, of a novel method of determining outcomes at point of care for patients with H&N cancer. The H&N “anthology”, established in 2003, created an inception cohort of new patients for whom outcomes data is collected prospectively at each visit, utilizing billing data (Appendix 1). I led the evaluation of the success of the system and of data quality. The data from the system’s first 3 years was audited, with results presented internationally, and published. On the basis of its excellent success and good data quality, the PMH has expanded the “anthology” system to other cancer diagnoses. Cancer Care Ontario (CCO) has adopted this system as its model for the design of a similar registry system planned for all cancer patients in Ontario. There has been preliminary interest from other oncologists in Canada in using our methods elsewhere.

I was chosen as the QOL coordinator for 4 major international head and neck cancer clinical trials, all being administered by different cooperative groups. One has been completed (Trans-Tasman Radiation Oncology Group – TROG - HEADStart), one recently completed accrual (NCIC-Clinical Trials Group - NCIC-CTG - HN.6), one is ongoing (Radiotherapy Oncology Group – RTOG - 1016) and one is upcoming (Eastern Cooperative Oncology Group – ECOG – 3311) (Appendix 1). The opportunity to apply expertise across different groups of investigators in Australia, New Zealand, Europe, Asia and the Americas has provided many opportunities to educate the international research community and standardize QOL measurement across jurisdictions. Most recently, I was recognized for my work in this area by being named Chair of a NCI-US Head and Neck Cancer subcommittee on Quality of Life, Toxicity and Patient Reported Outcomes (Appendix 1). Working with this committee, I have led the development of a manuscript recommending specific measurement tools for assessment of head and neck cancer outcomes in clinical trials, which is currently being prepared for publication.

I have authored two textbook chapter related to head and neck cancer. The chapter, “Outcomes Assessment in Head and Neck Cancer” was provided for a textbook that is being disseminated at low cost to physicians and trainees in less developed nations. I agreed to participate in this effort because of the extraordinary impact expected of providing up to date research and clinical care advice to physicians who may not have access to the standard journals and electronic resources.
Goal: To improve cancer care through quality research training, methodology, and application. My secondary goal is to improve the frequency and methodology of health outcome measurement for patients with cancer. In recent years, the health care professions, governmental agencies and patient advocacy groups have realized the value of assessing additional outcomes besides survival. Access to and quality of care, the efficacy of new technology, continuous quality enhancement, acute and late toxicity, cost-utility assessments and patient reported outcomes are all examples of outcomes of interest. Creative sources of data, such as the use of administrative databases, may be required to answer outcomes-oriented research questions. Structured reviews and evidence-based guidelines are tools for dissemination of research results to hopefully close the loop and bring change to clinical practice.

I have a broad understanding of outcomes assessment and have taught frequently on this topic. My creative professional activity in this area has focused primarily on patient reported outcomes, toxicity and medical decision-making. I have participated in population-based research on the outcomes of screening mammography and was the principal author of a national practice guideline on the same topic. I have also studied technology assessment for diagnosis, treatment and target definition (ultrasound and PET), and the value of new technology in radiotherapy delivery (conformal radiotherapy and IMRT). I have successfully attracted a number of international fellows and graduate students who have presented and published work completed under my supervision, and who will disseminate their expertise throughout the world.

Beyond my primary clinical areas of focus, head and neck and gastrointestinal malignancy, I have served as a consultant and collaborator with colleagues interested in outcomes within other areas of oncology and within health care generally. I am regularly contacted by physicians elsewhere in North America and the world for advice regarding the measurement of treatment outcomes in clinical research. I am currently QOL coordinator for 4 internal, 1 national and 3 international trials. I have been a member of the NCIC-CTG QOL committee since 2005, and was named co-Chair of this committee in August 2006. In June of 2006, I participated as a representative of the NCIC-CTG QOL committee in a special meeting with members of the U.S. Food and Drug Administration on regulatory guidance for the use of patient reported outcomes (such as QOL) to support drug labeling claims. Since 2008, I have been an international advisor and collaborator on an international initiative by the EORTC to retrospectively analyze pooled QOL data from EORTC and NCIC-CTG trials. In addition to my own programme of creative professional activity, reflected in my publications list, I have been active as a methodology consultant and proponent of QOL measurement, utilization and reporting. I am currently QOL coordinator for 3 internal, 1 national and 1 international trial. I have made presentations at the national and international level on QOL.

In 2006, I was appointed as co-Chair of the NCIC-CTG QOL committee. This position has provided several opportunities to educate fellow investigators, research nurses and new investigators on QOL methodology (Appendix 2).

Since 2006, I have been a member of the international advisory board to the EORTC Quality of Life Group’s PROBE initiative. This involves pooled analysis of QOL data from many trials conducted in Europe and Canada. In addition to several publications, this collaboration has provided opportunities to educate researchers and graduate students internationally (Appendix 2).

I am currently a co-applicant of the Canadian Cancer Society Research Institute (CCS-RI) grant supporting a centre for Applied Research in Cancer Control (ARCC), a national collaboration emphasizing the interplay of economics, ethics, and policy in cancer care. I co-led the “Patients and Families” theme during the inauguration of this centre (Appendix 2).
I am also frequently contacted for comments and advice about general measurement, questionnaire and QOL issues (Appendix 2). As a graduate of the University of Toronto Clinical Epidemiology graduate programme, I have been cross-appointed to its home department, the Department of Health Policy, Management and Evaluation (HPME), since 2000 (recently renamed the Institute of Health Policy, Management and Evaluation). I have also been a member of the Programme Executive and was the co-course director for the required Introduction to Clinical Epidemiology (HAD 5301H) course from 2003 through 2006. I have been a member of the Clinical Epidemiology Executive Committee since 2003, a member of the Admissions Committee since 2004, and a member of both the Curriculum and Faculty committees since 2006. From 2006 until 2010, I served as Associate Programme Director for Clinical Epidemiology. I also Chaired the Admissions Committee in 2007, 2008, 2009 and 2010. I was co-course director for the Measurement (HAD 5302) course in 2012.

I have been the primary supervisor for two MSc students who have completed their programmes. I have sat on the thesis committees of a PhD student and several MSc students who has completed their programmes. I have also frequently served as an internal reviewer or chair in thesis defense proceedings.

2. EXEMPLARY PROFESSIONAL PRACTICE

2006 Jul - present

Goal: To improve the care of gastric and upper abdominal cancer through technical radiotherapy advancement, clinical and research strategies. My tertiary goal is to improve the therapeutic ratio for patients requiring upper abdominal radiotherapy, particularly for stomach cancer. The presentation at ASCO 1999 of the results of the Intergroup 0116 randomized trial of adjuvant chemoradiation vs. observation post-surgery for gastric cancer, and its subsequent publication in the New England Journal, revolutionized the role of radiotherapy in upper abdominal malignancies. Recognition of the potential for very severe acute and late toxicities to abdominal organs including liver, kidney and small bowel had previously limited the role of radiotherapy in such malignancies. I have developed and published novel treatment techniques designed to reduce acute toxicity, including conformal and IMRT techniques, and am currently completing the phase II portion of a phase I/II study of novel chemoradiotherapy with IMRT in this disease. I was also among the first to demonstrate the effectiveness of adjuvant radiotherapy outside of a clinical trial. This creative professional activity has led to a major ongoing project investigating the link between radiotherapy technique, late toxicity, and QOL in cancer survivors, and to a leadership position in a planned phase III international randomized trial of adjuvant therapy in gastric cancer (TROG-AGITG “TOPGEAR”/NCIC-CTG GA.1) (Appendix 3).

I have lead a team of physicists, radiation therapists and radiation oncology colleagues in the development of conformal and intensity modulated RT for gastric cancer. Documents produced have included an institutional radiotherapy planning protocol and diet instructions for patients (Appendix 3). Together, we have published a novel radiotherapy technique, published data on the effects of respiratory movement on radiotherapy, conducted a quality assurance audit in the first cohort of 20 patients treated at PMH, published an study of the potential role of Intensity Modulated Radiotherapy (IMRT) for gastric cancer, and published the treatment outcomes of our completed cases, including late recurrence data. We have also initiated and are currently conducting a phase I/II trial of a novel approach to adjuvant therapy. Separately, we continue to monitor late effects and QOL in a prospective cohort study. I also contributed to a review of the use of IMRT in upper abdominal malignancies generally, and have acted as the QOL coordinator for related projects in liver irradiation. I was recently named as Canadian chair for quality assurance for an upcoming major international trial of gastric adjuvant therapy (NCIC-GA.1/TROG TOPGEAR).

This creative professional activity has attracted international fellows from the UK, Australia,
and Poland. Physicians in other nations (eg. Morocco) have indicated interest in my research and have requested information about our techniques, and have used my materials in teaching residents and fellows (Appendix 3). I have been recognized locally as the leader of our gastric programme and have been asked to present at CME events and site group retreats. I have been invited internationally as a visiting professor to discuss these developments. I was a faculty member for a course teaching Image Guided Radiotherapy (IGRT) for liver malignancies (primary cancers and metastases) provided to international attendees through a collaboration between the Princess Margaret Hospital/University Health Network and Cancer Care Ontario (Appendix 3).

I have won two awards for mentorship of research with my international GI fellows, the Postgraduate Medical Education Research Supervision Award from the University of Toronto Department of Radiation Oncology in 2006, and the Research Project Supervisor Award from the Princess Margaret Hospital Radiation Medicine Programme in 2006.
Curriculum Vitae

John Rowlands
PhD

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees

1967 Jun - 1971 Feb  PhD, Solid State Physics, Physics, The University of Leeds, Leeds, United Kingdom, Supervisor(s): Professor Dennis Grieg
1963 - 1966  BSc, First Class Honours, Physics, The University of Leeds, Leeds, United Kingdom

Qualifications, Certifications and Licenses

1987  Member, MCCPM
Recertified 2012 until 2017, Diagnostic Imaging, Canada College of Physicists in Medicine, Canada

2. EMPLOYMENT

Current Appointments

2012 Jul - present  Founding Scientist, Lakehead University, Science, Thunder Bay Regional Research Institute, Thunder Bay, Ontario, Canada
2007 - present  Adjunct Professor, Physics, Lakehead University, Thunder Bay
2003 - present  Adjunct Full Professor, Electrical Engineering, University of Waterloo
1998 Jul - present  Full Professor, Radiation Oncology, University of Toronto, Ontario, Canada
1998 Jul - present  Full Professor, Medical Imaging, Faculty of Medicine, University of Toronto
1989 Jan - present  Senior Scientist, Imaging Research, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2013 Jul - present Fellow, Canadian Organisation of Medical Physicists. (Distinction, Specialty: Medical Physics)
1987 Jul - present Fellow, Canadian College of Physicist in Medicine. (Distinction, Specialty: Diagnostic Radiology)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2013 - present Member, Institute of Electrical and Electronic Engineers (IEEE), 92545489
1989 - present Canadian Organization of Medical Physicists
1980 - present SPIE the International Society for Optical Engineering
1979 - present American Association of Physicists in Medicine
1971 - present Canadian Association of Physicists

Administrative Activities

INTERNATIONAL

SPIE Physics of Medical Imaging Conference
2005 - present Member, Program Committee, United States.

World Congress on Biomedical Engineering and Medical Physics

PROVINCIAL / REGIONAL

Sunnybrook Health Sciences Centre
2009 Nov - present Board Member, OPIC Management Board

Thunder Bay Regional Research Institute
2007 - present Chair, Advanced Detector Devices Theme Committee, Thunder Bay.

Peer Review Activities
C. Academic Profile

1. RESEARCH STATEMENTS

2013 Jul - present Detectors for synchrotron imaging detectors for multiple applications. Primary application is for next generation of synchrotron detectors for protein crystallography. Potential for new experiments not currently feasible such as “cine” of protein or dna folding.

2012 Jul 1 - present X-ray phase contrast imaging. There is worldwide interest in a new x ray contrast mechanism - phase contrast imaging. This requires a new way of thinking and a new kind of detector system, this is the subject of the proposed research. The promise of phase contrast imaging using x rays is to obtain new image information, with potentially much lower x ray dose as the mechanism does not require the deposal of energy to obtain
imaging information.

2009 - present  Lead oxide photoconductor for cardiac and chest x-ray imaging. Building on the success of a-Se based direct conversion detectors, a new large area, large bandgap semiconductor PbO is being developed for higher energy x-ray applications such as chest imaging and fluoroscopic imaging of the heart during international procedures to stent the coronary vessels.

2008 Jul - present  Detectors for home lab protein crystallography. For highest resolution images it is necessary to go to Synchrotron Light Sources, not because of the higher flux or monochromaticity but because of the better (and more expensive) detectors only available there. Our project is to make large area high sensitivity detectors available for home labs at reasonable cost. Making better detectors at lower cost will free the synchrotron sources from repetitive work and make it available for projects which depend on high flux (i.e. those where timing resolution is important).

2007 - present  Single photon optical detectors for real time optical microscopy for establishing surgical margins intra operatively. Based on joint research with Professor Kenkichi Tanioka over a 20 year period, this technology is being developed for photon counting applications with Hamamatsu Photonics, based on joint inventions and patents. This particular project has immense potential clinical impact, but is competing with other possible approaches.

2005 - present  Brachytherapy imaging. By use of sensitive integrating detectors it has been shown possible to obtain Nuclear Medicine images without the need for actual photon counting systems.

2004 - present  Single photon x-ray detectors for mammographic tomosynthesis.

2001 - present  Hybrid MRI/x-ray systems for cardiac imaging (minimally invasive aortic valve replacement).

2001 - present  Detectors for positron emission tomography (PET).

2000 - present  Flat panel imagers for cone beam CT and digital tomosynthesis.

2000 - present  High quantum efficiency detectors for radiation therapy.

1997 - present  Avalanche multiplication in amorphous selenium and application to medical imaging.

1995 - present  Relationship of material and imaging properties of amorphous selenium.

1992 - present  Fundamental imaging properties of amorphous selenium for x-ray imaging.
1992 - present  Liquid crystal readout of amorphous selenium for digital radiography.

1985 - present  Real-time digital image processing for GI studies and cardiac angiography.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDING


E. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Research Associate

2003 - present  **Primary Supervisor.** Norman Robert PhD, Sunnybrook Health Sciences Centre. *Cardiac angiography.*
Curriculum Vitae

Arjun Sahgal BSc, MD, FRCPC
Associate Professor, Department of Radiation Oncology and Surgery, University of Toronto

A. Date Curriculum Vitae is Prepared: 2016 August 4

B. Biographical Information

Primary Office Sunnybrook Health Sciences Centre
Odette Cancer Centre (T-Wing)
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-4998
Fax 416-480-6002
Email arjun.sahgal@sunnybrook.ca

1. EDUCATION

Degrees
1997 - 2001 MD, Dept of Medicine, University of Ottawa, Ottawa, Ontario, Canada
1993 - 1997 BSc, Science, University of Ottawa, Ottawa, Ontario, Canada

Postgraduate, Research and Specialty Training
2007 Principles and Practice of Gamma Knife Radiosurgery, University of Pittsburgh, Pittsburgh, Pennsylvania, United States
2006 - 2007 Clinical Fellow, Department of Radiation Oncology, University of California, San Francisco, San Francisco, California, United States, Supervisor(s): Dr. David Larson and Mack Roach III
2001 - 2006 Resident, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2007 - present Certificate of Registration for Independent Practice, College of Physicians and Surgeons of Ontario, Toronto, Ontario, Canada
2006 - present Specialist Certificate, Radiation Oncology, Royal College of Physicians and Surgeons of Canada
2003 - present Licentiate, Medical Council of Canada
2006 - 2007 Licentiate, Medical Board of California
2. EMPLOYMENT

Current Appointments

2015 - present  Associate Scientist of the Toronto Western Research Institute, University of Toronto, Toronto, Ontario, Canada
2013 - present  Associate Member of the Institute of Medical Sciences, University of Toronto, Toronto, Ontario, Canada
2013 - present  Deputy Chief of the Department of Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2013 - present  Site Group Leader for CNS Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2012 - present  Clinician Scientist, University of Toronto, Toronto, Ontario, Canada
2012 - present  Scientist, Odette Cancer Research Program, Physical Sciences, Sunnybrook Research Institute, Toronto, Ontario, Canada
2012 - present  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2010 - present  Cross-Appointed, Surgery, University of Toronto, Toronto, Ontario, Canada
2009 - present  Cross-Appointed, University of Toronto Spine Program, University of Toronto, Toronto, Ontario, Canada
2007 - present  Staff Radiation Oncologist, Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, University of Toronto, Toronto, Ontario, Canada

Previous Appointments

CLINICAL
2008 - 2014  Cross-appointed, Division of Neurosurgery, St. Michael’s Hospital, University of Toronto, Toronto, Ontario, Canada
2008 - 2013  Staff Radiation Oncologist, Radiation Oncology, Princess Margaret Hospital, University Health Network, University of Toronto, Toronto, Ontario, Canada
2007 - 2008  Cross-appointed Staff, Department of Radiation Oncology, Princess Margaret Hospital, University Health Network, University of Toronto, Toronto, Ontario, Canada
2006 - 2007  Clinical Instructor, Department of Radiation Oncology, University of California San Francisco, San Francisco, California, United States

HOSPITAL
2013 - 2014  Interim Chief of Medical Physics, Radiation Oncology, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

RESEARCH
2008 - 2013  Ontario Cancer Research Institute Researcher, University Health Network, University of Toronto, Toronto, Ontario, Canada

UNIVERSITY - RANK
2007 - 2012  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2016 2nd highest downloaded research paper for 2015 in the International Journal of Radiation Oncology Biology Physics. (Distinction)

2016 Top 5 cited research paper for 2014-2015 in Clinical Oncology. (Distinction)

2014 De novo vs. progression of an existing vertebral compression fracture (VCF) following spine stereotactic body radiotherapy (SBRT): Separate risk profiles to consider, Senior responsible author, Best of ASTRO. (Distinction)
Selected to be highlighted at the “Best of ASTRO 2014” symposium held in Miami, USA, trainee Chia-Lin Tseng (primary supervisor).

2014 Excellence in reviewing for the International Journal of Radiation Oncology, Biology, Physics. (Distinction)
Award as outstanding reviewer for the journal.

2014 Factors influencing vertebral compression fracture specific to renal cell carcinoma spinal metastases after stereotactic body radiotherapy: A multi-institutional study, Senior responsible author, Best of ASTRO. (Distinction)
Selected to be highlighted at the “Best of ASTRO 2014” symposium held in Miami, USA, trainee Isabelle Thibault (primary supervisor).

2014 Salvage spine stereotactic body radiotherapy (SBRT) for spinal metastases that failed initial SBRT: A first report, Senior responsible author, Best of ASTRO. (Distinction)
Selected to be highlighted at the “Best of ASTRO 2014” symposium held in Miami, USA, trainee Isabelle Thibault (primary supervisor).

2013 Cochrane review: Radiation dose escalation for high grade glioma. (Distinction)
Fellow award: Luluel Khan (primary supervisor).

2013 Excellence in reviewing for the International Journal of Radiation Oncology, Biology, Physics. (Distinction)
Award as outstanding reviewer for the journal.

2013 Individual patient data (IPD) meta-analysis of randomized controlled trials comparing stereotactic radiosurgery (SRS) alone to SRS plus whole brain radiation therapy in patients with brain metastases, Best of ASTRO. (Distinction)
Selected to be highlighted at the “Best of ASTRO 2013” symposium held in Miami, USA.

2013 Spine stereotactic body radiotherapy for metastatic renal cell cancer: Local control and analysis of predictive and prognostic factors, Senior responsible author, International Stereotactic Radiosurgery Society 11th bi-annual meeting. (Distinction)
Young investigator award, trainee Isabelle Thibault (primary supervisor).

2012 Meta-analysis evaluating stereotactic radiosurgery, whole brain radiotherapy, or both for patients presenting with a limited number of brain metastases, Principal author, European Association of Neuro-Oncology (EANO). (Distinction)
Best article in 2011 sub-section on brain metastases.
NATIONAL
Received

2013 Volunteer of distinction, Brain Tumour Foundation of Canada. (Distinction) Award for exceptional voluntary work for the Brain Tumour Foundation of Canada.

2010 Stereotactic body radiation therapy of the spine using the Elekta synergy, hexapod and bodyFIX systems, Senior responsible author, Canadian Association of Radiation Oncology (CARO). (Distinction) Award for best CARO abstract in radiation/medical physics (shared with Co-PI Derek Hyde PhD).

PROVINCIAL / REGIONAL
Received

2016 Leaders Circle Ambassador, Leaders Circle, Toronto, Ontario, Canada. (Distinction) Award for bringing 2013 International Stereotactic Radiosurgery Congress to Toronto.

2012 Clinical Scientist, Ontario Association of Radiation Oncologists (OARO), Toronto, Ontario, Canada. (Distinction) Award designation and support as a clinician scientist.

2008 Cancer Care Ontario quality award for the Rapid Response Radiotherapy Program, Collaborator, Cancer Care Ontario, Toronto, Ontario, Canada. (Distinction, Specialty: Quality assurance award, radiation oncology) Award for program excellence.

LOCAL
Received

2016 Department of Radiation Oncology chair’s award for academic excellence in research, University of Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology) Dosimetric feasibility of the hybrid magnetic resonance imaging (MRI)-LINAC system for brain metastases: The impact of the magnetic field. Fellow award: Chia-Lin (Eric) Tseng (primary supervisor).

2015 Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award) Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.

2014 Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award) Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.

2013 Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction, Specialty: Research and clinical performance award) Award for outstanding research and clinical practice by the Chief of Radiation Oncology, Sunnybrook Health Sciences Centre.

2013 Radiation Medicine Program Princess Margaret Cancer Centre, research productivity award, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology) Award for highest research productivity within the department.

2013 University of Toronto Spine Program, SpineFEST 2011, 3rd place in clinical oral
presentation award, primary supervisor, Toronto, Ontario, Canada. (Research Award)
Award for the abstract ‘Surgical resection of epidural disease improves local control following
surgical resection of epidural disease improves local control following stereotactic body radiotherapy (SBRT); trainee Isabelle Thibault (primary supervisor).

Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual
performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada.
(Distinction, Specialty: Research and clinical performance award)
Award for outstanding research and clinical practice by the Chief of Radiation Oncology,
Sunnybrook Health Sciences Centre.

2012
Odette Cancer Centre, Sunnybrook Health Sciences Centre Allan E. Tiffin award,
Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)
Award to perform research in MRI and brain metastases response following radiosurgery.
Total Amount: 45,000 CAD

Radiation Medicine Program Princess Margaret Cancer Centre, research productivity
award, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation Oncology)
Award for highest research productivity within the department.

University of Toronto Spine Program, SpineFEST 2011, 1st place in clinical oral
presentation award, Toronto, Ontario, Canada. (Research Award)
Award for the abstract ‘Predictors of vertebral compression fracture (VCF) post-spine
surgical resection of epidural disease improves local control following stereotactic body radiotherapy (SBRT): Analysis of predictive factors’, trainee, Marcello
Pecora (primary supervisor).

Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual
performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada.
(Distinction, Specialty: Research and clinical performance award)
Award for outstanding research and clinical practice by the Chief of Radiation Oncology,
Sunnybrook Health Sciences Centre.

Radiation Medicine Program, Princess Margaret Hospital, most influential research
publication 2011 award, Toronto, Ontario, Canada. (Specialty: Research publication award,
Radiation Oncology)
Award for the publication with the greatest potential for influence in the future.

University of Toronto Spine Program, SpineFEST 2011, 2nd place in clinical oral
presentation award, Toronto, Ontario, Canada. (Research Award)
Award for the abstract ‘Local control with stereotactic body radiotherapy (SBRT) for spinal
metastases: Is it dose or biology that matters’, trainee publication, Laura Masucci (primary
supervisor).

Department of Radiation Oncology, Sunnybrook Health Sciences Centre, annual
performance award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada.
( Distinction, Specialty: Research and clinical performance award)
Award for outstanding research and clinical practice by the Chief of Radiation Oncology,
Sunnybrook Health Sciences Centre.

Department of Radiation Oncology, University of Toronto best annual research
performance award, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation
Oncology)
Award for most peer reviewed papers in one year as selected by the Department of
Radiation Oncology.

Department of Radiation Oncology, University of Toronto outstanding research
potential award, Toronto, Ontario, Canada. (Research Award, Specialty: Radiation
Oncology)
Award for outstanding research potential as selected by the Department of Radiation
Oncology.
2000 Highest standing pediatrics 3rd year clinical rotation medical school, Clinical clerk, University of Ottawa, Ottawa, Ontario, Canada. (Distinction, Specialty: Clinical award, Pediatrics) Recognition for achieving the highest standing in pediatrics 3rd year clinical rotation. Total Amount: 500 CAD

Teaching and Education Awards

LOCAL
Received
2013 Department of Radiation Oncology, University of Toronto, professional development and continuing medical education award, Toronto, Ontario, Canada. (Specialty: Teaching award, Radiation Oncology) Award for leading major educational activities - International Stereotactic radiosurgery Society 11th bi-ennial meeting, June 2013 in Toronto, Canada.

2013 Radiation Medicine Program Princess Margaret Cancer Centre, AEP “Putting Innovation to Work” award, Toronto, Ontario, Canada. (Specialty: Radiation Oncology) Award for the creation of the paraspinal image guidance course.

2013 Radiation Medicine Program Princess Margaret Cancer Centre, AEP award highest overall average teaching effectiveness score, Toronto, Ontario, Canada. (Specialty: Radiation Oncology) Teaching award.

2012 Radiation Medicine Program, Princess Margaret Hospital, best rounds for 2012, Toronto, Ontario, Canada. (Specialty: Presentation award, Radiation Oncology) Award for the best rounds presented based on those evaluations of all weekly rounds given for the radiation medicine program at the Princess Margaret Hospital in 2012.

2011 Radiation Medicine Program, Princess Margaret Hospital, best rounds for 2011, Toronto, Ontario, Canada. (Specialty: Presentation award, Radiation Oncology) Award for the best rounds presented based on those evaluations of all weekly rounds given for the Radiation Medicine Program at the Princess Margaret Hospital in 2011.

2010 Radiation Medicine Program, Princess Margaret Hospital, post-graduate mentorship award, Mentor, University of Toronto, Toronto, Ontario, Canada. (Specialty: Teaching award, Radiation Oncology) Award for outstanding mentoring of post-graduate students.

2009 Best research project supervisor award, Supervisor, Department of Radiation Medicine, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada. (Specialty: Teaching award, Radiation Oncology) Award for best research project supervisor of post-graduate students.

Student/Trainee Awards

LOCAL
Received
2014 2014 D+H SRI research summer student award program, primary supervisor. Sunnybrook Research Institute (SRI) Studentship for Stephanie Zhou to work on MR Linac. Total Amount: 3,200 CAD
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 - present Radiosurgery Society
2014 - present American College of Radiology
2014 - present AOSpine
2013 - present Society of Neuro-Oncology
2010 - present International Stereotactic Radiosurgery Society
2007 - present Acoustic Neuroma Society of Canada
2007 - present American Society for Therapeutic Radiology and Oncology
2007 - present Canadian Association for Radiation Oncology
2007 - present Canadian Brain Tumour Consortium
2010 - 2013 Canadian Spine Society
2007 - 2014 Canadian Association of Brain Tumours

Administrative Activities

INTERNATIONAL

1st Annual conference on innovations in cancer therapy and response monitoring
2015 - 2016 Co-Chair, Toronto, Ontario, Canada.
Co-chairs are Dr. Gregory Czarnota, Dr. Gregory Stanisz, Dr. Michael Kolios.

1st Annual conference on innovations in radiation engineered therapy
2015 - 2016 Co-Chair, Toronto, Ontario, Canada.
Co-chair is Dr. Gregory Czarnota.

American Association of Physics in Medicine
2013 - present Participating Member and Report Co-Author AAPM TG-178
Gamma Knife standards committee.
2011 - present Participating Member
AAPM Biologic Effects Committee - Working group on biologic effects of hypofractionated radiotherapy which includes the SBRT TCP group, SBRT NTCP group, SBRT rationale for Rx group, SBRT TCP cranial group, SBRT NTCP cranial group, SBRT TCP spinal group, and SBRT NTCP spinal group.

American College of Radiology
2014 - present Panel Member
ACR Appropriateness Criteria (AC) expert panel on RO-bone metastases.

American Society of Therapeutic Radiation Oncology (ASTRO)
2014 - present Member
History committee.
2014 - present Member
CNS track committee.
2015 Discussant
CNS IV - Spinal SBRT; Melanoma of Brain and Ocular Structures.
Member and Report Co-author
Bone metastases committee, ASTRO 3rd international consensus panel.

Member
Malignant epidural spinal cord compression committee, ASTRO 3rd international consensus panel.

AOSpine Knowledge Forum Tumor Steering Committee
2016 - present Member
AOSpine research organization spine tumor systematic review/advocacy subcommittee steering committee representative.

2014 - present Member
AOSpine tumor knowledge forum steering committee.

2010 - 2014 Member
AOSpine spineNET research clinical trials group.

Bologna-Budapest Spine
2015 Session Chair, Bologna, Italy.
4th Bologna-Budapest spine meeting on tumors and osteoporosis, session 2 - case discussion 1st part (spine tumors).

Elekta Consortium for Linac Based Radiosurgery
2015 - present Participating Member
Elekta administrative committee led by Massachusetts General Hospital, Boston.

Elekta Consortium for MR Linac
2015 Participating Member, Toronto, Ontario, Canada.
Steering committee member.

Elekta Consortium for Oligometastases Research
2014 - present Principal Investigator/Project Lead
International research group to report outcomes on oligometastases.

Elekta Stereotactic Spine Consortium for Radiosurgery
2011 - present Participating Member
Elekta stereotactic spine group administrative committee led by Wurzberg, Germany.

International Brain Tumor Research and Therapy
2010 - 2012 Local Organizing Committee Member, Niagara Falls, Ontario, Canada.
ASILOMAR international brain tumor research and therapy meeting.

International Stereotactic Radiosurgery Society
2016 - present Scientific Committee Member
2015 - 2017 Ex-Officio Board Member
2011 Scientific Session Facilitator
10th bi-annual International Society of Stereotactic Radiosurgery meeting, spine scientific abstract session, Seoul, Korea.

2011 - 2015 Board Member
2010 - 2013 Meeting Chairman
11th bi-annual International Society of Stereotactic Radiosurgery meeting for 2013, Toronto,
Ontario, Canada.

2009

**Scientific Session Facilitator**
9th bi-annual International Society of Stereotactic Radiosurgery meeting, head and neck and prostate scientific abstract session, San Francisco, California, USA.

2007

**Scientific Session Facilitator**
9th bi-annual International Society of Stereotactic Radiosurgery meeting, benign spine radiosurgery tumor scientific abstract session, San Francisco, California, USA.

Memorial Sloan Kettering Cancer Center (MSKCC) Spine SBRT Working Group
2009 - 2012 **Participating Member**, New York, United States.

**Neuro-Oncology Journal**
2016 - 2017 **Chief Editor**
*Supplement on advanced radiation technology.*

**NRG Oncology Cancer Prevention and Control (CPC) Committee**
2015 - present **Member**
*Committee on trial application for review on cancer prevention and control.*

**Radiologic Society of North America**
2012 - 2013 **Medical Advisor**
*RSNA RadiologyInfo.org public education website - radiosurgery/SBRT information subsection.*

**Society of Neuro-Oncology**
2011 **Co-Chair**, Anaheim, California, United States.
*Society of Neuro-Oncology annual meeting education day.*

**NATIONAL**
**Acoustic Neuroma Society of Canada**
2008 - 2014 **Member, Medical Advisory Board**

**Brain Tumour Foundation of Canada**
2009 - present **Member, Professional Advisory Group**
*Medical expert for patients contacting the organization.*
2013 - 2015 **Board Member**

**Canadian Association of Radiation Oncology**
2010 - 2012 **Committee Chair and Report Author**, Canada.
*Stereotactic body radiotherapy working group.*
2010 **Scientific Session Facilitator**, Canada.
*Central nervous system abstract session, 24th annual meeting, Vancouver, British Columbia, Canada.*
2009 - 2010 **Member and Report Co-author**, Canada.
*Stereotactic radiosurgery guideline development committee.*
2007 - 2014 **Member, Advisory Group**, Canada.
*Symptom control in radiation oncology.*
Canadian Brain Tumour Consortium
2010 - present  Member
2010 - 2014  Board of Directors

Canadian Melanoma Task Force
2013 - 2016  Member
Brain metastases sub-section.

Canadian Neuro-Oncology (CNO)
2015 - 2016  Scientific Committee Member, Canadian Neuro-Oncology (CNO) scientific program committee, 17th biennial meeting, Toronto, Ontario, Canada.

Clinical Trials
2016 - present  SBRT QA Chair
The role of stereotactic body radiotherapy in the management of castration-resistant prostate cancer with oligometastases: An adaptive phase II/III randomized trial.

National Cancer Institute of Canada - Clinical Trials Group
2016 - present  Trial Committee & QA chair NCIC CTG BR.35
A randomized phase II study of precision radiotherapy for oligometastatic non-small cell lung cancer (PROMISE-NSCLC).

2013 - present  Study Chair NCIC CTG IND.224
A phase II study of concurrent dabrafenib and trametinib with stereotactic radiation in the management of patients with BRAF mutation-positive malignant melanoma and brain metastases.

2013 - present  Representative
CNS site group for the National Cancer Institute of Canada.

2012 - present  Study Chair NCIC CTG SC24
A phase II randomized feasibility study comparing stereotactic body radiotherapy (SBRT) versus conventional palliative radiotherapy (CRT) for patients with spinal metastases.

2007 - present  Member, Advisory Group
Symptom control in radiation oncology.

2016  Senior Leadership Committee Member
Participate in new strategic plan for NCIC-CTG.

2011 - 2014  Member
Quality assurance radiation coordinator for the EORTC-led CATNON clinical trial.

2008 - 2009  Representative
Genito-urinary site group for the National Cancer Institute of Canada.

University of Saskatchewan
2007 - 2008  Radiosurgery Consultant
Provincial proposals: "A second plea to establish a stereotactic radiosurgery program in Saskatchewan" by Dr. Daryl Fourney.

PROVINCIAL / REGIONAL
Cancer Care Ontario
2016 - present  Member
Proton Therapy Expert Panel Member.

2015 - present  Member
Radiation equipment replacement grant committee.

2014 - present  
**Member**
Integrate regional steering committee.

2010 - 2011  
**Guideline Reviewer**
Cancer Care Ontario program for evidence-based care IMRT guideline project.

2010  
**Member**
Cyberknife working group.

Ontario Ministry of Health

2014 - present  
**Expert Reviewer**
Out-of-country approval program.

2008 - 2009  
**Expert Reviewer**
Ontario Ministry of Health out-of-province unit.

LOCAL

Sunnybrook Health Sciences Centre

2015 - present  
**Department Representative**, Toronto, Ontario, Canada.
*Medical Advisory Committee.*

2016  
**Medical Advisory Committee Representative**, Toronto, Ontario, Canada.
5 year Family and Community Medicine Department Review.

University of Toronto

2013 - present  
**Director of the Cancer Ablation Therapy Program**, Toronto, Ontario, Canada.
*Sunnybrook Odette Cancer Centre.*

2013 - present  
**Deputy Chief of Radiation Oncology**, Toronto, Ontario, Canada.
*Sunnybrook Odette Cancer Centre, Department of Radiation Oncology.*

2009 - present  
**Research Committee Member**, Toronto, Ontario, Canada.
Spine program faculty.

2013 - 2014  
**Interim Chief of Medical Physics**, Toronto, Ontario, Canada.
*Sunnybrook Odette Cancer Centre, Department of Radiation Oncology.*

2010 - 2012  
**Member**, Toronto, Ontario, Canada.
Strategic plan cross appointment committee, *Department of Radiation Oncology.*

2009  
**Member**, Toronto, Ontario, Canada.
CARMS selection committee for the 2010 international medical graduate applicants to the University of Toronto Radiation Oncology Residency, *Department of Radiation Oncology.*

2009  
**Member**, Toronto, Ontario, Canada.
Resident examination committee, *Department of Radiation Oncology.*

2008 - 2010  
**Chair**, Toronto, Ontario, Canada.
*Sunnybrook hospital multidisciplinary spine oncology rounds.*

2007 - 2015  
**Advisor to the Editor for Hot Spot**, Toronto, Ontario, Canada.
A non-peer reviewed newsletter of the Rapid Response Radiotherapy Program at Sunnybrook Health Sciences Centre.

2005 - 2006  
**Member**, Toronto, Ontario, Canada.
Radiation oncology post-graduate resident medical education committee, *Department of Radiation Oncology.*

2004 - 2005  
**Member**, Toronto, Ontario, Canada.
CARMS resident selection committee, *Department of Radiation Oncology.*

2003 - 2004  
**Member**, Toronto, Ontario, Canada.
Clinical ethics committee, Sunnybrook and Women’s College Health Sciences Centre.
2001 - 2005 **Member**, Toronto, Ontario, Canada. 
Radiation oncology post-graduate resident medical education committee, Department of Radiation Oncology.

**Peer Review Activities**

**EDITORIAL BOARDS**

**Member**

2016 - present  International Journal of Radiosurgery
2016 - present  Neurosurgery
2013 - present  Technology in Cancer Research and Treatment Express
2012 - present  Advancer in Cancer: Research and Treatment
2012 - present  CNS Oncology
2012 - present  Cureus On-line Medical Journal
2012 - present  Journal of Radiation Oncology
2012 - present  Journal of Spine
2011 - present  Technology in Cancer Research and Treatment
2011 - present  World Journal of Oncology
2010 - present  Journal of Radiosurgery and Stereotactic Body Radiotherapy
2011 - 2012  Peer-E-Med

**GRANT REVIEWS**

**External Grant Reviewer**

2015  The Cancer Society of New Zealand
2014  The Netherlands Organization for Health Research and Development (ZonMw)
2014  The Sylvia Fedoruk Canadian Centre for Nuclear Innovation
2013  King Abdullah International Medical Research Center
2012  United States Department of Defense PCRP, 12-Clinical and Experimental Therapeutics Panel on Prostate Cancer Research

**MANUSCRIPT REVIEWS**

**Reviewer**

2016 - present  European Radiology, Number of Reviews: 2
2016 - present  Expert Review of Neurotherapeutics, Number of Reviews: 1
2016 - present  Frontiers in Neurology, Number of Reviews: 1
2016 - present  Future Oncology, Number of Reviews: 1
2016 - present  JAMA Oncology, Number of Reviews: 2
2016 - present  Nature, Number of Reviews: 1
2016 - present  Neuro-Oncology, Number of Reviews: 1
2016 - present  SciTechnol, Number of Reviews: 1
2015 - present  Advances in Radiation Oncology, Number of Reviews: 1
2015 - present  Cancer Treatment Reviews, Number of Reviews: 1
2015 - present  Case Reports in Ophthalmological Medicine, Number of Reviews: 1
2015 - present  Clinical and Experimental Metastasis, Number of Reviews: 2
2015 - present  Journal of Clinical Imaging Science, Number of Reviews: 2
2015 - present  Journal of the National Comprehensive Cancer Network, Number of Reviews: 1
2015 - present  World Neurosurgery, Number of Reviews: 1
2014 - present  Canadian Journal of Neurological Sciences, Number of Reviews: 6
2014 - present  Cancer Medicine, Number of Reviews: 1
2014 - present  Cancer Medicine and Biology, Number of Reviews: 1
2014 - present  Cureus, Number of Reviews: 4
2014 - present  Head and Neck, Number of Reviews: 2
2014 - present  Journal of Radiation Research, Number of Reviews: 2
2014 - present  Practical Radiation Oncology, Number of Reviews: 5
2013 - present  American Journal of Clinical Oncology, Number of Reviews: 1
2013 - present  CNS Oncology, Number of Reviews: 1
2013 - present  Cochrane Collaboration, Number of Reviews: 1
2013 - present  European Journal of Surgical Oncology, Number of Reviews: 1
2013 - present  Journal of Clinical Oncology, Number of Reviews: 5
2013 - present  Journal of Neurosurgery, Number of Reviews: 52
2013 - present  Journal of Neurosurgery Spine, Number of Reviews: 10
2012 - present  Asia-Pacific Journal of Clinical Oncology, Number of Reviews: 1
2012 - present  Brachytherapy, Number of Reviews: 1
2012 - present  European Journal of Cancer, Number of Reviews: 1
2012 - present  Global Spine Journal, Number of Reviews: 2
2012 - present  Journal of Radiation Oncology, Number of Reviews: 46
2012 - present  Nature Reviews Clinical Oncology, Number of Reviews: 2
2011 - present  Acta Oncologica, Number of Reviews: 3
2011 - present  Biomed Central, Number of Reviews: 1
2011 - present  Dove Medical Press, Number of Reviews: 2
2011 - present  International Journal of Computer Assisted Radiology and Surgery, Number of Reviews: 1
2011 - present  Journal of Cancer Research and Therapeutics, Number of Reviews: 2
2011 - present  Journal of Nuclear Medicine and Radiation Therapy, Number of Reviews: 1
2011 - present  Journal of Pain and Symptom Management, Number of Reviews: 1
2011 - present  Journal of Palliative Medicine, Number of Reviews: 1
2011 - present  Journal of Radiosurgery and Stereotactic Body Radiotherapy, Number of Reviews: 4
2011 - present  Lancet Oncology, Number of Reviews: 3
2011 - present  Medical Oncology, Number of Reviews: 1
2011 - present  Neurosurgery, Number of Reviews: 27
2011 - present  Peer-E-Med, Number of Reviews: 1
2011 - present  Plos1, Number of Reviews: 1
2010 - present  Clinical Oncology, Number of Reviews: 9
2010 - present  Current Oncology, Number of Reviews: 3
2010 - present  Radiation Oncology, Number of Reviews: 12
2010 - present  Radiotherapy and Oncology, Number of Reviews: 10
2010 - present  Technology in Cancer Research and Treatment, Number of Reviews: 13
2009 - present  Community Oncology, Number of Reviews: 1
2007 - present  Cancer, Number of Reviews: 9
C. Academic Profile

1. RESEARCH STATEMENTS

Research Statement.
My research focus relates to my training and clinical expertise in spinal metastases, brain metastases and primary central nervous system tumours. I have expertise in technical evaluation of radiation apparatus, and in developing and conducting clinical trials specific to brain radiosurgery and stereotactic body radiotherapy. I have a major interest in fundamental technical research and development specific to MR Linac technology, Gamma Knife technology and the general application of MR in radiation planning and delivery. In line with high precision radiotherapy treatments, I participate in the development of focal non-radiotherapeutic modalities for spine and brain tumors using photodynamic therapy, radiofrequency ablation and MRI guided ultrasound technology.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


To develop multimodal treatment planning software and hardware that integrates RFA dose with radiation dose in one system.


This study will test the hypothesis that an 8 week MBI for brain tumour survivors will be more effective than treatment as usual in reducing depressive symptoms and mental fatigue, as well as improving quality of life.


Developing an image guided cluster at Sunnybrook Research Institute, Sahgal component 1,057,500 CAD.


Population-based study of the factors influencing the outcomes of low grade astrocytoma.


A phase I study examining the use of photodynamic therapy to treat vertebral metastases from breast cancer.

Examining patterns of relapse in glioblastoma patients treated with chemoradiation.

NON-PEER-REVIEWED GRANTS

FUNDED


2014 - 2020  
**Co-Investigator.** A phase 2, multi-centre study of stereotactic radiotherapy for oligo-progression in metastatic renal cell cancer patients receiving 1st line sunitinib therapy. Pfizer Inc. PI: Bjarnasson G, Cheung P. Collaborator(s): Sahgal A, Chu W, Heng D. 551,261 CAD. 
[Grants]  
*Evaluation of the safety and feasibility of SRT for oligo-progression patients with metastatic RCC.*

2014 - 2019  
**Principal Investigator.** Elekta WFM project. Elekta AB. Collaborator(s): Chin, L. 142,500 CAD. [Grants]  
*Developing Mosaic for MR Linac.*

2014 - 2019  
**Co-Investigator.** Investigation of plan quality for spine SBRT and brain SRT using the Monaco treatment planning system. Elekta AB. PI: Rushin, M. Collaborator(s): Sahgal A, Soliman H, Lee Y. 100,000 CAD. [Grants]  
*Evaluation of Monaco for brain and spine SBRT.*

2014 - 2019  
**Principal Investigator.** Randomized study of SRS vs. SRS plus WBRT for 5 to 15 metastases. Elekta AB. 4,500,000 CAD. [Grants]  
*Evaluation of SRS for multiple brain metastases.*

2014 - 2019  
**Principal Investigator.** Monaco dosimetry studies for MR linac. Elekta AB. Collaborator(s): Keller, B. 605,531.25 CAD. [Grants]  
*Evaluation of treatment planning for the MR linac.*

2014 - 2016  
**Co-Principal Investigator.** SRT/SBRT elearning modules. Elekta AB. PI: Di Prospero, L. Collaborator(s): Sahgal, A, Soliman, H. 40,000 CAD. [Grants]  
*Developing educational modules for SRT and SBRT.*

2014 - 2015  
**Co-Investigator.** Comprehensive stereotactic radiotherapy for oligometastatic prostate cancer: A phase I/II study proposal (CROP). Abbvie Investigator Initiated Grant. REB# 185-2014. PI: Cheung, P. Collaborator(s): Chung P, Loblaw A, Sahgal A, Bristow R. 246,866 USD. [Clinical Trials]  
*To determine the incidence of late toxicities associated with comprehensive stereotactic radiotherapy of all disease sites in patients with hormone sensitive oligometastatic prostate cancer, and to determine the efficacy of such an approach.*

2013 - 2016  

2013 - 2014  

2013 - 2014  
*Development of a new program for Sunnybrook to reduce burnout with mindfulness techniques.*

2012 - 2016  
**Principal Investigator.** Early prediction of response for brain metastases following

2012 - 2013


2011 - 2016


2010 - 2012


2010 - 2012


2009 - 2012


2009 - 2012


2009 - 2011


2009 - 2011


2009 - 2010

Local Co-Investigator. A randomized, double blind, placebo controlled multicentre phase III trial of bevacizumab, temozolomide and radiotherapy, followed by bevacizumab and temozolomide versus placebo, temozolomide and radiotherapy followed by placebo and temozolomide in patients with newly diagnosed glioblastoma. F. Hoffmann-La Roche Ltd. PI: Mason, W. Collaborator(s): Laperriere JN, Menard CM, Sahgal A, Millar B. [Clinical Trials]
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


As the committee chairperson for the spine section of the Response Assessment in Neuro-Oncology (RANO) group, which is an international group of experts in all aspects of neuro-oncology, I led this international effort to standardize practice and clinical endpoints specific to spine SBRT. This is the first part of the SPINO committee’s scope that details what imaging protocols should be used for planning and follow-up, and response criteria for pain and imaging-based local control. This paper will serve as the benchmark for clinical trial development, and the principles have been adhered to in the SC24 Canadian Phase 2 Spine SBRT trial.

This paper represents Level 1 evidence, as an individual patient data meta-analysis, supporting SRS alone for younger patients with a survival benefit. This research was the result on an international collaboration showing for the first time a survival advantage for SRS alone. This paper has been recognized as practice changing with an accompanying editorial, invited comment in Lancet Oncology, and several media announcements. Ultimately, this analysis is a major contribution to practice change away from whole brain radiation to stereotactic radiosurgery alone. The International Journal of Radiatiation, Oncology, Biology, Physics reported that this paper was their 2nd most downloaded paper during 2015.


This paper is the first multi-institutional analysis of vertebral compression fracture following SBRT. It confirms my prior work (Cunha et al.), and clearly indicates a dose-complication relationship. This report also confirms three of the six SINS factors as significant and supports its use in determining high risk patients for fracture. Ultimately, this paper has had impact as it detracts from high dose single fraction SBRT due to the high complication rate.


These data represent the most extensive dosimetric data for spinal cord tolerance to be published. We created a first logistic regression model for radiation myelopathy and SBRT to generate safe tolerance doses to the spinal cord in 1 to 5 fractions. This was a multi-institutional and international collaboration, and the recommended threshold doses are being adopted globally in clinical practice including clinical trials. Furthermore, the AAPM spinal cord guidelines for SBRT (HYTEC) have endorsed these data.


This paper is a first report of re-irradiation spinal cord tolerance specific to re-irradiation with spine SBRT. As a result of a multi-institutional collaboration cases of re-treatment myelopathy were collected and compared to control and the data modelled to provide tolerance doses for 1 to 5 fractions given various ranges of prior radiotherapy. Until this paper, there had been no benchmark for cord tolerance with re-irradiation SBRT and this paper is a landmark study. These data have been adopted globally and represent a standard for safe re-irradiation SBRT practice.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


62. Kubicky CD, Sahgal A, Chang EL, Lo SS. Rare primary central nervous system tumors. Rare Tumors. 2014 Jul 30;6(3):5449. **Coauthor or Collaborator.**


Arjun SAHGAL BSC, MD, FRCPC


127. Tsao M, Xu W, Sahgal A. A meta-analysis evaluating stereotactic radiosurgery, whole-brain radiotherapy, or both for patients presenting with a limited number of brain metastases. Cancer. 2012 May 1;118(9):2486-93. Senior Responsible Author.


Arjun SAHGAL BSC, MD, FRCPC


Editorials


Letters to Editor


Interview


Journal Issues Edited


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Books Edited


Book Chapters


Arjun SAHGAL BSC, MD, FRCPC


### Manuals

1. Malignant brain tumour handbook. In: Brain Tumour Foundation of Canada., editor(s). (Canada); 2012. **Editor.**

2. Non-malignant brain tumour handbook. In: Brain Tumour Foundation of Canada., editor(s). 1. (Canada); 2011. **Editor.**

Editorials

Magazine Entries

Online Resources

Newsletters


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2016 Visiting Professor. Stereotactic body radiotherapy for spinal metastases: Where we have been and where we need to go. University of Rochester. Rochester, New York, United States.


2016 Invited Speaker. Overcoming the limitations of spine SBRT for spinal metastases. 11th Meeting of Korean Radiosurgery Society. Seoul, Korea, Republic Of.


2016 Invited Speaker. Hypofractionated stereotactic radiosurgery for brain metastases. 18th International Leksell Gamma Knife Society Meeting. Amsterdam, Netherlands.

2016 Invited Speaker. 24 Gy is too much. Memorial Sloan Kettering Cancer Center Multidisciplinary Spine Oncology Symposium. New York, New York, United States.


2016 Invited Speaker. SBRT in the setting of cord compression, SBRT in the post-operative patient. 3rd


**2016 Invited Speaker.** Spine SBRT: What we have learned and what we need to go further. Radiation Oncology Grand Rounds, Roswell Park Cancer Institute. Buffalo, New York, United States.


**2015 Invited Speaker.** Stereotactic body radiotherapy for spinal metastases. Radiosurgery Society Webinar.

**2015 Visiting Professor.** Stereotactic body radiotherapy for spinal metastases: A new paradigm for success and adverse effects. Neurosurgery Grand Rounds at Massachusetts General Hospital. Boston, Massachusetts, United States.

**2015 Invited Speaker.** Stereotactic radiosurgery for brain metastases. The Royal Australian and New Zealand College of Radiologists New South Wales Radiotherapy Club and Faculty Branch Meeting. Sydney, New South Wales, Australia.

**2015 Invited Speaker.** SABR contouring, planning and delivery. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney, Sydney, New South Wales, Australia.

**2015 Invited Speaker.** Spine stereotactic body radiotherapy for metastases: Focus on technical aspects of delivery. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney, Sydney, New South Wales, Australia.

**2015 Invited Speaker.** Spine stereotactic body radiotherapy for metastases: Contouring dosimetry/toxicity avoidance. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney, Sydney, New South Wales, Australia.

**2015 Invited Speaker.** Practical session spine SBRT IGRT. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney, Sydney, New South Wales, Australia.

**2015 Invited Speaker.** Stereotactic radiosurgery and stereotactic body radiotherapy: The future of radiation oncology. IAEA/RCA Project RAS 6065 “Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment” SABR Symposium, University of Sydney, Sydney, New South Wales, Australia.


2014  Invited Speaker. Spine SBRT and strategies to mitigate the risk. 56th Annual American Society for Radiation Oncology Meeting. San Francisco, California, United States.


2014  Invited Speaker. Radiotherapy for spinal neoplasms. AOSpine Masters Symposium - Surgical Treatment


2014 **Visiting Professor.** SBRT for treating spine metastases: Where we are and where we are going. Johns Hopkins University. Baltimore. Maryland, United States.


2013 **Visiting Professor.** Spine stereotactic body radiotherapy (SBRT): What do we know and where are we going. University of Utrecht. Utrecht, Netherlands.


2013 **Invited Speaker.** Stereotactic radiosurgery as definitive targeted therapy for brain metastases - No more whole brain radiation. Society of Neuro-Oncology. San Francisco, California, United States.

2013 **Invited Speaker.** Radiation management for spinal metastases: What a surgeon needs to know. Managing the spinal tumor patient: Evidence based therapies and case based treatment option. Medtronic Spine Tumor Course. San Jose, California, United States.

2013 **Invited Speaker.** The radiation oncologist and the spine surgeon: How to establish a practical collaborative model for optimal referral and patient care. Managing the spinal tumor patient: Evidence based therapies and case based treatment option. Medtronic Spine Tumor Course. San Jose, California, United States.

2013 **Invited Speaker.** Case 4-Thoracolumbar renal cell metastases: Debate-Radiosurgery vs Surgery. Managing the spinal tumor patient: Evidence based therapies and case based treatment option. Medtronic Spine Tumor Course. San Jose, California, United States.


2013 **Invited Speaker.** The role of the spinal instability neoplastic score in predicting stereotactic radiosurgery induced vertebral compression fracture. Association for Collaborative Spine Research. San Diego, California, United States.


2012  **Invited Speaker.** Late effects to the spinal cord and bone: A new paradigm in the era of spine SBRT. American Society of Therapeutic Radiation Oncology, Spine Innovative Approaches to the Management of Spinal Metastases Workshop. Boston, Massachusetts, United States.


2011  **Invited Speaker.** Introduction to technology of radiosurgery and stereotactic body radiotherapy: Evolution from brain to spine. Society of Neuro-Oncology Education Day. Anaheim, California, United States.

2011  **Invited Speaker.** Introduction to spine stereotactic body radiotherapy: What is it? What are the outcomes? What are the issues, controversies? Society of Neuro-Oncology Education Day. Anaheim, California, United States.


2011  **Invited Speaker.** Brain metastases and neurocognition. 2nd International Symposium on Long-Term Control of Secondary Central Nervous System Malignancies. Cleveland, Ohio, United States.

2011  **Invited Speaker.** Limitations to spine SBRT and how we overcome them at the University of Toronto. European Elekta Users’ Conference. Warmunde, Germany.

2011  **Invited Speaker.** Human spinal cord tolerance to radiosurgery. 10th International Stereotactic Radiosurgery Congress. Paris, France.


2010  **Invited Speaker.** Brain metastases and neurocognition. International Symposium on Long-Term Control of Secondary Central Nervous System Malignancies. Cleveland, Ohio, United States.

2010  **Visiting Professor.** Stereotactic body radiotherapy for spine metastases and spinal cord tolerance. Mayo Clinic, University of Rochester. Rochester, Minnesota, United States.

2009  **Visiting Professor.** Stereotactic body radiotherapy for spine metastases and spinal cord tolerance. M.D. Anderson Cancer Center, University of Texas. Austin, Texas, United States.


2009  **Invited Speaker.** Inter and intrafractional motion for spine stereotactic body radiotherapy and the dosimetric impact. 3rd Annual International Symposium on Stereotactic Body Radiation Therapy and
Stereotactic Radiosurgery. Orlando, Florida, United States.


2008  **Visiting Professor.** Overview of spine stereotactic body radiotherapy. Yale Medical School. New Haven, Connecticut, United States.

2008  **Visiting Professor.** Spine radiosurgery. Baylor University, Baylor Medical College. Houston, Texas, United States.

2008  **Invited Speaker.** Spinal cord tolerance following spine radiosurgery. American Society of Therapeutic Radiation Oncology, Spine Radiosurgery Workshop. Boston, Massachusetts, United States.


**Presented Abstracts**


**Presented and Published Abstracts**


*Publication Details:*


*Publication Details:*

2016 A phase III randomized controlled trial of short-course radiotherapy with or without concomitant and adjuvant temozolomide in elderly patients with glioblastoma (CCTG CE.6, EORTC 26062-22061, TROG 08.02, NCT00482677). ASCO Annual Meeting. Chicago, Illinois, United States.

*Publication Details:*


*Publication Details:*


*Publication Details:*

Publication Details:

2015
Investigation of differences in dose distributions between two commercial treatment planning systems used for hypofractionated stereotactic volumetric arc radiotherapy (HF-VMAT) of multiple brain metatases. International Stereotactic Radiosurgery Congress. Yokohama, Japan.

Publication Details:

2015
Optimizing orientations of hundreds of beams of intensity-modulated beams to treat multiple brain targets. American Association of Physics in Medicine Annual Meeting. Anaheim, California, United States.

Publication Details:

2015

Publication Details:

2015
Optimal volumetric modulated arc radiotherapy treatment planning technique for brain targets. American Association of Physics in Medicine Annual Meeting. Anaheim, California, United States.

Publication Details:

2015

Publication Details:

2015

Publication Details:

2015
Using UTE and T1 weighted spine echo pulse sequences for MR only treatment planning: A phantom study. American Association of Physics in Medicine Annual Meeting. Anaheim, California, United States.
Publication Details:

2015
Creating a large number of focused beams with variable solid angles to improve dose fall-off near a target for intracranial radiosurgery. International Stereotactic Radiosurgery Congress. Yokohama, Japan.

Publication Details:

2015

Publication Details:

2015

Publication Details:

2015
Factors affecting postoperative surgical cavity volume and surface area dynamics specific to brain metastases. American Society for Radiation Oncology. San Antonio, Texas, United States.

Publication Details:

2015

Publication Details:

2015

Publication Details:

2015

Publication Details:

2014


**Publication Details:**

2014

An international multi-institutional planning study evaluating treatment planning and plan acceptability metrics for spine stereotactic body radiotherapy (SBRT). American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

**Publication Details:**

2014

Cone beam CT (CBCT) - Based evaluation of a noninvasive stereotactic head frame equipped with a vacuum fixation bite-block for radiosurgery. American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

**Publication Details:**

2014


**Publication Details:**

2014


**Publication Details:**

2014


**Publication Details:**
technical factors of stereotactic body radiotherapy (SBRT) for oligometastases. Int J Radiat Oncol Biol Phys. 2014;90(15):S3727. **Senior Responsible Author.**

**2014**

Consensus guidelines postoperative stereotactic body radiotherapy (SBRT) for malignant spinal tumors: Results on an international survey. American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

**Publication Details:**

**2014**

De novo versus progression of an existing vertebral compression following spine stereotactic body radiotherapy (SBRT): Separate risk profiles to consider. American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

**Publication Details:**

**2014**

Salvage spine stereotactic body radiation therapy (SBRT) for spinal metastases that failed initial SBRT. American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

**Publication Details:**

**2014**

Impact of prophylactic dexamethasone on pain flare following spine stereotactic body radiation therapy (SBRT). American Society for Radiation Oncology Annual Meeting. San Francisco, California, United States.

**Publication Details:**

**2014**


**Publication Details:**

**2014**

Post-operative stereotactic body radiation therapy (SBRT) for malignant spine tumors. Society for Neuro-Oncology. Miami, California, United States.

**Publication Details:**

**2013**

Post-operative spine stereotactic radiotherapy (SBRT) for patients with spinal metastasis: Predictive and

Publication Details:


Publication Details:


Publication Details:

2013 Developing the NCIC-CTG SC 24 randomized phase II spine SBRT (stereotactic body radiotherapy) study for complex spinal metastases: What should the control group be? International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:


Publication Details:

2013 The impact of treating multiple consecutive vertebrae as a single volume with spine stereotactic body radiotherapy (SBRT) on positional accuracy. International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:


Publication Details:

Publication Details:

2013

Publication Details:

2013

Publication Details:

2013
Outcomes for post-surgical hypofractionated stereotactic cavity radiation therapy (HSCRT) as salvage for patients with prior whole brain radiation (WBRT) as compared to upfront adjuvant HSCRT. International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:

2013

Publication Details:

2013
Evaluation of symmetrically loaded COMS I-125 plaques using the plaque simulator software system and specific to juxtapapillary choroidal melanoma. International Stereotactic Radiosurgery Congress. Toronto, Ontario, Canada.

Publication Details:

2013

Publication Details:


**Publication Details:**


**Publication Details:**


**Publication Details:**

2013 Re-irradiation with stereotactic radiosurgery treatment for spine metastases: Results from an international multicenter database. American Society for Radiation Oncology Annual Meeting. Atlanta, Georgia, United States.

**Publication Details:**

2013 Radiosurgery as primary treatment for vertebral metastases: Results from an international multicentre database. American Society for Radiation Oncology Annual Meeting. Atlanta, Georgia, United States.

**Publication Details:**

2013 Individual patient data (IPD) meta-analysis of randomised controlled trials comparing stereotactic radiosurgery (SRS) alone to SRS plus whole brain radiation therapy in patients with brain metastases. American Society for Radiation Oncology Annual Meeting. Atlanta, Georgia, United States.

**Publication Details:**
2013
Spinal cord tolerance specific to re-irradiation spine stereotactic body radiotherapy (SBRT) following at least 2 courses of prior radiation. American Society for Radiation Oncology Annual Meeting. Atlanta, Georgia, United States.

Publication Details:

2013

Publication Details:

2012

Publication Details:

2012

Publication Details:

2012
Presenter. The risk of vertebral compression fracture (VCF) post-spine stereotactic body radiotherapy (SBRT) and evaluation of the spinal instability neoplastic score (SINS). Congress of Neurologic Surgeons. Chicago, Illinois, United States.

Publication Details:

2012

Publication Details:

2012

Publication Details:

2012

Publication Details:

The incidence of pain flare following stereotactic body radiotherapy for bone metastases. American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

2012
Variability in spine radiosurgery planning - Results on a multi-institutional study. American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

The risk of vertebral compression (VCF) post-spine stereotactic body radiotherapy (SBRT) and evaluation of the spinal instability neoplastic score (SINS). American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

2012

Publication Details:

2012
Outcomes for post-surgical hypofractionated stereotactic cavity radiation therapy (HSCRT) as salvage for patients with prior whole brain radiation (WBRT) as compared to upfront adjuvant HSCRT. American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

2012
Pain flare after stereotactic body radiotherapy for bone metastases. Multinational Association of Supportive Care in Cancer. New York, New York, United States.
2011


Publication Details:

2011


Publication Details:

2011

Local control with stereotactic body radiation therapy (SBRT) for spinal metastases: Is it dose or biology that matters? American Society of Therapeutic Radiation Oncology. Miami, Florida, United States.
Arjun SAHGAL BSC, MD, FRCPC

Publication Details:

2011


Publication Details:

2011

**Presenter.** Stereotactic body radiotherapy (SBRT) spinal cord tolerance. American Society of Therapeutic Radiation Oncology. Miami, Florida, United States.

Publication Details:

2011


Publication Details:

2011


Publication Details:

2011


Publication Details:

2010


Publication Details:

2010

**Presenter.** Human spinal cord re-irradiation guidelines for stereotactic body radiotherapy. American Society of Therapeutic Radiation Oncology. San Diego, California, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2010 Secondary trigemnial neuralgia and gamma knife: A series and discussion. 15th International Meeting of the Leksell Gamma Knife Society. Athens, Greece.

Publication Details:

2010 Development of GK perfexion fractionated treatment technique for the choroidal melanoma. 15th International Meeting of the Leksell Gamma Knife Society. Athens, Greece.

Publication Details:

2010 Apparatus dependent normal tissue dose for radiosurgery of multiple brain metastases. 15th International Meeting of the Leksell Gamma Knife Society. Athens, Greece.
Publication Details:

2010 Implementation of hypofractionated and adaptive radiotherapy for large brain metastases using a relocatable head frame on gamma knife perfexion. 15th International Meeting of the Leksell Gamma Knife Society. Athens, Greece.

Publication Details:


Publication Details:

2009 Non-random intrafraction target motions and strategy of correction for spine stereotactic body radiotherapy. Seoul, Korea, Republic Of.

Publication Details:

2009 The generalized BED model compared to the BED model considering doses safe versus unsafe to the spinal cord following stereotactic body radiotherapy for spinal tumors. International Stereotactic Radiosurgery Society. Seoul, Korea, Republic Of.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009

An analysis of patients who developed spinal myelopathy as a consequence of radiation and their outcomes after treatment with hyperbaric oxygen. Vancouver, British Columbia, Canada.

*Publication Details:*

2009


*Publication Details:*

2009


*Publication Details:*

2009


*Publication Details:*

2009

Is there an advantage to IMRT for hard to treat primary brain cancer? American Society of Therapeutic Radiation Oncology. Chicago, Illinois, United States.

*Publication Details:*

2009


*Publication Details:*

2009

Publication Details:

2009

Publication Details:

2009
Patterns of recurrence of primary glioblastoma multiforme treated with chemoradiation in the temozolomide era. Society for Neuro-Oncology (SNO). New Orleans, Louisiana, United States.

Publication Details:

2009
Correction strategy to overcome non-random target motions for hypofractionated spine radiotherapy. American Association of Physics in Medicine. Anaheim, California, United States.

Publication Details:

2009
Effects of peripheral dose fall-off on biologically equivalent dose to normal brain for intracranial stereotactic radiosurgery and radiotherapy. American Association of Physics in Medicine. Anaheim, California, United States.

Publication Details:

2009
Cone beam CT observations of intrafraction shifts during intracranial treatments for patients held in a mask. American Association of Physics in Medicine. Anaheim, California, United States.

Publication Details:

2008
Pseudo-progression following concurrent radiation and temozolomide for glioblastoma. American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.

Publication Details:

2008
Presenter. Preliminary guidelines for avoidance of radiation induced myelopathy following spine stereotactic body radiosurgery (SBRS). American Society of Therapeutic Radiation Oncology. Boston, Massachusetts, United States.
Publication Details:

2007

Publication Details:

2007
Safe spinal cord and cauda equina partial volume tolerances for spinous/paraspinous radiosurgery. American Society for Therapeutic Radiology and Oncology Annual Meeting. Los Angeles, California, United States.

Publication Details:

2007
Presenter. Proximity of spinous/paraspinous radiosurgery target to the spinal cord versus risk of local failure. American Society for Therapeutic Radiology and Oncology Annual Meeting. Los Angeles, California, United States.

Publication Details:

2007
Presenter. A comparison of dosimetric and biological effective dose (BED) parameters for the prostate and urethra using Cs-131 and I-125 for prostate brachytherapy. American Society for Therapeutic Radiology and Oncology Annual Meeting. Los Angeles, California, United States.

Publication Details:

2007

Publication Details:

2007

Publication Details:

2003
Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2014  **Invited Speaker.** Stereotactic radiosurgery for brain metastases - No more whole brain radiation please. 8th Canadian Melanoma Conference. Banff, Alberta, Canada.

2014  **Visiting Professor.** Stereotactic Radiosurgery for Brain Metastases - No More Whole Brain Radiation Please. Cross Cancer Institute, University of Alberta. Edmonton, Alberta, Canada.

2013  **Invited Speaker.** Stereotactic body radiotherapy (SBRT) for spine metastases and vertebral compression fracture management within an interdisciplinary care team. Foothills Hospital Symposium. Calgary, Alberta, Canada.


2012  **Invited Speaker.** Non-surgical treatment of spinal metastases - When to consider spine radiosurgery. 7th Annual Canadian Contemporary Spinal Techniques Course. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Why spine SBRT? Target Insight VI. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Stereotactic body radiotherapy for high risk spinal metastases: SBRT vs CRT for complex spinal metastases. NCIC CTG SC.24 National Cancer Institute of Canada Clinical Trials Group Symptom Control Committee. Toronto, Ontario, Canada.

2011  **Visiting Professor.** Stereotactic body radiotherapy for spine metastases: Current status and future directions. Centre Hospitalier De L'University De Montreal, University of Montreal. Montreal, Quebec, Canada.


2011  **Invited Speaker.** Spine SBRT, cord tolerance. Canadian Association of Radiosurgery. Winnipeg, Manitoba, Canada.


2010  **Invited Speaker.** Spine metastases. 10th Princess Margaret Hospital Conference. Toronto, Ontario, Canada.


**Presented Abstracts**


Presented and Published Abstracts

2014 Factors affecting post-operative surgical cavity volume and surface area dynamics specific to brain metastases. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2014 Salvage spine stereotactic body radiation therapy (SBRT) for spinal metastases that failed initial SBRT: A
first report. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Ontario, Canada.

**Publication Details:**
Thibault I, Campbell M, Tseng C, Al-Omair A, Locharay F, Letourneau D, Yu E, Lee YK, Fehlings MG, Sahgal A. Salvage spine stereotactic body radiation therapy (SBRT) for spinal metastases that failed initial SBRT: A first report. Radiother Oncol. 2014;112(1):S78. **Senior Responsible Author.**

2014 Impact of prophylactic dexamethasone on pain flare following spine stereotactic body radiation therapy (SBRT). Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

Outcomes following resuscitation for cardio-respiratory arrests specific to oncology in-patients. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

Vertebral compression fracture (VCF) after spine stereotactic body radiotherapy (SBRT): Analysis of predictive risk factors for the de novo versus progression of an existing fracture. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

Quality of life module for metastatic spinal cord compression diagnosis: Health care provider and patient reported outcomes. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

Dosimetric impact of combined rotational and translational setup errors on spinal cord dose in patients treated with spine stereotactic body radiotherapy (SBRT) for spinal metastasis. Canadian Association of Radiation Oncology Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

**Publication Details:**

Health care professionals evaluation of quality of life issues in patients with brain metastases. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.


2013 Effectiveness of rescue dexamethasone for pain flare in spine stereotactic body radiotherapy for metastatic renal cell cancer. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.


2013 Local control, patterns of failure and vertebral compression fracture after spine stereotactic body radiotherapy for metastatic renal cell cancer. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.


2013 Post-operative stereotactic body radiotherapy (SBRT) for patients with spinal metastases: predictive and prognostic factor analysis. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.


Publication Details:


Publication Details:

2012 Developing the NCIC-CTG SC 24 randomized phase II spine SBRT (stereotactic body radiotherapy) study for complex spinal metastases: What should the control group be? Canadian Association of Radiation Oncology Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:


Publication Details:

2012 Outcomes for post-surgical hypofractionated stereotactic cavity radiotherapy (HSCRT) as salvage for patients with prior whole brain radiotherapy (WBRT) as compared to upfront adjuvant HSCRT. Canadian Association of Radiation Oncology Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:


Publication Details:


Publication Details:

2011 Volumetric based thresholds to define local control of brain metastases following gamma knife radiosurgery and predictors of local control and overall survival. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:


Publication Details:

2011 Local control with stereotactic body radiation therapy (SBRT) for spinal metastases: Is it dose or biology that matters. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:

2011 Feasability and clinical tolerability of the extend relocatable head frame for perfexion intra-cranial stereotactic radiotherapy. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

Publication Details:


Publication Details:


Publication Details:

**Publication Details:**

2011

A re-analysis of symptom clusters in advanced cancer patients using three statistical methods. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

**Publication Details:**

2011

Functional interference due to pain following palliative radiotherapy for bone metastases among patients in their last three months of life. Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

**Publication Details:**

2011

Palliative radiotherapy for bone metastases in the last three months of life: Worthwhile or futile? Canadian Association of Radiation Oncology Annual Meeting. Winnipeg, Manitoba, Canada.

**Publication Details:**

2010

Impact of immobilization on intra-fraction motion for spine stereotactic body radiotherapy (SBRT) using cone-beam CT (CBCT). American Society of Therapeutic Radiation Oncology.

**Publication Details:**

2010


**Publication Details:**

2010

**Presenter.** Re-irradiation spinal cord tolerance. Canadian Association of Radiation Oncology Annual Meeting. Vancouver, British Columbia, Canada.

**Publication Details:**

2010


**Publication Details:**
Laperriere N, Menard C, Millar B-A, Sahgal A, Payne D, Mason W. Prognostic factors and outcomes for


Publication Details:


Publication Details:


Publication Details:

2010 Stereotactic body radiation therapy of the spine using the elekta synergy, hexapod and BodyFIX systems. Canadian Association of Radiation Oncology Annual Meeting. Vancouver, British Columbia, Canada.

Publication Details:


Publication Details:


Publication Details:

2009 SBRT of spinal lesions utilizing the elekta beam modulator, hexapod couch and bodyfix systems. Canadian Organization of Medical Physics. Vancouver, British Columbia, Canada.
Publication Details:

2009
Is there an advantage to IMRT for hard to treat primary brain cancer? Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

2009
Treatment planning with volumetric modulated arc therapy for stereotactic body radiotherapy (SBRT) of spinal/paraspinal tumors. Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

2009
Quality of life measures used in radiation therapy trials for metastatic spinal cord compression (MSCC) patients: A literature review. Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

2009
Presenter. Spinal cord tolerance for stereotactic body radiotherapy. Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

2009
Presenter. Significant late toxicities associated with stereotactic radiotherapy for juxtapapillary choroidal melanoma. Canadian Association of Radiation Oncology Annual Meeting. Quebec City, Quebec, Canada.

Publication Details:

2008
Neovascular glaucoma following stereotactic radiotherapy for choroidal melanoma: A dosimetric analysis. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

2008
Early imaging changes mimicking progression for glioblastoma in the combined chemotherapy era. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

Publication Details:
Sanghera P, Symons S, Sahgal A, Morrison M, Avir R, Perry J, Tsao M. Early imaging changes

2008 **Presenter.** Preliminary guidelines for avoidance of radiation induced myelopathy following spine stereotactic body radiosurgery (SBRS). Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2008 **Presenter.** Stereotactic body radiotherapy (SBRT) for spinous metastases: Preliminary experience at the University of California, San Francisco. Canadian Neuro-Oncology. Banff, Alberta, Canada.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2007 **Presenter.** Proximity of spinous/paraspinous radiosurgery target to the spinal cord versus risk of local failure. Canadian Association of Radiation Oncology Annual Meeting. Toronto, Ontario, Canada.

**Publication Details:**

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2003 Presenter. Preliminary results of patients treated with stereotactic radiotherapy for juxtapapillary choroidal melanoma. Canadian Association of Radiation Oncology Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

Media Appearances


Arjun SAHGAL BSC, MD, FRCPC


2012  Lessons from Toronto’s own Jackie Smith as she dies from cancer. Interviewer: Toronto Star.


Lay public presentation


2013  **Invited Speaker.** A revolution in radiation treatment - new techniques and radiosurgery. Webinar Series for Health Care Professionals by the Brain Tumour Foundation of Canada.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2014  **Invited Speaker.** Stereotactic radiosurgery as definitive therapy for brain metastases. Thunder Bay Regional Cancer Centre. Thunder Bay, Ontario, Canada. Presenter(s): Sahgal A.


2014  **Invited Speaker.** The application of spine SBRT for spinal metastases: A paradigm shift in management. From Hospital to Home the Continuum of Care After SCI. Toronto, Ontario, Canada.


2013 Invited Speaker. Bone Metastases panel discussion. Target Insight VII. Toronto, Ontario, Canada.

2013 Invited Speaker. Vertebral compression management in oncology patients - diagnosis and referral; treatment options; patient selection and staging with adjuvant therapies (SBRT); and building an interdisciplinary care team. Joint Department of Orthopedics and Radiation Oncology Rounds, University of Western Ontario. London, Ontario, Canada.


2011 Invited Speaker. The current dilemma in the management of patients with 1-4 brain metastases. Oncology Ground Rounds, Royal Victoria Hospital. Barrie, Ontario, Canada.

2011 Invited Speaker. The role of radiosurgery in brain metastases and an introduction to radiosurgery for spine metastases. Community Oncologists of Metropolitan Toronto. Toronto, Ontario, Canada.


2010 Visiting Professor. Stereotactic body radiotherapy for spine metastases and spinal cord tolerance. London Regional Cancer Centre, University of Western Ontario. London, Ontario, Canada.


2009 Visiting Professor. Radiosurgery for brain and spine metastases. Credit Valley Hospital. Toronto, Ontario, Canada.


Lay public presentation


2010 Invited Speaker. Acoustic neuroma and radiation: Technology and options. Acoustic Neuroma Society of
Canada: 26th Annual Meeting. Niagara Falls, Ontario, Canada.


### 4. LOCAL

**Invited Lectures and Presentations**


2015 **Invited Speaker.** Controversial cases in the modern management of brain tumors. Michael Rossman Brain Tumour Lectureship. Toronto, Ontario, Canada.


2015 **Invited Speaker.** SBRT to spine and non-spine bones: Rationale and current status. Faculty of Medicine Oncology Continuing Education Rounds. University of Toronto. Toronto, Ontario, Canada.


2014 **Invited Speaker.** Radiation therapy for chordoma. 39th Annual William S. Keith Professorship in Neurosurgery. Division of Neurosurgery, Department of Surgery, University of Toronto. Toronto, Ontario, Canada.

2013 **Invited Speaker.** The management of brain metastases: No more whole brain radiation please. Sunnybrook Odette Cancer Centre Oncology Grand Rounds, Sunnybrook Health Sciences Centre, University of Toronto. Toronto, Ontario, Canada.

2013 **Invited Speaker.** The management of brain metastases: No more whole brain radiation please. Sunnybrook Physical Sciences Seminar, Sunnybrook Health Sciences Centre, University of Toronto. Toronto, Ontario, Canada.


2013 **Invited Speaker.** Radiosurgery for spinal metastases. 90th Anniversary of Neurosurgery in Canada, University of Toronto. Toronto, Ontario, Canada.


2012 **Invited Speaker.** Treatment planning in paraspinal SBRT-From targets to plan optimization. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.
2012  **Invited Speaker.** Developing a paraspinal SBRT program: Prepare to launch. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Multimodality registration for treatment planning exercise. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Late effects of SBRT. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Paraspinal SBRT in action. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Paraspinal disease: Setting the stage. Princess Margaret Hospital Paraspinal IGRT Education Course, University of Toronto. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Stereotactic radiosurgery for spinal tumours. 37th Annual William S. Keith Professorship in Neurosurgery, Division of Neurosurgery, Department of Surgery, University of Toronto. Toronto, Ontario, Canada.

2012  **Invited Speaker.** Advanced radiation technology in the roles of brain tumours and brain metastases. Department of Surgery, Division of Neurosurgery, Resident Academic Teaching Block on Tumours, University of Toronto. Toronto, Ontario, Canada.


2012  **Invited Speaker.** Introduction to CNS tumours and radiosurgery. Odette Cancer Centre, CNS Site Group, Sunnybrook Health Sciences Centre, University of Toronto, Grand Rounds, University of Toronto. Toronto, Ontario, Canada.

2011  **Invited Speaker.** Current management of brain metastases, the neurocognitive effect of WBRT and the future of brain SRS. Odette Cancer Centre, Sunnybrook Health Sciences Centre, University of Toronto, Grand Rounds. Toronto, Ontario, Canada.

2011  **Invited Speaker.** Radiation for brain tumors. Department of Radiology Neuroradiology Program Professor’s Rounds, University of Toronto. Toronto, Ontario, Canada.

2011  **Invited Speaker.** The emerging role of radical palliation. Princess Margaret Hospital Palliative Care Department, Pain and Symptom Management Rounds, University of Toronto. Toronto, Ontario, Canada.

2011  **Invited Speaker.** The management of brain metastases in 2011. Department of Radiation Oncology, Rapid Response Palliative Program Rounds, University of Toronto. Toronto, Ontario, Canada.

2010  **Invited Speaker.** Spinal cord tolerance for spine stereotactic body radiotherapy. Department of Radiation Medicine Rounds, University of Toronto. Toronto, Ontario, Canada.

2010  **Invited Speaker.** Radiation for brain tumors. Department of Radiology, Neuroradiology Program Professor’s Rounds, University of Toronto. Toronto, Ontario, Canada.

2010  **Invited Speaker.** The treatment of paraspinal disease. Image-guided radiotherapy education course, Princess Margaret Hospital, University of Toronto. Toronto, Ontario, Canada.


2010  **Invited Speaker.** The management of brain metastases. Odette Cancer Centre, Sunnybrook Health Sciences Centre, Melanoma Rounds. University of Toronto. Toronto, Ontario, Canada.

2010  **Invited Speaker.** The management of brain metastases in 2010. Department of Radiation Medicine Oncology Rounds, University of Toronto. Toronto, Ontario, Canada.
2010 **Invited Speaker.** The management of brain metastases in 2010. Sunnybrook Health Sciences Centre, Odette Cancer Centre, Oncology Grand Rounds, University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** Spine SBRT and minimal access spine surgery. PMH Innovation Rounds, University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** Spine stereotactic body radiotherapy: A high dose approach for radioresistant tumors. Odette Cancer Centre, Sunnybrook Health Sciences Centre, Melanoma Rounds, University of Toronto. Toronto, Ontario, Canada.

2010 **Invited Speaker.** The management of brain metastases in 2010. Sunnybrook Health Sciences Centre, Division of Neurology Grand Rounds, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Stereotactic body radiotherapy for spinal metastases and spinal cord tolerance to SBRT fractionation. Department of Radiation Medicine Grand Rounds, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Implementing a spine stereotactic body radiotherapy program at the University of Toronto. Department of Radiation Medicine Rounds, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Is radiation the best treatment for anaplastic oligodendroglioma or does it just melt brains? Division of Neurology, J.C. Richardson Neurology Subspecialty Day, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Stereotactic radiosurgery for brain metastases. Odette Cancer Centre, Breast Site Group Rounds, Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.


2009 **Invited Speaker.** Overview of what’s new in nonsurgical treatment of metastatic spinal disease - When to consider radiosurgery. 4th Annual Canadian Contemporary Spinal Techniques Course, University of Toronto. Toronto, Ontario, Canada.

2009 **Invited Speaker.** Technology and biology - Finally, a merging of the minds. University of Toronto Glioma Day: Advances and Therapeutic Challenges. Toronto, Ontario, Canada.


2008 **Invited Speaker.** Stereotactic body radiotherapy for spinal metastases. Division of Rheumatology and Orthopedics Grand Rounds. Toronto, Ontario, Canada.

2008 **Invited Speaker.** Radiosurgery of the spine and radiation tolerance of the spinal cord. E. Harry Botterell Lectureship in Neurosurgery, The Toronto Western Hospital. Toronto, Ontario, Canada.


**Presented Abstracts**


**Presented and Published Abstracts**

2016  Dosimetric feasibility of the hybrid magnetic resonance imaging (MRI)-LINAC system for brain metastases: The impact of the magnetic field. UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Tseng CL. (Trainee Presentation)

*Publication Details:*
Dosimetric feasibility of the hybrid magnetic resonance imaging (MRI)-LINAC system for brain metastases: The impact of the magnetic field. UT-DRO Annual Research Day. 2016:19. **Senior Responsible Author.**

2016  Urinary cytokines/chemokines pattern after magnetic resonance-guided high intensity focused ultrasound
for palliative treatment of painful bone metastases. UT-DRO Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Bushehri A.

Publication Details:

2016

Publication Details:

Media Appearances
2015

2011

Lay public presentation
2010
Invited Speaker. Brain cancer: Primary gliomas. Princess Margaret Hospital; Patient and Survivorship Education Lunch and Learn Session. Toronto, Ontario, Canada.

G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

Please see the Teaching and Educational Report for details.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education
2011 - 2012

2009 - 2010

2009 - 2010
Primary Supervisor. B. Sc. Liang Zeng. Supervisee Position: Third year undergraduate co-

2009 - 2010  

**Graduate Education**

2014 - present  
**Co-Supervisor.** MSc. Anick Nater. Supervisee Position: Neurosurgery resident and graduate student in the Institute of Medical Sciences, Supervisee Institution: University of Toronto, Department of Surgery, Division of Neurosurgery. *Metastatic Epidural Spinal Cord Compression: Comprehensive health-related quality of life and survival based prediction model.*

**Undergraduate MD**

2012 - 2013  

2012 - 2013  

**Postgraduate MD**

2016 - present  
**Primary Supervisor.** Clinical Fellow. Hane Muamenah. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology.

2016 - present  
**Primary Supervisor.** Clinical Fellow. Majed Alghamdi. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology.  
**Impact of positional accuracy of treating multiple vertebral metastases versus single vertebral metastases with stereotactic body radiotherapy.** Completed 2016.

2015 - 2016  

2015  

2013 - 2014  

2013 - 2014  

2012 - 2015  
**Primary Supervisor.** Core Program. Eric Tseng. Supervisee Position: Radiation Oncology Resident PGY3, Supervisee Institution: University of Toronto, Department of Radiation Oncology.
Arjun SAHGAL  BSC, MD, FRCPC


2012 - 2013


2011 - 2014


2011 - 2013


2011 - 2013

**Primary Supervisor.** Core Program. Eric Tseng. Supervisee Position: Radiation Oncology Resident PGY2, Supervisee Institution: University of Toronto, Department of Radiation Oncology. Spinal cord tolerance specific to re-irradiation spine stereotactic body radiotherapy (SBRT) following at least 2 course of prior radiation.

2011 - 2012


2011 - 2012


2011 - 2012


2011 - 2012


2010 - 2012


2010 - 2012

**Primary Supervisor.** Clinical Fellow. Laura Masucci. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology. Is there an advantage as compared to intensity modulated radiotherapy or by adding a partial arc?. Completed 2011.

2010 - 2011


2010 - 2011

**Primary Supervisor.** Clinical Fellow. Hany Soliman. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology. Hypofractionated stereotactic radiotherapy in five daily fractions for post-operative surgical

2010 - 2011  

2010 - 2011  
**Primary Supervisor.** Clinical Fellow. Laura Masucci. Supervisee Position: Fellow Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology. *Grade 4 radiation induced colitis secondary to conventional palliative radiation to hip metastases.* Completed 2011.

2009 - 2011  

2009 - 2010  

2009 - 2010  

2009 - 2010  

2008 - 2010  

2008 - 2010  

2008 - 2010  
**Primary Supervisor.** Core Program. Matthew Follwell. Supervisee Position: PGY4 Resident Radiation Oncology, Supervisee Institution: University of Toronto, Department of Radiation Oncology. *Is there an advantage as compared to intensity modulated radiotherapy or by adding a partial arc?* Completed 2010.

2008 - 2010  

2008 - 2010  

2007 - 2008  
2. OTHER SUPERVISION

Graduate Education

Dissertation supervisor


IMS oral examination chair


Program Committee Member


Supervisory committee

2016 - present MSc. Christopher Huynh, Physics. Supervisee Institution: Ryerson University. Volume of interest cone-beam CT to improve brain tumour contrast. Supervisor(s): Drs. William Song, Mark Ruschin.

2015 - present MSc. Vladimir Grouza, Physics. Supervisee Institution: Ryerson University. Dual energy CBCT, to improve tumour visibility based on remaining MRI GD contrast. Supervisor(s): Drs. William Song, Mark Ruschin.
MD (Tashkent Medical Institute, Former USSR)
MCCEE-Medical Council of Canada
MCCQE-Part I Medical Council of Canada
MCCQE-Part II Medical Council of Canada

M.H.A. (University of Toronto, ON – 1989)

FRCPC (McMaster University, ON – 1997)

AND

Staff, Radiation Oncology, Peel Regional Cancer Centre, Credit Valley Hospital
Business Address: Peel Regional Cancer Centre
Credit Valley Hospital
2200 Eglinton Avenue
Mississauga, ON  L5M 2N1

Email Address: ssenthelal@cvh.on.ca

Citizenship: Canadian

Career Objectives: Radiation Oncology with some involvement in Health Services Research and Administration and teaching.

EDUCATION

October 2003 Medical Council of Canada
Qualifying Examination, Part II (MCCQE-2)
The Medical Council of Canada

May 2001 Medical Council of Canada
Qualifying Examination, Part I (MCCQE-1)
The Medical Council of Canada

May 1997 F.R.C.P.C. Radiation Oncology
The Royal College of Physicians and Surgeons of Canada

September 1990 Medical Council of Canada Evaluation Examination (MCCEE)
The Medical Council of Canada

June 1989 M.H.Sc., Health Administration
University of Toronto
Toronto, Ontario  CANADA

June 1984 Bachelor of Medicine
Tashkent Medical Institute
Uzbekistan, Former USSR
PROFESSIONAL EXPERIENCE

February 2006 to Present  Radiation Oncologist
Peel Regional Cancer Centre
Credit Valley Hospital
Mississauga, Ontario

May 2001 – January 2006  Radiation Oncologist
Grand River Regional Cancer Centre
Kitchener, Ontario

Radiation Oncologist
London Regional Cancer Centre
London, Ontario

January 1999 – April 2001  Provincial Radiation Oncologist
PEI Cancer Centre
Charlottetown, Prince Edward Island

July 1998 – December 1998  Clinical Fellow
Hamilton Regional Cancer Centre
Hamilton, Ontario

March 1998 – June 1998  Fellow, Health Services Research
Cancer Care Ontario
Toronto, Ontario

Clinical Fellow
Hamilton Regional Cancer Centre
Hamilton, Ontario

January 1998 – March 1998  Prepared a proposal on a health services research project in Radiation Oncology

Cancer Care Ontario
Toronto, Ontario

July 1996 – May 1997  Research work in Health Services Research
Unfunded, Nonclinical, Examination preparation at the
Toronto-Sunnybrook Regional Cancer Centre
Toronto, Ontario
Dr. Senti S. Senthehal
1305 Stavebank Road, Mississauga, ON L5G 2V1
(H) 905-274-1136 • (B) 905-813-1100 ext. 5000

Final Year Resident, Radiation Oncology
Hamilton Regional Cancer Centre
Hamilton, Ontario
Radiation Oncology

October 1993 – June 1994
Third Year Resident, Radiation Oncology
Hamilton Regional Cancer Centre
Hamilton, Ontario
Radiation Oncology

July 1993 – September 1993
Third Year Resident, Radiation Oncology
Ontario Cancer Treatment & Research Foundation
Toronto, Ontario
Research Project

July 1992 – June 1993
Second Year Resident, Radiation Oncology
Hamilton Regional Cancer Centre
Hamilton, Ontario
Radiation Oncology

First Year Resident, Radiation Oncology
University Hospital
London, Ontario
Internal Medicine

January 1992 – April 1992
First Year Resident, Radiation Oncology
St. Joseph’s Health Centre
London, Ontario
Internal Medicine

First Year Resident, Radiation Oncology
London Regional Cancer Centre
London, Ontario
Radiation Oncology

Project Coordinator
Institutional Branch
Ontario Ministry of Health
Ontario, Canada

September 1987 – June 1989
M.H.Sc. Health Administration
University of Toronto
Toronto, Ontario
August 1986 – May 1987  First Year Resident, Radiotherapy & Oncology  
Cancer Institute  
Sir Lanka  
Radiation Oncology

August 1985 – August 1986  Pre-Resident  
Cancer Institute  
Sir Lanka  
Cancer Surgery

Feb. 1985 – Aug. 1985  Intern Medical Officer  
General Hospital  
Negombo, Sir Lanka  
General Surgery

Aug. 1984 – Feb. 1985  Intern Medical Officer  
General Hospital  
Negombo, Sir Lanka  
Internal Medicine and Pediatrics  
(Internal Medicine included Psychiatry)

CLINICAL SERVICE

• New consults in average over 400 per year
• During last 5 years have treated all sites when there was a need
• Special interest in Genitourinary System, Gastrointestinal System, Breast, Lung, and in pain and symptom management
• Experience in establishing two cancer centres.

RESEARCH AND PROJECTS

1989 Developed one of the first “Bed Utilization” projects in Ontario. My recommendations were accepted and implemented.


1990 Developed the “Bed Utilization Model”. This model was the foundation for the tool currently being used by the Ministry of Health to rationalize health services in Ontario. This model is currently known as the “Planning Decision Support Tool (PDST)”. 

1993 Project on designing “Costing Models and Costing Cancer Treatments Modalities in Ontario”, Ontario Cancer Treatment and Research Foundation, Ontario, Canada.

1996 My work on “Costing Cancer Treatments in Ontario” was used by Cancer Care Ontario in a proposal to the Ontario Ministry of Health.
1997 The data from my work on “Costing of Cancer Treatments in Ontario” was accepted by the Ontario Ministry of Health.

1998 My work on “Costing Cancer Treatments in Ontario” was used in the Canadian Cervical Cancer Screening Project.

1998 Completed a project on “Evaluating the Current Radiotherapy Workload Measurement System (NHPIP)”.

1998 The effect of extended hours of operation on the lifespan and reliability of linear accelerators – developed a questionnaire and mailed to appropriate institutions and manufacturers throughout the world.

1999 Developed the Radiotherapy Treatment Guidelines for the province of Prince Edward Island.

1999 Submitted a report on Radiotherapy Services in Prince Edward Island.

**EXPERIENCE IN ESTABLISHING TWO CANCER CENTRES:**

1999 Involved in the development of a new cancer centre in Prince Edward Island which included the planning of the building, purchase of equipment and hiring of staff. It should be noted that I was the only Provincial Radiation Oncologist at that time.

2000 Involved in the development of a new cancer centre in Kitchener, Ontario. The degree of involvement was less than that in P.E.I.

**BRIEFINGS:**

1989 – 1991 Briefed the following officials on my “Bed Utilization Model”:
- Hon. Elinor Caplan, Minister of Health
- Dr. Martin Barkin, Deputy Minister of Health

**PRESENTATIONS AND PUBLIC SPEECHES**

2002 “Management of Prostate Cancer” presented to the urologists in the GRRCC catchment area.

2002 “Prostate Cancer”, Prostate Support Group in Guelph, Ontario

2003 “Role of Radiation Treatment in Pain and Symptom Management”, Palliative Care Conference, Holiday Inn, Guelph, Ontario
2006 “Role of Radiation Treatment in Pain and Symptom Management”, Credit Valley Hospital

2010 Breast Cancer, Oncology Rounds, Credit Valley Hospital

**TEACHING**

1997 “Human Anatomy”, Radiation Therapy students at Hamilton Regional Cancer Centre.

2001-2006 Adjunct Professor, University of Western Ontario, London, ON

2003 “Overview of Radiotherapy”, Oncology Nurses, Supportive Care Co-ordinators, Dietitians, Social Workers and Pastoral Care staff.

2006-to date Involved in Teaching Medical Students and Residents whenever needed.

**SPECIAL TRAINING**

1999 CT-Simulator Training
   Joint Centre, Boston, Massachusetts, U.S.A.

2003 Pinnacle Planning System Training
   San Jose, California, U.S.A.

**MEMBERSHIPS**

Canadian Association of Radiation Oncologists
Canadian College of Health Services Executives
University of Toronto Health Administrators Alumni Association
American Society of Therapeutic Radiology and Oncology
Administrators Society for Radiation Oncology

**REFERENCES**

Upon request
Revised: May 2008
Curriculum Vitae

David B. Shultz
MD, PhD

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

1. EDUCATION

Degrees

2000 Aug - 2009 May MD/PhD, Case Western Reserve University, Cleveland, Ohio, United States
1996 Sep - 1997 Dec MSc, Immunology, University of California, Davis, Davis, California, United States
1992 Aug - 1996 May BSc, Biology, Tufts University, Medford, Massachusetts, United States

Postgraduate, Research and Specialty Training

2013 Jul - 2014 Jun Chief Resident, Radiation Oncology, Stanford University Hospitals, Stanford, California, United States
2010 Jul - 2014 Jun Resident, Radiation Oncology, Stanford University Hospitals, Stanford, California, United States
2009 Jul - 2010 Jun Intern, Internal Medicine-Preliminary, MetroHealth Medical Center, Cleveland, Ohio, United States

Qualifications, Certifications and Licenses

2010 - present California Medical License, United States
2010 - present Controlled Substance Certificate, Drug Enforcement Administration, United States
2015 May - 2016 May The College of Physicians and Surgeons of Ontario, License / Membership #: 107841
2015 May Clinical Exam (Oral), American Board of Radiology
2014 Jul Clinical Exam (Written), American Board of Radiology
2013 Jul Physics and Biology Exam, American Board of Radiology
2010 Apr USMLE Step 3, United States Medical Licensing Examination
2009 Feb USMLE Step 2 CK, United States Medical Licensing Examination
2008 Dec USMLE Step 2 CS, United States Medical Licensing Examination
2002 Jul USMLE Step 1, United States Medical Licensing Examination

2. EMPLOYMENT

Current Appointments

2015 Aug - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
Staff Physician treating CNS malignancies and sarcoma
2015 Aug - present Clinical Investigator and Staff Radiation Oncologist, Radiation Oncology, Princess Margaret Cancer Centre, Toronto, Ontario, Canada
Previous Appointments

HOSPITAL
2014 Aug - 2015 Jul Instructor of Radiation Oncology, Stanford University Hospitals, Stanford, California, United States  
Attending physician treating thoracic malignancies

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2014 Merit Award, Conquer Cancer Foundation of ASCO. (Distinction)
2007 Graduate Student Award, AAAS/Science Program for Excellence in Science. (Distinction)

NATIONAL
Received
2000 Travel Award, ASH Meeting, San Francisco, California, United States. (Distinction)

LOCAL
Received
2006 1st Prize Poster: Lepow Medical Student Research Day, Case Western Reserve University. (Distinction)
2000 - 2009 Medical Scientist Training Program Fellowship, Case Western Reserve University. (Distinction)
1997 Immunology Graduate Group Fellowship Award, University of California, Davis. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2015 Sep - present Member, Medical Association
2011 - present Member, American Society for Radiation Oncology
2010 - present Member, Radiological Society of North America
2014 Member, The Radiosurgery Society

Peer Review Activities

MANUSCRIPT REVIEWS
Ad Hoc Reviewer
2014 - present International Journal of Radiation Oncology, Biology, Physics
2014 - present Journal of the National Comprehensive Center Network
2014 - present Journal of Thoracic Oncology
2014 - present Practical Radiation Oncology
Other Research and Professional Activities

THESIS PROJECT
- Described a role for NFkappaB components in the signaling mechanisms of IFN-gamma.

1996 Sep - 1997 Dec Master’s Thesis: “Colocalization of IgA and PBC specific antigen in PBC liver”. University of California, Davis, Davis, California, United States. Supervisor(s): M. Eric Gershwin, MD (Mentor).
- Demonstrated colocalization of a disease-associated antigen and IgA through analyses using light and confocal microscopy.

RESEARCH EXPERIENCE
2010 Jul - present Stanford University, Department of Radiation Oncology, Stanford, California, United States.
- Published as first author five research papers and three review articles
- Completed one laboratory-based research project
- Presented seven abstracts at national meetings.

2008 Jun - 2009 May The Cleveland Clinic Foundation, Department of Radiation Oncology, Cleveland, Ohio, United States.
- Investigated the efficacy of high-dose-rate brachytherapy in patients with soft tissue sarcoma.

- Used mouse models to study acute promyelocytic leukemia.

- Conducted phase III clinical trials on a peptide-based HIV vaccine.

C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Evaluation Studies, Journal Articles**


**Journal Articles, Randomized Controlled Trial**


**Journal Articles, Review**


**News**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


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David B. SHULTZ
David B. SHULTZ


3. Shultz DB, Diehn M, and Loo BL Jr. Stereotactic ablative radiotherapy for early stage lung cancer and oligometastatic or oligo-progressive NSCLC. Which patients are suitable, and which are not? Seminars in Radiation Oncology. 2015;25:78-86. (Review Articles).


In Preparation

1. Li R, Aguilera T, Shultz DB, Rubin DL, Loo Jr BW, and Diehn M. Predictive modeling of outcomes following SABR for NSCLC based on radiomics of FDG-PET images.

D. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


2. NATIONAL

Presented Abstracts

2014 Repeat stereotactic radiosurgery (SRS) for new brain metastases following initial SRS: accumulated tumor volume and Graded Prognostic Assessment (GPA) score calculated at each course correlate with

2014


2009


2000

Curriculum Vitae

Hany Soliman

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

Primary Office
Department of Radiation Oncology
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone (416) 480-4951
Cellphone (647) 680-7027
Fax (416) 480-6002
Email hany.soliman@sunnybrook.ca

1. EDUCATION

Degrees
2001 - 2005 MD, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada
1998 - 2001 BSc, Human Biology with High Distinction, Arts and Science, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
2010 - 2011 Fellow in Radiation Oncology, Lung SBRT, SRS and CNS tumours, Odette Cancer Centre, Sunnybrook Hospital, Toronto, Ontario, Canada
2005 - 2010 Resident, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2010 Member, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
2006 LMCC Part 2, Medical Council of Canada, Canada
2006 LMCC Part 1, Medical Council of Canada, Canada

2. EMPLOYMENT

Current Appointments
2014 Jan Consultant Oncologist, Surgery, North York General Hospital
2012 Aug Staff, Radiation Oncology, Sunnybrook Health Sciences Centre, Ontario, Canada
Hany SOLIMAN

Assistant Professor, Clinical Investigator, Department of Radiation Oncology, University of Toronto

Previous Appointments

HOSPITAL
2011 Jul - 2012 Jul Staff, Radiation Oncologist, Credit Valley Hospital, Ontario, Canada  
Lecturer, Department of Radiation Oncology, University of Toronto
2011 Jul - 2012 Jul Staff, William Osler Health Centre, Ontario, Canada

UNIVERSITY
1999 - 2000 Program Analyst, University Health Network, Shared Information Management Systems, Toronto, Ontario, Canada  
Involved in all aspects of the development of an electronic patient record

3. HONOURS AND CAREER AWARDS

Teaching and Education Awards

LOCAL
Received
2015  Post Graduate Advocacy and Mentorship, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)
2014  Best Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Undergraduate Education)

OTHER
Received
2016 Feb  Sunnybrook Education Advisory Council (SEAC) Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, Sunnybrook Health Sciences Centre. (Multilevel Education)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

NATIONAL
CNO Meeting - 2016
2014 - present  Co-Chair, Biannual Canadian Neuro-Oncology Conference, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Canada.

LOCAL
Other Organizations
2013 Nov - present  Member, CaRMS Residency Selection Committee, Toronto, Ontario, Canada.
2013 Sep - present  Member, Postgraduate Medical Education Committee, Toronto, Ontario, Canada.
Credit Valley Hospital
2011 - 2012 Jul  Co-lead, CNS and Palliative disease site group, Mississauga, Ontario, Canada.

Odette Cancer Centre
2013 Sep - present  Director, Director of Education, Radiation Oncology, Toronto, Canada.

Odette Cancer Centre, Radiation Oncology
2013 Nov - present  Member, Fellowship Selection Committee, Toronto, Ontario, Canada.
2013 Nov - present  Site Lead, Fellowship Coordinator, Toronto, Ontario, Canada.

University of Toronto
2015 Dec 4  Organizer and Examiner, CPEE Planning Exam, Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

University of Toronto Medical School
2011 - present  Member, Medical School Admission Committee, Mississauga, Ontario, Canada.

OTHER
Michener Institute for Applied Health Sciences
2014 Oct 30  Examiner, OSCE, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

Peer Review Activities
MANUSCRIPT REVIEWS
Reviewer
2014  Radiation Oncology
2013  Journal of Palliative Medicine
2012 - 2013  Clinical Oncology
2012  International Journal of Molecular Sciences

Other Research and Professional Activities
RESEARCH PROJECT
2015 Sep - 2017 Sep  Principal Investigator. Differentiation of radiation necrosis from tumour progression in brain metastases treated with stereotactic radiosurgery. Supervisor(s): Mehrabian H, Desmond KL. Collaborator(s): Stanisz g, Sahgal A, Heyn C, Tsao M, Myehaug S.
2014 Jul 1 - 2015 Jun 30  Qualified Investigator. The feasibility and role of hyperpolarized 13C-pyruvate MR spectroscopy in monitoring patients with intracranial metastasis treated with stereotactic
radiosurgery (SRS). Supervisor(s): Cunningham C. Collaborator(s): Sahgal A, Symons S, Chen YA, Chan M.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDED

2014 - present **Collaborator**. SRT/SBRT elearning modules. Elekta AB. PI: Di Propero, Lisa. Collaborator(s): Sahgal A, **Soliman H**, 40,000 CAD. [Grants] *Developing educational modules for SRT and SBRT.*

2014 - present **Collaborator**. Investigation of plan quality for spine SBRT and brain SRT using the Monaco treatment planning system. Elekta AB. PI: Ruschin, Mark. Collaborator(s): Sahgal A, **Soliman H**, Lee Y. 100,000 CAD. [Grants] *Evaluation of Monaco for brain and spine SBRT.*


D. Publications

1. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


Book Chapters


Letters to Editor


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


3. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2013 Jun 19 Chair. SRS Benign 4. 11th International Stereotactic Radiosurgery Society Congress. Toronto, Ontario, Canada.

2013 Jun 17 Presenter. Outcomes for post-surgical hypofractionated stereotactic cavity radiotherapy (HSCRT) as salvage for patients with prior whole brain radiation (WBRT) as compared to upfront adjuvant HSCRT. 11th International Stereotactic Radiosurgery Society Congress. Toronto, Ontario, Canada.

Presented Abstracts


Presented and Published Abstracts


Publication Details:
Hany SOLIMAN


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2015 Jun 9  **Presenter.** Factors affecting brain metastases post-operative surgical cavity volume and surface area dynamics. International Stereotactic Radiosurgery Society Congress (ISRS). Yokohama, Japan. Presenter(s): **Soliman, Hany**.

**Publication Details:**


Publication Details:

2014 Sep Cone Beam CT (CBCT)-based evaluation of a noninvasive stereotactic head frame equipped with a vacuum fixation bite for radiosurgery. American Society for Radiation Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

American Society for Therapeutic Radiology and Biology (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

Publication Details:


Publication Details:

Other Presentations

2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

Publication Details:
Detsky J, Kapadia A, Conklin J, Stanisz G, Sahgal A, Heyn C, Soliman H. Temporal evolutions of MRI-
based perfusion fraction predicts radionecrosis in patients with brain metastases treated with stereotactic radiosurgery.

2016 Sep

**Publication Details:**

2016 Sep

**Publication Details:**

2016 Sep

**Publication Details:**

2015

**Publication Details:**

2015

**Publication Details:**

2015
Stereotactic ablative radiotherapy (SABR) for pulmonary oligometastases and oligoprogression. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada.

**Publication Details:**

2014
Accelerated hypofractionation versus stereotactic ablative radiotherapy (SABR) for early-stage non-small cell lung cancer: Results of a propensity score-matched analysis. Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John's, Newfoundland and Labrador, Canada.

**Publication Details:**

Can dose-volume constraints predict for rib fracture after lung stereotactic ablative body radiotherapy (SABR)? Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

Impact of prophylactic dexamethasone on pain flare following spine stereotactic body radiotherapy (SBRT). Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:


Publication Details:

Factors affecting post-operative surgical cavity volume and surface area dynamics specific to brain metastases. Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

A randomized comparison of lung stereotactic body radiation therapy (SBRT) delivered over 4 or 11 days - acute toxicity and quality of life. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:

Outcomes for post-surgical hypofractionated stereotactic cavity radiotherapy (HSCRT) as salvage for patients with prior whole brain radiation (WBRT) as compared to upfront adjuvant HSCRT. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada.

Publication Details:
Oncol. 2012;104(Suppl 2):S21, 54. **Coauthor or Collaborator.**

2012

Outcomes for postsurgical hypofractionated stereotactic cavity radiation therapy (HSCRT) as salvage for patients with prior whole brain radiation (WBRT) as compared to upfront adjuvant HSCRT. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Ottawa, Ontario, Canada.

**Publication Details:**

2008

Preliminary results of a Phase II study of single fraction palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2008


**Publication Details:**

2008

**Presenter.** The dosimetric significance of catheter displacement in prostate high dose-rate (HDR) brachytherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**

### 3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**

2013 Apr 12


2011

Brain Tumours. Brampton Spring Sprint. Brampton, Ontario, Canada.

**Presented Abstracts**

2008 Apr

Presented and Published Abstracts


4. LOCAL

Invited Lectures and Presentations


2012  SBRT Lung Treatment. Credit Valley Hospital, Grand Rounds. Mississauga, Ontario, Canada.


Presented Abstracts


Presented and Published Abstracts

2015  Co-creating beyond the expert: Lessons learned from the development of an e(electronic)-learning series through an intentional partnership of technology and clinical practice. Radiation Oncology Department Patient Education. Canada.


2014 Nov  Radiation Oncology Department Patient Education.

5. OTHER

Presented Abstracts

Curriculum Vitae

Jacqueline A. Spayne

A. Date Curriculum Vitae is Prepared: 2016 August 9

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario
M4N 3M5

Telephone 416-480-4974
Fax 416-480-6002
Email jacqueline.spayne@sunnybrook.ca

1. EDUCATION

Degrees
1994 - 1999 MD, With Honours, University of Toronto, Canada
1981 - 1984 PhD, Pharmacology, University of Cambridge, United Kingdom
1977 - 1981 BSc, Pharmacology, London University, United Kingdom

Postgraduate, Research and Specialty Training
2004 - 2005 Clinical Fellow, Toronto Sunnybrook Regional Cancer Centre, Department of Radiation Oncology, University of Toronto
1999 - 2005 Resident, Department of Radiation Oncology, University of Toronto

Qualifications, Certifications and Licenses
2004 - present Fellow (FRCPC), Radiation Oncology, Royal College of Physicians and Surgeons of Canada
1999 - present Licentiate (LMCC), Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2009 - present Assistant Professor, Radiation Oncology, University of Toronto
2005 - present Radiation Oncologist, Department of Radiation Oncology, Sunnybrook Health Sciences Centre
Odette Cancer Centre
Previous Appointments

HOSPITAL

2007 - 2014 Clinician Administrator, Department of Radiation Oncology, Sunnybrook Health Sciences Centre
Odette Cancer Centre

2006 - 2013 Radiation Oncologist, Royal Victoria Hospital, Barrie

2006 - 2012 Radiation Oncologist, Toronto East General Hospital

UNIVERSITY - RANK

2005 - 2009 Lecturer, Radiation Oncology, University of Toronto

CORPORATE INVESTMENT

1984 - 1989 Investment Executive, Investors in Industry plc, London, United Kingdom
Evaluation of investment proposals and liaison with investee companies

CORPORATE MANAGEMENT

1992 - 1994 Corporate Development Director, Allelix Biopharmaceuticals Inc. Mississauga, Canada
Assessment and management of technology transfer program between academia and industry

1989 - 1992 Director, Communications and Marketing, Shorrock Limited, London, United Kingdom
Operational management of a team of 40 people, budget 5 million

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2003 Chief Resident, Department of Radiation Oncology, University of Toronto. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2004 - present European Society for Therapeutic Radiation and Oncology (ESTRO)

2003 - present Canadian Association of Radiation Oncology (CARO)

Administrative Activities

INTERNATIONAL

University of Cambridge
2010 - present Member, Canadian Undergraduate Academic Selection Committee, United Kingdom.

University of Toronto
2015 - present Medical Advisor, Toronto Addis Ababa Academic Collaboration Oncology Initiative, Ethiopia.
C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly and Professional Activity.
Staff Radiation Oncologist at the Odette Cancer Centre treating patients with Lymphoma and Lung Cancer. Dr. Spayne is the physician leader for a collaborative initiative to develop educational programs in medical radiation sciences at the University of Addis Ababa. This is part of the Toronto Addis Ababa Academic Collaboration which is designed to build sustainable medical education and human resource capacity in a low-income setting. Previously, Dr. Spayne was the lead Radiation Oncologist with the centre’s innovative Locally Advanced Breast Cancer (LABC) program. She was the Principal Investigator of a clinical trial exploring concurrent neoadjuvant chemoradiation treatment for high risk patients.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDED
2006 - 2012


E. Publications

1. PEER-REVIEWED PUBLICATIONS

**Journal Articles**


17. Margolius HS, Halushka PV, Chao J, Miller DH, Cuthbert AW, **Spayne JA**. Studies of the kallikrein-kinin system and prostaglandins in epithelial ion transport. Soc Gen Physiol Ser. 39:121-33, 1985. **Coauthor or Collaborator**.


20. Cuthbert AW, **Spayne JA**. Conversion of sodium channels to a form sensitive to cyclic AMP by component(s) from red cells. Br J Pharmacol. 79(3):783-97, 1983. **Co-Principal Author**.


2. NON-PEER-REVIEWED PUBLICATIONS

Commentaries


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented and Published Abstracts

2011 Quantitative ultrasound and diffuse optical spectroscopy evaluations of treatment response in patients.

**Publication Details:**

2010

**Publication Details:**

2010

**Publication Details:**

2009

**Publication Details:**

2008
Biological markers predictive of invasive recurrence in DCIS.

**Publication Details:**

2007

**Publication Details:**
Motion in Tomotherapy: Some Dosimetric Observations.

2006
Molecular markers for invasive recurrence in DCIS.

**Publication Details:**

2005

**Publication Details:**


1983 Alteration of the properties of sodium channels by components from red cell membranes.


1981 The effects of arachidonate lipoygenase products on leukocyte migration in rabbit skin.


1980 The effects of Arachidonate lipoygenase products on plasma exudation in rabbit skin.


Other Presentations


2. NATIONAL

Invited Lectures and Presentations

2015 Sep 9 Secretary Treasurer. Canadian Association of Radiation Oncology (CARO). Kelowna, British Columbia, Canada. Presenter(s): Spayne JA.

2014 Aug 25 Secretary Treasurer. Canadian Association of Radiation Oncology (CARO). Saint John’s, Newfoundland and Labrador, Canada. Presenter(s): Spayne JA.


Presented and Published Abstracts

2005 Skills radiation oncology residents require to assess patients with cancer in intimate body regions: what does the literature say about which skills, and how and when they are acquired? Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Victoria, British Columbia.

Publication Details: Voroney JP, Spayne JA, Kane G, Ackerman I. Skills radiation oncology residents require to assess patients with cancer in intimate body regions: what does the literature say about which skills, and how and when they are acquired? Radiother Oncol. 2005. Coauthor or Collaborator.

Publication Details:

2003 A screening history of patients with cervix cancer. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec.

Publication Details:

2001 Learning from errors: Radiation oncology residents and the quality management process. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Vancouver, British Columbia.

Publication Details:


Publication Details:
Carcinoma-in-situ of the lottis larynx: results of treatment with radiation therapy.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented and Published Abstracts


Publication Details:

Locally Advanced Breast Cancer Workshop

2011 Dec 16 Royal Victoria Hospital. Barrie, Ontario, Canada. Presenter(s): Spayne JA, El-Maraghi R.

Other Lectures and Presentations


4. LOCAL

**Invited Lectures and Presentations**

2015 Nov 10 How to teach to teach how to fish? A collaborative proposal for cancer care capacity building. Interdisciplinary Radiation Oncology Rounds (IROR), Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Spayne JA**.

2015 Oct 8 How to teach to teach how to fish? A collaborative proposal for cancer care capacity building. Radiation Medicine Program (RMP) Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Spayne JA**.

2011 Apr 13 A Decade of Quality Improvement in Radiation Therapy at the Odette Cancer Centre: What We’ve Learned and Where We’re Going. Odette Cancer Centre, Radiation Oncology Program Quality Assurance Rounds. Presenter(s): Robson S, **Spayne JA**, D’Souza N.

2010 Sep 13 Clinic ReDesign. Odette Cancer Centre, Thoracic Oncology Rounds. Presenter(s): **Spayne JA**.

2010 May 19 Interprofessional Management of Dyspnea in Lung Cancer. Odette Cancer Centre, Thoracic Oncology Rounds. Presenter(s): Myers J, **Spayne JA**, Das Gupta T.

2008 Dec 1 Advanced Cancer, Advanced Care: an Overview of the Locally Advanced Breast Cancer Program at Sunnybrook Health Sciences Centre. Odette Cancer Centre, Grand Rounds. Presenter(s): Leahey A, Lemon S, Dent R, **Spayne, JA**. (Continuing Education).


2007 Aug 7 Radiotherapy Challenges in LABC. Princess Margaret Hospital Breast Rounds. Presenter(s): **Spayne, JA**. Oral presentation.

2005 Oct Chemoradiation and Targeted Therapy in Lung Cancer. Odette Cancer Centre, Thoracic Oncology Rounds. Presenter(s): **Spayne, JA**.
Curriculum Vitae

Christiaan Stevens
MSc, MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2017/01/03

B. Biographical Information

Primary Office Simcoe Muskoka Regional Cancer Program
Royal Victoria Regional Health Centre
201 Georgian Drive
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Cellphone 705-241-9223
Fax 705-739-5630
Email stevensc@rvh.on.ca

1. EDUCATION

Degrees
08/1999 – 06/2003 Medical Doctor, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
08/1996 – 06/1999 Master of Science, Department of Experimental Medicine, Faculty of Medicine, University of British Columbia, Vancouver, British Columbia, Canada. Supervisor: Dr. Vincent Duronio
08/1992 – 06/1995 Bachelor of Science (Honours), Department of Microbiology and Immunology, Faculty of Science, McGill University, Montreal, Quebec, Canada. Supervisor: Dr. Mark Wainberg

Postgraduate, Research and Specialty Training
[Presented in reverse chronological order]
07/2008 – 12/2009 Clinical Research Fellow, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. [Supervisor(s): Dr. John Waldron and Dr. Jolie Ringash
07-2003 – 06/2008 Resident, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada.

Qualifications, Certifications and Licenses

01/2010 – present Physician, College of Physicians and Surgeons of Ontario (CPSO), Toronto, Ontario, Canada. License Number: 79473.
08/2008 – present Fellow, Division of Medicine, Royal College of Physicians and Surgeons of Canada (RCPSC), Ottawa, Ontario, Canada. Member Number: 710491
06/2005 – present Licentiate, Medical Council of Canada (LMCC), Ottawa, Ontario, Canada. Member Number: 98283
2. EMPLOYMENT

Current Appointments

02/2015 – present  Head, Radiation Treatment Program, Simcoe Muskoka Regional Cancer Program, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada
01/2015 – present  Staff Physician, Orillia Soldier’s Memorial Hospital, Orillia, Ontario, Canada
10/2014 – present  Medical Director, Simcoe Muskoka Regional Cancer Program, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada
01/2011 – present  Adjunct Lecturer, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
06/2010 – present  Adjunct Lecturer, Department of Family and Community Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
01/2010 – present  Staff Physician, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2010 – present  Member, Ontario Association of Radiation Oncologist
2010 – 2016  Executive clinical director and co-founder, Community Radiation Oncologists of Southern Ontario (COMRADS)
2007 – present  Member, American Society of Clinical Oncology; Membership #82501
2005 – present  Member, American Society of Radiation Oncology; Membership #35197765
2003 – present  Member, Canadian Association of Radiation Oncology
1999 – present  Member, Ontario Medical Association; Membership #0813873
1999 – present  Member, Canadian Medical Association; Membership #1222724

Administrative Activities

NATIONAL

2014 – 2016  Member, Organizing Committee for 6th Annual Conference for Quality and Safety in Radiation Medicine

PROVINCIAL / REGIONAL

02/2015 – present  Head, Radiation Treatment Program, Simcoe Muskoka Regional Cancer Program, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada
10/2014 – present  Medical Director, Simcoe Muskoka Regional Cancer Program, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada
2015  Member, CCO Person-Centred Care Working Group, Cancer Care Ontario, Toronto, Ontario, Canada
Peer Review Activities

MANUSCRIPT REVIEWS

Journal of Radiation Oncology, Biology, Physics
Clinical Oncology

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   Developed a feeding tube Quality of Life (QOL) Instrument (FACT-EF) that has been included in the FACIT series of QOL instrument

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Abstracts


4. **Stevens CM**, Bondy SJ, Loblaw DA. Delays in Prostate Cancer Diagnosis and Radiotherapy. Radiother Oncol 80(1); Abs 119, 2006.


7. Sayed MR, **Stevens CM**, Duronio V. Regulation of Phosphoinositide 3-kinase involves Protein tyrosine kinase PYK2 association and activation in platelets. 4th Conference in Signalling in Normal and Cancer Cells, Banff, AB, 1998.


**G. Presentations and Special Lectures**

1. **PROVINCIAL/ REGIONAL/LOCAL**

   **Invited Lectures and Presentations**

   • High dose brachytherapy + External Beam radiotherapy Case Presentation. Orillia Prostate Cancer Awareness Group. Orillia, ON. 08/2016

   • New developments in radiotherapy for Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, ON. 01/2016

   • Quality in Radiotherapy. Simcoe Muskoka Regional Cancer Program, Radiation Treatment Program Grand Rounds. 08/2015.

   • Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, ON. 01/2015


   • Post-operative Radiotherapy for Prostate Cancer: Prostate Cancer Awareness Night, Barrie, ON. 04/2014


   • Debunking Myths in Radiation Oncology. Updates in Oncology. Casino Rama, Orillia, ON. 18/06/2013.

• Radiation Therapy. Primary Care Oncology Pearls Conference. Barrie, ON. 10/04/2013.


• Adjuvant and salvage radiotherapy for prostate cancer. Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, ON. 01/2013

• The Ethics of Medical Error. Simcoe Muskoka Regional Cancer Program Lunch and Learn Series, Royal Victoria Health Sciences Centre, 12/2012.

• Acute and Late Effects of Prostate Radiotherapy. Orillia Prostate Cancer Awareness Group. Orillia, ON. 03/2012

• Radiotherapy from A to Z. Gilda’s Club. Barrie, ON. 06/2011

• Prostate Cancer. Harry Rosen Health Awareness Day. Toronto, ON. 04/2011

• Bladder Cancer: The case for Radiotherapy. Georgian Bay Oncology Group Meeting. Barrie, ON. 03/2011

• Prostate Cancer. Orillia Prostate Cancer Awareness Group. Orillia, ON. 01/2011


• To Screen or not to screen: Controversies in Prostate Cancer Screening. Royal Victoria Regional Health Centre Lunch and Learn Series, Barrie, ON. 06/2010.

• The Ethics of Medical Error. Department of Radiation Oncology Quality Assurance Rounds, Odette Cancer Centre, Sunnybrook Health Sciences Centre. Toronto, ON. 03/2010.

• Post Mastectomy Radiotherapy and Breast Reconstruction. Georgian Bay Oncology Group Meeting. Barrie, ON. 03/2010
Curriculum Vitae

Alexander Y. Sun

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology,
Princess Margaret Hospital
Rm. 5-815
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

1. EDUCATION

Degrees
2001 Health Leadership Program, Rotman School of Management, University of Toronto
1985 - 1989 MD, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1994 - 1995 Research Fellow, Radiation Oncology, Department of Radiation Oncology, Division of Experimental Therapeutics, Princess Margaret Hospital, Ontario Cancer Institute, Toronto, Ontario, Canada
1991 - 1994 Resident, Radiation Oncology, Princess Margaret Hospital, University of Toronto, Toronto, Ontario, Canada
1990 - 1991 Resident, General Internal Medicine, University of Toronto, Toronto, Ontario, Canada
1989 - 1990 Intern, Comprehensive Internal Medicine, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
1995 - present Full Registration, Radiation Oncology, Provincial Medical Board of Nova Scotia, License / Membership #: No. F11337
1990 - present Independent Practice License, Radiation Oncology, The College of Physicians and Surgeons of Ontario, License / Membership #: Reg. No. 61025
1995 Certification, Therapeutic Radiology, American Board of Radiology (ABR)
1994 Fellow, Royal College of Physicians of Canada

2. EMPLOYMENT

Current Appointments
2016 - present Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2001 - present Active Staff, Radiation Oncology, Princess Margaret Hospital, University Health Network,
Previous Appointments

HOSPITAL
1995 - 2001 Active Staff, Radiation Oncology, Victoria General Hospital, Queen Elizabeth II Health Sciences Centre, Canada

UNIVERSITY
2001 Assistant Professor, Radiation Oncology, Faculty of Medicine, Dalhousie University, Halifax, Nova Scotia, Canada
1995 - 2001 Lecturer, Radiation Oncology, Faculty of Medicine, Dalhousie University, Halifax, Nova Scotia, Canada
1995 - 2001 Director, Radiation Oncology Research, Radiation Oncology, Dalhousie University, Halifax, Nova Scotia, Canada

UNIVERSITY - RANK
2001 - 2015 Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
1995 Awarded 2nd Prize (Resident/Fellow Competition), Canadian Association of Radiation Oncologists (CARO). (Distinction)
Increasing tumour oxygenation with a human hemoglobin blood substitute (Hemolink TM).
1984 - 1985 Summer Scholarship, Canadian Liver Foundation. (Distinction)

LOCAL
Received
1986 - 1987 Summer Scholarship, University of Toronto. (Distinction)
1983 - 1984 Summer Scholarship, Institute of Medical Sciences, University of Toronto. (Distinction)

Student/Trainee Awards

INTERNATIONAL
Received
2015 Jun Research Project: A Randomized Controlled Trial to Assess the Efficacy and Safety of Metabolically Adaptive Dose Escalation in Locally Advanced Non-Small Cell Lung Cancer, Co-Supervisor, Awardee Name: Srinivas Raman. 17th ECCO-AACR-EORTC-ESMO Workshop on Methods in Clinical Cancer Research, Flims (Switzerland) 1 of 10, out of a total of 133 applications received.
LOCAL

Received

2015 - 2016 Research Project: A Randomized Controlled Trial to Assess the Efficacy and Safety of Metabolically Adaptive Dose Escalation in Locally Advanced Non-Small Cell Lung Cancer, Co-Supervisor, Awardee Name: Srinivas Raman. Excellence in Radiation Research for the 21st Century (EIRR21)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Society of Therapeutic Radiology and Oncology (ASTRO)
Member, Canadian Association of Radiation Oncologists (CARO)
Member, Canadian Medical Association
Member, European Society for Therapeutic Radiology and Oncology (ESTRO)
Member, International Association for the Study of Lung Cancer (IASLC)
Member, Medical Society of Nova Scotia
Member, Ontario Medical Association
Member, The College of Physicians and Surgeons of Nova Scotia
Member, The College of Physicians and Surgeons of Ontario
Member, The Royal College of Physicians and Surgeons of Canada

Administrative Activities

INTERNATIONAL

NRG (NSABP, RTOG, GOG)
2014 - present Member, RTOG Foundation Advisory Board
2014 - present Centre Principal Investigator, Princess Margaret Hospital
2014 - present Member, Lung Cancer Steering Committee

Radiation Therapy Oncology Group (RTOG)
2011 - 2014 Member, Publications Committee
2009 - 2014 Member, Nominations Committee
2008 Member, National Cancer Institute/National Institutes of Health (NCI/NIH) Grant Renewal Site Visit Team, Bethesda, Maryland, United States.
2006 - 2014 Member, Full Member PI Committee
2006 - 2008 Co-Chair, Clinical Trials Education and Recruitment Committee (CTER)
2006 - 2007 Member, Planning Committee, Tampa, Florida, United States.
Winter Meeting, Recruitment Symposium.
2004 - 2014 Centre Principal Investigator, Princess Margaret Hospital
2002 - 2014 Member, Lung Cancer Steering Committee
1995 - 2001 Centre Principal Investigator, Radiation Therapy Oncology Group [Clinical Trials] (Nova Scotia Cancer Centre)
Alexander Y. SUN

NATIONAL

(3CTN) Canadian Cancer Clinical Trials Network
2015 - present  **Member**, Clinical Trials Strategy Group (CTSG) for Melanoma, Canada.

(RCPSC) Royal College of Physicians and Surgeons of Canada
2001 - 2002  **Member**, Specialty Committee for Radiation Oncology, Canada.

Canadian Association of Radiation Oncologists (CARO)
2001  **Member**, Scientific Abstract Review Panel, Quebec City, Quebec, Canada.
2001  **Member**, Planning Committee, Halifax, Nova Scotia, Canada.

CARO Annual Meeting.
2000 - 2002  **Member**, Education Committee- Annual Scientific Program Task Force, Canada.
1996 - 2001  **Member**, Board of Directors, Canada.

*Eastern Provinces Representative.*

GU 1st Atlantic Radiation Oncology Symposium
2000  **Principal Organizer**, Charlottetown, Prince Edward Island, Canada.
2000  **Chair**, Charlottetown, Prince Edward Island, Canada.

PROVINCIAL / REGIONAL

(CCO) Cancer Care Ontario
2014 - present  **PMH Site Radiation Oncology Representative**, Radiation Therapy Program (RTP), Community of Practice (CoP), Ontario, Canada.
2013 - present  **Member**, Lung Disease Site Group, Program in Evidenced Based Care (PEBC), Ontario, Canada.
2011 - present  **Radiation Oncology Representative**, Melanoma Disease Site Group, Program in Evidenced Based Care (PEBC), Ontario, Canada.

(OARO) Ontario Association of Radiation Oncologists
2012 - 2014  **Vice-Chair**, Executive Committee

(OMA) Ontario Medical Association
2007 - 2010  **Treasurer**, Section on Radiation Oncology, Ontario, Canada.
2005 - 2010  **Executive**, Section on Radiation Oncology, Ontario, Canada.
2005 - 2007  **Tariff Chair**, Section on Radiation Oncology, Ontario, Canada.

Cancer Care Nova Scotia
2000 - 2001  **Chair**, Provincial Oncology Grand Rounds Planning Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education, Halifax, Nova Scotia, Canada.

*Oncology Program.*

LOCAL

(PMH) Princess Margaret Hospital
2014 - present  **Centre Principal Investigator**, NRG (NSABP, RTOG, GOG), Toronto, Ontario, Canada.
2013 - present  **Site Group Leader**, Lung Cancer Site Group, Radiation Oncology, Toronto, Ontario, Canada.
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2010 - present  Site Group Leader, Skin Cancer Site Group, Radiation Oncology, Toronto, Ontario, Canada.
2008 - present  Co-Chair, Data Safety Monitoring Committee, Toronto, Ontario, Canada.

**Oncology Program.**

2004 - 2014  Centre Principal Investigator, Radiation Therapy Oncology Group (RTOG), Toronto, Ontario, Canada.

**(PMH) Princess Margaret Hospital Radiation Oncologists**

2008 - 2009  Chair, Partnership Executive, Toronto, Ontario, Canada.
2007 - 2008  Vice Chair, Partnership Executive, Toronto, Ontario, Canada.
2006 - 2007  Treasurer, Partnership Executive, Toronto, Ontario, Canada.
2003 - 2004  Secretary, Partnership Executive, Toronto, Ontario, Canada.

**Dalhousie University**

1997 - 2000  Member, Clinical Promotions and Tenure Committee, Halifax, Nova Scotia, Canada.
1995 - 2001  Member, Postgraduate Training Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Halifax, Nova Scotia, Canada.

**Nova Scotia Cancer Centre**

2000 - 2001  Chair, Project Team, 3D Conformal Radiotherapy for Prostate Cancer, Halifax, Nova Scotia, Canada.

**Nova Scotia Cancer Centre (NSCC)**

1999 - 2001  Co-Chair, Lymphoma Cancer Site Team, Halifax, Nova Scotia, Canada.  
*QEII Health Sciences Centre (QEII-HSC).*

*Radiation Oncology Residency Training Program.*

1999 - 2000  Chair, Selection Committee, Halifax, Nova Scotia, Canada.  
*Clinical Research Associate, Department of Radiation Oncology.*

*Dosimetrist, Department of Radiation Oncology.*

*Radiation Therapists, Department of Radiation Oncology.*

*Department of Radiation Oncology Secretary.*

1996  Chair, Selection Committee, Halifax, Nova Scotia, Canada.  
*Clinical Trials Nurse, Department of Radiation Oncology.*


*QEII Health Sciences Centre (QEII-HSC).*

**QEII Health Sciences Centre**

2000 - 2001  Member, Oncology Services Clinical Trials, Executive Committee, Halifax, Nova Scotia, Canada.

**QEII-HSC Oncology Services**

University of Toronto  
2003 - 2005  **Supervisor**, Radiation Oncology Residency Training Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.  
*Treatment Planning Drill.*  
2003 - 2005  **Member**, Postgraduate Training Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.  
*Treatment Planning Drill.*  
2002  **Judge**, Department of Radiation Oncology Research Day, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.  
*Resident/ Fellow Award.*  
1990 - 1991  **Wellesley Hospital Representative**, Committee on Postgraduate Training in Core Internal Medicine, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.

**Peer Review Activities**

**GRANT REVIEWS**

**Invited International Reviewer**

2010  Cancer Research UK, project grant application, PCI vs. Observation in Radical Treated Patients with Stage III NSCLC: A Randomized Phase III Study (NVALT-DLCRG-11/02), Clinical Trials Advisory and Awards Committee (CTAAC)

**MANUSCRIPT REVIEWS**

**Reviewer**

International Journal of Radiation Oncology, Biology, Physics (IJROBP)
Journal of the National Cancer Institute (JNCI)
Journal of Thoracic Oncology
Leukemia and Lymphoma
Lung Cancer
Radiotherapy and Oncology

**PRESENTATION REVIEWS**

**Judge**

1997  Canadian Association of Radiation Oncologists (CARO), Radiation Oncology Resident Paper Award

**C. Academic Profile**

**1. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT**

My Creative Professional Activities have resulted in 2 major themes and 1 minor theme. The 2 major themes fall under the category of professional innovation and creative excellence.

**Theme 1:** Prophylactic Cranial Irradiation (PCI) in Lung Cancer

**Theme 2:** Positron Emission Tomography (PET) Imaging in Lung Cancer
The minor theme falls under the category of contributions to the development of professional practices.

Theme 3: The Role of Radiotherapy in Skin Cancer.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2015 - 2018 

**NRG-CC003.**

2015 - 2018 

2013 - 2016 
**Principal Investigator.** A Feasibility Study of Hypoxia Imaging in Patients with Lung Cancer using Positron Emission Tomography (PET) with 18F-Fluoroazomycin Arabinoside (18F-FAZÀ). Ontario Research Fund (ORF). Collaborator(s): Breen S, Yeung I, Vines D, Jaffray D. 420,000. [Grants]

**Ontario Consortium for Adaptive Interventions in Oncology and GE Healthcare Systems.**

2010 - 2015 
**Co-Principal Investigator.** Randomized Phase II Study Comparing Prophylactic Cranial Irradiation Alone To Prophylactic Cranial Irradiation And Consolidative Extra-Cranial Irradiation For Extensive Disease Small Cell Lung Cancer (ED-SCLC). National Cancer Institute (USA). PI: Gore E, Sun A. Collaborator(s): Ramalingam S, Grimm D, Hu C. 385,000 USD. [Clinical Trials]

**RTOG 0937.**

2009 - 2013 

2009 - 2012 
**Principal Site Investigator.** A Randomized Phase III Comparison of Standard Dose (60 Gy) versus High Dose (74 Gy) Conformal Radiotherapy with concurrent and Consolidation Carboplatin/Paclitaxel +/- Cetuximab in patients with Stage IIIA/IIIB Non-Small Cell Lung Cancer. RTOG. PI: Bradley J. [Clinical Trials]

**RTOG 0617.**

2007 - 2009 
Alexander Y. SUN


2003 - 2008  **National Representative, Principal Site Investigator.** A Phase II/III Randomized Trial of Two Doses (Phase III-Standard vs. High) and Two High Dose Schedules (Phase II-Once vs. Twice Daily) for Delivering Prophylactic Cranial Irradiation for Patients with Limited Disease Small Cell Lung Cancer. Radiation Therapy Oncology Group. PI: Wolfson A. Collaborator(s): Komaki R, Meyers C, Movsas B, Le Pechoux, Gaspar L, Bonner J, Bogart J. [Clinical Trials] **RTOG 0212.**

2003 - 2007  **Trial Committee, Principal Site Investigator.** The Impact of Positron Emission Tomography (PET) Imaging In Stage III Non-Small Cell Lung Cancer: A Prospective Randomized Clinical Trial. (PET-START). Ministry of Health of Ontario. PI: Ung Y. Collaborator(s): **Sun A,** Leigh N, Darling G, Yu E, Macrae R, Wright J, Levine M. 750,000. [Clinical Trials]


2000 - 2001  **Principal Site Investigator.** Phase III Trial to Evaluate the Duration of Neoadjuvant Total Androgen Suppression (TAS) and Radiation Therapy (RT) in Intermediate Risk Prostate Cancer. Radiation Therapy Oncology Group. [Clinical Trials] (Nova Scotia Cancer Centre) **RTOG 99-10.**

2000 - 2001  **Principal Site Investigator.** A Double-Blind, Randomized Clinical Trial Comparing Ondansetron and Dexamethasone versus Ondansetron and Placebo in the Prophylaxis Against Radiation Induced Emesis. National Cancer Institute of Canada (NCIC). [Clinical Trials] (Nova Scotia Cancer Centre) **NCIC-CTG, SC19.**

2000 - 2001  **National Trial Committee.** A Double-Blind, Randomized Clinical Trial Comparing Ondansetron and Dexamethasone versus Ondansetron and Placebo in the Prophylaxis Against Radiation Induced Emesis. National Cancer Institute of Canada (NCIC). PI: Wong R. [Clinical Trials] **National Trial Committee, CTG, SC19.**

1999 - 2001  **National Trial Committee.** A Phase III Study of Involved Field Radiation Therapy (IFRT) in Patients with Histologically Aggressive Non-Hodgkin’s Lymphoma Following High Dose
Chemotherapy and Autologous Hematopoietic Stem Cell Transplantation (ASCT). National Cancer Institute of Canada (NCIC). [Clinical Trials]
National Trial Committee, CTG, LY.8.

1998 - 2001

**Principal Site Investigator.** Randomized trial of palliative radiation therapy for osseous metastases: a study of palliation of symptoms and quality of life. Radiation Therapy Oncology Group. [Clinical Trials]
(Nova Scotia Cancer Centre), RTOG 97-14.

1998 - 2001

**Principal Site Investigator.** A phase II randomized trial comparing intermittent versus continuous androgen suppression for patients with prostate-specific-antigen progression in the clinical absence of distant metastases following radiotherapy for prostate cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials]
(Nova Scotia Cancer Centre) PR.7 (NCIC-CTG).

1998 - 1999


1996 - 2001

**Principal Site Investigator.** A phase III study of radiotherapy or ABVD plus radiotherapy versus ABVD alone in the treatment of early stage Hodgkin’s Disease. National Cancer Institute of Canada (NCIC). [Clinical Trials]
(Nova Scotia Cancer Centre), HD.6 (NCIC-CTG).

1996 - 1998

**Principal Site Investigator.** A phase III study of an assessment of the efficacy of dexamethasone in the prophylaxis of radiation induced emesis. National Cancer Institute of Canada (NCIC). [Clinical Trials]
SC.12 (NCIC-CTG) (Nova Scotia Cancer Centre).

1995 - 2001

**Principal Site Investigator.** A phase III trial of the study of endocrine therapy used as a cytoreductive and cytostatic agent prior to radiation therapy in good prognosis locally confined adenocarcinoma of the prostate. Radiation Therapy Oncology Group. [Clinical Trials]
RTOG 94-08 (Nova Scotia Cancer Centre).

1995 - 1998

**Principal Site Investigator.** A randomized trial of a shorter radiation fractionation schedule for the treatment of localized prostate cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials]
PR.5 (NCIC-CTG). (Nova Scotia Cancer Centre).

1995 - 1997

**Co-Investigator.** A randomized trial comparing the efficacy and safety of Ondansetron plus single fraction radiation therapy with fractionated therapy in the palliation of skeletal metastases. Glaxo Wellcome Inc. Protocol No. 517-400. 30,000. [Grants]
(Nova Scotia Cancer Centre).
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   Treatment of locally advanced non–small cell lung cancer with chemoradiotherapy (CRT) is limited by development of toxicity in normal tissue, including radiation esophagitis (RE). Increasingly, fluorodeoxyglucose (FDG) positron emission tomography (PET) is being used for adaptive planning. We showed that changes in FDG-PET images during CRT may predict for the development of RE, which has implications for adaptive RT planning. This is the first of a series of publications resulting from our grant funded study on adaptive RT planning for lung cancer. The Journal of Thoracic Oncology is the official journal of the International Association of the Study of Lung Cancer (IASLC), the foremost international multi-disciplinary organization for lung cancer in the world, with an impact factor of 5.8.


   This study built upon the initial experience of the manuscript published below by Dahele et.al., but took it a step further. We showed that fluorodeoxyglucose (FDG) positron emission tomography (PET) was a predictor of outcome for early stage non–small cell lung cancer (NSCLC) patients treated radically with stereotactic body radiotherapy (SBRT). These results have implications for future trials of adjuvant therapies post SBRT. This manuscript was published in the journal Radiotherapy and Oncology, the leading radiotherapy journal in Europe (impact factor 4.86), where the fellow I supervised was from. This article has been cited 29 times so far.


   Response assessment after stereotactic radiotherapy (SBRT) for lung cancer typically makes use of computed tomography (CT)-based anatomic changes. However, maximum tumour shrinkage can take several months and treatment-induced lung changes can confound the evaluation. An accurate and timely response assessment has become even more important as SBRT is being proposed as a possible alternative to surgery in patients with medically operable, early stage disease. In this context, identifying or predicting treatment failure could still allow definitive ‘salvage’ therapy. Here we described a pilot experience with 18F-fluorodeoxyglucose positron emission tomography-CT (FDG PETCT) for response assessment 3 months after SBRT. With this initial information we are now continuing this imaging strategy with the aim of trying to identify PET metrics for response assessment and prognosis. This study lead to the manuscript published above (Clarke et.al.).

This is the largest randomized phase III study of PCI in locally advanced non-small cell lung cancer. It is also one of the very rare times that the primary and secondary endpoint analyses were published back to back in the same issue of The Journal of Clinical Oncology (JCO), one of the most prestigious journals for Oncology research in the world with an impact factor of 18.4. This manuscript has been instrumental in establishing the basis of the very topical area of neurocognitive function with cranial irradiation. The results can be summarized by an editorial from JCO, where Khan et al. wrote “To discriminate the relative contributions of disease and therapy on cognitive impairment, we can turn to....Sun et al....from RTOG 0214....There were several important findings reported in this study: memory decline after cranial radiotherapy is relatively frequent when measured with sensitive tools; both immediate and delayed recall are affected; QOL scores do not correlate with neurocognitive function and do not seem to be worse with PCI”. Currently there are many ongoing clinical trials worldwide in brain metastases and PCI, which are using neurocognitive endpoints as their primary endpoints and are using the same tools as used in our study. One example is the newly approved cooperative group study “Randomized Phase II/III trial of PCI +/- hippocampal avoidance for small cell lung cancer, NRG-CC003”, which I am the Lung Co-PI of. In addition, this article has been cited 128 times so far.


This study was one of the first studies to identify young age as a predictor of brain relapse in locally advanced non-small cell lung cancer patients treated radically with combined chemotherapy and radiotherapy. It was also an important part of the body of literature that supported the randomized phase III study of PCI in LA-NSCLC, RTOG 0214 (above). This manuscript was published in the journal Lung Cancer, which at that time, was the official journal of the International Association of the Study of Lung Cancer (IASLC), the foremost international multi-disciplinary organization for lung cancer in the world. The first author was my radiation oncology resident that I primarily supervised. This study has been cited 54 times so far.

### 2. PEER-REVIEVED PUBLICATIONS

**Journal Articles**

1. Tsang DS, Le L, Kukreti V, **Sun A**. Treatment and outcomes for primary cutaneous extramedullary plasmacytoma. Curr Oncol. 2016 Jul. In Press. **Senior Responsible Author.**


Alexander Y. SUN


Alexander Y. SUN


Alexander Y. SUN

Book Chapters


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2016 Jul  Invited Speaker. NRG CC001. Phase III trial of Memantine and Whole-Brain Radiotherapy with or without Hippocampal Avoidance in Patients with Brain Metastases. NRG (NSAPB, RTOG,GOG) Oncology Meeting. Dallas, Texas, United States. Presenter(s): Sun A. (Continuing Education).


2013 Oct  Invited Speaker. Neurotoxicity of Cranial Irradiation. 15th World Conference on Lung Cancer (International Association for the Study of Lung Cancer (IASLC)). Sydney, Australia. Presenter(s): Sun A. (Continuing Education).


2010 Jun  Invited Speaker. Randomized Phase II Trial of Standard Versus Hypofractionated Thoracic Radiotherapy


2009 Jan  **Invited Speaker.** Prophylactic Cranial Irradiation (PCI) in Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC) - RTOG 0214; Radiation Therapy Oncology Group (RTOG) Meeting. United States. Presenter(s): Sun A. (Continuing Education).

2008 Jul  **Invited Speaker.** Clinical Trials Education and Recruitment Committee (CTER). Radiation Therapy Oncology Group (RTOG). Bethesda, Maryland, United States. Presenter(s): Sun A. National Cancer Institute/National Institutes of Health (NCI/NIH) Grant Renewal Site Visit.


2006 Jan  **Invited Speaker.** Prophylactic Cranial Irradiation (PCI) in Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC) - RTOG 0214; Radiation Therapy Oncology Group (RTOG) Meeting. United States. Presenter(s): Sun A. (Continuing Education).

2006 Jan  **Invited Speaker.** Prophylactic Cranial Irradiation (PCI) in Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC) - RTOG 0214; Radiation Therapy Oncology Group (RTOG) Meeting. United States. Presenter(s): Sun A. (Continuing Education).


2001  **Chair.** Group Session. Congress on Uro-Oncology: A Canada-Mexico Alliance. Ixtapa, Mexico. (Continuing Education).
Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2015 Oct

Publication Details:

2015 Sep
Trial of Stereotactic Body Radiotherapy (SBRT) for Central Tumours - Adverse Events. 16th World Conference on Lung Cancer (WCLC/IASLC). Denver, Colorado, United States. Oral 19.03 NRG Oncology/RTOG 0813.

Publication Details:

2014 Sep
Predicting Esophagitis During Radical Lung Radiation Therapy Using 18-FDG-PET. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

Publication Details:

2014 Sep

Publication Details:

2014 Sep

Publication Details:

2013 Nov
Inter-rater reliability of the categorization of late radiographic changes after lung stereotactic body radiation therapy (SBRT). 15th World Conference on Lung Cancer (WCLC/IASLC). Sydney, Australia.
Publication Details:

2013 Nov Late radiographic changes after lung stereotactic body radiotherapy: Piloting a recurrence scale and synoptic reporting scale. 15th World Conference on Lung Cancer (WCLC/IASLC). Sydney, Australia.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2013 Nov Incidental Prophylactic Nodal Irradiation and Patterns of Nodal Relapse in Inoperable Early Stage NSCLC Patients Treated with SBRT: A Case-Matched Analysis. 15th World Conference on Lung Cancer (WCLC/IASLC). Sydney, Australia.

Publication Details:

2013 Oct Dosimetric Variations to Organs at Risk Based on Serial 4DCT Scans During Radiation Therapy Treatment for Patients With Locally-Advanced Non-Small Cell Lung Cancer. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Atlanta, Georgia, United States.

Publication Details:


Publication Details:

2012 Nov 1 Impact of Pretreatment Growth Rate on Outcome of Stage I Non-small Cell Lung Cancer After Stereotactic Body Radiation Therapy. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov 1 Comparison of 3D Conformal Radiation Therapy (3DCRT) and Intensity Modulated Radiation Therapy (IMRT) in Stage III Non-small Cell Lung Cancer (NSCLC). American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

Publication Details:

2012 Nov 1 Patterns of Failure in Patients with Stage I-II Hodgkin Lymphoma Treated with CMT: Implications of Partial Nodal Region Coverage and the Need for Adjacent Uninvolved Nodal Region Coverage. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

Publication Details:


Publication Details:

2012 Sep Comparison of 3D Conformal Radiotreatment (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non-Small Cell Lung Cancer (NSCLC). Chicago Multidisciplinary Symposium in Thoracic
Publication Details:

2012 Jul
Serial FDG 4DPET imaging during radiotherapy in advanced lung cancer patients.

Publication Details:

2011
FDG-PET SUV uptake as a predictor of outcome in stereotactic body radiotherapy (SBRT) for non-small cell lung cancer (NSCLC). 14th World Conference on Lung Cancer.

Publication Details:

Is SBRT alone appropriate for early-stage non-small cell lung cancer with primary tumours larger than 4cm? 14th World Conference on Lung Cancer, Amsterdam. Amsterdam, Netherlands.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:

2010 Stereotactic body radiotherapy (SBRT) for non-small cell lung cancer (NSCLC) – is FDG-PET a predictor of outcome? American Society of Radiation Oncology (ASTRO) Annual Meeting. San Diego, California, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:
2009


*Publication Details:*

2009

Comparison of tumor coverage in radical lung radiotherapy: impact of cone-beam CT image guidance using spine or carina matching. International Association for the Study of Lung Cancer (IASLC) World Conference on Lung Cancer. San Francisco, California, United States.

*Publication Details:*

2009


*Publication Details:*

2008 Sep


*Publication Details:*

2008 Sep

Quantifying the benefits of adaptive radiotherapy on lung sparing for thoracic tumors. American Society of Therapeutic Radiation Oncologists (ASTRO) Annual Meeting. Boston, Massachusetts, United States.

*Publication Details:*

2008 Sep


*Publication Details:*
2008 Sep  

Publication Details:  

2008 Jun  

Publication Details:  

2008  
Lung FDG-PET dual time point SUVs: Effects of radiation treatment and uptake time. Annual Scientific Meeting of the Society of Nuclear Medicine. New Orleans, Louisiana, United States.

Publication Details:  

2007 Oct  

Publication Details:  

2007 Aug  

Publication Details:  

2007 Aug  

Publication Details:  

2007 Aug  
Translating research into routine clinical practice: image-guided lung stereotactic radiation therapy for unresectable patients with early stage lung cancer. 12th World Conference of Lung Cancer. Seoul, Korea, Democratic People’s Republic Of.
**Publication Details:**

**2007 Aug**
The dosimetric effects of changes in thoracic cavity fluid levels during adjuvant hemithoracic intensity modulated radiotherapy following extrapleural pneumonectomy for mesotheliomas. 12th World Conference of Lung Cancer. Seoul, Korea, Democratic People’s Republic Of.

**Publication Details:**

**2007 Jun**
To investigate the dominant pattern of current practice in radiation therapy (RT) for lung cancer among members of American Society of Therapeutic Radiology and Oncology (ASTRO). ASCO Annual Meeting.

**Publication Details:**

**2007 Apr**
Early Results of Image-guided Radiation Therapy in Lung Stereotactic Body Radiotherapy (SBRT).

**Publication Details:**

**2006 Nov**

**Publication Details:**

**2006 Oct**
Fertility among female Hodgkin lymphoma survivors attempting pregnancy following ABVD chemotherapy.

**Publication Details:**

**2006 Oct**

**Publication Details:**

**2006 Sep**
Outcome of hyperfractionated radiotherapy in chemotherapy-resistant non-Hodgkin’s lymphoma. ASTRO
Annual Meeting.

Publication Details:

2006 Sep

Publication Details:

2006 Sep

Publication Details:

2006 Jun
Stereotactic body radiotherapy (SBRT) and medical inoperability of early stage non-small cell lung cancer. ASCO Annual meeting.

Publication Details:

2005 Oct

Publication Details:

2005 Oct

Publication Details:

2005 Oct
A Prospective Study to Evaluate the need for an Immobilization Device for Treating Modified Mantle Fields in Lymphoma Patients. ASTRO Annual Meeting. Denver, Colorado, United States.

Publication Details:

2005 Oct
Radiation Pneumonitis in Lung Cancer Patients – The Neglected patient-Related Variables. ASTRO
Annual Meeting. Denver, Colorado, United States.

*Publication Details:*  

2005 Oct **Presenter.** A Phase III Comparison of Prophylactic Cranial Irradiation versus Observation in Patients with Locally Advanced Non-Small Cell Lung Cancer (RTOG 0214): How to Improve Accrual to an Important Prospective Randomized Study. ASTRO Annual Meeting. Denver, Colorado, United States.

*Publication Details:*  


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  


*Publication Details:*  

Publication Details:

2004 Oct Cardiac toxicity following modern treatment for Hodgkin’s disease: Impact of combined modality treatment with Doxorubicin and Mediastinal radiation therapy. ASTRO Annual Meeting. Atlanta, Georgia, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2003 Sep

Localized mucosa-associated lymphoid tissue (MALT) lymphoma treated with radiation therapy has excellent clinical outcome. ECCO12.

Publication Details:

2003

Comparison of Transradial Versus Transfemoral Arterial Access for Intracoronary Brachytherapy.

Publication Details:

2003


Publication Details:

2003

Hemithoracic Radiotherapy for Mesothelioma - Challenges and Solutions. World Conference on Lung Cancer (WCLC/IASLC).

Publication Details:

2003


Publication Details:

2002 Oct


Publication Details:

2002 Oct

Presenter. Combined Modality Therapy for Clinical Stage I and II Primary Mediastinal Large B-Cell Lymphoma Treated at The Princess Margaret Hospital. American Society of Therapeutic Radiology and Oncology (ASTRO).

Publication Details:
Sun A, Tsang R, Pintilie M, Gospodarowicz M, Wells W, Hodgson D, Crump M, Patterson B. Combined Modality Therapy for Clinical Stage I and II Primary Mediastinal Large B-Cell Lymphoma Treated at The
Princess Margaret Hospital. Int J Radiat Oncol Biol Phys. 2002;54(2 Suppl.):298. **Principal Author.**

**2002 Jun**
Radiation Therapy has Curative Potential in Stage I & II MALT Lymphomas. 8th International Conference on Malignant Lymphoma. Lugano, Switzerland.

**Publication Details:**

**2002 Jun**
**Presenter.** Primary Mediastinal Large B-Cell Lymphoma (PMLBL): 63 Clinical Stage I and II Patients Treated with Combined Modality Therapy (CMT), The Princess Margaret Hospital Experience. 8th International Conference on Malignant Lymphoma. Lugano, Switzerland.

**Publication Details:**
**Sun A**, Tsang R, Pintilie M, Gospodarowicz M, Wells W, Hodgson D, Crump M, Patterson B.. Primary Mediastinal Large B-Cell Lymphoma (PMLBL): 63 Clinical Stage I and II Patients Treated with Combined Modality Therapy (CMT), The Princess Margaret Hospital Experience. Ann Oncol. 2002;13(6 Suppl. 2). **Principal Author.**

**2001**

**Publication Details:**

**2000 Oct**

**Publication Details:**

**1998 May**

**Publication Details:**

**1997 Oct**
**Presenter.** Virtual 5 mm-width multileaf collimation. 39th Annual American Society of Therapeutic Radiology and Oncology Meeting.

**Publication Details:**

**1995 Aug**
Measurement of Oxygen levels in cervical tumor xenografts: multiple techniques in single tumors and a comparison with human tumors. 10th International Congress of Radiation Research.

**Publication Details:**

*Publication Details:*  
Kavanagh M-C, **Sun A**, Hu Q, Hill RP. A comparison of techniques of measuring hypoxia in different murine tumors: Eppendorf pO2 histograph, 3H-misonidazole binding, and paired survival curve assay. 1995 Apr. **Coauthor or Collaborator**.


*Publication Details:*  
Milosevic M, Fyles A, **Sun A**, Keane T. The measurement of interstitial fluid pressure in cervix cancer. 1995 Mar. **Coauthor or Collaborator**.


*Publication Details:*  
Kavanagh MC, **Sun A**, Hu Q, Koch C, Lord E, Hill RP. Measurement of oxygen levels in murine tumors: a comparison of five techniques. 1995 Mar. **Coauthor or Collaborator**.


*Publication Details:*  


*Publication Details:*  
Fyles A, Milosevic M, **Sun A**, Kavanagh M-C, Levin W, Manchul L, Hill R. Hypoxia in cervix cancer- Preliminary results with the Eppendorf electrode. Eur J Cancer. 1995;31A(Supp. 5):S103. **Coauthor or Collaborator**.


*Publication Details:*  
**Sun A**, Liu F-F, Rawlings G. Delayed axillary node dissection in breast cancer patients treated at the Princess Margaret Hospital. 1994 Oct. **Principal Author**.

Safety and Outcomes of Multiple Courses of Stereotactic Body Radiation Therapy to the Lung. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Antonio, Texas, United States.

*Publication Details:*  
Media Appearances

2009 Jul  **Invited Speaker.** A Phase III Comparison of Prophylactic Cranial Irradiation (PCI) versus Observation in Patients with Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC). Initial Analysis of Primary and Secondary Endpoints: RTOG 0214. 13th World Conference of Lung Cancer. San Francisco, California, United States. 1 of only 12 abstracts selected for press release by multiple National United States News Publications. (Presentation to Patients/Public).


2. NATIONAL

Invited Lectures and Presentations


2015 Apr  **Invited Speaker.** A Randomized Phase II Trial to Assess the Efficacy and Safety of Metabolically Adaptive Dose Escalation in LA-NSCLC. NCIC-CTG Lung Site Group Meeting. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


2009 Sep  **Invited Speaker.** Princess Margaret Hospital experience with lung stereotactic body radiotherapy for early stage non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual meeting. Montreal, Quebec, Canada. Presenter(s): Sun A. (Continuing Education).


2007 Apr  **Invited Speaker.** A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).

2006 Sep  **Chair.** Lung Session. Canadian Association of Radiation Oncology (CARO). Calgary, Alberta, Canada. (Continuing Education).

Alexander Y. SUN

2006 Apr  Invited Speaker. A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Montreal, Quebec, Canada. Presenter(s): Sun A. (Continuing Education).


2005 Apr  Invited Speaker. A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Montreal, Quebec, Canada. Presenter(s): Sun A. (Continuing Education).

2004 Apr  Invited Speaker. A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


2003 Apr  Invited Speaker. A Phase II/III randomized trial of two doses (Phase III-standard vs. high) and two high dose schedules (Phase II-once vs. twice daily) for delivering prophylactic cranial irradiation for patients with limited disease small cell lung cancer. RTOG 0212. NCIC-CTG Lung Site Group Meeting. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


Presented and Published Abstracts

2015 Sep  Outcomes in Patients with Stage III Non-Small Cell Lung Cancer Treated with Neoadjuvant Concurrent Chemotherapy and Radiotherapy Followed by Surgical Resection. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Kelowna, British Columbia, Canada.

Publication Details:

2015 Sep  

Publication Details:

2014 Aug  
Presenter. Predicting Esophagitis During Radical Lung Radiotherapy Using 18-FDG PET. Canadian Association of Radiation Oncology (CARO) Annual Meeting. St. John's, Newfoundland and Labrador, Canada.

Publication Details:

2014 Aug  

Publication Details:

2013 Aug  

Publication Details:

2013 Aug  
Inter-Rater Reliability of the Categorization of Late Radiographic Changes After Lung Stereotactic Body Radiation Therapy (SBRT). Montreal, Quebec, Canada.

Publication Details:

2013 Aug  
Time Trends in Tumour Regression During Locally Advanced Lung Cancer Radiotherapy: 4DPET Versus 4DCT. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

Publication Details:
Alexander Y. SUN

Radiother Oncol. 2013 Aug;108(1):S21, 54. **Coauthor or Collaborator.**

2013 Aug Dosimetric Variations to Organs at Risk From Serial 4DCT Scans During Radical Radiotherapy of Patients with Locally Advanced Non-Small Cell Lung Cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**

2013 Aug Late Radiographic Changes After Lung Stereotactic Body Radiotherapy: Piloting a Synoptic Reporting and Recurrence Prediction Scale. Canadian Association for Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec, Canada.

**Publication Details:**


**Publication Details:**

2012 Sep Can FDG PET during the course of radiation therapy for lung cancer predict for esophagitis and pneumonitis. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Canada.

**Publication Details:**


**Publication Details:**

2012 Sep Comparison of 3D Conformal Radiotherapy (3DCRT) and Intensity Modulated Radiotherapy (IMRT) in Stage III Non-Small Lung Cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) Annual Meeting.

**Publication Details:**

2011 Correlation of dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma. Canadian Association of Radiation Oncology (CARO) Annual
Meeting, Winnipeg, Manitoba, Canada.

Publication Details:

2011 Is SBRT alone appropriate for early stage non-small cell lung cancer with primary tumours larger than 4cm? Canadian Association of Radiation Oncology (CARO) Annual Meeting, Winnipeg, Manitoba, Canada.

Publication Details:


Publication Details:

2009 Improvement of target coverage in radical lung radiotherapy using image guidance cone-beam (CBCT). Canadian Association of Radiation Oncologists (CARO) Annual Meeting, Quebec City, Quebec, Canada.

Publication Details:

2009 Princess Margaret Hospital experience with lung stereotactic body radiotherapy for early stage non-small cell lung cancer. Canadian Association of Radiation Oncologists (CARO) Annual Meeting, Montreal, Quebec, Canada.

Publication Details:

2009 Impact of daily volumetric imaging in reducing set-up margins for lung cancer patients treated with conventionally fractionated radiotherapy. Canadian Association of Radiation Oncologists (CARO) Annual Meeting, Quebec City, Quebec, Canada.

Publication Details:

2009 Assessment of intra-fraction target position accuracy for lung stereotactic body radiotherapy (SBRT) using cone-beam CT (CBCT). Canadian Association of Radiation Oncologists (CARO) Annual Meeting, Quebec City, Quebec, Canada.

Publication Details:

2008 Sep
A pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during, and after radiotherapy in lung cancer. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

Publication Details:

A comprehensive team-based approach to lung SBRT treatment planning and delivery. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

Publication Details:

2008 Sep
Pain and rib fracture after SBRT for peripheral non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

Publication Details:

Respiratory correlated cone beam CT in the assessment of volumetric and geometric tumour changes in non-small cell lung cancer during radiotherapy. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada.

Publication Details:

2006 Sep
Selection of patients with stereotactic lung radiotherapy (SBRT) for early stage non-small cell lung cancer (NSCLC). CARO Annual Meeting. Calgary, Alberta, Canada.

Publication Details:


Publication Details:

2006 Sep
Extranodal NK/T lymphoma of nasal type: the Princess Margaret Hospital experience. CARO Annual Meeting. Calgary, Alberta, Canada.
Publication Details:

2006 Sep

Publication Details:

2005 Sep

Publication Details:

2005 Sep

Publication Details:

2005 Sep
Radiation Pneumonitis in Lung Cancer Patients Treated with High Dose Radiotherapy – Role of Concurrent Medications. CARO Annual Meeting. Victoria, British Columbia, Canada.

Publication Details:

2005 Sep
Presenter. How to Improve Accrual to an Important Prospective Randomized Study: Prophylactic Cranial Irradiation (PCI) in Locally Advanced Non-Small Cell Lung Cancer (LA-NSCLC)-RTOG 0214. CARO Annual Meeting. Victoria, British Columbia, Canada.

Publication Details:

2005 Sep
Presenter. An Audit of Prophylactic Cranial Irradiation (PCI) in Limited Disease Small Cell Lung Cancer: Do We Practice What We Preach? CARO Annual Meeting. Victoria, British Columbia, Canada.

Publication Details:

2005 Sep
Presenter. A Prospective Study to Evaluate the Need for an Immobilization Device for Treating Modified Fields in Lymphoma Patients. CARO Annual Meeting. Victoria, British Columbia, Canada.
Alexander Y. SUN

Publication Details:

2005 Sep

Publication Details:

2005 Sep

Publication Details:

2005 Sep
Retrospective Review of Delays in Diagnostic Work-up and Treatment Decision. CARO Annual Meeting. Victoria, British Columbia, Canada.

Publication Details:

2004 Sep
An Accelerated Hypogractioned Radiation Treatment Regimen for Early-Stage Non-Small Cell Lung Cancer. CARO Annual Meeting.

Publication Details:

2004 Sep
Cardiac Mobility Among Hodgkin’s Disease Survivors Treated with Modern Therapy. CARO Annual Meeting.

Publication Details:

2004 Sep
Stage I and II Hodgkin’s Disease: Long Term Outcome and Second Cancer Risk. CARO Annual Meeting.

Publication Details:

2004 Sep
Outcome in Patients with Stage I & II Aggressive Lymphoma Treated with Combined Modality Therapy. CARO Annual Meeting.

Publication Details:

2004 Sep 4DCT Imaging to Track the Motion of Lung Tumor and Thoracic Structures During Breathing. CARO Annual Meeting.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2004 Aug Drill is Like Asparagus: The Resident’s Perspective on ‘Drill” and it’s Evolutions from a Testing Tool into a Learning Toll.

Publication Details:


Publication Details:

2003 Oct A Retrospective Analysis to Examine the Reproducibility of Treatment Set-up in Patients with Hodgkin’s Disease. Canadian Association of Radiation Oncologists 2003 Annual Scientific Meeting (CARO).
Publication Details:

2002 Oct
Three Dimensional (3D) Radiation Treatment Planning of Gastric Lymphoma. Canadian Association of Radiation Oncologists (CARO).

Publication Details:

2002 Oct
Stage I/II Mucosa-Associated Lymphoid Tissue (MALT) Lymphoma Treated with Radiation Therapy has Excellent Local Control and Survival. Canadian Association of Radiation Oncologists (CARO).

Publication Details:

2000 Sep

Publication Details:

1999 Sep
Referral Patterns and Outcomes of Gastrointestinal Cancer at the QEII Health Sciences Centre in 1992 and 1993. Canadian Association of Medical Oncologists (CAMO) Annual Scientific Symposium.

Publication Details:

1998 Sep
Presenter. A time and motion study of multileaf collimation (MLC) versus conventional cerrobend blocks. Canadian Association of Radiation Oncologists (CARO).

Publication Details:

1998 Sep

Publication Details:


**Publication Details:**

1997 Virtual 5 mm-width multileaf collimator and its clinic implementation. CARO Annual Meeting.

**Publication Details:**

1997 **Presenter.** Improving the dose distribution of multileaf collimator fields. CARO Annual Meeting.

**Publication Details:**


**Publication Details:**


**Publication Details:**

1995 Sep **Presenter.** Increasing tumour oxygenization with a human hemoglobin blood substitute (Hemolink TM). CARO Annual Meeting.

**Publication Details:**

1994 Sep **Presenter.** Delayed axillary node dissection in breast cancer patients treated at the Princess Margaret Hospital. Canadian Association of Radiation Oncologists (CARO). Canada.

**Publication Details:**

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2015 May **Invited Speaker.** The Use of Adjuvant Radiation Therapy for Curatively Resected Melanoma. Cancer
Alexander Y. SUN

Care Ontario; Program in Evidence-based Care. Melanoma Disease Site Group. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


2009 Dec Invited Speaker. The Role of IMRT in Skin Cancers. Cancer Care Ontario (CCO); Program in Evidence-Based Care (PEBC) - IMRT (Intensity Modulated Radiotherapy) Indications Expert Panel. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


Presented and Published Abstracts


Publication Details:


Publication Details:
Lack of effect of B-endorphin on basal or glucagon-stimulated hepatic glucose production in vitro. Co-Principal Author.

4. LOCAL

Invited Lectures and Presentations

2013 Treatment Intent and Patient Selection. IGRT in Lung Cancer Education Course, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


2012 Treatment Intent and Patient Selection. IGRT in Lung Cancer Education Course, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).

Alexander Y. SUN

2011     Treatment Intent and Patient Selection. IGRT in Lung Cancer Education Course, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): Sun A. (Continuing Education).


Other Lectures and Presentations


2012 May Presenter. RTOG Energy….Pre- NRG. Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2010 Oct Presenter. PMH (RMP/DMOH) and the RTOG (not TROG). Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2008 May Presenter. RTOG Clinical Trials. Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2006 Dec Presenter. RTOG Lung Studies. Lung Retreat, Radiation Medicine Program, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2006 Oct Presenter. PMH and the RTOG. Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

2005 Mar Presenter. Thoracic Oncology Tumour Conference_Clinical Trials Update. Princess Margaret Hospital. (Continuing Education).

2005 Feb Presenter. PCI in LA-NSCLC and LD-SCLC (how the brain is connected to the lung). Radiation Medicine Program Grand Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2015 Feb     Contributing Faculty, Radiation Oncology Residents Longitudinal Physics Imaging Course - PET Imaging, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology
2015     Chair, Organizing Committee, Lung SBRT Workflow Overview, Moncton Lung SBRT Coaching Session, Princess Margaret Cancer Centre, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
2014 Feb     Contributing Faculty, Radiation Oncology Residents Longitudinal Physics Imaging Course - PET Imaging, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology
2013 Apr     Contributing Faculty, Radiation Oncology Residents Longitudinal Physics Imaging Course - PET Imaging, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology
2013     Chair, Organizing Committee, Image-Guided Radiotherapy (IGRT) Education Course, Princess Margaret Cancer Centre, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
2012     Contributing Faculty, Image-Guided Radiotherapy (IGRT) Education Course, Princess Margaret Cancer Centre, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2005 Jul - 2005 Aug  
**Primary Supervisor.** Year 4. Clifford Masson, United Kingdom.  *An audit of prophylactic cranial irradiation (PCI) in limited disease small cell lung cancer: Do we practice what we preach?*

Postgraduate MD

2013 Jul - present  
**Co-Supervisor.** Core Program. Srinivas Raman.  *A Randomized Controlled Trial to Assess the Efficacy and Safety of Metabolically Adaptive Dose Escalation in Locally Advanced Non-Small Cell Lung Cancer.*

2015 Jul - 2016 Jun  
**Primary Supervisor.** Clinical Fellow. Angela Lin, Hamilton, Ontario.  *A Feasibility Study of Hypoxia Imaging in Patients with Lung Cancer using Positron Emission Tomography (PET) with 18F-Fluoroazomycin Arabinoside (18F-FAZA).*

2013 Jul - 2014 Jun  
**Primary Supervisor.** Clinical Fellow. Qurrat Mehmood, United Kingdom.  *Predicting Esophagitis During Radical Lung Radiotherapy Using 18-FDG-PET.*

2012 Jul - 2013 Jun  

2012 Jan - 2012 Jun  
**Primary Supervisor.** Clinical Fellow. Paula McCloskey, United Kingdom.  *Can FDG PET during the course of radiation therapy for lung cancer predict for esophagitis and pneumonitis.*

2011 Jul - 2011 Dec  
**Primary Supervisor.** Clinical Fellow. Victoria Ford, United Kingdom.  *Can FDG PET during the course of radiation therapy for lung cancer predict for esophagitis and pneumonitis.*

2009 Jul - 2010 Jun  
**Primary Supervisor.** Clinical Fellow. Katy Clarke, United Kingdom.  *FDG-PET SUV uptake as a predictor of outcome in stereotactic body radiotherapy (SBRT) for non-small cell lung cancer (NSCLC).*

2008 Jul - 2009 Jun  
**Co-Supervisor.** Core Program. Meredith Giuliani.  *Utilization of prophylactic cranial irradiation in patients with limited stage small cell lung carcinoma.*

2008 Jul - 2009 Jun  

2007 Jul - 2008 Jun  
**Co-Supervisor.** Clinical Fellow. Gerald Lim, Calgary, Alberta.  *A pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during, and after radiotherapy in lung cancer.*

2004 Jul - 2005 Jul  
**Primary Supervisor.** Clinical Fellow. Eng-Siew Koh.  *Clinical Dose Volume Histogram Analysis in predicting Radiation Pneumonitis in Hodgkin’s Lymphoma.*

2003 Jul - 2004 Jun  
**Primary Supervisor.** Clinical Fellow. Pino Alcantara, Spain.  *Pancoast Tumor Treated with Combined Tri-modality therapy: Is Prophylactic Cranial Irradiation (PCI) Justified?*
I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

Positron Emission Tomography (PET) imaging in Lung Cancer. My goal is to improve outcomes in lung cancer patients through the integration and establishment of Positron Emission Tomography (PET) imaging in the management of lung cancer.

Firstly, to establish a unique and innovative program with the use of PET imaging as a means of developing an adaptive or personalized approach to radical radiotherapy for the treatment of locally advanced non-small cell lung cancer (LA-NSCLC). The concept of “adaptive radiotherapy” refers to adapting or altering a course of radiotherapy depending on changes observed prior to, during or after a course of radiotherapy. The need for such an approach stems from the results of a large prospective randomized trial, RTOG 0617, comparing a higher dose of radiotherapy to the standard dose in LA-NSCLC. There is strong evidence for a dose response relationship in lung cancer, meaning higher doses are more effective. However, RTOG 0617 was a negative trial. Not only was there no benefit to higher doses, but there may have even been a detriment effect. Thus, the standard dose remains the same, and survival of lung cancer patients has not significantly improved for many years. The interpretation of this study is that a “class” solution to higher doses is not the answer, but a more innovative approach is required i.e., an approach that is adaptive to the individual patient rather than to the entire “class” of patients. One innovative strategy is with the use of PET.

Secondly, to establish the role of PET imaging as a predictor of response to Stereotactic Body Radiotherapy (SBRT) for early stage lung cancer. Response assessment after SBRT for lung cancer typically makes use of computed tomography (CT)-based anatomic changes. However, maximum tumour shrinkage can take several months and treatment-induced lung changes can confound the evaluation. An accurate and timely response assessment has become even more important as SBRT is being proposed as a possible alternative to surgery in patients with medically operable, early stage disease. In this context, identifying or predicting treatment failure could still allow definitive ‘salvage’ therapy or additional adjuvant therapies. This can be potentially achieved through the use of PET.

It was originally thought that PET imaging could not be interpreted during a course of radiotherapy. However, we along with others have found that this is not the case, through a funded pilot study that I led as Principal Investigator. As a result of this initial pilot experience, our group (I am the Clinical PI and Dr. Bissonnette is the Physics PI) was successful in obtaining a peer reviewed grant from the Canadian Cancer Society, to further characterize “adaptive radiotherapy”. So far, 2 manuscripts have been submitted for publication (I am the corresponding author for both). One of which has just recently been accepted for publication in the Journal of Thoracic Oncology, which is the current official journal of the International Association for the Study of Lung Cancer, the leading international multidisciplinary lung cancer organization in the world. This journal has an impact factor of 5.8. We showed that changes in PET images during radiotherapy may predict for the development of radiation
esophagitis, one of the dose limiting toxicities, which has implications for adaptive radiotherapy planning.

Building upon our experience, we have drafted a proposal for a prospective randomized study utilizing PET as a method of adaptive dose escalation. Our resident, Srinivas Raman, recently attended a prestigious Workshop on Methods in Clinical Cancer Research, in Flims (Switzerland) based on this proposal. He was 1 of 10 accepted out of 133 applicants. He also won another award based on the same project. More importantly, we have just secured funding for this trial. This is the only study of its kind being performed in multi-institutions across Canada and is on the leading edge of the future of radical radiotherapy in lung cancer management. We are one of only a few groups worldwide performing this kind of research and hope to change the standard of care of radical radiotherapy in lung cancer.

I have published on the role of PET imaging in SBRT for early stage lung cancer. In one study we described a pilot experience with fluorodeoxyglucose positron emission tomography (FDG-PET) for response assessment 3 months after SBRT. With this initial information we continued this imaging strategy with the aim of trying to identify PET metrics for response assessment and prognosis. Another study built upon the initial experience of the manuscript published above, but took it a step further. We showed that FDG-PET was a predictor of outcome for early stage non-small cell lung cancer patients treated radically with SBRT. These results have implications for future trials of adjuvant therapies post SBRT.

Princess Margaret is the premier centre for SBRT in lung cancer in Canada and one of the leading centres worldwide. I am currently the lung cancer site group leader and am also the leader of the PET program within the Princess Margaret lung cancer and SBRT program.

In addition, I am the PI of a grant funded study using PET with 18F-Fluoroazomycin Arabinoside (18F-FAZA)”. All of the previously mentioned PET studies have been done with FDG. FAZA is a hypoxic marker that can be used in conjunction with FDG-PET and we are one of a few groups worldwide investigating this relatively untested but potentially promising PET agent in lung cancer.

As a result of my leadership of our innovative and creative PET adaptive radiotherapy program for lung cancer, I have been able to attract a number of trainees from locally, provincially, nationally and internationally to help develop and move the program forward.

My recognition in this area of research in Canada is exemplified by my invited presentations at various venues nationally including one at Canadian Association of Radiation Oncology, our national organization and national annual meeting for our specialty.

Prophylactic Cranial Irradiation (PCI) in Lung Cancer.
My goal is to define the role of prophylactic cranial irradiation (PCI) in lung cancer. PCI is the most effective means of preventing metastases to the brain, but had unrecognized toxicities. Currently PCI is considered standard of care in limited disease small cell lung cancer (LD-SCLC) as it has shown a survival benefit. There was a large international randomized trial comparing a higher dose to the standard dose of PCI in an attempt to improve this survival benefit. I was the Canadian Representative of this study as I was invited to present this study at the National Cancer Institute of Canada Clinical Trials Meeting (NCIC-CTG) annually from 2003 to 2007. The study resulted in no change to the standard dose of PCI.

At that time, it was recognized that brain metastases rates in locally advanced non-small cell cancer (LA-NSCLC) were approaching that of LD-SCLC due to patients living longer from more effective treatment. In 2002, I became the Canadian Principal Investigator (PI) for the largest randomized phase III trial of PCI in LA-NSCLC, led by the Radiation Therapy Oncology Group (RTOG), 0214. RTOG (now NRG) is the foremost clinical trials group dedicated to Radiotherapy trials based in the United States, but with international participation.
RTOG 0214 resulted in 2 publications in the Journal of Clinical Oncology (JCO), one of the most prestigious journals for Oncology research with an impact factor of 18.4. It is also one of the rare times that the primary and secondary endpoint analyses were published back to back in the same issue of JCO. I was the lead author in the secondary analysis and played a major role in the primary analysis. They have been cited 150 and 128 times, respectively. Furthermore, my secondary analysis has been instrumental in identifying and characterizing the toxicities of PCI and has helped form the basis of the very topical research field of neurocognitive function with cranial irradiation. Currently there are many ongoing clinical trials worldwide in brain metastases and PCI, which have neurocognitive endpoints as their primary endpoint. This is a departure from the traditional primary survival endpoints. The neurocognitive tools used in these studies are also based on our study. In an editorial from JCO, Khan et al. wrote “To discriminate the relative contributions of disease and therapy on cognitive impairment, we can turn to…Sun et al….from RTOG 0214….There were several important findings reported in this study: memory decline after cranial radiotherapy is relatively frequent when measured with sensitive tools; both immediate and delayed recall are affected; QOL scores do not correlate with neurocognitive function and do not seem to be worse with PCI.”

I presented the primary and secondary analyses at the World Lung Conference (IASLC-International Association for the Study of Lung Cancer) in 2009, the most prestigious and well attended multi-disciplinary International Conference in Lung Cancer. My abstract was 1 of the top 12 abstracts selected for media presentation at this meeting. The secondary analysis was also selected for presentation in the Plenary Session (top 4 abstracts) at ASTRO (American Society for Radiation Oncology – the largest and most prestigious International meeting focusing on Radiation Oncology) and at the RTOG meeting Plenary Session (top 4 RTOG abstracts) in 2010. Currently, I am the Principal Author, of the 5 year long term updated results of RTOG 0214, submitted for publication to the JCO.

I also conducted a sub-study of RTOG 0214 addressing accrual issues, which resulted in an invited presentation at the RTOG meeting in 2005. I was also invited to present this study at the NCIC-CTG from 2002-2007. As a result of my national leadership, Canadian centres represented 8 of the top 15 accruing centres around the world, representing more than 20% of the overall accrual. This success resulted in an invitation in 2007, as a speaker at the RTOG Main Scientific Session.

More recently, PCI is becoming the standard of care in extensive disease small cell lung cancer (ED-SCLC) based on the results of a European study published in the New England Journal of Medicine. During the European study, a similar North American study was being led by the RTOG (0937) for which I am a Co-PI. RTOG 0937 closed this year and preliminary results were presented as a late breaking abstract at ASTRO. The final results of this study are highly anticipated as it may alter the newly adopted standard of practice.

Currently, I am the Lung Co-PI of a newly approved North American study led by NRG (previously RTOG), which is addressing neurocognitive function and memory change, the main toxicity of PCI. Much of this study was based on the results of my JCO publication addressing this issue in RTOG 0214. A similar study is also being conducted separately in Europe.

My success in RTOG studies has led to a number of significant leadership positions at RTOG/NRG. I was appointed to the Publications Committee in 2011 in part because of the 2 landmark publications back to back in the same issue of JCO, which was viewed extremely favourably by RTOG. I was only 1 of 2 Canadians serving on that committee. I was also 1 of only 4 members of the Nominations Committee. I served as Co-Chair of the Clinical Trials, Evaluation and Recruitment (CTER) Committee. This committee was an innovative initiative designed to investigate and implement new strategies to increase accrual to RTOG studies. As a result of the CTER initiatives, various strategies have been implemented at RTOG Headquarters to facilitate successful accrual to newly proposed studies. As a result of my
work, I was an invited speaker at the RTOG Theme Symposium on Recruitment to Clinical Trials held in 2007. In addition, I was an invited presenter as Co-Chair of the CTER committee on behalf of RTOG at the National Institutes of Health Core Grant Renewal Site Visit in Bethesda, MD, in 2008, which was successful in renewing their grant.

At the RTOG Symposium in 2004, I was the only Canadian Invited Panel Discussant, along with some of the most prominent Radiation Oncology lung cancer experts in the US. I was an invited speaker at the Canadian Lung Cancer Conference in 2012, where my topic was RTOG Lung Cancer Clinical Trials. In addition, I was the invited speaker as the expert on the topic of “Neurotoxicity of Cranial Irradiation” at the World Lung Cancer Conference (IASLC) in Australia in 2013.

My recognition in this field was also exemplified by being the Invited International Reviewer for a project grant application of a European study similar to RTOG 0214, but smaller in scope, the results of which are pending. I have already been contacted by my European colleagues leading this trial regarding the possibility of combining our data for a meta-analysis.

I am also one of the recognized leaders on the Lung Cancer Steering Committee exemplified by my leadership as PI or co-PI on a number of RTOG/NRG lung cancer studies as discussed above.

In summary, I am recognized as the leader in the field of PCI for lung cancer in Canada and also as a leader in this field in North America and Internationally.

2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

The Role of Radiotherapy in Skin Cancer.

My goal is to improve the care of skin cancers (melanoma and non-melanoma) treated with radiation therapy. I joined the Skin Cancer Site group as a member in 2009 and have been the Site Group Leader in Radiation Oncology at Princess Margaret since 2010. I was the only Radiation Oncology Representative on the Melanoma Disease Site Group, Program in Evidenced Based Care, at Cancer Care Ontario until recently. I have published and led guidelines on radiation therapy of skin cancers. I am a contributing author to book chapters related to the management of skin cancers.

I was invited to lead a guideline examining the expanding role of IMRT (Intensity Modulated Radiation Therapy) use in treating skin cancers. I was also the Principal author on a recently completed guideline entitled “The Use of Adjuvant Radiation Therapy for Curatively Resected Melanoma”. This manuscript is currently in press. Both of these guidelines were performed through the Program in Evidenced Based Care at Cancer Care Ontario. This program provides evidence based care information for health care providers and the public. This is an internationally recognized guideline development program. The aim is to provide clinicians and policy makers the best scientific evidence to support standard practice and policy decisions. These guidelines are used to define standard practice across Ontario and are often used across the country and internationally.

My recognition in this area is exemplified by being invited to be the representative Radiation Oncology author to book chapters in the Surgical Oncology Manual, developed by the University of Toronto’s Department of Surgery, the leading Surgical Oncology Department in Canada. I contributed to 2 separate chapters, one on Non-melanoma skin cancer and the other on Merkel Cell Carcinoma. The second edition of this manual is currently in press. This manual is used by surgical oncology programs across the country.

I was also recently invited as a contributing author for a chapter entitled “Cancers of the Skin, Including Mycosis Fungoides.” in: Faiz M. Khan, et.al., editor(s), Treatment Planning in Radiation Oncology, 4th Edition. (United States); 2015, currently in press. This is the most widely used Radiation Treatment Planning textbook amongst trainees, and reference
textbook for practicing Radiation Oncologists in non-academic centres, throughout the US, Canada and internationally.

My recognition in this area is also exemplified by my recent invitation to join the newly founded Clinical Trials Strategy Group for Melanoma, for the Canadian Cancer Clinical Trials Network (3CTN). This is the first group that 3CTN has formed, with other cancer subtype groups to follow. 3CTN is the recent creation of a pan-Canadian program to strengthen academic-sponsored cancer clinical trials capacity to improve patient outcomes. I am one of only 2 Radiation Oncologists on this multidisciplinary committee, where our goal is to shape the research landscape in melanoma across Canada.
Curriculum Vitae

Ewa Szumacher
MD, MEd, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

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Email Ewa.Szumacher@sunnybrook.ca

1. EDUCATION

Degrees
2003 - 2005 MEd, Department of Theory and Policy Studies in Education, OISE/UT, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr Pamela Catton, Dr Glen Jones
1976 - 1982 MD, Medical University of Lodz, Lodz, Poland

Postgraduate, Research and Specialty Training
1993 - 1997 Resident, Radiation Oncology, University of Ottawa, Ottawa, Ontario, Canada
1988 - 1990 Resident, Diagnostic Radiology, Medical, University of Lodz, Lodz, Poland
1983 - 1987 Resident, Radiation Oncology, Medical, University of Lodz, Lodz, Poland
1976 - 1982 Intern, Internal Medical, University of Lodz, Lodz, Poland

Qualifications, Certifications and Licenses
2006 Teacher Trainer Certificate, Stepping Stones Program, University of Toronto, Toronto, Ontario, Canada
2006 Interprofessional Education Faculty Development: Advancing the Future of Health Care Through Learning Certification, University of Toronto, Toronto, Ontario, Canada
1998 Licentiate, Medical Council of Canada, Canada
1997 General Medical License, College of Physicians and Surgeons of Ontario
1997 Specialist License, Radiation Oncology, University of Alberta, Edmonton, Alberta, Canada
1997 Specialist Certificate, Royal College of Physicians and Surgeons of Canada, Toronto, Ontario, Canada
1994 Federation Licensing Examination (FLEX) Certificate, Federation of State Medical Boards, United States
1987 License, Radiation Oncology, University of Lodz, Lodz, Poland
1987 Specialist License, Radiation Oncology, University of Alberta, Lodz, Poland
1982 General Medical License, University of Lodz, Lodz, Poland

2. EMPLOYMENT

Current Appointments

2013 - present Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2011 - present Associate Courtesy, The Scarborough Hospital, Toronto, Ontario, Canada
2009 - present Associate Courtesy, Toronto East General Hospital, Toronto, Ontario, Canada
2006 - present Regional Affiliate, The Royal Victoria Hospital of Barrie, Barrie, Ontario, Canada
1998 - present Staff Radiation Oncologist, Odette Cancer Centre, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Previous Appointments

CONSULTING
1997 Consultant, Radiation Oncology, Tom Baker Cancer Centre, Calgary, Alberta, Canada

UNIVERSITY - RANK
2001 - 2013 Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2006 Abbott Travel Award, Canadian Association of Radiation Oncologists. (Distinction)
2005 Physician Manager Institute Certificate of Achievement, Canadian Medical Association. (Distinction)

PROVINCIAL / REGIONAL
Received
2015 Mar Sunnybrook Education Advisory Council (SEAC) Educational Research Award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Research Award)
The Educational Research Award recognizes sustained effort and excellence in research related to education. Research may be theoretical or applied, and utilize any range or combination of research approaches.

Examples of nominee contributions to educational research include, but are not limited to:
• Publications, posters, and presentations related to educational research at the local, regional, national, or international level
• Leadership roles in support of educational research
• Foster.

1999 Short Programs in Oncology Award, Cancer Care Ontario. (Distinction)
LOCAL
Received
2015 May  **ACURA Uro-Oncologic Radiation Research Award**, CARO - Canadian Association of Radiation Oncology. (Research Award)
2005 - 2006  **Academic Performance Award, Department of Radiation Oncology**, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
2003  **Fifteen Year Service Award**, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
2003  **Five Year Service Award**, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)
2003  **Ten Year Service Award**, Toronto-Sunnybrook Regional Cancer Centre. (Distinction)

Teaching and Education Awards

LOCAL
Received
2016  **Ivy Oandasan Leadership Award for Outstanding Contributions in Advancing Interprofessional Education**, University of Toronto, Sunnybrook Health Sciences Centre - Odette Cancer Centre

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2012 Jul - present  **Member**, American Association of Cancer Education - AACE
2005 - present  **Member**, Association for Medical Education Europe (AMEE)
2005 - present  **Member**, Canadian Association for Medical Education
2005 - present  **Member**, The American Association for Women Radiologists (AAWR)
1997 - present  **Member**, Canadian Medical Association
1994 - present  **Member**, American Society of Therapeutic Radiol Oncology (ASTRO)
1994 - present  **Member**, European Society for Therapeutic Radiology and Oncology (ESTRO)
1993 - present  **Member**, Canadian Association of Radiation Oncologists (CARO)
1993 - present  **Member**, Ontario Medical Association (OMA)

Administrative Activities

INTERNATIONAL
**American Association of Cancer Education AACE**
2015 - present  Executive Council: Member at Large

**American Association of Cancer Education; Annual Conference - October 2015**
2014 Jul 1 - present  Planning Committee Member, Tuscon, Arizona, United States.
NATIONAL

Parkhurst Publishing
2007 - present  Member, Advisory Board, Oncology Exchange

University of Toronto
2006 - 2007  Member, Organizing Committee, 5th and 6th Annual Radiation Therapy Conference

LOCAL

Cancer Patient Education Network
2011 - present  Member

Hospital News
2007 - present  Member, Advisory Board

Michener Institute for Applied Health Sciences
2005 - present  Member, Joint Curriculum Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education
2000 - present  Academic Coordinator, Medical Radiation Sciences Program, Faculty of Medicine, Dept of Radiation Oncology
2003 - 2007  Member, Medical Radiation Sciences Board of Examiners, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education
2003  Academic Coordinator, Medical Radiation Sciences Board of Examiners, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education

Odette Cancer Centre
2011 - present  Member, Cancer Patient Education Committee

Sunnybrook Health Sciences Centre
2012 Jul - present  Sunnybrook Education Advisory Committee - SEAC Member, Toronto, Ontario, Canada.
2011 - present  Co-Chair, Education Research Committee
2011 - present  Member, Sunnybrook-Based Education EDU Working Group
2005 - present  Chair, Radiation Program Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education
2005 - 2007  Secretary, Executive, Radiation Oncology Associates, Odette Cancer Centre
2005 - 2007  Director of Education, Radiation Treatment Program, Department of Radiation Oncology, Odette Cancer Centre, Undergraduate Education

University Health Network
2006 - present  Member, Centre for Research in Education, Wilson Centre

University of Toronto
2012 - present  Member, Centre for Interprofessional Education
2011 - present  Member, Centre for Faculty Development
2004 - present  Member, Continuing Education Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology
2004 - present  Member, Teaching Effectiveness Committee, Department of Radiation Oncology, Faculty of...
Peer Review Activities

EDITORIAL BOARDS

Member
2013 Jan - present  Journal of Cancer Education
2009 Jul - present  Journal of Medical Imaging and Radiation Sciences (JMIRS)

Reviewer
2014 - present  Journal of Cancer Education, Number of Reviews: 4
2014 - present  Journal of Medical Imaging and Radiation Sciences (JMIRS), Number of Reviews: 3

Member
2007 - present  Anatomical Sciences Education
2007 - present  Medical Teacher
2005 - present  Oncology Exchange

MANUSCRIPT REVIEWS

Reviewer
2007 - present  Journal of Anatomical Sciences Education, Number of Reviews: 2
2005 - present  Journal of Health Professions Education, Number of Reviews: 2
2005 - present  Medical Teacher, Number of Reviews: 2
2015 - 2016  Journal of Radiation Oncology Biology and Physics, Number of Reviews: 2
2014 Jul 1 - 2015  Journal of Cancer Education, Number of Reviews: 4
2014 Jul 1 - 2015 Jun 30  Journal of Medical Imaging and Radiation Sciences, Number of Reviews: 3

ABSTRACT

Reviewer
2009 - 2010  Canadian Association of Radiation Oncologists (CARO)

Other Research and Professional Activities

CO-ORGANIZER
2013 Jul - 2014  Associate Director, Educational Research and Scholarship Grant Terms of Reference & Call for Proposals. Sunnybrook Education Advisory Council (SEAC) - Educaiton Research Unit (ERU), Toronto, Ontario, Canada. Supervisor(s): Carilynne Yarascavitch. Collaborator(s): Ewa Szumacher, Agnes Ryzynski, Ari Zaretsky.
C. Academic Profile

1. RESEARCH STATEMENTS

Needs assessments of patients, healthcare providers and trainees in radiotherapy practice.

Enhancing patients and healthcare providers’ decisional preferences for radiotherapy treatment.

Developing an interprofessional learning environment and creating modalities for continuing professional education in radiation therapy.

2. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

My Creative Professional Activity (CPA) is focused on two themes. This CPA dossier outlines my contributions to innovative/creative excellence and the development of professional practices in these two themes.

• Theme 1: Understanding the needs and preferences of cancer patients in radiation oncology practice
• Theme 2: Working together as an inter-professional team in radiation oncology practice to improve the care of cancer patients

Theme 1: The first theme focuses on investigating cancer patients’ needs in radiation oncology practice to give health care providers a better understanding of patients’ needs and incorporating these needs into patient care. I have contributed to professional innovations and creative excellence within this first theme through the following activities: 1) understanding patient preferences in the treatment of bone metastases with palliative radiotherapy (RT), 2) understanding needs of older patients with early breast cancer while undergoing adjuvant RT, 3) development of a patient decision aid for adjuvant RT for older women with early breast cancer, and 4) understanding the needs of prostate cancer patients treated with radical prostatectomy who require adjuvant and salvage RT.

The contributions to the development of professional practice in these four areas are outlined in my peer reviewed papers published since my last academic promotion. These scholarly works included information about cancer patients’ needs to voice their opinions and to inform and guide clinicians on how to address these needs and incorporate them into cancer care.

Theme 2: The second theme of my CPA focuses on creating an inter-professional team in radiation oncology practice for better care of cancer patients. This is achieved by fostering an inter-professional practice in radiation oncology through continuing medical education (CME), scholarly work and research. Here, I have provided significant contributions in the following areas: 1) understanding the needs of healthcare providers in cancer care and enhancing RT services and treatment in underserviced areas, 2) developing and assessing the effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for three-dimensional RT (3D-CRT) for prostate cancer, 3) developing an inter-professional learning environment and creating modalities for continuing professional education in radiation therapy by organizing inter-professional CME events such as Radiation Oncology Palliative Care Rounds, Inter-professional Radiation Oncology Rounds (IROR), and the HOT SPOT newsletter CME section, and 4) investigating inter-professional needs of cancer care providers and trainees.

Under theme 2, the development of professional practice has focused on providing interdisciplinary leadership for cancer care providers and trainees through education and mentorship. Evidence for my contributions in this theme is documented in my publications, international and national presentations and my participation in a number of workshops.

There is growing recognition throughout the medical and scientific research community that an interdisciplinary approach to cancer care should incorporate patient communication to maximize the benefits of current medical discoveries in diagnosis and treatment—particularly in the emerging era of personalized medicine. Cancer treatment often involves multiple options and choices; it can be toxic, costly, intense and protracted and may be associated with serious long-term
complications. In addition, responses to cancer treatments are quite variable, so predicting the potential risks and benefits of various treatment options for individual patients is often difficult. Furthermore, because of the complexity of treatment choices, compiled with the life threatening nature of cancer and its emotional repercussions, it is often difficult for cancer patients to make decisions about their care. The fragmented nature of the cancer care system also presents challenges that may impede coordinated care and the development of a comprehensive treatment plan. Evidence indicates that clinicians cannot predict cancer patients’ needs and patients’ roles in the treatment decision process. These areas require further investigations. My research and CPA have been focused on attempting to better understand cancer patients’ needs when they experience RT and how these needs can be incorporated into the patient care paradigm. I have disseminated this new knowledge through several avenues including publications and presentations at national and international meetings, active participation on editorial boards, grant and review committees, guideline working groups, and workshops. This work has also contributed to the training of health care professionals to practise within this new paradigm.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNKED

2015 Apr - 2016 Mar  Co-Principal Investigator. The Senior Toronto Oncology Panel. Funding CIHR 15,000, St. Michael’s hospital $6,000, University Health Network $3,000, Odette Cancer Centre $3,000, Mount Sinai Hospital $1,000, Leukemia and Lymphoma Society Canada $2,500, Prostate Cancer Canada $1,000, Toronto East General Hospital $1,000. Patient Engagement Collaboration. PI: Martine Puts. Collaborator(s): Ms. J. Manthorne (Canadian Cancer Survivor Network), Mr. B. Stein (Colorectal Cancer Association Canada), Dr. C. Simone (Toronto East General Hospital), Dr. Y. Rahim (Stronach Cancer Centre), Dr. J. Richards (University Health Network), Dr. S. Sinha (Mount Sinai Hospital), Dr. C. Law (Odette Cancer Centre), ELLICSR, Mr. A. Quinn (Carp Canada), Mr. M. Etherington (Carp Etobicoke chapter), Ms. G. Butler (Carp Scarborough chapter), M. Winkler (BrainTumour Canada), Mr. Stuart Edmonds (Prostate Canc. 30,500 CAD

To understand how we can involve patients in research.

2015 Mar - 2016 Mar  Principal Investigator. Assessing the impact of an instructional video on patients’ compliance with bowel and bladder preparation instructions for CT scan planning for intensity modulated radiotherapy (IMRT) for prostate cancer. Sunnybrook Health Sciences Centre SEAC. SEAC ERC Education and Research and Scholarship Grant. Collaborator(s): Dawdy K, Russell S, Cao X, Ryzymski A, Harth T, Townsend C. 8,600 CAD

2014 Jul - 2015 Jun  Principal Investigator. Empowering patients through education – development and evaluation of a multimedia patient education tool to ensure patient preparedness for planning CT scan for prostate cancer (randomized study). ACURO/ CARO. 15,000 CAD

2014 - 2016  Co-Principal Investigator. High Fidelity Simulation-based Training in Radiation Therapy: Attitudes and Behaviours towards Safety in Radiation Therapy. UT-DRO. 50,000 CAD

2009  Co-Investigator. Exploring meanings of caring among health care professionals providing cancer care. Sunnybrook and Women’s College Health Sciences Centre. Practice-Based Research Award Grant. PI: Osmar K. Collaborator(s): DasGupta T, Daley A, Szumacher E, Fitch M. 15,500 CAD
2008 Jul - 2010 Jun  **Principal Investigator.** The development of the decision-aid investing patients’ preferences for adjuvant radiotherapy and antiestrogen therapy versus antiestrogen therapy alone in patients 70 years or older with stage I, EP/PR positive, invasive breast cancer. Canadian Breast Cancer Foundation (CBCF). Collaborator(s): Paszat L, Angus J, Metcalfe K, Whelan T, Llewellyn-Thomas H. 121,076 CAD

2006  **Principal Investigator.** The effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for three-dimensional radiotherapy for prostate cancer (3D-CRT). Canadian Association of Radiation Oncologists (CARO). Abbott-CARO Uro-Oncologic Radiation Award (ACURA). 10,000 CAD

2005  **Principal Investigator.** Educational Scholarship in Radiation Oncology. Mr. Clive Siedel. 20,000 CAD


1997  **Collaborator.** A phase III double blind randomized study to compare the effectiveness of radiotherapy and pamidronate versus radiotherapy and placebo in the relief of pain due to bone metastases. Toronto-Sunnybrook Regional Cancer Centre. Radiation Program Fund. PI: Wong R. Collaborator(s): Hoegler D, Danjoux C, Chow E, Szumacher E, Franssen E. 61,000 CAD

1997  **Co-Investigator.** A prospective assessment of symptom palliation for patients attending a rapid response radiotherapy program. Toronto-Sunnybrook Regional Cancer Centre. Radiation Program Fund. PI: Chow E. Collaborator(s): Danjoux C, Wong R, Szumacher E. 8,000 CAD


**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2014 Sep  **Travel Grant.** Breast Cancer Patient Preferences for Adjuvant Radiotherapy Post-Lumpectomy: Whole Breast Irradiation versus Partial Breast Irradiation - Preliminary Results. Sanofi Avantis Pharmaceuticals. ASTRO. PI: Szumacher, E. 4,000 CAD

2014 Jul  **Principal Applicant.** Unrestricted Education Grant. ASTRA - ZENECA. 5,000 CAD
2014 Jul  Principal Applicant. Travel Grant. ABBVIE. 2,000 CAD
World Cancer Congress, Melbourne, Australia.

2014 - 2016  Principal Investigator. Empowering Patients Through Education Post-prostatectomy Radiation Therapy: On-line patient Education Program Resource. GU Trust Fund SHSC. 24,000 CAD

2014  Principal Investigator. Treatment for older women with breast cancer - challenges and opportunities. An experience from Toronto Sunnybrook Odette Cancer Centre, Toronto, Ontario, Canada. Abvie Perceptorship. Industrial Grant. 2,000 CAD

2014  Travel to Conference. Unrestricted Education Grant. Astra Zeneca Pharmaceuticals. Unrestricted Education Grant. 5,000 CDF

2010 Jul - 2011 Jun  Principal Investigator. Investigating the opinions of health care providers involved in treatment of patients with prostate cancer in the province of Ontario, regarding the informational needs of non-metastatic post-prostatectomy cancer patients referred for adjuvant or salvage radiotherapy (a multidisciplinary approach). Abbott Laboratories. Unrestricted Education Grant. Collaborator(s): Maamoun J, Feldman-Stewart D, Fitch, M, DasGupta T, Court A, Kiss A. 20,000 CAD

2007 - 2009  Principal Investigator. Sanofi-Aventis (Canada). Veronique Benk Professorship Grant – Education. 16,000 CAD

2005  Principal Investigator. Canadian patterns of practice in adjuvant radiotherapy for elderly women with stage I breast cancer – survey. Astra Zeneca Inc. 7,500 CAD

2005  Principal Investigator. Touch pads interactive technology to improve interactivity at CME at the radiation program Odette Cancer Centre. Abbott Laboratories. 4,000 CAD

2005  Principal Investigator. Astra Zeneca Inc. Alon Dembo Professorship Grant – Education. 2,500 CAD

2005  Principal Investigator. Abbott Laboratories. Education Grant. 2,500 CAD

2003 - 2005  Principal Investigator. Abbott Laboratories. Alon Dembo Professorship Grant – Education. 18,000 CAD
1. MOST SIGNIFICANT PUBLICATIONS


The study aims to investigate the information needs and unique illness experiences of older women with early stage breast cancer. Breast cancer patients have expressed a high need for information to help them cope with their disease and treatment decision making. Satisfying information needs can also improve patient outcomes including perceptions of control, levels of distress, and psychological well-being. Focus groups and one patient interview were conducted investigating the informational needs of patients 70 years or older who were diagnosed with stage I breast cancer. Women identified their experiences and information needs related to diagnosis, participation in treatment decision making, treatment onset, and unexpected life changes. They provided several suggestions to healthcare professionals related to breast cancer treatment. The study’s findings increase our understanding of older breast cancer patients’ needs and provide a foundation for the development of a decision aid to help patients better understand their treatment options.


The purpose of this study was to examine the effect of a teaching intervention, “Prostate and Rectum Contouring Workshop”, on the accuracy of delineation of the prostate and rectum for three-dimensional conformal radiotherapy (3D-CRT) for prostate cancer. Participants were randomly assigned to one of two workshop sessions. Subjects included radiation oncology trainees, therapists and therapy students. Training sessions were found to improve technical performance similarly and non-significantly for both groups. The delayed survey reflected that participants in the experimental group alone felt more confident with prostate and rectum contouring after the training session, and a majority of subjects in both groups would investigate further opportunities to learn more about organ contouring. The enthusiastic response to this program and opportunities for further educational interventions indicated both the lack of and the need for formal training in organ contouring. Optimal course content and format has yet to be determined.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Multimedia


Journal Articles, Multicenter Study, Randomized Controlled Trial

3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


3. **Szumacher E.** Breast Sarcoma: case reports and literature review. Current Oncology. 1999. **Principal Author.**

4. Chen H, Kiss A, D’Alimonte L, Koo K, **Szumacher E.** Treatment decisional support for older women with breast cancer considering adjuvant RT post lumpectomy. (Trainee publication, Laura D’Alimonte).

4. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2016 Mar **Presenter.** Incorporating Interprofessional Education and Practice within the Radiation Oncology Department at the Odette Cancer Centre: Challenges and Opportunities. Ottawa Conference MED Education. Perth, Australia. Presenter(s): **Ewa Szumacher.**

2015 Oct **Moderator.** Workshop 5: Geriatric Oncology. ICEC Annual Meeting. Tucson, Arizona, United States. Presenter(s): Dr. Szumacher, Dr. Martine Puts.

2013 Apr 17 **Presenter.** Decisional Support Throughout the Cancer Journey for Older Women Diagnosed with Early Stage Breast Cancer. European Association of Cancer Education - APMEC, Poland. Poland. Presenter(s): **E. Szumacher.**

2013 Jan 18 **Presenter.** Building an Interprofessional Structure for Practice-Based Education Research and Scholarship within an Academic Health Sciences Centre - Early Experiences. Asian Pacific Medical Education Conference - APMEC. Singapore - No State, Singapore. Presenter(s): **E. Szumacher.**


2011 **Chair.** Oral presentation session. 1st International Faculty Development in Health Professions Conference. Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).
Presented Abstracts

2016 Nov 17 **Presenter.** Senior Toronto Oncology Panel - Research Participation for Older Adults with Cancer and Family Members/Caregivers. SIOG - International Society of Geriatric Oncology. Milano, Italy. Presenter(s): Dr. Szumacher.


Presenter(s): Bishop MC, **Szumacher E.**


2014 Mar 28  **Presenter.** Creating an inter professional education environment for patients, trainees and staff at the Sunnybrook Odette Cancer Centre in Toronto. European Association for Cancer Education - 27th Annual Scientific Meeting. Caen, Normandy, France. Presenter(s): **Szumacher, E.**


2014 Jan 17  **Presenter.** Getting Started in Scholarship: Fostering, Coaching and Mentoring Interprofessional Education Scholarship. 11th Asia Pacific Medical Education Conference (APMEC). Singapore, Singapore. Presenter(s): **Szumacher, E.**


2013 Sep  **Presenter.** Decisional Support for Women 60 Years and Older During their Treatment for Stage I and II Breast Cancer: A single Institutional Study. ASTRO. San Francisco, California, United States. Presenter(s): **Szumacher E, D’Almonte L, Feldman-Stewart D, Court A, Fitch M, Di Prospero L, Maamoun J, Kiss A, Warner E.**

2013 Jan 16  **Presenter.** Building an Interprofessional Structure for Practice-Based Education Research and Scholarship Within an Academic Health Sciences Centre - Early Experiences. 10th Asia Pacific Medical Education Conference (APMEC). Singapore, Singapore. Presenter(s): Dr. **E. Szumacher.**


2012 Oct  **Presenter.** Patients’ decision-making in radiation oncology. 3rd Oncology Congress. Poland. Presenter(s): **Ewa Szumacher.**

2012 Oct  **Presenter.** Development of Patients’ decision aid for older women with stage I breast cancer considering radiotherapy post lumpectomy. 3rd Oncology Congress. Poland.

2012 Oct  **Presenter.** Opinions from the experts exploring what prostate cancer patients should know about post-operative radiotherapy post prostatectomy: Health professionals’ opinion. 3rd Oncology Congress. Poland. Presenter(s): **Ewa Szumacher.**


2012  **Presenter.** Informational Needs of Older Women with Stage I Breast Cancer: Needs Assessment Study. Radiation Therapist Conference. Toronto, Ontario. Presenter(s): **Szumacher, Ewa.** Accepted for presentation. (Continuing Education).

2012  **Presenter.** A schema for successful remediation within allied health programs: practice points based on existing literature. Ottawa Conferences. Kuala Lumpur, Malaysia. Presenter(s): **Szumacher, Ewa.** (Continuing Education).
2011 **Presenter.** Development of a patient decision aid for women with stage I breast cancer considering adjuvant treatment and post-lumpectomy. An International Association for Medical Education (AMEE) 2011. Vienna, Austria. Presenter(s): **Szumacher, Ewa.** (Continuing Education).


2011 **Presenter.** Abstract # 439 Are social determinants of health, more specifically socioeconomic status, associated with prostate and breast cancer patient perception of team membership within the multidisciplinary health care team while undergoing radiation therapy?: A Pilot Study. Collaborating Across Borders III 2011. Tucson, Arizona, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2011 **Presenter.** Development of a patient decision aid for women with stage I breast cancer considering adjuvant treatment and post-lumpectomy. San Antonio Breast Cancer Symposium. San Antonio, Texas, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).


2010 **Chair.** The Trainee in Difficulty. 2010 Ottawa Conference on the Assessment of Competence in Medicine and the Healthcare Professions. Miami, Florida, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2010 **Presenter.** Informational needs of older women with stage I breast cancer – Needs assessment study. An International Association for Medical Education (AMEE) 2010. Glasgow, United Kingdom. Presenter(s): **Szumacher, Ewa.**

2009 **Presenter.** Collaborating Across Borders: Building Bridges between Interprofessional Education & Practice through Continuing Education in Academic Cancer Centre: Clinical and Scientific rounds (R-3) and Interprofessional Radiation Oncology rounds (IROR). Presented at: Association for Medical Education in Europe (AMEE). Malaga, Spain. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2009 **Presenter.** Attitudes of Canadian Radiation Oncologists Towards Post-Lumpectomy Radiotherapy for Elderly Women with Stage I Hormone Responsive Breast Cancer. Association for Medical Education in Europe (AMEE). Malaga, Spain. Presenter(s): **Szumacher, Ewa.**

2009 **Presenter.** Collaborating Across Borders: Building Bridges between Interprofessional Education & Practice through Continuing Education in Academic Cancer Centre: Clinical and Scientific rounds (R-3) and Interprofessional Radiation Oncology rounds (IROR). American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Chicago, Illinois, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).


2008 **Presenter.** Canadian Patterns of Practice in Adjuvant Radiotherapy for Elderly Women with Stage 1 Breast Cancer. Not presented but accepted for the 31st Annual San Antonio Breast Cancer Symposium. San Antonio, Texas, United States. Presenter(s): **Szumacher, Ewa.**

2007 **Presenter.** Improving access to radiotherapy services in the Simcoe-Muskoka region of Ontario-needs Assessment Study. American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).
Ewa SZUMACHER

2007 **Presenter.** Ontario radiation oncology residents needs in the PGY – 1 year- residents’ perspective survey. American Society for Therapeutic Radiology and Oncology (ASTRO). Los Angeles, California, United States. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2007 **Presenter.** Helping Learners in Difficulty – The Experience from the Program Review Committee at the Medical Radiation Sciences Program, University of Toronto and the Michener Institute for Applied Health Sciences. 4th Asia Pacific Medical Education Conference. Singapore. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2007 **Presenter.** Risks for clinical failure-strategies to facilitate academic success. Association for Medical Education in Europe (AMEE). Trondheim, Norway. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2006 **Presenter.** The development of an interprofessional mentorship program for faculty members within the Department of Radiation Oncology, University of Toronto – needs assessment. Association for Medical Education in Europe (AMEE). Genoa, Italy. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2006 **Presenter.** An Introduction of Feminist Approach in the Decision-Making Process for Treatment of Women with Breast Cancer. 3rd Asia Pacific Medical Education Conference. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2005 **Presenter.** Women in Academic Medicine - Issues and Factors Influencing Women’s Advancement in Medicine and Academic: Barriers and Future Perspectives. Association for Medical Education in Europe (AMEE). Amsterdam, Netherlands. Presenter(s): **Szumacher, Ewa.**

2005 **Presenter.** Systemic problems of women’s leadership in medicine. Association for Medical Education in Europe (AMEE). Amsterdam, Netherlands. Presenter(s): **Szumacher, Ewa.**

2004 **Presenter.** Results of a needs assessment for education in rectal contouring in planning of three-dimensional conformal radiotherapy (3D-CRT) for prostate cancer. 11th International Ottawa Conference. Barcelona, Spain. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2004 **Presenter.** Treatment for bone metastases - Patients’ treatment preferences. American Society for Therapeutic Radiology and Oncology (ASTRO). Atlanta, Georgia. Presenter(s): **Szumacher, Ewa.**

2003 **Presenter.** The educational needs of the multidisciplinary audience attending monthly Radiation Oncology Palliative Care rounds at the Toronto Sunnybrook Cancer Centre. European Cancer Organization (ECCO). Copenhagen, Denmark. Presenter(s): **Szumacher, Ewa.** (Continuing Education).


Presented and Published Abstracts


2015 Oct **Presenter.** Empowering Patients Through Education: Online Education Resource for Patients who require Post-prostatectomy RT. ICEC Annual Meeting. Arizona, United States. Presenter(s): **Ewa Szumacher.**

*Publication Details:* Empowering Patients Through Education: Online Education Resource for Patients who require Post-
2015 May Presenter. CARO. Hamburg, Germany. RBAp: Usage Patterns & Evaulation of a Mobile Application for Radiobiology Calculations in Radiation Oncology.

Publication Details:


Publication Details:
Empowering Patients Through Education: Online Education Resource for Patients who require Post-prostatectomy RT.

2. NATIONAL

Invited Lectures and Presentations


2013 Apr 22 Presenter. Building an Interprofessional Structure for Practice-Based Education Research and Scholarship Within Sunnybrook Health Sciences Centre - Early Experience. Canadian Conference on Medical Education (CCME 2013). Quebec City, Quebec, Canada. Presenter(s): Ewa Szumacher, Shamena Maharaj, Agnes Ryzynski.

2011 Presenter. Workshop Fostering Scholarship in Medical Education in Cancer Care through Inter-Institutional Collaboration (Challenges and Opportunities). 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Winnipeg, Manitoba, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2007 Invited Speaker. Workshop - An interprofessional approach to remediation in undergraduate education: The experience of the Medical Radiation Sciences Program at the Michener Institute of Applied Health Sciences University of Toronto, Faculty of Medicine. Canadian Medical Education Conference. Victoria, British Columbia, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).


Presented Abstracts


2013 Sep 18 **Presenter.** Decisional Support for Women 60 Years and older During their Treatment for Stage I and II Breast Cancer - Single Institutional Study. Joint Scientific Meeting CARO-COMP. Montreal, Quebec, Canada. Presenter(s): **E. Szumacher.** Abstract No: 0015.


2012 **Presenter.** Opinions from the experts: What prostate cancer patients should know about post-operative radiotherapy post-prostatectomy. 26th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Ottawa, Ontario, Canada. Presenter(s): Szumacher, Ewa.

2011 **Presenter.** Informational Needs of Older Women with Stage I Breast Cancer: Needs Assessment Study. 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3). Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2011 **Presenter.** The Informational Needs of Prostate Cancer Patients Treated with Radical Prostatectomy Regarding Adjuvant or Salvage Radiotherapy: Sooner or Later? 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3). Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2011 **Presenter.** Development of a Decision Aid and 1st Impressions: A Pilot Study for Older women with stage I hormone-sensitive breast cancer. 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3). Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2011 **Presenter.** Development of a Patient Decision Aid for Women 70 years and Older with Stage I, Hormonally Sensitive, Breast Cancer Considering Adjuvant Treatment Post-lumpectomy. 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Winnipeg, Manitoba, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2011 **Presenter.** Fostering Scholarship in Medical Education in Cancer Care through Inter-Institutional Collaboration (Challenges and Opportunities). 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3). Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.**

2011 **Presenter.** An Evaluation of the Usability and Usefulness of a Multi-language Online Patient Education Module: A Pilot Study. 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Winnipeg, Ontario, Canada. Presenter(s): **Szumacher, Ewa.**

2011 **Presenter.** Development of a Decision Aid and 1st Impressions: A Pilot Study for Older women with stage I hormone-sensitive breast cancer. 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Winnipeg, Manitoba, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2011 **Presenter.** Development of a Patient Decision Aid for Women 70 years and Older with Stage I, Hormonally Sensitive, Breast Cancer Considering Adjuvant Treatment Post-lumpectomy. 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3). Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2011 **Presenter.** An Evaluation of the Usability and Usefulness of a Multi-language Online Patient Education Module: A Pilot Study. 2nd Interprofessional Education/Interprofessional Care (IPE/IPC) Showcase. Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

2010 **Presenter.** The informational needs of prostate cancer patients treated with radical prostatectomy regarding adjuvant or salvage radiotherapy DOCH 2 project. 24th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Vancouver, British Columbia, Canada. Presenter(s): **Szumacher, Ewa.**
**2010**  
**Presenter.** What are my options for breast cancer treatment? 24th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting. Vancouver, British Columbia, Canada. Presenter(s): **Szumacher, Ewa.**

**2009**  
**Presenter.** Canadian Patterns of Practice in Adjuvant Radiotherapy for Elderly Women with Stage I Breast Cancer. Canadian Association of Radiation Oncology (CARO) Scientific Meeting. Quebec City, Quebec, Canada. Presenter(s): **Szumacher, Ewa.**

**2009**  
**Presenter.** Attitudes of Canadian Radiation Oncologists Towards Post-Lumpectomy Radiotherapy for Elderly Women with Stage I Hormone Responsive Breast Cancer. Canadian Association of Radiation Oncologists (CARO) Scientific Meeting. Quebec City, Quebec, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

**2008**  
**Presenter.** Effectiveness of educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in three-dimensional radiotherapy for prostate cancer. Abstract #:195. Canadian Association of Radiation Oncologists (CARO). Montreal, Quebec, Canada. Presenter(s): **Szumacher, Ewa.**

**2007**  
**Presenter.** Ontario radiation oncology residents needs in the PGY – 1 year- residents’ perspective survey. Canadian Association of Radiation Oncologists (CARO). Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

**2007**  
**Presenter.** An interprofessional approach to remediation in undergraduate education: The Experience of the Medical Radiation Sciences Program. Workshop for medical educators 2007 Canadian Medical Education Conference. Victoria, British Columbia, Canada. Presenter(s): **Szumacher, Ewa.**

**2007**  
**Presenter.** Improving access to radiotherapy services in the Simcoe-Muskoka region of Ontario-needs Assessment Study. Canadian Association of Radiation Oncologists (CARO). Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

**2006**  
**Presenter.** The development of an interprofessional mentorship program for faculty members within the Department of Radiation Oncology, University of Toronto – needs assessment. Canadian Association of Radiation Oncologists (CARO). Calgary, Alberta, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

**2005**  
**Presenter.** Are we addressing patients’ needs in radiation oncology practice? The determinants of health care pilot project. Canadian Association of Radiation Oncologists (CARO). Victoria, British Columbia, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

**2005**  
**Presenter.** The incidence and effectiveness of remedial programs of the Medical Radiation Sciences Program at University of Toronto and the Michener Institute for Applied Health Sciences. Canadian Association of Radiation Oncologists (CARO). Victoria, British Columbia, Canada. Presenter(s): **Szumacher, Ewa.** (Continuing Education).

**2002**  
**Presenter.** Comprehensive geriatric assessment as an indicator of health related quality of life in elderly patients with advanced cancer. 12th Annual Hospice Palliative Care Conference. Winnipeg, Manitoba, Canada. Presenter(s): **Szumacher, Ewa.**

**2002**  
**Presenter.** Exploring the information needs of patients living with advanced cancer. Rapid Response Radiotherapy Program. Canadian Association of Radiation Oncologists (CARO). Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.**

**2002**  
**Presenter.** Prospective evaluation of effectiveness of radiotherapy in providing pain relief for bony metastases and the impact of response criteria definition. Canadian Association of Radiation Oncologists (CARO). Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa.**

**2000**  
**Presenter.** Should we involve patients in the decision making process involving palliative radiotherapy treatment? Canadian Association of Radiation Oncologists (CARO). Edmonton, Alberta, Canada. Presenter(s): **Szumacher, Ewa.**


Poster Presentations

2014 Aug TBD. Assessing the Psychological Impact of Daily Bowel Preparation on Prostate Patients who receive Radiation Therapy. CARO -. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Bristow B, Szumacher E.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


2013 Jul 16 Continuing Education. The Changing Landscape of mCRPC. Dr. Victor Mak, MacKenzie Richmond Hill Hospital. Toronto, Ontario, Canada. Presenter(s): Bobby Shayegan. Department of Surgical Oncology, McMaster Institute of Urology, Department of Surgery.


2007 Interdisciplinary Radiation Oncology Rounds (IROR), Jenkin Auditorium, Sunnybrook Regional Cancer
Centre. Presenter(s): **Szumacher, Ewa**. Topics, presenters and evaluations are available on request. (Continuing Education).

2007 Remediation in Undergraduate Education. Scholarship Rounds, Sunnybrook Health Sciences Centre. Presenter(s): **Szumacher, Ewa**. (Continuing Education).


2007 Veronique Benk Professorship Program: Invasive Bladder Cancer: Curing the Patient Without Removing the Bladder. Jenkin Auditorium, Toronto Sunnybrook Regional Cancer Centre. Presenter(s): **Szumacher, Ewa**. (Continuing Education).

2007 University of Toronto Prostate Cancer Day, University of Toronto. Presenter(s): **Szumacher, Ewa**. (Continuing Education).

2007 **Invited Speaker.** Exploring interprofessional and collaborative roles for patient-centered care. Radiation Medicine Conference. Kingsbridge, Ontario, Canada. Presenter(s): **Szumacher, Ewa**. (Continuing Education).


2007 **Invited Speaker.** Workshop - Exploring interprofessional and collaborative roles for patient-centered care. 4th Annual Toronto Radiation Medicine Conference. Toronto, Ontario, Canada. Presenter(s): **Szumacher, Ewa**. (Continuing Education).

2006 Developing Medical Education Culture. Educational Retreat Radiation Oncology. Presenter(s): **Szumacher, Ewa**. Estates of Sunnybrook. (Continuing Education).

2006 Interdisciplinary Radiation Oncology Rounds (IROR), Jenkin Auditorium, Sunnybrook Regional Cancer Centre. Presenter(s): **Szumacher, Ewa**. Topics, presenters and evaluations are available on request. (Continuing Education).


2005 Interdisciplinary Radiation Oncology Rounds (IROR), Jenkin Auditorium, Sunnybrook Regional Cancer Centre. Presenter(s): **Szumacher, Ewa**. Topics, presenters and evaluations are available on request. (Continuing Education).


Presented Abstracts


2013 Oct  Presenter. Decisional Support for women 60 years and older during their treatment for Stage I and II breast Cancer - single institutional study. 2nd Annual Sunnybrook Educational Conference - Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.


2011 Presenter. Fostering Scholarship in Health Professions Education in Cancer Care through Inter-Institutional Collaboration: Creating Opportunities. 2nd Interprofessional Education/Interprofessional Care (IPE/IPC) Showcase. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).


2010 Presenter. The informational needs of prostate cancer patients treated with radical prostatectomy regarding adjuvant or salvage radiotherapy DOCH 2 project. Wilson Centre Research Day. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa.


2007 Presenter. The effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for a three-dimensional radiotherapy for prostate cancer (3D-CRT). Wilson Centre Research Day. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).


2005 Presenter. The incidence and effectiveness of remedial programs of the Medical Radiation Sciences Program at University of Toronto and the Michener Institute for Applied Health Sciences. Wilson Centre Research Day. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa. (Continuing Education).

2000 Presenter. Evaluations of our first year’s experience of new combined bone metastases clinic - the first of its kind in Canada - are we achieving what we initially planned? Humber College 10th Annual Palliative Care Conference. Toronto, Ontario, Canada. Presenter(s): Szumacher, Ewa.


eLearning

2013 Jun 7 Attendee. Li Ka Shing International Healthcare Education Centre - St. Mike’s Hospital. Toronto, Ontario, Canada.

Other Presentations


G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2012 - present Education Research and Scholarship Grant, Multilevel Education, Faculty of Medicine, SEAC Education & Research
Co-Organizer, Associate Director role.

2010 - present Interdisciplinary Radiation Oncology Rounds - IROR, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Odette Cancer Centre

The following topics were presented by the invited speakers:
March 8, 2011 - Radiation Induced nausea and Vomiting - Speakers; Dr. K. Dennis and Dr.
M. Pasetka
April 19, 2011 - Permanent Breast Seed Implants: The Physics Perspective - Speaker; Dr. B. Keller
May 24, 2011 - Exploring Meanings of Caring among Health Care Professionals Providing Cancer Care - Speaker(s); Tracey DasGupta, Dr. A. Daley, Kari Osomar
June 14, 2011 - Management of Brain Metastases Using the Currently Available Evidence. - Speaker; Alon Dembo Visiting Professor Dr. Eric L. Chang
Sept 13/2011 - A Discussion of Study Findings Regarding RT Patient Group Education at the Odette Cancer Centre - Speaker; John Maamoun
Oct 11/2011 - Treatment Outcome for Early Stage Hodgkin’s Disease Treated at the OCC
Dec 13/2011 - Understanding the Pathophysiology of Pain Flare - The role of Cytokines and Chemokines - Speaker; Carlo DeAngelis
Jan 10/2012 - Managing Concurrent Chemoradiation in GI Cancers: a Multi-disciplinary approach
Feb 21/2012 - Achieving the Achievable: The Role of Health Services Research in Radiation Oncology
Mar 13/2012 - Trends in Simulation Augmented Education
March 28/2012 - Radiation Oncology: Program QA Rounds
April 10/2012 - Enhancing Your Lifelong Learning to Support Your Practice in Teaching
May 8/2012 - Dynamic Acquisition of Knowledge: Are We Ready
June 12/2012 - The Interface between Psychiatry and Cancer
Sep 10/2013 - Developing and testing of Couplelinks.ca: The first online intervention for young couples coping with Breast Cancer
Oct 8/2013 - Stories at Work: Writing to Learn, Care, and Collaborate in Radiation Therapy
Nov 12/2013 - The Dynamically evolving VMAT program at the OCC
Jan 14, 2014 - Understanding the discharge planning needs of Medical and Radiation Oncology Patients.
Feb 11, 2014 - Dose Escalation and Margin Reduction in SBRT
Mar 11, 2014 - A National System for Incident Reporting in Radiation Therapy: The CPQR, CIHI and you.
Apr 8, 2014 - Human Factors in the Health Care Context
May 13, 2014 - Tiny Cancer Warriors - nanomedicine
June 10, 2014 - Leadership: Are you the allocentric leader of the future?
Sept 9, 2014 - Let’s Tablk About It: Quality Dying
Oct 14, 2014 - Shining a light on PDT
Nov 12, 2014 - Communities of Competence: Approaching changing practice collaboratively
Dec 15, 2014 - What’s inside the box? - SRS at Odette

2014 Oct 17
3rd Annual Sunnybrook Education Council: Technology Enhanced Learning, Patient and Public Education, Faculty of Medicine, University of Toronto, CEPD accredited, Sunnybrook Health Sciences Centre

2013 Oct 10
2nd Annual Sunnybrook Education Conference: Digital Learning, Patient and Public Education, Co-Chair of the committee, University of Toronto, Sunnybrook Health Sciences Centre

2013 Jul 1 - 2014 Jun 30
Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, DOCH-2

2012 Oct 4
First - Sunnybrook Education Conference: Educational Expo, Patient and Public Education, Member Planning Committee, University of Toronto, Sunnybrook Health Sciences Centre

2004 Jul - 2005 Jun
Radiation Oncology Palliative Care Rounds (Monthly), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Acted as coordinator for these rounds.
The following topics were presented by the invited speakers:

September – An Overview on Art Therapy and Music Therapy

October – Money Worries: Research About Financial Issues for people With Cancer

November – Love, Learning and Listening – The Art of Communication in Palliative Care

January – Re-thinking Palliative Care

February – How Best to Treat My Patient…? Setting Goals of Care and making Treatment Decisions with Patients and Families

March – Spirituality and Breast Cancer Research

May – Discussing Prognosis for Patients with Metastatic Cancer: What Does the Literature Tell Us?

June – Culture and End of Life Care.

2003 Jul - 2004 Jun Radiation Oncology Palliative Care Rounds (Monthly), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Acted as coordinator for these rounds.

The following topics were presented by the invited speakers:

September – Technology in Palliative Radiotherapy – Which Simulator Should We Use?

October – Suffering and Healing in Palliative Care – The Patient, Family and the Professional Caregiver

November – Issues in the Management of Patients with Brain Metastases: Case-based Discussions

January – Symptom Control – The Research Update From PMH

February – Cannabinoids – A New Frontier

March – Preliminary Results of a Randomized Study of Accelerated Whole Brain Irradiation in Patients with Brain Metastases

May – E-Resources Available to TSRCC Staff

June – Children of Cancer Patients and Their Grief.

2003 Online Suite, Development of the Needs Assessment for Prostate Cancer Patients Online Course, Continuing Education, The University of British Columbia
Course on line suite/ www.suite101.com/course.cfm/17126/overview/253861.

1998 Jul - 1999 Jun Radiation Oncology Palliative Care Rounds (Monthly), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Acted as coordinator for these rounds.

The following topics were presented by the invited speakers:

September – Innovative Way of Caring-Palliative Radiation Therapy Beginnings of Rapid Radiation Response Clinic

October – Prevention and management of Skeletal Complications of Malignancy
November – Teens Coping with the Illness and Death of a Parent

December – Christmas Rounds – Cases

January – Orthopedic Aspect of Metastatic Disease

February – Radiosurgery for Brain Metastases

March – Pain and Symptoms Management

April – Single Dose Wide Field Irradiation for Palliation of Bone Metastases

May – Utilization of Palliative Radiotherapy in Canada

June – Palliative Care Information Centre Metropolitan Toronto.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2010  Primary Supervisor. Leila Makhani. Remediation in academic medicine.

2010  Primary Supervisor. Leila Makhani. Informational needs of prostate cancer patients.

Undergraduate MD


Other

2013 Jun - 2013 Aug  Primary Supervisor. Kaitlin Koo. TBD.
2. OTHER SUPERVISION

Undergraduate Education

Research Supervisor

2012 Jan - 2012 Apr  
Hancock Chen. Supervisee Position: Determinants of Community Health (DOCH-2), Supervisee Institution: Peters-Boyd Academy. Decisional support for women 60 years and older diagnosed with breast cancer.

2012  
Kaitlin Koo. Treatment decisional support for older women with breast cancer considering adjuvant RT.

2012  
Kaitlin Koo. Attitudes of Canadian radiation oncologists, radiation therapists, physicists and oncology nurses regarding interprofessional teaching and learning.

2012  
Rebecca Reinhart. Supervisee Position: Medical Radiation Sciences Program (MRSP), Supervisee Institution: Michener Institute for Applied Health Sciences, University of Toronto, Department of Radiation Oncology. Research Methods II Project – Would a small group inter-professional patient education session for patients undergoing radiation treatment for prostate cancer be useful and acceptable for the patients? A Pilot Study.

2011  
Jennifer Wong. Supervisee Position: Master of Student, Supervisee Institution: Queens University. Information needs and treatment decision-making in elderly women with Stage I breast cancer.

2011  

2011  

2011  

2010  
Cindy Tran. Supervisee Position: Medical Radiation Sciences Program (MRSP), Supervisee Institution: Michener Institute for Applied Health Sciences, University of Toronto, Department of Radiation Oncology. An evaluation of the usability and usefulness of a multi-language online patient education module – A pilot study – Assessment of the module.

2010  
Andrew Warkentin. Supervisee Position: Determinants of Community Health (DOCH-2), Supervisee Institution: University of Toronto, Faculty of Medicine, Peters-Boyd Academy. Are social determinants of health, more specifically socioeconomic status, associated with prostate and breast cancer patient perception of team membership within the multidisciplinary health care team, while undergoing radiation therapy at the Odette Cancer Centre?: A survey based pilot study.

2009 - 2010  
Sarah Hahn. Supervisee Position: Determinants of Community Health (DOCH-2), Supervisee Institution: University of Toronto, Faculty of Medicine, Peters-Boyd Academy. The informational needs of patients with prostate cancer treated with radical prostatectomy regarding salvage or adjuvant radiotherapy: Sooner or later? The development of the needs assessment questionnaire and how social determinants of health affect their informational needs.

2009  

2006 - 2010  

2006 - 2010  


2003 - 2004  Claudia So. Supervisee Position: Medical Radiation Sciences Program (MRSP), Supervisee Institution: Michener Institute for Applied Health Sciences, University of Toronto, Department of Radiation Oncology. *Research Methods II Project* – *Information needs and source preferences of patients with primary caregivers*.


**Graduate Education**

**Research Supervisor**

2009 - present  **MHSc Medical Radiation Science**. Laura D’Alimonte. Supervisee Position: Master of Health Science in Medical Radiation Sciences, Supervisee Institution: University of Toronto. *What prostate cancer patients should know about post-operative radiotherapy post-prostatectomy - Health professionals’ opinions*.

2009 - 2011  **MHSc Medical Radiation Science**. Laura D’Alimonte. Supervisee Position: Master of Health Science in Medical Radiation Sciences, Supervisee Institution: University of Toronto. *Treatment decisional support for older women with breast cancer considering adjuvant RT post lumpectomy*.

2009 - 2011  **MHSc Medical Radiation Science**. Laura D’Alimonte. Supervisee Position: Master of Health Science in Medical Radiation Sciences, Supervisee Institution: University of Toronto. *Working towards a decision: The development and first impression of a decision aid for older women with early stage breast cancer*.

**Other**

**Research Supervisor**

2012  Bonnie Bristow, Research Radiation Therapist, Odette Cancer Centre. *Psychological impact of daily bowel preparation on prostate patients who received radiation therapy*.

**I. Creative Professional Activities**

1. Understanding the needs and preferences of cancer patients in radiation oncology practice. The first theme of this CPA is on understanding the needs of cancer patients in radiation oncology practice to empower them to play an active role in their care and treatment decision-making process. These activities have been centered on understanding the needs of cancer patients and disseminating this knowledge to healthcare providers so these needs can be incorporated into patient centered cancer care. The goal of my scholarly work within
this theme is to help healthcare providers to communicate better with cancer patients, offering them better support.

In first project, I examined patients’ roles in the decision-making process for treatment of painful bone metastases. A number of randomized studies have reported that single fraction RT was as effective as multi-fraction RT in relieving pain due to bone metastasis. However, patients’ preferences had never been previously investigated in the context of which palliative treatment regimens patients would prefer. I thus initiated a study to determine patients’ preferences for the two commonly used palliative RT regimens for bone metastases: 800 cGy in one fraction vs. 2000 cGy in five fractions. This study showed that patients preferred to decide about their treatment by themselves or together with the radiation oncologist, and patients were more likely to select the single fraction regimen. The convenience of the treatment plan and the likelihood of bone fracture were the most important factors influencing patients’ choices. Results of this study have been presented at several international meetings, and my paper (Szumacher et al, 2005) has been cited by several authors investigating patients’ preferences for palliative treatment.

My next research project concentrated on cancer patients’ satisfaction with the information they received about radiotherapy and how this information can be improved. The results showed that although the patients were satisfied with the information, language barriers prevented many non-English-speaking patients from participating in this study. With the transition towards more patient-centered care, it is important that we customize our practice to meet each patient’s needs.

The chronic nature of cancer means that patients’ information needs are not static in nature. In addition, most healthcare professionals’ interactions tend to remain low in patient centeredness due to our focus on the management of their medical conditions. Therefore, the informational needs of patients (and their families) living with advanced cancer was addressed. The primary objective of this research project was to determine the content and format that is most suitable for educational events targeting patients and caregivers who are living with advanced cancer. Secondary objectives included examining the differences in information needs between patients and their caregivers and providing an estimate of the rate of participation in educational events targeting such patients and caregivers. The participants identified the management of pain, fatigue, and home palliative care resources as the areas in which information was most needed. Caregivers displayed greater interest, and the range of topics for which they continue to seek additional information is wider than patients. Thirty-one percent of respondents including patients and caregivers said they would participate in an educational event. A ‘one-on-one’ interview approach and short written materials were the preferred sources of information. The findings provide information on the type of topics and format that are preferred when educators are developing educational events for patients and their caregivers. The outcomes of this study were published in Supportive Cancer Care Journal.

Breast cancer is the most frequently diagnosed cancer in Canadian women, with the probability of developing breast cancer significantly increasing over the age of 50. Although adjuvant breast RT after lumpectomy is considered the standard of care for all patient subgroups, older breast cancer patients are at a greater risk for side-effects and more complicated recovery from this treatment. Breast cancer is also less aggressive in older women with a higher proportion of estrogen receptor positive, well-differentiated, slowly proliferating tumors. Stage I breast cancer on adjuvant tamoxifen therapy have a low risk of local recurrence after lumpectomy without adjuvant breast radiation.

We wanted to understand whether evidence on breast cancer treatment in older women corresponded with the patterns of practice of radiation oncologists in Canada. To more specifically look at the needs of older women with breast cancer, and to understand the national pattern of their care, I conducted a survey among Canadian radiation oncologists who treat breast cancer. The survey also explored the willingness of radiation oncologists to implement a decision aid in this patient population. Results of this study provided evidence of
significant variation in practice patterns and attitudes among Canadian radiation oncologists regarding post-lumpectomy RT for elderly, low-risk breast cancer patients. However, the vast majority of oncologists valued the concept of patient choice and would be willing to use a decision aid designed for this population in their practice. Understanding radiation oncologists’ attitudes towards adjuvant RT confirmed that a decision aid could be useful to facilitate shared decision-making. In addition, with my guidance and mentorship, Eiran Warner, a medical student was successful in publishing our findings in Clinical Oncology.

Although there is a body of literature focusing on the information needs among breast cancer patients, most studies have been conducted with younger patient populations which offer limited insight on the specific information older women would like to know when considering adjuvant treatment. Older female cancer patients may differ from younger patients in terms of information needs due to differences in educational attainment, value of experiential knowledge versus medical sources and age-associated motivational changes. Thus, it is a concern that the informational needs and the unique illness experiences of older women with early stage breast cancer are under-reported in the literature. In addition, the use of decision aids has been advocated in breast cancer decisions to promote patient involvement in the decision-making process. Decision aids (DA) are developed with the intent to support people in making specific and deliberate choices by improving information transfer about different outcomes. Previous research has shown that DA can greatly increase patient knowledge regarding treatment options, reduce decisional conflict, and increase patient satisfaction with the decision-making process.

Taking into consideration the results of the national survey and evidence from the literature indicating uniqueness of this group of patients -I lead as principal investigator, a two year research project to develop a DA for older women with early stage breast cancer. This study was supported by a grant from the Canadian Breast Cancer Foundation. In the first year, we conducted a needs assessment and the draft DA was developed specific to older post-lumpectomy patients with Stage I hormone receptor-positive breast cancer. The objectives of the DA were to increase patients’ knowledge of their options, reduce conflict and distress in decision-making, and improve satisfaction with the decision-making process. In the second year, we conducted a needs assessment from the lay perspective with the intention of designing a DA. In our study, we qualitatively described the views of older women who had made decisions about adjuvant treatment for their early stage breast cancer with respect to the challenges of decision making, supports and resources needed during the process of choosing the treatment. Women participated in one of six focus groups following their radiation treatment for stage I breast cancer. Many women identified several challenges in the decision-making process and identified different informational needs for making decisions about their treatments. These participants and our steering committee also reviewed the draft of the DA. This research documented that all women who participated in this study felt that the DA we developed was helpful and informative. Compared with baseline scores patients had a statistically significant reduction in decisional conflict, increased clarity of treatment benefits and risks, and improved general treatment knowledge after using this decision aid. This study was published in the International Journal of Radiation Oncology, Biology and Physics, and provided evidence that this DA may be a helpful educational tool for this group of women. The quality of care for older cancer patients may be enhanced by using a tailored patient DA to help them informed about treatment options. The next goal of this work is to test the DA in several major cancer centres across Canada, evaluating both patient and physician outcomes. Ultimately, we plan to have the DA disseminated across the nation to facilitate better decision-making and patient communication. Jen Wong the student whom I supervised published the results of this work in the Journal of Cancer Education. In addition, many findings of this work were presented at the national and international conferences such as American Association of Radiation Oncologists, Canadian Association of Radiation Oncologists and International Association of Medical Education.

While discussing their treatment options with oncologists, women with breast cancer frequently express many concerns regarding treatment side effects, and sometimes decline
conventional treatment when the risks are too high. Indigenous medical knowledge and alternative medical treatments are not widely accepted because of the lack of confirmed efficacy of such treatments in evidence-based literature. Therefore a review of the literature was conducted to investigate a feminist approach to the decision-making process for women with breast cancer. The review was divided into the following themes: (1) limitations of the patient decision-making process in conventional medicine; (2) participation of native North American patients in healthcare decisions; (3) a feminist approach to breast cancer; and (4) a feminist theory of breast cancer. The literature provides evidence that the needs of minority patients are not completely fulfilled in Western medical culture. We conclude that introducing a feminist theory into evidence-based medicine will help patients to be better informed about treatment choices and will assist them to select treatment according to their own beliefs and values. This published review also provided some perspectives about treatment decision for minority women, who may not follow conventional treatment options (Szumacher et al, 2006). This research enables the health care providers to be more receptive to this group of patients when discussing treatment options. I have also presented the findings at several national and international meetings.

Another group of patients whose needs are not clear are prostate cancer patients facing decisions regarding post-operative RT. The role of adjuvant and salvage RT remains controversial in terms of timing of the treatment after radical prostatectomy. Current trials demonstrate improved biochemical control and/or disease-free survival with adjuvant RT, and one long-term follow-up of a randomized clinical trial showed that adjuvant RT significantly reduced the risk of metastasis and increased survival. Despite these outcomes, several investigators propose waiting for evidence of biochemical failure and then attempting salvage RT. I supervised a medical student, Sara Hahn, who developed a research project to assess whether the social determinants of health (e.g., income, education attainment) affect the informational needs of prostate cancer patients who may face the decision of postoperative RT. Our pilot study allowed us to identify a variety of patient information needs. Through an understanding of the impact of social determinants of health on this patient population, healthcare professionals can tailor patient education tools to suit patients’ needs to allow them to make informed decisions. This work was presented at several national and international meetings and published in the Journal of Medical Imaging and Radiation Sciences.

Growing attention has been devoted to developing patient decision aids and decisional support interventions to aid patients in their decisions when making treatment choices in oncology. Treatment discussions are challenging both for physicians to transfer medical information to patients, and for patients to conceptualize the risks and benefits of treatment, and ultimately form a treatment decision. Jennifer Wong, an undergraduate student whom I supervised reviewed the recent literature on decision-making preferences, treatment preferences and decisional support development in radiation oncology. We reviewed the findings from studies conducted in radiation oncology that investigated patients’ preferences for radical or palliative RT across all cancer sites and discussed the challenges of transferring medical information to patients. This work provides a comprehensive review of the current status of patients’ decision-making process in radiation oncology, including radical and palliative treatments. The review was published in the Expert Review of Pharmacoeconomics and Outcomes Research and presented at several international conferences.

2. Working together as an inter-professional team in radiation oncology practice to improve the care of cancer patients.
A collaborative multidisciplinary approach breaks down the silos of traditional care, and is considered the most valued service by patients. In the last few decades, this approach has changed the cancer care landscape. A multidisciplinary approach has distinct advantages over uni-professional fragmented care. Radiation oncology is a specialty that requires multidisciplinary care and communication between staff, clinicians, trainees, radiation therapists, other allied health care professional and patients. Collaborative practice is an
inter-professional process for communication and decision-making that enables the separate and shared knowledge and skills of cancer providers to synergistically influence the client patient care provided. However, implementing an inter-professional care curriculum into radiation oncology practice can be challenging. For the last 11 years my academic efforts have focused on developing and implementing inter-professional patient care through education, research and undergraduate training and mentoring.

The goal of Theme 2 of my CPA is the development of professional practice by providing interdisciplinary leadership for cancer care providers and trainees through education and mentorship. Evidence for my contributions in this theme is documented in my publications, international and national presentations and my participation in a number of workshops. One outcome of this work was a study on understanding the needs of health care providers in cancer care and the subsequent enhancement of RT services in the Simcoe-Muskoka area. The Simcoe-Muskoka region of Ontario is an underserviced area with respect to RT utilization. I led a group from the Sunnybrook Health Sciences Centre and the Royal Victoria Hospital in Barrie, Ontario, to conduct a study to investigate the healthcare needs and access to RT services in the region. The study consisted of a questionnaire to evaluate access to and knowledge about palliative RT, and two radiation therapy education focus groups to investigate regional knowledge and utilization of RT. The major barrier to RT access was distance to regional radiation cancer centers. Many respondents were unaware of the effectiveness of palliative RT for cancer patients. However, most were eager to learn more about RT. The focus groups identified several ways to offer health-care providers in Simcoe-Muskoka up-to-date information about palliative RT. Following this study, several continuing education sessions were conducted in community hospitals in the Simcoe-Muskoka region. These sessions were well attended and evaluated highly by the healthcare providers.

Three dimensional conformal RT (3D-CRT) is a well-established treatment modality for prostate cancer as it spares surrounding normal tissues and increases tumour kill. However, the complex task of organ contouring for 3D-CRT requires synthesis of information from MR and CT as well as a precise delineation of the prostate and the rectum. In 2006, I received peer-reviewed funding (Abbott-CARO Uro-Oncologic Radiation Award) to research the effect of a prostate and rectal contouring workshop on precise delineation of the prostate and rectum during planning for 3D-CRT for prostate cancer. The main objective of this workshop was to see if formal training on MR prostate/rectal anatomy and the use of MR-CT fusion would improve the skills in CT planning scans. Previously in Canada there was no formal training program in prostate or rectal contouring. The enthusiastic response to the workshop and to opportunities for further educational interventions indicated a need for this formal training. The effectiveness of this educational intervention was published in International Journal of Radiation Oncology, Biology and Physics.

Inter-professional care is the provision of comprehensive health services to patients by multiple healthcare providers who work collaboratively to deliver quality care within and across specialties. To improve inter-professional care and collaboration within our own cancer centre, we focused our research efforts on understanding the inter-professional needs of faculty members within radiation oncology and RT. These needs were translated into the following inter-professional CME activities.

First, from 1999 to 2005, I developed and organized the monthly Radiation Oncology Palliative Care Rounds at the Toronto Sunnybrook Regional Cancer Centre (TSRCC). Grand rounds have long been used as a tool for CME. The objectives of the rounds were to educate the healthcare providers about palliative RT and to complement the Rapid Response Radiotherapy Program at the TSRCC. I obtained funding for these events and invited leading national and international experts in palliative RT and palliative care to present at the rounds. The evaluations collected from these sessions indicated that this CME program was very effective in disseminating knowledge to interdisciplinary healthcare providers and serves as model for CME.
Second, since 2003, I have been organizing a CME program (Inter-professional Radiation Oncology Rounds, IROR) at the Odette Cancer Centre, that serves a monthly inter-professional education program to provide a venue where different disciplines (radiation oncology, radiation therapy, radiation nursing and medical physics) could showcase their contributions to the care and treatment of patients referred for radiation therapy. Two special memorial lectures have also been developed to honour two previous radiation oncology colleagues (Dr. Alon Dembo and Dr. Veronique Benk). These activities take the form of an invited professorship with the culmination of each visit consisting of a presentation to the Odette Cancer Centre at the IROR. The rounds are fully accredited by the Maintenance of the Certification Program of the Royal College of Physicians and Surgeons as well as other professional associations. Needs assessments evaluating the IROR demonstrate that these rounds have been valuable to an inter-professional audience and help facilitate an inter-professional learning environment.

A third need identified that family physicians and community-based oncologists play a key role in cancer care. To promote knowledge transfer, academic cancer centres like the Odette Cancer Centre need to provide support in the form of guidance and continuing education resources. I have served as a CME advisor to the editorial board of Hot-Spot, a quarterly newsletter of the Rapid Response Radiotherapy Program of Sunnybrook’s Odette Cancer Centre, and prepared its continuing education section. The newsletter is distributed to over 2000 readers (oncologists, family physicians and inter-professional healthcare team members in palliative medicine) in Toronto and Canada. It is also posted on the Sunnybrook Health Sciences Centre website.

Also, collaborative patient-centered practice is designed to promote active participation of each discipline in patient care. It enhances patient and family centered goals and values, provides mechanisms for communication among caregivers, and optimizes staff participation in clinical decision-making within and across disciplines, fostering respect for the contributions of all professionals. In light of this, we developed a workshop to explore the theory and practice of professional and collaborative roles in patient-centered care, using inter-professional collaboration within the radiation medicine program as a model. The goals were to advance participants’ awareness of how understanding professional roles is integral to patient-centered practice and collaboration. I have since conducted this workshop at several national and international conferences. More recently, I have been a co-investigator on a study to explore the needs of healthcare professionals who provide cancer care. The purpose of the study is to develop an understanding of the similarities and differences in the meaning of care among health care providers working in an Oncology Program of a Regional Cancer Centre and to develop educational initiatives from which inter-professional groups can learn, with and about each others’ perspectives on caring.

I have taken the lead role in several research initiatives to understand the needs of multiple disciplines (radiation oncology residents, radiation therapy students, etc) in radiation oncology. Each of these areas highlights a need for more inter-professional training and education to ultimately improve collaboration, academic medicine and quality of care. The University of Toronto, Department of Radiation Oncology (DRO) identified mentorship as a priority issue to be explored. I was the principal investigator in a mentorship working group where we conducted a needs assessment for the development of an inter-professional mentorship program for the DRO faculty members across three disciplines: radiation oncology, radiation therapy and medical physics. The study identified a need for a comprehensive interdisciplinary mentorship program within the department, as well as for a survey assessing the needs of different groups and development of an orientation program for new faculty members. The findings of these projects have since been incorporated into the residency program at the UTDRO. Also, I lead a national group of investigators to specifically investigate the needs of junior residents, PGY1, in radiation oncology across Ontario residency programs in radiation oncology.

As a PGY-1 coordinator within the residency program at the DRO, University of Toronto, I
noticed that many residents were experiencing a lack of mentorship in their training and career planning. The results of this survey, presented at national meetings, and now published in International Journal of Radiation Oncology, Biology and Physics showed that most of the Ontario residents in their first postgraduate year were satisfied with their training program, but more counselling should be offered by radiation oncology faculty members to help the residents with their career planning and stress management strategies. The findings from this survey were incorporated informally into the DRO residency programs to improve the mentorship relationships and well-being of junior residents in Ontario radiation oncology programs.

As academic coordinator of the Medical Radiation Sciences Program (MRSP), Michener Institute for Applied Health Sciences at the University of Toronto, I have a leadership role on the Program Review Committee which reviews students with difficulties and recommends remedial programs. Academic difficulty can often be a significant problem for students in health professional programs. Students in difficulty are often identified late in their training and run the risk of dismissal if remediation is not successful. Since the inception of the MRSP in 1999, a number of students have required remediation in the didactic or clinical components of their training. Not all remediation was successful, and a number of students have been dismissed. There is relatively sparse evidence in the educational literature regarding the nature of academic difficulties that health professional students encounter, and what constitutes appropriate remedial education. The purpose of this research was to evaluate the incidence and prevalence of remediation in the MRSP and the nature of the academic problems. In addition, this study looked at the type of remedial instruction that the Radiation Sciences Board of Examiners recommended for these students as well as the effectiveness of these recommendations. This study provided an important perspective about the remediation process at the MRSP. Despite its retrospective methodology, it attempted to identify the magnitude of learning problems that lead to remediation, and identified the efficacy of the remedial program (Makhani et al, 2012). I presented several workshops at national and international medical education conferences on remedial education in healthcare professional programs and the need for the development of student-based remedial programs. The program review committee that oversees the progress of trainees in difficulty in the MRSP has been well structured and incorporates new remedial strategies to students in difficulties. All the remedial cases are now regularly reviewed by this inter-professional committee and feedback with recommendations are forwarded to Oversight Committee which makes final recommendations about the remedial students to the Board of Examiners, at the University of Toronto.
CURRICULUM VITAE

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EDUCATION

Post Graduate and Medical Training:

1990 -1995 Medical Doctor Diploma
Azad Tehran University

1995–1997 Internship,
Torphe and Fayazbakhsh Hospitals, Tehran, Iran

2002-2003 Internship
Ontario International Medical Graduate Program

2003-2004 Radiation Oncology Residency
Queen’s University

2004-2008 Radiation Oncology Residency
University of Toronto

2008-2009 Clinical/Research Fellowship
Stereotactic Lung Radiotherapy
Princess Margaret Hospital, Toronto, Ontario

2008-present Masters Degree (IMS program), University of Toronto
Radiotherapy Induced Bone Injury as a Lung SBRT Late Toxicity

Certificate & Licensures:

- Neurosurgery Residency admission Exam, University of Tehran, Iran (1997)
- Ontario IMG Program, Written Exam (2001)
- Ontario IMG Program OSCE Exam (2002)
- Radiation Oncology Board of Royal College of Physicians and Surgeons of Canada (2008)
BIOGRAPHICAL INFORMATION

Hospital/Staff Appointments:

2009-Present  
**Active Staff, Radiation Oncology**  
Stronach Regional Cancer Centre (SRCC)  
Southlake Regional Health Centre, Newmarket, Ontario, Canada

**Active Staff, Radiation Oncology**  
The Princess Margaret Cancer Centre, Toronto, Ontario, Canada

Professional Affiliations:

- Royal College of Physicians and Surgeons of Canada  
- College of Physicians and Surgeons of Ontario  

Peer Review Activities:


- Journal of Cancer Research and Therapeutics, November 2011

Other Professional Activities:

- Taremi M; “A Rare Feature of Cerebral Toxoplasmosis as a Solitary Cerebral Tumour” Medical Degree Thesis, Supervisor: Dr. A. Naderi, Chief of Neurological Research, and Neurosurgery Department, Department of Medical Sciences, Azad Tehran University, 1996
Current Clinical Studies

2011  Principle Investigator: Proclaim Study  
Southlake Regional Health Centre  
Phase 3 Study of Pemetrexed, Cisplatin and Radiotherapy vs. Etoposide, Cisplatin and Radiotherapy

2011  Co-investigator: Proclaim Study  
Princess Margaret Hospital  
A Phase 3 Study of Pemetrexed, Cisplatin and Radiotherapy Followed by Consolidation Pemetrexed versus Etoposide, Cisplatin and Radiotherapy Followed by Consolidation Cytotoxic Chemotherapy of Choice in Patients with Unresectable, Locally Advanced, Stage III Non-Small Cell Lung Cancer Other than Predominantly Squamous Cell Histology (PROCLAIM)

2011  Co-investigator: NCIC BR.28/CONVERT  
Princess Margaret Hospital  
Concurrent ONce-daily VErsus twice-daily RadioTherapy: A 2-arm randomized controlled trial of concurrent chemo-radiotherapy comparing twice-daily and once-daily radiotherapy schedules in patients with limited stage small cell lung cancer (SCLC) and good performance status

2011  Co-investigator: RTOG 0617  
Princess Margaret Hospital  
A Randomized Phase III Comparison of Standard-Dose (60Gy) versus High-Dose (74Gy) Conformal Radiotherapy with Concurrent and Consolidation Carboplatin/Paclitaxel in Patients with Stage IIIA/IIIB Non-small Cell Lung Cancer

2011  Co-investigator: RTOG 0813  
Princess Margaret Hospital  
Seamless Phase I/II Study of Stereotactic Lung Radiotherapy (SBRT) for Early Stage, Centrally Located, Non-Small Cell Lung Cancer (NSCLC) in Medically Inoperable Patients (RTOG 0813)

2011  Co-investigator: RTOG 0915  
Princess Margaret Hospital  
A Randomized Phase II Study Comparing 2 Stereotactic Body Radiation Therapy (SBRT) Schedules for Medically Inoperable Patients with Stage I Peripheral Non-Small Cell Lung Cancer

2011  Co-investigator: MRI Assessment SBRT NSCLC  
Princess Margaret Hospital  
MRI Assessment of Post-Radiation Changes following Stereotactic Body RT for Non-Small Cell Lung Cancer: A Pilot Study
2011 Co-investigator: PET CT Re-Planning NSCLC
Princess Margaret Hospital
Prospective Study of CT and PET Imaging during a course of Radical
Radiotherapy to determine the Dosimetric Benefits of Re-planning in Non-Small
Cell Lung Cancer

2011 Co-investigator: SBRT LUNG
Princess Margaret Hospital
Lung Stereotactic Radiation Therapy for Patients with Non-Small Cell Lung
Cancer and Other Cancers

2011 Co-investigator: Survey of Anti-cancer and Non Anti-cancer Drug Cost and
Adherence
Multi-centre Study between UHN, St Michaels Hospital, and SRHC

2011 Co-investigator: Patient Preferences for Completing Epidemiology Questionnaires
Incorporated into Cancer Clinical Trials
Collaboration between UHN, St Michaels Hospital, and SRHC

2012 Co-investigator: The Influence of Social Determinants of Health, Physical
Activity, and Supplement Use on Smoking Cessation and Recidivism in Cancer
Patients
Collaboration between UHN and SRHC

2013 Co-investigator: Complementary and Alternate Medicine for Patients undergoing
Treatment
Stronach Regional Cancer Centre at Southlake Regional Health Centre

2013 Co-investigator: Complementary and Alternate Medicine for Patients undergoing
treatment at Stronach Regional Cancer Center
Stronach Regional Cancer Centre at Southlake Regional Health Centre

2013 Co-investigator: Ontario Health Study
Stronach Regional Cancer Centre at Southlake Regional Health Centre

2014 Co-investigator: Patient Preferences for Research Access to Administrative Data
in Ontario
Stronach Regional Cancer Centre at Southlake Regional Health Centre

Publications

- **Taremi M**, Ringash J, Dawson L; “IMRT in Upper Abdominal Malignancies”, *Frontiers of
Radiation Therapy and Oncology*, 2007; 40, 272-288

Conformal Radiation for Un-resectable Hepatic Malignancies”, *International Journal of
Radiation Oncology Biology Physics*, October 2008 V. 72(2), 582-588


Publications – Non-Peer Reviewed:

• **Taremi, M**, Hope, A, Dahele, M, Pearson, S, Fung, S, Purdie, T, Brade, A, Cho, J, Sun, A, Bissonnette, JP, Bezjak, A; “Four Year Outcomes of Patients with Stage 1 Lung Cancer Treated with Stereotactic Body Radiation Therapy”, Princess Margaret Hospital, Toronto, ON, Caro 2010

• Clarke, K, **Taremi, M**, Freeman, Fung, S, Bico-Ponce, J, Bezjak, A, Brade, A, Hope, A, Cho, J, Franks, K; “FDG PET SUV Uptake in Stereotactic Body Radiotherapy (SBRT for Non-Small Cell Lung Cancer (NSCLC)”; Princess Margaret Hospital, Toronto, ON; Caro 2010

Publications in Preparation:

• Assessment of shortness of breath (evaluated by ESAS scores in patients with lung cancer) Lynne Penton, Taremi M

• Radiation pneumonitis risk factors in patients with collapsed lung. Edwin Chung, Taremi M

**Presentations & Special Lectures**

Invited Lectures & Presentations:

• Anti-Serotonin Treatment, an Interesting Case of Multi-Pharmaceutical Approach. Kingston Regional Cancer Centre, 2004

• “CanMEDS” Presentation; Communication with the Patients and their Families. Princess Margaret Hospital, 2004

• Review of Articles in Management of Locally Advanced Cervical Cancer. Princess Margaret Hospital, Journal Club, 2004

• Diagnosis and Management of Lobular Carcinoma In Situ, Sunnybrook Regional Cancer Centre, Breast Tumour Board, 2006

• Review of Articles in Management of Elderly Patients with Diffuse Large B-Cell Lymphoma. Princess Margaret Hospital, Journal Club, 2007

• Diagnosis, Management, and Outcome of Patients with Stage I Follicular Lymphoma; Review of PMH Experience. Princess Margaret Hospital, Lymphoma Tumour Board, 2007

• Diagnosis and Management of Penile Carcinoma. Princess Margaret Hospital, Genito-Urinary Tumour Board, 2007

• Several Presentations on the Management of Early Stage Non-Small Cell Lung Cancer with Stereotactic Radiotherapy. Princess Margaret Hospital, Stereotactic Radiotherapy Rounds, 2008 – 2009


• Review on Lung Cancer. Southlake Regional Health Centre, Cancer Education Series, 2011

• Prognosis and treatment of Lung Cancer, Southlake Regional Health Centre, Cancer Education Series, 2012

• Presentations in Prevention and Management of Breast, Gynaecological, Colo-Rectal and Lung Cancers. Canadian Cancer Society, Iranian Community, 2005 - present

Presented & Published Abstracts:


• **Taremi M, Dahele M , Pearson S, et al; “Princess Margaret Hospital Experience with Lung SBRT for Early Stage NSCLC, Oral Presentation, CARO (Canadian Association of Radiation Oncology), Sep 2009.**

• **Taremi M, Dahele M , Bissonnette JP, et al; “Patterns of Failure and Salvage Therapy in Stereotactic Body Radiotherapy for Stage I Non-Small Cell Lung Cancer” Poster Presentation at ASTRO (American Association of Radiation Oncology), Nov 2009; Poster Presentation, Princess Margaret Hospital Conference, Oct 2009.**

• **Li W, Bezjak A, Purdie T, Taremi M; “Intrafractional Target Position Accuracy for Lung Stereotactic Body Radiotherapy (SBRT) Using Cone-Beam CT (CBCT)” Poster Presentation, ASTRO (American Association of Radiation Oncology), 2010.**

• **Taremi M, Hope A, Lindsay P, et al; “Radiotherapy Induced Bone Injury (RIBI) as a Late Side Effect in Patients Treated With Stereotactic Lung Radiotherapy”, Poster Presentation, ASTRO (American Association of Radiation Oncology) 2010.**

• **Taremi, M, Hope A, Max D, et al; “Four Year Outcomes of Patients with Stage I Lung Cancer Treated with SBRT”, Oral Presentation, CARO (Canadian Association of Radiation Oncology), Sep 2010.**

• **Clarke KL, Taremi M, Freeman M, et; “Stereotactic Body Radiotherapy (SBRT) for Non-Small Cell Lung Cancer (NSCLC) – Is FDG-PET a Predictor of Outcome?”, Poster Presentation, CARO (Canadian Association of Radiation Oncology) and ASTRO(American Association of Radiation Oncology) 2010.**


• **Taremi M, Hope A, Dahele M, Pearson S, Fung S, Purdie T, Brade A, Cho J, Sun A, Bissonnette JP, Bezjak A. Four Year Outcomes of Patients with Stage 1 Lung Cancer Treated with Stereotactic Body Radiation Therapy. CARO (Canadian Association of Radiation Oncology), 2010.**


• Karan T, Kim S, Abbas A, Moseley D, Taremi M, Yeung I; “Dosimetric Discrepancies due to Positional Errors in MLC Movement during Stereotactic Lung VMAT” Poster Presentation, ASTRO (American Association of Radiation Oncology), September 2014


Teaching:

2011 Supervising Radiation Therapists’ Research
Southlake Regional Health Centre
Project: Dose volumetric Study on Collapsed Lung and their Relationship with Radiation Pneumonias

2011 Supervising Nurse Practitioner Research
Southlake Regional Health Centre
Project: Shortness of Breath in Patients Diagnosed with Lung Cancer at Southlake Regional Health Centre.
Project: Dyspnea Clinic: Operation and Management

2003-2009 Teaching Medical Students, Junior Residents
Queen’s University and University of Toronto (Princess Margaret Hospital)

1990-1997 Teaching Junior Medical Students
Azad Tehran University

1984-1985 Teaching Physics to High School Students as a Part-Time Job
Iran-Tehran
Curriculum Vitae

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B. Biographical Information

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1. EDUCATION

Degrees
1970 MD, University of Toronto, Canada
1967 Honours B.Sc. Biological and Medical Sciences, University of Toronto, Canada

Postgraduate, Research and Specialty Training


1994 Jun 5 - 1994 Jun 7 (Follow-up - October 14, 1994), Communications, Conflict Resolution, and Negotiations Workshop, Pecos River Learning Centers, Inc, Sunnybrook Health Science Centre, Toronto, Ontario, Canada

1977 Jul - 1977 Nov Fellow, Princess Margaret Hospital, Canada, Supervisor(s): Radiation Oncology
1976 Dec - 1977 Jun Chief Resident, Princess Margaret Hospital, Canada, Supervisor(s): Radiation Oncology
1975 Jul - 1977 Jun Resident, Princess Margaret Hospital, Canada, Supervisor(s): Radiation Oncology
1972 Jul - 1972 Oct Assistant Resident, Toronto General Hospital, Canada, Supervisor(s): Medicine
1971 - 1972 Family Practice, London, United Kingdom
1970 - 1971 Straight Intern, Toronto General Hospital, Canada, Supervisor(s): Medicine
Straight Intern, The Hospital for Sick Children, Canada, Supervisor(s): Paediatrics

Qualifications, Certifications and Licenses

2012 Admitted: Fellow (ad eundum), Obstetricians and Gynecology, Royal College of Obstetricians and Gynecologists, United Kingdom
2006 Honorary Fellow, Royal College of Radiologists
1977 FRCP(C), Radiation Oncology, Royal College of Physicians and Surgeons of Canada,
2. EMPLOYMENT

Current Appointments

2004 Aug - present  Staff Radiation Oncologist, Toronto-Sunnybrook Regional Cancer Centre, Canada
1996 - present  Professor, Division of Gynecologic Oncology, Obstetrics and Gynaecology, University of Toronto
1995 Jul - present  Professor, Obstetrics and Gynaecology, University of Toronto
1995 Jul - present  Professor, Radiation Oncology, University of Toronto, Canada
1988 Jun - present  Staff Radiation Oncologist, Toronto-Sunnybrook Regional Cancer Centre, Canada (now Odette Cancer Centre)
1996  Professor, Obstetrics and Gynaecology, University of Toronto
1978  Lecturer, University of Toronto

Previous Appointments

HOSPITAL
2002 Jan - 2004 Jul  Consultant, Department of Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre, Canada
1994 Mar - 2001  Head, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Canada
1991 Aug - 2001 Mar  Head, Division of Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre, Canada

Responsible for the overall activity of the department including the clinical, academic, research and educational functions.

In my administrative/management role as Head of the Department of Radiation Oncology, Sunnybrook & Women’s College Health Science Centre/Toronto-Sunnybrook Regional Cancer Centre and Head of the Radiation Program at Toronto-Sunnybrook Regional Cancer Centre, I was responsible, with the help of an administrative assistant, for the full operation and budget of the program. The program is the largest in the Centre, having approximately 220 employees, of which 23 physicians were direct reports to the head as were 2 managers of the physics and radiotherapy departments. As Head, I was part of the senior management team for the TSRCC and SWC. I was directly involved in defining the Centre’s vision, strategic planning, developing and managing changes in operations, setting annual program and Centre budgets and allocation of resources. Quality assurance programs and continuous quality improvement were part of my mandate.

At the provincial level, I was responsible, with the heads of radiation for the other CCO Centres and other senior radiation management personnel, for developing strategic directions for provincial radiotherapy programs

1988 - 1991  Staff Radiation Oncologist, Radiation Oncology, Toronto-Sunnybrook Regional Cancer Centre
1977 Dec - 1988 May  Staff Radiation Oncologist, Princess Margaret Hospital, Canada
1972 Nov - 1975 Jun  Clinical Associate, Princess Margaret Hospital, Canada

RESEARCH
2001 Dec - 2003 Feb  Medical Director, GlaxoSmithKline Canada, Canada

UNIVERSITY - CROSS APPOINTMENT
1988 Jul - 1995 Jun  Associate Professor, Division of Gynecologic Oncology, Obstetrics and Gynaecology,
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2014 **Boudwdijk Bastiaanse Award**, Dutch Gynecologic Oncology Group, Netherlands. (Distinction, Specialty: Gynecologic Oncology) "Lifetime Contribution and Achievement in Gynecologic Oncology".

2008 **Award for Excellence**, International Gynecologic Cancer Society. (Distinction)
2006 **Honorary Fellow**, Royal College of Radiologists, United Kingdom. (Distinction)
2005 **Felix Rutledge Lectureship in Gynecologic Oncology**, MD Anderson Hospital, United States. (Distinction)
2003 **Honorary Fellowship**, Society of Gynecologic Oncologists of the Philippines, Philippines. (Distinction)
2002 - 2004 **President**, International Gynecologic Cancer Society. (Distinction)

NATIONAL
Received
2012 May **Queen’s Diamond Jubilee Medal**, Queen Elizabeth II Diamond Jubilee Medal program, Canada. (Distinction, Specialty: Gynecology) Significant contributions and achievements in the field of Gynecology.
1969 **Alpha Omega Alpha Honour Medical Society**, Canada. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1995 - present American Radium Society
1990 - present Society of Gynecologic Oncology
1988 - present Canadian Association of Radiation Oncologists
1987 - present **Founding Member**, International Gynecology Cancer Society
1986 - present Society of Gynecologic Oncology of Canada
1983 - present American Society of Therapeutic Radiology and Oncology
1978 - present American Society of Clinical Oncology
1970 - present Canadian Medical Association
1970 - present Ontario Medical Association
Gillian Monica THOMAS

1998 - 2001  
Gynecologic Cancer Foundation

1990 - 2000  
**Affiliate Member**, Society of Urologic Oncology

1978 - 1988  
Canadian Oncology Society

**Administrative Activities**

INTERNATIONAL

4th National Hellenic Congress & Gynecologic Oncology
2002  
**Participant**, Tumour Board

American College of Obstetricians and Gynecologists
1991 - 1997  
**Member**, Committee on Human Research

American College of Radiologic Imaging Network
2004 - present  
**Member**, Gynaecological cancers committee

American College of Radiology
1988 - present  
**Member**, Patterns of Care: Cervix Committee
1995 - 2001  
**Chair**, Patterns of Care: Member GU, Seminoma Committee
1995  
**Member**, Data Monitoring Committee of Radiation Therapy Oncology Group
1995  
**Member**, Data Monitoring Committee of Radiation Therapy Oncology Group

American College of Surgeons
2003 - present  
**Member**, Gynecologic Oncology Disease Site Team of the Commission on Cancer

American Radium Society
1996  
**Member**, Scientific Program Committee

American Society for Therapeutic Radiology and Oncology
2000  
**Member**, Scientific Program Subcommittee

American Society of Clinical Oncology
1996  
**Member**, Scientific Committee (Gynecology)
1996  
**Member**, Scientific Committee (Gynecology)
1989 - 1990  
**Member**, Patient Advocacy Committee
1981 - 1984  
**Member**, Exhibit Screening Committee

Ehrreich Consulting
1997 - 2000  
**Consultant**, DBD Advisory Panel

European Society of Gynaecological Oncology
2000  
**Member**, International Scientific Committee

Gynecologic Oncology Group
2004 - present  
**Vice Chairman**, Protocol Committee, United States.
Gillian Monica THOMAS

2002 - present  Member, Cervix and Vulva Committee, United States.
1994 - present  Member, Publications Committee, United States.
1988 - present  Member, Protocol Committee, United States.
1986 - present  Member, Cervix, Vulva, Vagina Committee, United States.
2011  Program Chair, GOG Winter 2011 Symposium, San Diego, California.
2000  Member, R.F.A. Review Committee
2000  Member, Management Committee, United States.
1994 - 2002  Chair, Cervix, Vulva, Vagina Committee, United States.
1994 - 2002  Chair, Cervix and Vulva Committee, United States.
Responsibilities for administration of the Committee include:
• setting research directions
• guiding research protocol development
• liaising with basic researchers to develop translational research protocols
• presentation of the site activities to obtain five-year grant funding from NIH (Total current application this year $46 million, of which approximately one quarter is for support of Cervix and Vulva Committee).

1993 Feb  Moderator, General Scientific Session, “The Effect of Overall Treatment Time on Recurrence in Cancer of the Cervix”
1993 Feb  Organizer, General Scientific Session, “The Effect of Overall Treatment Time on Recurrence in Cancer of the Cervix”
1991 - 1997  Member, Executive Committee, United States.
1991 - 1997  Member, Membership Committee, United States.
1988 - 1994  Co-Chair, Cervix, Vulva, Vagina Committee, United States.

International Gynecologic Cancer Society
1995 Sep - present  Member, Scientific Committee
1995 - present  Member, Program Committee
2008  Member, Scientific /Program Committee, 12th Biennial Meeting
2006  Chairman, Scientific/ Program Committee, 11th Biennial Meeting
2004 - 2006  Past President
2002 - 2004  President
2000 - 2002  Chair, Sub-Committee on Awards
2000  President Elect
2000  Council Member, Executive Committee
1998  Member, International Scientific Committee
1998  Member, International Scientific Committee
1993 Sep  Member, Scientific Committee
1991 Sep  Chairman, Workshop, “New Approaches for Gynecological Malignancies”
1991 Sep  Organizer, Workshop, “New Approaches for Gynecological Malignancies”
1991 - 1996  Council Member, Executive Committee

International Prostate And Testicular Cancer Conference
1990 Oct  Co-Chairman
(Major role in planning topics and speakers and reviewing abstracts for presentation).

National Cancer Institute
2006 - present  Co-Chair, Gynecologic Cancer Steering Committee, United States.
Gillian Monica THOMAS

2011 - 2014  Member, Clinical Trials and Translational Research Advisory Committee, United States.
2010 - 2011  Reviewer, NCI Cancer Clinical investigator Leadership Awards
2009 - 2011  Reviewer, NCI-ASCO Cancer Foundation Clinical Investigator Team Leadership Award
2005        Chair, Novel Approaches to IP Therapy, Ovarian Cancer State of the Science Meeting

National Cancer Institute of Canada/Clinical Trials Group
2008 - present   Member, Cervix Working Group

Northern Oncology Centre
2010  Reviewer, Graduate School Program – Northern Oncology Centre, Groningen, Netherlands.

Ortho-Biotech
1997 - 2001  Member, Speakers Panel and National Advisory Committee

Society for Gynecologic Oncologists
1995 - present   Member
2001  Member, Program Committee
1999  Member, Task Force 2000
1998  Member, International Committee
1997  Member, Education Committee
1996 - 1997  Member, Program Committee

Society of Gynecologic Oncologists
2011  Member, SGO Research Summit and Strategic Research Plan
2002  Member, Scientific Program Committee, 33rd Annual Meeting

Society Of Gynecologic Oncologists
2001 - 2002  Member, Scientific Committee
1996  Member, Program Committee

TAP Holdings Inc
1997 - 2001  Chair, Advisory Board, TNP-40

NATIONAL
Alberta Cancer Board
2001  External Reviewer, Clinical Research Program

National Cancer Institute of Canada
1991 - 1995  Member, Clinical Trials Gynecology Nucleus Committee
1990 - 1993  Head, Radiation Oncology Quality Assurance Committee
1987 - 1992  Chairman, Radiation Oncology Committee
1982 - 1989  Member, F Committee

Royal College of Physicians and Surgeons of Canada
1987 - 1991  Chief Examiner, Radiation Oncology
Gillian Monica THOMAS

1985 - 1987 Examiner, Radiation Oncology

PROVINCIAL / REGIONAL

Cancer Care Ontario
1998 - 2001 Member, Research Advisory Committee
1998 - 2001 Member, Radiation Oncology Professional Advisory Committee
1998 - 2001 Member, Radiation Treatment Advisory Committee

Ontario Cancer Research Network
2002 - present Member, Scientific Advisory Committee
2002 - 2004 Member, Scientific Advisory Committee

Ontario Cancer Treatment and Research Foundation
1997 Member, Proton Radiation Treatment Working Group
1996 - 1997 Member, Radiation Therapy Program Committee
1994 - 1996 Member, Radiation Oncology Professional Advisory Committee
1992 Member, Research Planning Committee
1992 Member, GYN Disease Site Group
1991 - 1997 Member, Research Advisory Committee

Ontario Clinical Oncology Group
1990 - 1995 Site Representative
1982 - 1995 Member, Policy Committee

LOCAL

Kingston Regional Cancer Centre
1998 Member, Search Committee, CEO

Odette Cancer Centre
2008 - present Member, Image Guided Brachytherapy Committee
2007 - present Member, Research Advisory Committee

Princess Margaret Hospital
1980 - 1985 Member, Technical Procedures Committee
1979 - 1984 Member, Infection Control Committee
1978 - 1984 Member, Resident Committee

Sunnybrook and Women's College Health Sciences Centre
1999 Member, Bylaws Committee
1998 Member, Search Committee, Obstetrician & Gynaecologist in Chief

Sunnybrook Health Science Centre
1995 Member, Senior Medical Council
1995 Member, Search Committee, Head of Department of Obstetrics & Gynecology
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1994  Member, Medical Advisory Committee
1994  Member, Academic Medical Council
1993  Member, Search Committee, Head of Department of Gynaecology

Sunnybrook Health Science Centre & Toronto-Bayview Regional Cancer Centre
1992  Member, Search Committee, Head, Division of Medical Physics Research

Sunnybrook Health Sciences Centre
1991 - 1995  Member, Comprehensive Cancer Program: Executive Committee
1991 - 1993  Member, Comprehensive Cancer Program: Strategic Planning Committee

Toronto-Bayview Regional Cancer Centre
1993  Member, Search Committee, Director of Patient Services

Toronto-Sunnybrook Regional Cancer Centre
1996 - present  Member, Strategic Planning Committee
1996 - present  Member, Clinical Services Management Committee
1991 - present  Member, Executive Committee
1998  Member, Search Committee, Head, Division of Medical Oncology
1998  Member, Medical/Radiation Oncology Accreditation Team
1995  Member, Medical/Radiation Oncology Accreditation Team
1994 - 2001  Head, Radiation Program
1989  Member, Radiation Services Committee

University of Toronto
1992 - present  Member, Senior Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology
1994  Member, Gynecologic Fellowship Committee, Faculty of Medicine, Dept of Obstetrics & Gynaecology
1992 - 1993  Member, Academic Promotions Committee

Peer Review Activities

ASSOCIATE OR SECTION EDITING

Editor
2011  Associate Editor – Clinical Radiation Oncology
2009  Associate Chief-Editor–InternationalGynecologicCancerJournal
2006  Book Associate Editor: Clinical Radiation Oncology Ed: Gunderson & Tepper

EDITORIAL BOARDS

Associate Chief-Editor
2009  International Journal of Gynecological Cancer

Associate Editor
2005 - 2007  Gynecologic Oncology

Consultant
1987 - 1989  PDQ-NCI Computer DataBase for Physicians (GynMalignancies)
Gillian Monica THOMAS

Member
1991 - present International Journal of Gynecological Cancer
2001 - 2006 Advisory Board, The Women’s Oncology Review
1991 - 1998 Gynecologic Oncology

GRANT REVIEWS
Reviewer
2010 - 2011 Dutch Cancer Society Grants
2009 - 2011 National Cancer Institute, Clinical Investigator Team Leadership Award Applications
2003 Health Services Research Committee, Hong Kong
2001 Alberta Cancer Foundation
2001 Anemia Institute
1993 Genesis Research Foundation
1985 - 1988 Alberta Heritage Savings Trust Funds Cancer Grants

Associate Editor
2005 - 2009 Gynecologic Oncology

MANUSCRIPT REVIEWS
Reviewer
1997 - present American Journal of Obstetrics and Gynecology
1997 - present International J of Gynecologic Cancer
1993 - present ACTA Oncologica
1993 - present Cancer
1992 - present Canadian Journal of Oncology
1992 - present Diagnostic Oncology
1992 - present Journal of Clinical Oncology
1992 - present The European Journal of Cancer
1985 - present Radiotherapy and Oncology
1984 - present Gynecologic Oncology
1984 - present International Journal of Radiation Oncology Biology Physics
2009 Clinical Cancer Research
1995 The European Journal of Obstetrics & Gynecology and Reproductive Biology

CLINICAL INVESTIGATOR TEAM LEADERSHIP AWARDS
Reviewer

Other Research and Professional Activities

RESEARCH PROJECT

Sunnybrook PI. The impact of Positron Emission Tomography (PET) imaging in women with locally advanced cervical cancer.

Sunnybrook PI. Randomized Phase III trial comparing Concurrent Chemoradiation and Adjuvant Chemotherapy with Pelvic Radiation alone in high-risk and advanced stage endometrial cancer.
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2003

**Principal Investigator.** A phase III randomized study of adjuvant radiation treatment versus radiation and chemotherapy (cisplatin) in patients with vulvar cancer and involved nodes. Gynecologic Oncology Group. [Grants]

*Per case funding 2000 (closed 2003) $2,200.00/case, 250 cases.*

2001

**Principal Investigator.** Phase III trial to evaluate the efficacy of maintaining hemoglobin levels above 120 g/l with erythropoietin versus above 100 g/l without erythropoietin in anemic patients receiving concurrent radiation and cisplatin for cervical cancer. Gynecologic Oncology Group. [Grants]

*Per case funding $3,300.00/case. (closed prior to accrual completion 2003, Awaiting analysis, 460 cases International Intergroup Trial).*

2000 - 2003

**Co-Principal Investigator.** Phase I study of weekly cisplatin and paclitaxel with whole abdominal radiation in advanced endometrial cancer. Gynecologic Oncology Group. [Grants]

*Per case funding. $2,200.00/case, 60 cases.*

1996 - 1998

**Principal Investigator.** Multivariate analysis of radiation factors predicting outcomes in cervical cancer. Janssen-Ortho Inc. 43,000 CAD. [Grants]

1994 - 1998

**Principal Investigator.** A randomized study of surgery versus surgery plus vulvar radiation in the management of poor prognosis primary vulvar cancer and of radiation versus radiation and chemotherapy for positive inguinal nodes. Gynecologic Oncology Group. 1,251,250 CAD. [Grants]

*(Study closed early due to lack of accrual).*

1994 - 1996

**Principal Investigator.** Survey of anaemia and transfusion practice in patients with carcinoma of the cervix. Ortho McNeil Inc (Can). 50,000 CAD. [Grants]

1994

**Principal Investigator.** An investigation of the effect of erythropoietin on measured tumour hypoxia levels in carcinoma of the cervix. Ortho McNeil Inc (Can). 114,640 CAD. [Grants]

1993 - 1995

**Principal Investigator.** A Phase II study of leuprolide acetate in advanced or recurrent endometrial cancer. Abbott Laboratories. 45,000 CAD. [Grants]

1993

**Co-Principal Investigator.** Circadian infusion 5-fluorouracil/leucovorin as radiosensitizers for hyperfractionated whole abdominal radiation in patients with abdominal malignancies. Berlex Canada Inc. Collaborator(s): Co-principal Investigator with Dr. G. Bjarnason. 41,600 CAD. [Grants]

1989

**Principal Investigator.** Protocol for clinical evaluation of loperamide oxide in the treatment of patients with radiation induced diarrhoea. Janssen Pharmaceuticals. 35,000 CAD. [Grants]

*Industry Supported.*
1979 Principal Investigator. Trials Secretary. Gastrointestinal Study Group. 20,220 CAD. [Grants]

1978 Principal Investigator. Phase I clinical trials of radiation sensitizer and study of some other therapeutic factors. Ontario Cancer Treatment and Research Foundation. 157,570 CAD. [Grants]

AWARDED BUT DECLINED


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


11. van Lonkhuijzen L, Thomas G. Palliative Radiotherapy for Cervical Carcinoma, a systematic review. Radiotherapy and Oncology. 98(3); 287-291, 2011.


50. Thomas GM. The importance of hemoglobin levels during radiotherapy for carcinoma of the cervix. Anemia in Oncol. 3(2): 5-8, 2000.


64. Laframboise S, Thomas G. The role of radiation therapy in endodermal sinus tumors (EST) of the ovary. CME J Gynecol Oncol. 2(1), 93-150, 1997.


89. Thomas GM. Is there a role for consolidation or salvage radiotherapy after chemotherapy in advanced epithelial ovarian cancer? Gynecol Oncol. 51(1): 97-103 1993.


Gillian Monica THOMAS


Editorials


**Letters to Editor**


**Abstract**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Books Edited

Book Chapters


Conference Publications


Other Publications

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2013  Invited Speaker. State of the Science in Cervical Cancer: Where we are today and where we need to go.Recurrent/metastatic cervical cancer to date: Success or Failure? Gynecologic Oncology Group. San Antonio, Texas, United States.


2011  Invited Speaker. The True Cost of Running Trials for CCTGs: An International Perspective on Cooperative Trials Groups. COSA. Perth, Australia.

2011  Invited Speaker. The Big Picture Downunder: Concurrent Chemo-Radiation: Where are we now? COSA. Perth, Australia.


2011  Invited Speaker. Are we missing the Boat? Peter MacCallum Cancer Centre. Melbourne, Australia.


2008  Visiting Professor. Importance of Lymph Nodes and Implications for Adjuvant therapy in Endometrial Cancer. Department of Radiation Oncology, Tehran University. Iran, Islamic Republic Of.

2006  Visiting Professor. Martin Schneider Memorial Lecturer Department of Radiation Oncology, University of Texas Medical Branch. Galveston, United States.

2005  Visiting Professor. Felix Rutledge Lectureship, Department Of Gynecologic Oncology MD Anderson Cancer. Houston, United States.

2003  Visiting Professor. Boerhaave Professor, University of Leiden Medical Centre, Departments of Gynecologic Oncology and Radiation. Netherlands.

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2001  **Visiting Professor.** Department of Radiation Oncology, University of Pennsylvania School of Medicine. Philadelphia, United States.

2000  **Visiting Professor.** Netherlands Cancer Institute. Amsterdam, Netherlands.

2000  **Visiting Professor.** Barbara Moore Jordan Visiting Professor, Memorial Sloan Kettering Cancer Centre. New York, United States.

1998  **Visiting Professor.** Department of Radiation Oncology, Fox Chase Cancer Centre. Philadelphia, United States.


1997  **Visiting Professor.** University of Indianapolis. Indiana, United States.

1996  **Visiting Professor.** University of Wisconsin-Madison Medical School. Madison, United States.

1996  **Visiting Professor.** Mayo Clinic. Rochester, United States.

1995  **Visiting Professor.** Department of Radiation Oncology, Department of Obstetrics and Gynecology, University of California. Irvine, United States.

1994  **Visiting Professor.** Department of Radiation Oncology, Bowman-Gray School of Medicine, Wake Forest University. Winston-Salem, United States.

1994  **Visiting Professor.** Department of Radiotherapy, Loyola University Medical Centre. Maywood, United States.

1993  **Visiting Professor.** Department of Radiation Oncology, Fox Chase Cancer Centre. Philadelphia, United States.

1990  **Visiting Professor.** Department of Radiation Oncology, New England Medical Centre, Tufts University. Boston, United States.

1986  **Visiting Professor.** Department of Radiation Therapy, University of Pennsylvania Hospital and Fox Chase Cancer Centre. Philadelphia, United States.

1985  **Visiting Professor.** Radiation Oncology Center of Sutter Community Hospital. Sacramento, United States.

1984  **Visiting Professor.** Department of Gynecology Oncology, University of California School of Medicine. Los Angeles, United States.

1983  **Visiting Professor.** Department of Radiotherapy, Harper-Grace and Wayne State University Hospital. Detroit, United States.

**Presented Abstracts**


2006  **First Author.** A GOG Phase III trial to evaluate Maintaining Hemoglobin (Hgb) >120g/l with Erythropoetin (EPO) during chemoradiation (CT/RT) for cervical cancer. Int Gynecol Cancer Soc, 11th Biennial Meeting. Santa Monica, United States.


2000  Moving beyond quality of life to tissue oxygenation. 28th World Congress of the International Society of Hematology. Toronto, Ontario. **Thomas G.**


1999  Impact of new technology on radiation therapy treatment deviations at T-SRCC. Am Soc Therap Radiol Oncol. Robson S, Pegler R, Danjoux C, Chow E, Franssen E, **Thomas G.**


1999  Anemia associated with inferior outcomes in patients treated with radiotherapy (RT) for cancer of the cervix. IGCS Post Congress Satellite Symposium. Venice, Italy. **Thomas G.**


1997  Chemotherapy in cervix cancer: Is there a role? The 1st Annual Terry Fox & Chang Gung Memorial Hospital International Cancer Symposium on Cervical Cancer. Taipei, Taiwan, Province Of China. **Thomas G.**


1994  Radiotherapy in early ovarian cancer. NIH Consensus Development Conference on Ovarian Cancer: Screening, Treatment, and Follow-Up. Bethesda, Maryland. **Thomas G.**

1994  Whole abdominal radiotherapy should be considered reasonable treatment for small-volume Stage III

1994

1994

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1991

1991
Surveillance for Stage I Seminoma. Int Symp on Testicular Tumours. Hannover, Germany. **Thomas GM**.

1991

1991
**First Author.** Long term follow-up of concurrent chemoradiation (CT-RT) for carcinoma of the cervix recurrent after surgery. Int Gynecol Cancer Soc, 3rd Biennial Meeting. Cairns, Australia.

1990
**First Author.** Concurrent chemoradiation in advanced cervical cancer. Soc Gynecol Oncol 21st Annual Meeting. San Francisco, United States.

1990

1990

1989

**1989**

**First Author.** Concurrent radiation and chemotherapy in vulvar carcinoma. Soc Gynecol Oncol, 20th Anniversary Meeting.

**First Author.** Surveillance of Stage I seminoma post-orchiectomy. Am Urological Assoc Meeting. Dallas, United States.

**First Author.** Combined radiation and chemotherapy for carcinoma of the cervix recurrent after radical surgery. 18th Annual Meeting of the Soc Gynecol Oncol. United States.

**1987**


**First Author.** Optimal management of Stage II seminoma. Am Urological Assoc. Atlanta, United States.

**1984**


**1983**


First Author. Adjuvant mediastinal irradiation for Stage II seminoma. 3rd Int Conf Adjuvant Therapy of Cancer. Tucson, United States.


Invited Lectures and Presentations - via video presentation


Lectures and Other Presentations

2011 The Big Picture Downunder: Concurrent Chemo-Radiation: Where are we now? COSA. Perth, Australia.


2011 The True Cost of Running Trials for CCTGs: An International Perspective on Cooperative Trials Groups. COSA. Perth, Australia.


2011 Are we missing the Boat? Peter MacCallum Cancer Centre. Melbourne, Australia.


2010 Should Management of Locally Advanced Adenocarcinoma and Squamous Cell Carcinoma (with nodal spread) be similar? European Society for Therapeutic Radiology and Oncology – ESTRO. Barcelona.


2010 **Chair.** Session: Advances in Radiation Oncology. International Gynecologic Cancer Society - IGCS. Prague.


2009 Risk Based Management of Early Endometrial cancer. University of Hong Kong Hospital. Hong Kong.


2009 Case presentation and expert discussion FIGO 2B: Which patients are suitable for surgery and which patients should receive radiotherapy? 6th European Congress: Perspectives in Gynecologic Oncology. Nice, France.


2008 Past, Present and Future in the treatment of Cervical Cancer. 30th Anniversary Meeting of The Dutch
Gillian Monica THOMAS

Society of Radiation Oncology (NVRO).


2008  **Moderator.** Endometrial Cancer: Role of Adjuvant Radiotherapy vs Chemotherapy. British Gynecology Cancer Society. Liverpool, United Kingdom.


2008  **Discussant.** Gynecologic Cancer Oral Session. ASCO. Chicago, United States.


2007  Importance of Lymph Nodes in Early Endometrial Carcinoma. First Congress of Chilean Society of Gynecologic Oncology. Valdivia, Chile.


2007  Cervical Carcinoma, Update on Chemoradiation. 19th Congresso Nazionale – SIOG, Advances in Gynecological Oncology. Milan, Italy.

2007  **Moderator.** Current and Future Trials Addressing Staging and Imaging in Cervical cancer. NCI State of
the Science Meeting, Cervical Cancer. Washington, United States.

2007
ESA’s and Impact on Cancer and Thrombosis. Aarhus, Denmark.

2007

2007
Optimal Therapy for High Risk Early cervical cancer. First Congress of Chilean Society of Gynecologic Oncology. Valdivia, Chile.

2007

2006

2006

2006

2006
Meet the Professor- Dr G Thomas. Highlights in Ginecologica, Santa Margherita. Ligure, Italy.

2006
Lymphadenectomy and adjuvant therapy in endometrial carcinoma. Highlights in Ginecologica, Santa Margherita. Ligure, Italy.

2006

2006

2006

2006

2006
Radiotherapy for Cervical Adenocarcinoma- alone or in combination with other modalities? Royal College of Radiologists. London, United Kingdom.

2006

2006

2006
Update on Concomitant chemo-radiotherapy in locally advanced cervical cancer. Highlights in Ginecologica, Santa Margherita. Ligure, Italy.

2006
Chair. NCI State of the Science Meeting in Endometrial Cancer. Consensus Group in Early Disease. Manchester, United Kingdom.

2005

2005
Radiotherapeutic Management of Early Cervical Cancer2. Challenges in the Practice of Evidence Based Oncology in Developing Countries, ESTRO International Symposium. Mumbai, India.

2005
Postgraduate Course#2. GOG: Trials and Tribulations. Society of Gynecologic Oncologists’ 36th Annual
Gillian Monica THOMAS

Meeting. Florida, United States.

2005

2005
Radiation Therapy in Endometrial Cancer. Postgraduate Course in Gynecologic Cancer. Savannah, United States.

2005

2005

2005

2005

2005

2005

2005
Lymph Nodes in endometrial Cancer. 15th Annual Review Course on Gynecologic Oncology and Pathology a Satellite Meeting of the IGCS in Asia. Kyoto, Japan.

2005
Chemo-Radiotherapy in Cervical Cancer. Challenges in the Practice of Evidence Based Oncology in Developing Countries, ESTRO International Symposium. Mumbai, India.

2005

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2005

2005

2005

2005
Cervical Cancer Outcomes. Impact of Hemoglobin and Hypoxia. 15th Annual Review Course on
Gynecologic Oncology and Pathology a Satellite Meeting of the IGCS in Asia. Kyoto, Japan.

2004

2004

2004
Carcinoma of the Cervix. International Society of Radiation Oncology Teaching course. Capetown, South Africa.

2004

2004
Evidence Based decision Making in Stage IB2/IIA Cervix Cancer. IXth National Gynecologic Oncology Congress. Antalya, Turkey.

2004
The Role of Radiation in Endometrial Cancer. IXth National Gynecologic Oncology Congress. Antalya, Turkey.

2004

2004

2004

2004

2004

2004
Carcinoma of the Vulva. International Society of Radiation Oncology Teaching course. Capetown, South Africa.

2004

2004

2004
Integrating Multimodality Therapy in Vulvar Cancer. IXth National Gynecologic Oncology Congress. Antalya, Turkey.

2004

2004
**Moderator.** Afternoon Session. GOG Summer Symposium.

2004
Debate, Con side: Systemic Chemotherapy following Surgical Bulk Reduction is the Treatment of Choice for patients with Stage III-IV Endometrial Cancer confined to the Pelvis and Abdominal Cavity. Southern Association for Oncology.

2004

2004
Anemia in Cancer an Opportunity for Improving Treatment Outcomes? University of Helsinki. Helsinki, Finland.

2004
Multimodality treatment in vulvar carcinoma. Aarhus University Hospital. Norrebrogade, Denmark.
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2003  Clinical Decision Making and Evidence Based Medicine, Adjuvant Treatment in Stage IB Cervical Cancer and Management of Vulvar Cancer. EORTC Symposium. Naples, Italy.


2002  Presentation on Chemoradiation in Cervical Cancer. 4th National Hellenic Congress & Gynecologic Oncology. Athens, Greece.

2002  **Chair.** Seminar – Innovations in Radiation Oncology. 18th UICC International Cancer congress. Oslo, Norway.


2002 Round Table Discussion – Cervical Cancer. 4th National Hellenic Congress & Gynecologic Oncology. Athens, Greece.


2001 Radiotherapy for ovarian cancers: Has it become obsolete with newer chemotherapy? Ask the experts session, Controversies in gynaecological cancers, Symposium on Ovarian Cancer. Singapore.


2001 Chemoradiation in “locally advanced” cervical cancer. Identification of patients likely to benefit from lymph node debulking – cervix. European Society of Gynaecological Oncology 12. Venice, Italy.


2000 Co-chair. Hemoglobin levels and radiation therapy outcomes – is there a correlation? Seville, Spain.


2000   Chemoradiotherapy is now standard treatment for cervical cancer. Chemoradiotherapy for vulvar carcinoma. Chemoradiation: From the Laboratory to the Clinic, Joint Leeds/Royal College of Radiologists Conference. York, United Kingdom.


Vienna, Austria.

1999  

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1997  
Changing concepts in the management of vulvar cancer. The New York Hospital Queens Oncology Conference. Flushing, United States.

1997  
Integration of therapies - Radiation therapy. Combined modalities therapies (Round table discussion) Treatment of Recurrent Cervical Carcinoma. Aviano, Italy.

1997  
Randomized study of adjuvant treatment including radiation therapy and chemotherapy in patients with vulvar cancer. EORTC Gynecological Group Meeting. Aviano, Italy.

1997  

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1997  
Vulva ca RT vs CT vs both (case discussion). American Radium Society. New York, United States.

1997  **Chair.** Cervix symposium. International Congress of Radiation Oncology. Beijing, China.

1997  Is there a role for chemotherapy in advanced cervical cancer? 1st Annual Terry Fox/Chang Gung Memorial Hospital International Cancer Symposium. Taipei, Taiwan, Province Of China.

1997  **Chair.** Multidisciplinary clinical decision-making. 6th Biennial Meeting International Gynecologic Cancer Society. Fukuoka, Japan.


1997  **Chair.** Radiotherapy of cervical cancer. 1st Annual Terry Fox/Chang Gung Memorial Hospital International Cancer Symposium. Taipei, Taiwan, Province Of China.


1996  When and how to use a combined approach (Disease of the vulva). Postgraduate Course on Gynaecologic Oncology. Heemskerk, Netherlands.

1996  Combined modality therapy in cervical cancer. 1st European Society for Medical Oncology Congress. Vienna, Austria.


1996  Optimising therapy in Stage IB cancer of the cervix. Irish Gynaecological Oncology Society. Dublin,
Ireland.

1996
The role of radiation therapy in the management of vulvar cancer. St. Lukes' Hospital. Dublin, Ireland.

1996
Should chemotherapy be used in the primary treatment of cervical cancer? Grand Rounds, M.D. Anderson Hospital. Houston, United States.

1995

1995

1995

1995
Is there a role for radiation therapy in ovarian cancer? Symposium on Gynecology and Gynecologic Oncology, University of Minnesota. Minneapolis, United States.

1995

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1995

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1994

1994
Radiation therapy in high risk endometrial carcinoma. AGO Consensus Meeting. Freiburg, Germany.

1994

1994
Radiotherapy in early ovarian cancer. NIH Consensus Development Conference on Ovarian Cancer: Screening, Treatment and Follow-up. Bethesda, United States.

1994

1994

1994

1994

1994
Whole abdominal radiotherapy should be considered reasonable treatment for small-volume Stage III

1994

Optimal management of seminoma. Medical Grand Rounds Lecture Series, Department of Medicine, Roswell Park Cancer Institute. Buffalo, United States.

1994


1994

The current role of radiotherapy in the treatment of vulvar cancer. XIV FIGO World Congress. Montreal, Quebec.

1994


1993


1993


1993

The role of radiation therapy in ovarian cancer. Puget Sound Oncology Consortium. Seattle, United States.

1993

Argument for primary irradiation of patients with cervical cancer Stage IIB. 2nd Conference of the Austria Soc Gynecol Oncol. Graz, Austria.

1993


1993

Adjuvant therapy for ovarian cancer. Hurley Medical Center. Flint, United States.

1993


1992


1992

Bulky Stage IB cervical carcinoma managed by primary radical hysterectomy followed by tailored radiotherapy. Commentary, Society of Gynecologic Oncology, 23rd Annual Meeting. San Antonio, United States.

1992

Integrating radiation therapy into the management of ovarian cancer. National Conference on Gynecologic Cancers, American Cancer Society. Orlando, United States.

1992

The role of radiation in gynecologic malignancy. Carolinas Medical Centre Spring Symposium. Charlotte, United States.

1992

Investigational strategies for detection and intervention in early ovarian cancer. Workshop - Radiation therapy for early-stage disease, National Cancer Institute. Annapolis, United States.

1992


1992

Radiotherapy as second-line treatment for small volume disease. Symposium on Salvage Therapy in Ovarian Carcinoma, Gynecologic Oncology Group. Minneapolis, United States.

1992

Experience in Toronto, Canada. Symposium: Update on organ confined (Stage I) testicular cancer
treatment (seminomatous and non-seminomatous) Sociedad Mexican de Urologia. Aguascalientes, Mexico.

1992
Adjuvant therapy for ovarian cancer. Midlands Branch of ASTRO, University of Nebraska. Omaha, United States.

1992

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1991

1991

1990
Concurrent 5-Fluorouracil and radiation in the management of advanced cervical cancer. Department of Radiation Oncology, New England Medical Center, Tufts University. Boston, United States.

1989
Conservative management of carcinoma of the anal canal. 1st European Winter Oncol Conf. Switzerland.

1989
The role of adjuvant therapy in the high risk early stage cervical cancer patient. Radiation therapy in ovarian cancer. 1st European Winter Oncol Conf. Switzerland.

1989
The role of adjuvant therapy in high risk stage IB cervical cancer patient. Breakfast Education Sessions with Dr. A. Dembo and Dr. F. Stehman. Soc. Gynecol Oncol. 20th Anniversary Meeting. Hawaii.

1989
Progress and controversies in seminoma. Prostate and Testicular Cancer Consensus Conference. Hull, United Kingdom.

1989

1989
The role of adjuvant pelvic radiation in the high risk early cervical cancer. Workshop on high risk early cervical cancer, 2nd Meeting Int Gynecol Cancer Soc. Toronto, Ontario.

1989
Chair. EORTC Consensus Conference on Testicular Seminoma. Prostate and Testicular Cancer Consensus Conference. Hull, United Kingdom.

1988
Princess Margaret Hospital Experience with radiotherapy in advanced locoregional seminoma. Recent advances in the systemic therapy of genitourinary malignancies. MD Anderson Hospital, 31st Annual Clinical Conference.

1988

1988

1988
How much therapy is necessary for low stage seminoma? Berlin, Germany.

1988

1987

1987


1986  Implication for future therapy for carcinoma of the cervix. 4th Annual Cancer Symposium Medical Center of Beaver County. United States.

1986  Radiation therapy for carcinoma of the ovary: The Princess Margaret Hospital Experience. 4th Annual Cancer Symposium Medical Center of Beaver County. United States.


1986  The role of radiation therapy in endometrial carcinoma. 4th Annual Cancer Symposium Medical Center of Beaver County. United States.


1986  Issues in the management of testicular seminoma. Fox Chase Cancer Center, Univ. Pennsylvania Hospital. United States.


1985  The role of radiation in the management of all stages and extent of seminoma. The 2nd Germ Cell Tumour Conf. Leeds, United Kingdom. (Chair).


1985  Combined modality therapy for carcinoma of the cervix and anal canal. Aachen, Germany.


1983 Carcinoma of the cervix: The Princess Margaret Hospital results. Grand Rounds, Harper-Grace and Wayne State University Hospital. Detroit, United States.


1980 Results of treatment for seminoma: The Princess Margaret Hospital experience. Cambridge University. United Kingdom.

2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts

2010 Palliative Radiotherapy for Cervical Cancer: A systematic review. 31st Annual General meeting, the society of Gynecologic Oncology of Canada. Canada. van Lonkhuijzen L, Thomas G.


1999  Impact of new technology on radiation therapy treatment deviations at T-SRCC. CARO. Robson S, Pegler R, Danjoux C, Chow E, Franssen E, Thomas G.

1998  Patients with high-risk stage I ovarian carcinoma should receive platinum-based adjuvant chemotherapy. A GOG Educational Symposium. Toronto, Ontario. Thomas G.


1996  Whole abdominal radiotherapy alone or preceded by 2 cycles of cisplatin in the post-operative management of ovarian cancer with chemotherapy at time of relapse. Annual Meeting of Royal College of Physicians and Surgeons of Canada. Morton G, Lavery B, Thomas G, Ackerman I, Covens A, Osborne R.


Lectures and Other Presentations


1982  The role of radiation in the treatment of cancer of the endometrium. W.W. Cross Institute. Edmonton,

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

1987 **Visiting Professor.** Department of Radiation Oncology, University of Western Ontario. London, Ontario.

Lectures and Other Presentations


1995 **Chair.** Measuring the value and counting the cost of palliative radiotherapy - what are our questions? Controversies in Palliative Radiotherapy: Focus on Indications and Fractionation. Toronto, Ontario.


1981 Seminoma: The Princess Margaret Hospital experience. Ontario Cancer Treatment and Research Foundation, Hamilton Centre.


1980 Endometrial cancer: Problems in the study of treatment methods. Symposium on Advances in
4. LOCAL

Lectures and Other Presentations


1993  Role surveillance for seminomatous and non-seminomatous germ cell tumours. Urology Update 1993, Continuing Education, Faculty of Medicine, University of Toronto, Department of Surgery, Division of Urology. Toronto, Ontario. (Continuing Education).


1989  Cancer of vulva -- tailored treatment with Dr. P. Bryson, Dr. T. Colgan. Annual Review Course in Obstetrics and Gynecology, University of Toronto.


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


Postgraduate MD

2009 - 2010  Primary Supervisor. Dr. Behzad Banihashemi.
2008 - 2009  Primary Supervisor. Dr. Jennifer Forrest.
2005 - 2006  Primary Supervisor. Dr Marie Claude Beauchemin.

2000 - 2001  Primary Supervisor. Dr. Viet Do.


1998 Dec  Primary Supervisor. Dr. John Boyle.

1998 - 1999  Primary Supervisor. Dr. Choan E.


1996  Primary Supervisor. Dr. Stephane Laframboise.


1994 - 1995  Primary Supervisor. Dr. David Hoegler.

1993 - 1994  Primary Supervisor. Dr Clare Faul.


1992  Primary Supervisor. Dr. Laurie Elit.


1978 - 1979  Primary Supervisor. Dr. Wyman Bethune.

2. OTHER SUPERVISION

Graduate Education

Thesis Examiner


External (international) Examiner

2002  PhD. Dr E Pras.
Curriculum Vitae

Richard Wing-Chi Tsang  
M.D., F.R.C.P. (C)

A. Date Curriculum Vitae is Prepared: 2016 August 2

B. Biographical Information

Primary Office  
Department of Radiation Oncology  
Princess Margaret Hospital  
610 University Avenue  
Toronto, Ontario, Canada  
M5G 2M9

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416-946-6513

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647-201-3478

Fax  
416-946-4586

Email  
richard.tsang@rmp.uhn.on.ca

1. EDUCATION

Degrees

1977 - 1981  
MD, University of Ottawa

1975 - 1977  
Undergraduate Year 1 and 2, Faculty of Arts and Science, Western University, London, Ontario, Canada

Postgraduate, Research and Specialty Training

1989  
Visiting Research Fellow, Gray Laboratory, Cancer Research Campaign, Mount Vernon Hospital, Northwood, United Kingdom

1985 - 1988  
Resident, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

1982 - 1985  
Resident, Internal Medicine, University of Ottawa, Ottawa, Ontario, Canada

1981 - 1982  
Intern, St. Michael’s Hospital, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

1988 - present  
Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada

1986 - present  
Fellow, Internal Medicine, Royal College of Physicians and Surgeons of Canada

1982 - present  
Fellow, College of Physicians and Surgeons of Ontario

1990  
Certificate, Radiation Oncology, American Board of Radiology

1985  
Diplomate, American Board of Internal Medicine

1982  
Licentiate, Medical Council of Canada (LMCC), Canada

1982  
Diplomate, National Board of Medical Examiners, United States
2. EMPLOYMENT

Current Appointments

2008 Jul - present  
Professor, Radiation Oncology, University of Toronto

2007 - present  
Associate Director of Clinical Programs, Radiation Medicine Program, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada

1990 - present  
Staff Radiation Oncologist, Princess Margaret Hospital, University Health Network, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL

1998  
Clinical Assistant, Department of Radiation Oncology, Princess Margaret Hospital-Ontario Cancer Institute, Toronto, Ontario, Canada

1994 - 1996  
Consultant Staff, Medicine, Wellesley Hospital, Toronto, Ontario, Canada

UNIVERSITY - RANK

2000 - 2008  
Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

1994 - 2000  
Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

1990 - 1993  
Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

1999 Jul  
Travel Award, Radiation Research Society, Dublin, Ireland. (Research Award)
For the 11th International Congress of Radiation Research. Total Amount: 730

1998 Apr  
The International Karl Musshoff Prize, Fourth International Symposium on Hodgkin’s Lymphoma, Cologne, Germany. (Research Award)
Best clinical abstract.

PROVINCIAL / REGIONAL

Received

1989  
Goldberg Fellowship, Ontario Cancer Institute, Ontario, Canada. (Research Award)
For Cancer Research.

Teaching and Education Awards

LOCAL

Received

2007 - 2008  
Individual Teaching Excellence Award, Dept of Radiation Oncology, Faculty of Medicine, The Wightman-Berris Academy, Mount Sinai and University Health Network Hospitals, University of Toronto, Toronto, Ontario, Canada. (Postgraduate MD, Core Program)
Postgraduate medicine category.

2003  
Residents’ award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada. (Postgraduate MD)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1999 - present  Member, Canadian Bone Marrow Transplantation Group
1998 - present  Member, American Society of Therapeutic Radiology and Oncology
1992 - present  Member, Canadian Association of Radiation Oncologists
1989 - present  Member, Radiation Research Society
1981 - present  Member, Canadian Medical Protective Association
1981 - present  Member, Ontario Medical Association
1981 - 1985  Member, American College of Physicians

Administrative Activities

INTERNATIONAL

American Board of Radiology
2007 - present  Chair, Written Examination Committee for the Lymphoma-Leukemia category, United States. Responsible for the overall management and question selection for the upcoming Radiation Oncology qualifying examinations, and management of the questions pool.
2004 - present  Member, Written examination Angoff Panel, Lymphoma-Leukemia category, United States. Determination of the pass-fail cutoff for each examination question in the Clinical Oncology examination.

International Union Against Cancer (UICC)
2001 - 2006  Member, Expert Advisory Panel on Skin Tumours, Geneva, Switzerland.

Trans-Tasman Radiation Oncology Group
2006 - present  Member, Trials Management Committee

NATIONAL

Canadian Association of Radiation Oncologists (CARO)
2005 - 2009  Secretary/Treasurer, Executive, Canada.
2005 - 2009  Member, Board of Directors, Canada.
2003 - 2012  Member, Finance and Audit Committee, Canada.
1998 - 2001  Member, Manpower and Standards Committee, Canada.

National Cancer Institute of Canada
2006 - present  Member, Lymphoma Subcommittee, Canada.

Pituitary Tumor Support Network
1996 - 2006  Member, Medical Advisory Committee, Canada.
2008 - 2011 Vice Chair, Executive, Ontario, Canada.

LOCAL
Princess Margaret Hospital
2001 - present Site Group Leader, Lymphoma, Radiation Medicine Program, Toronto, Ontario, Canada.
2003 - 2006 Executive, Radiation Oncologists-PMH (Department Practice Plan), Toronto, Ontario, Canada.
1996 - 1999 Executive, Radiation Oncologists-PMH (Department Practice Plan), Toronto, Ontario, Canada.
1995 - 1997 Member, Medical Advisory Committee, Toronto, Ontario, Canada.
1995 - 1997 Chair, Ambulatory Care Committee, Toronto, Ontario, Canada.
1994 - 1995 Member, Ambulatory Care Committee, Toronto, Ontario, Canada.
1993 - 2001 Site Group Leader, Endocrine Oncology, Radiation Medicine Program, Toronto, Ontario, Canada.
1992 - 2001 Member, Clinical Teachers Association of Toronto, Toronto, Ontario, Canada.
1992 - 1993 Secretary, Medical Staff Association, Toronto, Ontario, Canada.

The Toronto Hospital
1998 - 2006 Member, Radiation Trauma Unit, Toronto, Ontario, Canada.

University of Toronto/Michener Institute
2006 - 2012 Chair, Board of Examiners, Medical Radiation Sciences Program, Toronto, Ontario, Canada.
2005 - 2006 Member, Board of Examiners, Medical Radiation Sciences Program, Toronto, Ontario, Canada.

Peer Review Activities
EDITORIAL BOARDS
Editor
2007 - present Hematologic Oncology

MANUSCRIPT REVIEWS
Reviewer
1991 - present Bone Marrow Transplantation
1991 - present Cancer
1991 - present Journal of Clinical Oncology
1991 - present Leukemia & Lymphoma
1991 - present Radiotherapy and Oncology
C. Academic Profile

1. RESEARCH STATEMENTS

Expert in Radiation Therapy of Hematologic Malignancies.
To study the role of radiation therapy, for early stages of lymphoma, and when given in the setting of bone marrow transplantation.
My research focuses on defining the use of radiation therapy in rare hematologic malignancies, specifically extranodal MALT lymphoma, and solitary plasmacytoma. I have defined the role of radiation therapy through original work in stage I and II MALT lymphomas, which resulted in several peer-reviewed papers (see publications 33, 37, 50, 57). Prior to my work first published in 2001, the role of radiation therapy was not clearly defined in non-gastric stage I/II MALT lymphomas. I have authored and co-authored textbook chapters, and review articles on this subject. I have also lectured extensively on this topic. My research studies on solitary plasmacytoma have refined the factors that determine prognosis in this disease, particularly the importance of tumor bulk. This also resulted in collaborative studies internationally (see publications 35, 60, 62). I have authored and co-authored textbook chapters, and review articles on this subject. I am principal investigator in seven on-going clinical trials of hematologic malignancies at Princess Margaret Hospital, University Health Network.
My work in Hodgkin Lymphoma received recognition at the 4th International Symposium on Hodgkin’s lymphoma with the Karl Musshoff Award for the best clinical abstract (1998). As a result of this work (publication # 26), the clinical practice of administering radiotherapy in Toronto before stem cell transplantation was changed to the post-transplant period. This has become the most common accepted world-wide practice. I have continued with this area of research and have numerous publications in a similar line of work, defining toxicities of total body radiation therapy when given in the setting of stem cell transplantation in patients with lymphoma, and multiple myeloma. Each of these collaborative projects have changed the clinical practice in Toronto (see publications # 15, 20, 29, 34, 43, 44, 51, 52, 67). I have supervised residents and fellows in these areas of research, which had included a recent UICC-funded international technology transfer fellow. I have continued to study innovative ways of applying radiation therapy in difficult and specific situations, e.g. with novel fractionation regimens (publication 61), and conduct clinical trials in radioimmunotherapy, and assessing the role of FDG-PET in lymphoma.

The selective use of Radiation Therapy in Thyroid cancers.
Other research accomplishments include the study of endocrine neoplasm, specifically thyroid cancer (publications #8, 10, 12, 18, 1, 22, 24, 38, 55, 64, 68, 69). Together with my colleague Jim Brierley, we have performed original research in the management of thyroid cancer, including staging, radioactive iodine, and criteria for selection of patients who benefit from external beam radiation therapy. I have authored and co-authored textbook chapters, and review articles on this subject. Other related areas include staging, and policy issues in management of lymphomas and thyroid cancers (publications # 4, 6, 12, 18, 21, 22, 24, 40, 41, 47, 49, 59, 68), and late effects of radiation therapy (publication # 5, 23, 63, 65, 66).
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


NON-PEER-REVIEWED GRANTS

FUNDED

2002 - present Principal Investigator. A randomised multicentre trial of involved field Radiotherapy versus involved field radiotherapy plus chemotherapy for stage I-II low grade follicular lymphoma. Trans-Tasmin Radiation Oncology Group. [Clinical Trials] Principal Investigator at PMH/UHN.

1987 - present Co-Investigator. A multi-institution, North American prospective database for thyroid cancer. The National Thyroid Cancer Treatment Cooperative Study Group. PI: Sherman, S., Brierley, J. [Clinical Trials]

2007 - 2011 Principal Investigator. Positron emission tomography for staging and treatment assessment of response in lymphomas, The PET-STAR lymphoma study. Princess Margaret Hospital Foundation. [Clinical Trials]


2006 - 2012 Principal Site Investigator. A prospective single arm trial of involved field radiotherapy alone for stage I – II low grade non-gastric marginal zone lymphoma. Trans-Tasmin Radiation Oncology Group. PI: Manus, M. Mac. [Clinical Trials] Principal Investigator at PMH/UHN. Trials Management Committee Member.

2005 - 2011 Principal Investigator. Molecular genetics study of Mucosa-Associated Lymphoid Tissue Lymphomas with fluorescent in-situ hybridization (FISH) technique from archival biopsy specimens. Princess Margaret Hospital Foundation. [Clinical Trials]


2004 - 2006 Principal Investigator. A single arm, open label, multicentre, phase II study of tositumomab and iodine I 131-tositumomab in subjects with indolent non-Hodgkin’s lymphoma who have
previously received rituximab. GlaxoSmithKline Inc. [Clinical Trials]

2004 - 2005  **Co-Investigator.** A phase I dosimetry and dose escalation study of lymphorad-131 (LR131; iodine I 131 labeled B-lymphocyte stimulator) in patients with relapsed or refractory multiple myeloma, or following autologous stem cell transplant LR131-MM02, and LR131 MM03. Human Genome Science, Inc. PI: Reece, Donna. [Clinical Trials]

2004 - 2005  **Principal Investigator.** A phase II study evaluating the safety and efficacy of ABT-510 in subjects with refractory lymphoma, Abbott protocol M02-457. Abbott Inc. [Clinical Trials]

2003 - 2005  **Co-Investigator.** A phase I dosimetry and dose escalation study of lymphorad-131 (LR131; iodine I 131 labeled B-lymphocyte stimulator) in patients with non-Hodgkin's lymphoma, LR131-NHL01. Human Genome Science, Inc. PI: Crump, Michael. [Clinical Trials]

2003 - 2004  **Co-Investigator.** Efficacy and safety of subsequent treatment with 90Y-ibritumomab tiuxetan versus no further treatment in patients with stage III or IV follicular non-Hodgkin’s lymphoma having achieved partial or complete remission after first line chemotherapy. A prospective, multicenter, randomized phase III trial. Berlex Canada Inc. PI: Crump, Michael. [Clinical Trials]

2002 - 2003  **Co-Investigator.** A randomized, double-blind, placebo-controlled trial of recombinant human keratinocyte growth factor (rHuKGF) in patients with hematologic malignancies undergoing total body irradiation (TBI) and high-dose chemotherapy with autologous peripheral blood progenitor cell (PBPC) transplantation. Amgen. PI: Keating, Armand. [Clinical Trials]


1999 - 2000  **Collaborator.** Familial thyroid cancer genetic study. Princess Margaret Hospital. PI: Dr. Tuya Pal, and Dr. Steven Narod. [Clinical Trials]

### E. Publications

#### 1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

Journal Articles


29. Sawka AM, Straus S, Gafni A, Brierley JD, Tsang RW, Rotstein L, Ezzat S, Thabane L, Rodin G, Meiyappan S, David D, Goldstein DP. How can we meet the information needs of patients with early stage papillary thyroid cancer considering radioactive iodine remnant ablation? Clin Endocrinol (Oxf). 2011;74(4):419-23. **Coauthor or Collaborator.**


100. **Tsang RW, Brierley JD, Simpson WJ, Panzarella T, Gospodarowicz MK, Sutcliffe SB.** The effects of surgery, radioiodine, and external radiation therapy on the clinical outcome of patients with differentiated thyroid carcinoma. Cancer. 1998;82(2):375-88. **Principal Author.**

101. Hodgson DC, Brierley JD, **Tsang RW, Panzarella T.** Prescribing 131Iodine based on neck uptake produces effective thyroid ablation and reduced hospital stay. Radiother Oncol. 1998;47(3):325-30 (Trainee publication, resident supervised: Hodgson D). **Senior Responsible Author.**

102. Chow E, **Tsang RW, Brierley JD, Filice S.** Parathyroid carcinoma--the Princess Margaret Hospital experience. Int J Radiat Oncol Biol Phys. 1998;41(3):569-72 (Trainee publication, resident supervised: Chow E). **Senior Responsible Author.**

103. Brierley JD, Panzarella T, **Tsang RW, Gospodarowicz MK, O'Sullivan B.** A comparison of different staging systems predictability of patient outcome. Thyroid carcinoma as an example. Cancer. 1997;79(12):2414-23. **Coauthor or Collaborator.**


110. Müller CG, Bayley TA, Harrison JE, **Tsang R.** Possible limited bone loss with suppressive thyroxine therapy is unlikely to have clinical relevance. Thyroid. 1995;5(2):81-7. **Coauthor or Collaborator.**

111. Pressacco J, Mitrovski B, Hedley DW, **Tsang R, Erlitchman C.** Biochemical modulation of iododeoxyuridine by N6-[4-(morpholinosulfonyl)benzyl]-N6-methyl-2,6-diaminobenz[c,d]indole glucuronate (AG-331) leading to enhanced cytotoxicity. Biochem Pharmacol. 1995;50(1):55-60. **Coauthor or Collaborator.**


**Letters to Editor**


**Comment, Journal Articles, Letters to Editor**

1. Sawka AM, Brierley JD, **Tsang RW**, Rotstein L, Ezzat S, Goldstein DP. Unmet Information Needs of Low-Risk Thyroid Cancer Survivors. Thyroid. 2016 Mar 1;26(3):474-5. **Coauthor or Collaborator**.

**3. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**


15. Goda JS, **Tsang RW**. Involved field radiotherapy for limited stage Hodgkin Lymphoma: Balancing treatment efficacy against long-term toxicities. Hematological Oncology 27: 115-22, 2009. **Senior Responsible Author.**


4. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2008 Sep  Management of primary, refractory and recurrent diffuse large B-cell and other aggressive Lymphomas. 50th Meeting of the American Society for Therapeutic Radiology and Oncology. Boston, Massachusetts, United States. Educational Session #405. (Continuing Education).


2007 Oct  Management of primary, refractory and recurrent diffuse large B-cell and other aggressive Lymphomas. 49th Meeting of the American Society for Therapeutic Radiology and Oncology. Los Angeles, California, United States. Educational Session #311. (Continuing Education).


2005 Jun  Discussion Leader. MALT Lymphoma. 9th International Conference on Malignant Lymphoma. Lugano, Switzerland.


2005 Jan  Involved-field radiation therapy for Hodgkin’s Disease: Coming full circle. Postgraduate Rounds, Emory University Radiation Oncology. Atlanta, Georgia, United States.

2005 Visiting Professor. Radiation therapy for Hodgkin’s and non-Hodgkin’s lymphomas. Emory University, Department of Radiation Oncology. Atlanta, Georgia, United States. (Continuing Education).


2002 Sep  Radiation therapy in MALT lymphomas. Recent Developments in Gastric MALT lymphoma, a meeting jointly organized by the European Gastro-Intestinal Lymphoma Study Group (EGILS) and British Society of Gastroenterology, Gastro-Duodenal Sectio. London, United Kingdom.

2001 Nov  Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 43rd Meeting of the American Society for Therapeutic Radiology and Oncology. San Francisco, California, United States. Refresher course 405.

2000 Oct Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 42nd Meeting of the American Society for Therapeutic Radiology and Oncology. Boston, Massachusetts, United States. Refresher course 404. (Continuing Education).


2000 Oct **Invited Panelist.** Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 42nd Meeting of the American Society for Therapeutic Radiology and Oncology. Boston, Massachusetts, United States. Refresher course 402. (Continuing Education).


1999 Oct Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 41st Meeting of the American Society for Therapeutic Radiology and Oncology. San Antonio, Texas, United States. Refresher course 402. (Continuing Education).


1998 Skin Carcinomas, radiobiological principles, radiotherapeutic techniques and clinical management. 40th Meeting of the American Society for Therapeutic Radiology and Oncology. Phoenix, Arizona, United States. Refresher course 308. (Continuing Education).

1989 Proliferation after accelerated fractionation of X-rays in mouse skin. Gray Laboratory seminar, CRC Gray Laboratory. Northwood, United Kingdom.

**Presented Abstracts**


2008 Aug  

2005 Oct  

2004 Dec  

2004 Dec  

2004 Oct  

2003  
Presenter. Outcome and patterns of failure in solitary plasmacytoma: A multicenter rare cancer network study on 258 patients. ECCO 12, the European Cancer Conference. Copenhagen, Denmark. Presenter(s): Tsang, R. Ozasahin, M., Poortmans, P., Belkacemi, Y., Bolla, M., Oner, F., Landmann, C., Castelain, B., Buijsen, J., Knobel, D.

2003  
Localized mucosa-associated lymphoid tissue (MALT) lymphoma treated with radiation therapy has excellent outcome. ECCO 12, the European Cancer Conference. Copenhagen, Denmark. Presenter(s): Tsang, R. W., Gospodarowicz, M. K., Pintilie, M., Wells, W., Hodgson, D.C., Sun, A., Crump, M., and Patterson, B. J.

2003  
Pretreatment proliferation parameters do not add to the predict power of clinical factors in cervix cancer treated with definitive radiation therapy. 45th Meeting of the American Society for Therapeutic Radiology and Oncology. Salt Lake City, Utah, United States. Presenter(s): Tsang, R. W., Juvet, S., Pintilie, M., Hill, R.P., Wong, S., Milosevic, M., Chapman, W., Fyles, A.W.

2002  
Radiation therapy has curative potential in stage I and II MALT lymphomas. The 8th International Conference on malignant lymphoma. Lugano, Switzerland. Presenter(s): Tsang, R. W., Gospodarowicz, M. G., Pintilie, M., Wells, W., Hodgson, D., Sun, A., Patterson, B. and Crump, M.

2002  
Localized extranodal marginal zone B-cell lymphoma: Clinical outcome with radiation therapy. 44th Meeting of the American Society for Therapeutic Radiology and Oncology. New Orleans, Louisiana, United States. Presenter(s): Tsang, R. W., Gospodarowicz, M. K., Pintilie, M., Wells, W., Hodgson, D., Sun, A., Patterson, B. and Crump, M.

2000 Apr  

2000  
Mucosa-associated lymphoid tissue (MALT) lymphomas: Treatment results for localized disease. 42nd Meeting of the American Society for Therapeutic Radiology and Oncology. Boston, Massachusetts, United States. Presenter(s): Tsang, R. W., Gospodarowicz, M. K., Wells, W., Bezjak, A., Pintilie, M., Zanke, B., Hodgson, D.

1999  
<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Conference</th>
<th>Location</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>Improved survival and reduced local relapse following external beam radiotherapy in papillary thyroid cancer with microscopic residuum following surgical excision. 39th Meeting of the American Society for Therapeutic Radiology and Oncology. Orlando, Florida, United States.</td>
<td>Presenter(s): <strong>Tsang, R. W.</strong>, Panzarella, T., Gospodarowicz, M. K.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>The role of radiation therapy in differentiated thyroid cancer. The 11th International Thyroid Congress. Toronto, Ontario, Canada.</td>
<td>Presenter(s): <strong>Tsang, R. W.</strong>, Brierley, J. D., Simpson, W. J., Panzarella, T., Gospodarowicz, M. K., Sutcliffe, S. B.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. NATIONAL

Invited Lectures and Presentations


2008 Sep Lymphoma update. Annual Scientific Meeting of the Canadian Association of Radiation Oncology (CARO). Montreal, Quebec, Canada. Refresher Course. (Continuing Education).


2000 Jun Panelist. Current concepts in the management of thyroid nodular disease and cancer. CME course, Departments of Otolaryngology and Endocrinology, Mount Sinai Hospital, University of Toronto. Quebec City, Quebec, Canada. Organizer: Dr. Jeremy Freeman. (Continuing Education).

2000 May The role of radiation therapy in Hodgkin’s Disease. XXVth Convention of the Quebec Association of Hematologists and Oncologists. Quebec City, Quebec, Canada.


Presented Abstracts

2003 Tumour proliferation measurements do not predict clinical outcome in cervix cancer treated with radiation therapy. Annual meeting of the Canadian Association of Radiation Oncologists. Montreal, Quebec, Canada. Presenter(s): Tsang, R., Juvet, S., Pintilie, M., Hill, R., Wong, S., Milosevic, M., Chapman, W., Fyles, A.
2002 Stage I/II mucosal-associated lymphoid tissue (MALT) lymphoma treated with radiation therapy has excellent local control and survival. Annual meeting of the Canadian Association of Radiation Oncologists. Toronto, Ontario, Canada. Presenter(s): Tsang, R. W., Gospodarowicz, M. K., Pintilie, M., Wells, W., Laperriere, N., Payne, D., Hodgson, D., Sun, A., and Patterson, B.

1999 Relationship of oxygen tension and proliferation rate in carcinoma of the cervix. 68th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Montreal, Quebec, Canada. Presenter(s): Tsang, R. W., Fyles, A. W., Pintilie, M., Milosevic, M., Levin, W., Manchul, L. A., Syed, A.

1999 Solitary plasmacytoma treated with radiotherapy: Impact of tumour size on outcome. 68th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Montreal, Quebec, Canada. Presenter(s): Tsang, R. W., Gospodarowicz, M. K., Wells, W., Bezjak, A., Pintilie, M.


1995 The role of radiation therapy in differentiated thyroid cancer. 64th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Montreal, Quebec, Canada. Presenter(s): Tsang, R. W., Brierley, J. D., Simpson, W. J., Panzarella, T., Gospodarowicz, M. K., Sutcliffe, S. B.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2011 Sep  **Invited Speaker.** Multidisciplinary cancer cancer: MALT lymphoma as an example. Oncology grand rounds, Southlake regional cancer centre. New Market, Ontario, Canada.


1997 Apr  **Invited Speaker.** Role of radioactive 131Iodine and external beam radiation therapy in thyroid cancer. Hamilton Regional Cancer Centre. Toronto, Ontario, Canada. (Continuing Education).

1997  **Visiting Professor.** Management of thyroid cancer. Hamilton Regional Cancer Centre, Department of Radiation Oncology. Hamilton, Ontario, Canada. (Continuing Education).

1997  Role of radioactive 131Iodine and external beam radiation therapy in thyroid cancer. Hamilton Regional Cancer Centre. Hamilton, Ontario, Canada. (Continuing Education).


1995  **Visiting Professor.** Kingston Regional Cancer Centre, Department of Radiation Oncology. Kingston, Ontario, Canada. (Continuing Education).


4. LOCAL

Invited Lectures and Presentations

1990 **Visiting Professor.** Kingston Regional Cancer Centre, Department of Radiation Oncology. Kingston, Ontario, Canada. (Continuing Education).

2012 Sep **Invited Speaker.** Management of extanodal aggressive lymphomas and rare types. Princess Margaret Hospital. Toronto, Ontario, Canada. Toronto Lymphoproliferative diseases Conference (TLC).


2007 Sep Skin Cancer Management with Radiation Therapy. Medical Radiation Sciences Program, Michener Institute and University of Toronto. Toronto, Ontario, Canada.


1998 May **Invited Panelist.** Current concepts in the management of thyroid nodular disease and cancer. CME course, University of Toronto. Toronto, Ontario, Canada. (Continuing Education).


1992 **Speaker.** Refresher course in Radiation Oncology. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

1992 **Visiting Professor.** Toronto Sunnybrook Regional Cancer Centre, Department of Radiation Oncology. Toronto, Ontario, Canada. (Continuing Education).

1990 **Speaker.** Refresher course in Radiation Oncology. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

**Presented Abstracts**


**G. Teaching and Design**

1. **INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION**

2003 - 2006 Item writing Group, American Board of Radiology Writing examination questions for qualifying exam in Radiation Oncology, Lymphoma-Leukemia category.


**H. Research Supervision**

1. **PRIMARY OR CO-SUPERVISION**

**Undergraduate MD**


**Postgraduate MD**


2004 - 2005 **Primary Supervisor.** Dr. Gregory Czarnota. *Ultrasound biomicroscopy for monitoring apoptosis in lymphoma, melanoma, and basal cell carcinoma patients during chemotherapy or radiation therapy.*

2004 **Primary Supervisor.** Clinical Fellow. Dr. Peter Petersen. Supervisee Position: Consultant Oncologist, Supervisee Institution: Dept. of Oncology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark. *Long-term outcome for stage I/II Hodgkin’s Disease.*
2004  **Primary Supervisor.** Clinical Fellow. Dr. Peter Petersen. Supervisee Position: Consultant Oncologist, Supervisee Institution: Dept. of Oncology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark. *Results of combined modality therapy for stage I/II diffuse large cell lymphoma.*

2004  **Primary Supervisor.** Clinical Fellow. Dr. Peter Petersen. Supervisee Position: Consultant Oncologist, Supervisee Institution: Dept. of Oncology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark. *Long-term outcome of treatment for stage I/II follicular lymphomas.*

2004  **Primary Supervisor.** Dr. Chandra Martens. *Accelerated hyperfractionated radiotherapy in chemotherapy-resistant Non-Hodgkin’s lymphoma.*


1996  **Primary Supervisor.** Dr. David Hodgson. Supervisee Position: Staff Radiation Oncologist, Supervisee Institution: Princess Margaret Hospital. *Radioiodine therapy of thyroid carcinoma.*


2. OTHER SUPERVISION

**Graduate Education**

**Thesis Committee Member**

Curriculum Vitae

May N. Tsao
MD, FRCP(C)

A. Date Curriculum Vitae is Prepared: 2016 August 8

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre
Department of Radiation Oncology
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone (416) 480-4806
Fax (416) 480-6002
Email may.tsao@sunnybrook.ca

1. EDUCATION

Degrees
1989 - 1993 MD, Medicine, Medicine, Faculty of, University of Toronto, Canada

Postgraduate, Research and Specialty Training
2000 Jul 1 - 2002 Jun 30 Diploma, Clinical Epidemiology and Health Care Research, University of Toronto, Toronto, Ontario, Canada
1998 - 1999 Fellowship, CNS Radiation Oncology, Department of Radiation Oncology, University of California, San Francisco, United States
1993 - 1998 Residency, Radiation Oncology, Department of Radiation Oncology, University of Toronto, Canada

Qualifications, Certifications and Licenses
2009 DABR (recertification), United States
1999 DABR, United States
1998 FRCP(C), Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1994 MCCQE Part II, Canada
1993 MCCQE Part I, Canada

2. EMPLOYMENT

Current Appointments
2014 Jul - present Associate Professor, Radiation Oncology, University of Toronto
1999 - present Staff, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Canada
May N. TSAO

Previous Appointments

HOSPITAL
2005 - 2013 Dec 31  Associate staff, Department of Radiation Oncology, University Health Network, Canada  
(Toronto Western Hospital, Princess Margaret Hospital), The Gamma Knife Centre  

UNIVERSITY - RANK
2003 - 2014 Jun  Assistant Professor, Radiation Oncology, University of Toronto, Canada  
1999 - 2002  Lecturer, Radiation Oncology, University of Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
1998  ASTRO Basic Science Travel Award, American Society for Therapeutic Radiology and  
Oncology, United States. (Research Award)

NATIONAL
Received
1997  CARO Phillips Award, Canadian Association of Radiation Oncologists, Canada. (Research  
Award)  
(Resident Award for best oral presentation).

LOCAL
Received
1997  Resident Research Award, Honorable Mention, University of Toronto, Canada. (Research  
Award)
1988  John Melady Award, Faculty of Medicine, University of Toronto, Canada. (Distinction)
1987 - 1991  Open Admission Scholarship, University of Toronto, Canada. (Distinction)
1987 - 1989  Faculty Scholar, Faculty of Arts and Science, University of Toronto, Canada. (Distinction)

Teaching and Education Awards

LOCAL
Received
2015  Postgraduate Medical Education Excellence in Research Supervision, Dept of Radiation  
Oncology, Faculty of Medicine, University of Toronto

2012  Postgraduate Classroom Teaching Award, Dept of Radiation Oncology, Faculty of  
Medicine, University of Toronto. (Postgraduate MD)  
Radiation Oncology Residency Program.

2010  Excellence in clinical teaching, Dept of Radiation Oncology, Faculty of Medicine,  
University of Toronto, Canada. (Postgraduate MD)  
Residency program.
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1999 - present  member, American Society for Therapeutic Radiology and Oncology
1999 - present  member, Canadian Association of Radiation Oncology
1999 - present  member, Canadian Brain Tumour Consortium
1999 - present  member, Ontario Medical Association

Administrative Activities

INTERNATIONAL
American Society for Therapeutic Radiation Oncology
2015 Jan  Expert Reviewer: ASTRO Glioblastoma Guidelines

American Society for Therapeutic Radiology and Oncology
2009 - present  Member, Guidelines Task Group, United States.
2004 - 2010  Member, Health Services Research Committee

Society for Palliative Radiation Oncology (SPRO)
2015 Jan - present  Member, Research Committee
2015 Jan - present  Member, Education Committee

NATIONAL
Brain Tumor Consortium of Canada
1999 - present  Member
Associate member, Canadian Brain Tumour Network.

Canadian Association of Radiation Oncology
2000 - present  Member, Symptom Control Task Force

PROVINCIAL / REGIONAL
Cancer Care Ontario
2003 - present  Member, Neuro-Oncology Disease Site Group, Ontario, Canada.
2003 - present  Member, Supportive Care Disease Site Group, Ontario, Canada.

LOCAL
Odette Cancer Centre
2005 Jul 1 - 2013 Jun 30  Leader, Radiation Oncology CNS Site Group Leader
2005 Jul 1 - 2013 Jun 30  Leader, CNS Site Group Leader

University of Toronto
2014 Apr - present  Faculty of Medicine, Dept of Radiation Oncology, Graduate Education
2014 - present  Member, Medical Radiation Sciences, Board of Examiners
2014 - present  Coordinator, Applied Physics Course, Radiation Oncology Residency
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2008 Jul 1 - 2013 Jun 30 Director, Undergraduate Medical Education, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD

2005 May 1 - 2008 Jul 1 Member, Radiation Oncology Residency Curriculum and Objectives Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2005 May - 2008 Jan 1 Member, CD-ROM Imaging for Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2002 - 2013 Jun 30 Member, Undergraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer

2014 Cochrane Library
Can J of Neurol Sci
Cancer
Clinical Oncology
Crit Rev Oncol Hematol
Int J Radiat Oncol Biol Phys
J Palliat Care
Neuro-oncol
Radiother Oncol

OTHER

Editorial Member (Scientific Peer Reviewed Journal)

2015 Jan - present Annuals of Palliative Medicine - Palliative Radiotherapy Subcommittee

C. Academic Profile

1. RESEARCH STATEMENTS

2002 Aug - 2013 Jul 1 Research statement:
My research focuses on the development of professional practices under two themes:

1. Treatment guidelines and management of brain metastases
2. Treatment guidelines and management of malignant gliomas.

2. TEACHING PHILOSOPHY

My teaching philosophy has emerged from my experience with outstanding teachers I have had during my training. From their example, I have modeled an approach that captures the following principles:

1) incite interest
2) solidify basic principles
3) clarify difficult topics
4) improve retention of knowledge gained using relevance and repeated exposure to knowledge gained in different
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settings

From this foundation, I have had the honour of teaching trainees who have later become successful in their own careers.

The following are some specific examples of my significant contributions to undergraduate and postgraduate medical teaching.

Undergraduate Medicine: From July 2008 to June 2013, I served as Undergraduate Medical Education Director, University of Toronto, Department of Radiation Oncology. This involved overseeing all aspects of teaching Radiation Oncology to undergraduate medical students at the University of Toronto, Department of Radiation Oncology. I was responsible for medical student rotations in Radiation Oncology. Yearly annual reports summarizing activities in undergraduate medical education in the Department of Radiation Oncology were provided. I actively participated as the Peters-Boyd Academy Determinants of Community Health II Supervisor and Agency Research supervisor. I am the Transition to Residency supervisor for Radiation Oncology at Odette Cancer Centre. Other significant contributions include supervising and teaching numerous medical students as outlined in my teaching dossier.

Postgraduate Medicine: I have significantly contributed to teaching post graduate trainees as outlined in my teaching dossier. In 2012, I won the Postgraduate Classroom Teaching Award. In 2010, I won the Excellence in Clinical Teaching Award, Department of Radiation Oncology, Residency Program, University of Toronto.

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

My Creative Professional Activity (CPA) is based on contributions to the development of professional practices and is focused on two themes.

Theme 1: Treatment guidelines and management of brain metastases.

This theme also includes meta-analysis, namely critical evaluation and pooling of outcomes in randomized trials for the management of brain metastases to guide practice by evaluating whether a) radiation treatments are associated with beneficial effects and b) the magnitude of these effects.

My CPA has helped define standard evidence-based radiation practice nationally and internationally for patients with brain metastases. This effort has lead to promotion of good clinical practice as an extensive body of medical literature has been thoroughly reviewed, synthesized, combined and analyzed statistically. Recommendations based on levels of evidence have been formulated. The guidelines produced have been accepted nationally [eg. through Cancer Care Ontario (CCO)] and internationally [eg. through the American Society of Therapeutic Radiation Oncology (ASTRO)]. Rigorous external review and extensive practitioner feedback were obtained prior to finalizing these guideline documents. Furthermore, the ASTRO brain metastases guidelines have resulted in an ASTRO self assessment module for Radiation Oncologists and metrics for the ASTRO Radiation Oncology Practice Accreditation Program (ROPA).

Theme 2. Evidence based guidelines on the role of focused radiation (radiosurgery) in the management of malignant gliomas.

My work on the ASTRO evidence-based review on the role of radiosurgery for malignant gliomas is internationally recognized for demonstrating the lack of benefit to the addition of radiosurgery boost in patients with malignant gliomas.

My contribution to the radiation management for malignant gliomas includes our series of patients with primary malignant glioma (glioblastoma). We demonstrated the imaging follow-up phenomenon of “pseudo-progression” where the brain cancer appears larger with more swelling after radiotherapy due to radiation effect rather than true tumour progression. This phenomenon of “pseudo-progression” is now a recognized radiographic pattern. Our findings have altered practice in that maintenance chemotherapy is generally not abandoned on the basis of seemingly worse imaging features identified within the first three months of concurrent radiation and chemotherapy.

D. Research Funding
1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDING

2013 Oct - present  

2015 Dec - 2016 Dec  
Co-Investigator. A study of elderly glioblastoma patients managed at Odette Cancer Centre, evaluating post-diagnosis hospitalization and risk factors associated with hospitalizations. PBR Seed Grant Awards. Practice-Based Research and Innovation Seed Grand Program. PI: Moroney C. Collaborator(s): Bilodeau D, Tsao M. 10,000. [Grants]

2015 Sep - 2017 Aug  
Collaborator. A Mindfulness-Based Intervention to Improve Quality of Life Among Brain Tumor Survivors. Brain Tumor Foundation of Canada. PI: Ellis J, Selchen S. Collaborator(s): Perry J, Sahgal A, Soliman H, Tsao M, Moroney C, Bilodeau D. 25,000 CAD. [Grants]

2008  

2005  

2003 - 2006  

2002  

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


7. Chow R, Tsao M, Pulenzas N, Zhang L, Sahgal A, Cella D, Soliman H, Danjoux C, DeAngelis C, Vuong S, Chow E. Do patients with brain metastases selected for whole brain radiotherapy have worse baseline quality of life as compared to those for radiosurgery or neurosurgery (with or without whole brain radiotherapy)? Annals of Palliative Medicine. 2016 Jan 5;5(1):1-12. **Coauthor or Collaborator.**


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58. **Tsao MN**, Xu W, Sahgal A. A meta-analysis evaluating stereotactic radiosurgery, whole-brain radiotherapy, or both for patients presenting with a limited number of brain metastases. Cancer. 2012. 118(9):2486-93. **Principal Author.**


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**Book Chapters**


**Letters to Editor**

3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


**Commentaries**

1. **Tsao MN.** Motexafin gadolinium prolongs time to neurologic progression in lung cancer patients with brain metastases: Results of a randomized phase III trial. Oncology Exchange. 1(2); 21, 2002. **Principal Author.**

**4. SUBMITTED PUBLICATIONS**

**Book Chapters**


**F. Presentations and Special Lectures**

**1. INTERNATIONAL**

**Invited Lectures and Presentations**


2010 Nov 3 **Invited Speaker.** International perspectives on palliative care-updates from the third international conference on metastases. ASTRO 2010 Annual Meeting. San Diego, California, United States. Presenter(s): Tsao MN.

2010 Nov 1 **Invited Speaker.** Upcoming ASTRO guidelines: a focus on palliative care. ASTRO 2010 Annual Meeting. San Diego, California, United States. Presenter(s): Tsao MN.


2005 Apr 2 **Invited Lecturer.** Brain metastases. ASTRO Spring Refresher Course. Chicago, Illinois, United States. Presenter(s): Tsao MN.

2004 Oct 4 **Invited Speaker.** ASTRO Technology Assessment experience from 3-D conformal radiotherapy to stereotactic radiosurgery. ASTRO Annual Meeting. Atlanta, Georgia, United States. Presenter(s): Tsao MN.

**Presented Abstracts**


2014 Sep 1 **Collaborator.** Cone Beam CT (CBCT) Based Evaluation of a Noninvasive Stereotactic Head Frame Equipped with a Vacuum Fixation Bite-Block for Radiosurgery. American Society for Therapeutic


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:
2. NATIONAL

Invited Lectures and Presentations

2003 Oct 2  Invited Lecturer. Meta-analysis versus subsequent large randomized controlled trials. CARO Cochrane Workshop. Montreal, Quebec, Canada. Presenter(s): Tsao MN.


Presented Abstracts


2001 Sep 22 Invited Lecturer. Arteriovenous malformations (AVM’s) treated at the Toronto-Sunnybrook Regional Cancer Centre. Canadian Association of Radiation Oncologists. Quebec City, Quebec, Canada. Presenter(s): Tsao MN, Schwartz M, TerBrugge K, Burststein A, Scora D, Young C, Szumacher E, Butany
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R, Schwartz A. Podium.


**Presented and Published Abstracts**


2014  **Co-Author or Collaborator**. Ten Year Experience of A Research Student Program (2004-2013) - The Odette Cancer Centre Rapid Response Radiotherapy Program Experience. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Danjoux D, Pulenzas N, Lechner B, Bedard G, Wong E,

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Co-Author or Collaborator. Radiotherapy for the Prophylaxis of Heterotopic Ossification: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Canadian Association of Radiation Oncologists (CARO).


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Invited Lectures and Presentations


2003 Mar 22 Invited Lecturer. CNS Radiation Oncology. OMART Central Section Education Day. Toronto, Ontario, Canada. Presenter(s): Tsao MN. (Continuing Education).

4. LOCAL

Invited Lectures and Presentations


2015 May 19 Presenter. Experimental Molecular Targeted Agents for Brain Metastases: The New Vocabulary of IBS and MABS. Odette Cancer Centre, RRRP Rounds.


2014 Dec 11 Invited Speaker. Fractionated Radiosurgery for Large Brain AVMs. Sunnybrook Health Sciences Centre, Brain Sciences Rounds. Toronto, Ontario, Canada. Presenter(s): Dr. May Tsao.


Lectures and Other Presentations

2009 Jan 30  **Invited Lecturer.** Radiation oncology emergencies. Sunnybrook Emergency staff, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2006 Jan 10  **Invited Lecturer.** Management of brain metastases. Radiation Oncology – palliative care specialists meeting, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2005 Apr 27  **Invited Speaker.** PET imaging in patients with glioblastoma multiforme. A study proposal. CNS site group Grand Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2004 Nov 26  **Invited Lecturer.** Treatment of acoustic neuromas. University of Toronto Neurosurgery Resident Lecture, University Health Network- Toronto Hospital. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2004 May 26  **Invited Lecturer.** CCO guidelines on radiotherapy management for patients with brain metastases. Oncology Grand Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2004 May 5  **Invited Lecturer.** ASTRO technology assessment of radiosurgery for malignant glioma. Oncology Grand Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2003 Nov 25  **Invited Lecturer.** Issues in the management of patients with brain metastases: Case-based discussions. RRRP Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2003 Jan 28  **Invited Lecturer.** Quality of life in patients with brain metastases. RRRP Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2001 Oct 10  **Invited Lecturer.** CNS Radiation Oncology. Oncology Ground Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2001 Sep 14  **Invited Lecturer.** Radiosurgery for arteriovenous malformations. University of Toronto Neurosurgery Resident Lecture, University Health Network – Toronto General Hospital. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).


2000 Feb 22  **Invited Lecturer.** Intensity-modulated radiation therapy at TSRCC. Radiation Oncology Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

2000 Feb 2  **Invited Lecturer.** CNS site group: Annual Update- Radiosurgery. Oncology Grand Rounds, Toronto-Sunnybrook Regional Cancer Centre / Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **Tsao MN.** (Continuing Education).

5. OTHER

Presented and Published Abstracts

2014 Sep  **Collaborator.** Cone Beam CT (CBCT) - Based Evaluation of a NonInvasive Stereotactic Head Frame Equipped with a Vacuum Fixation Bite-Block for Radiosurgery. American Society for Therapeutic...
Radiology and Oncology (ASTRO).

Publication Details:

2014 Sep Collaborator. Factors Affecting Postoperative Surgical Cavity Volume and Surface Area Dynamics Specific to Brain Metastases. American Society for Therapeutic Radiology and Oncology (ASTRO).

Publication Details:


Publication Details:


Publication Details:

Other Presentations

Invited Speaker. ESTRO Palliative Care Committee. Barcelona, Spain. Presenter(s): Dr. May Tsao. SIB technique combinations with EBRT, outcome of newer systemic therapies.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


Undergraduate MD


therapy.

Postgraduate MD


H. Creative Professional Activities

1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2002 Aug - 2013 Jul  Theme 1: Treatment guidelines and management of brain metastases. The first theme of this CPA is my leadership role in the development of treatment guidelines in the management of brain metastases. Having had formal training in clinical epidemiology as well as clinical expertise in the management of brain metastases, I was able to serve as national and international chair as well as lead author for several papers dealing with treatment guidelines in the management of brain metastases.

These brain metastases guidelines have also resulted in the critical evaluation and pooling of outcomes in randomized trials for the management of brain metastases to guide practice by evaluating whether a) interventions are associated with beneficial effect and b) the magnitude of effect. Whereas medical intervention guidelines aim to guide decisions regarding management, meta-analyses involve statistically combining and contrasting results from different studies generating overall effect sizes and confidence intervals.

Highlights of this work include being chair and/or first author for the following peer-reviewed publications:

1) Cancer Care Ontario guidelines on brain metastases
   I was invited to lead the practice guideline report, Management of Brain Metastases: Role of radiotherapy alone or in combination with other treatment modalities under the auspices of the Supportive Care Guidelines Group and the Neuro-Oncology Disease Site Group for Cancer Care Ontario’s Program in Evidence-based care. This led to recommendations for the use of radiotherapy and surgery for single brain metastasis, radiotherapy for multiple brain metastases, and supportive care in patients with brain metastases. Practitioner feedback was also obtained from this guideline document.

   In recognition for my work with Cancer Care Ontario guidelines in brain metastases and in my involvement with ASTRO’s Health Services Research Committee, I was invited to chair and first-author ASTRO’s radiotherapeutic and surgical management for brain metastasis/es in 2009. The Guidelines Subcommittee of the Clinical Affairs and Quality Committee recruited a Task Group composed of recognized experts in the fields of radiotherapy, surgery and radiosurgery for brain metastases to work on these guidelines, chaired by myself. We formulated novel and useful tables to guide medical practitioners in the management of single or multiple brain metastases depending on prognostic categories and based on the various grades of evidence available.

3) A meta-analysis evaluating stereotactic radiosurgery, whole brain radiotherapy or both for patients presenting with a limited number of newly diagnosed brain metastases. In this paper, aggregate data from published randomized controlled trials comparing the following interventions were studied:
- Whole brain radiotherapy and radiosurgery versus whole brain radiotherapy.  
- Radiosurgery alone versus whole brain radiotherapy and radiosurgery boost.

This was the first published meta-analysis demonstrating no survival advantage among the interventions studied for patients with multiple brain metastases. The use of whole brain radiotherapy improved overall brain control. Radiosurgery alone (a focussed radiation technique used to treat small intracranial tumour targets) improved targeted lesion control when used with whole brain radiotherapy as compared to the strategy of using whole brain radiation alone. The possible advantage of radiosurgery alone was neurocognitive sparing as compared to whole brain radiotherapy.


This very comprehensive systematic review was undertaken to assess the effectiveness and adverse effects of whole brain radiotherapy in adult patients with multiple brain metastases. Randomized controlled trials in which adult patients with multiple metastases to the brain from any primary cancer treated with whole brain radiotherapy were included. Thirty-nine randomized controlled trials involving 10,835 participants were included in the last updated Cochrane review (2012). This publication clarified the benefits, side effects associated with the use of whole brain radiotherapy (alone or in combination with other therapies such as radiosensitizers, chemotherapy or radiosurgery) in the management of brain metastases.

My commitment as a Cochrane Collaboration contributor involved leading and first authoring the first Cochrane systematic review on the use of whole brain radiotherapy for the management of multiple brain metastases (initially published in 2007). This Cochrane Collaboration commitment continues indefinitely as regular updates to the systematic review will be published (last update published in 2012).

1) The Cancer Care Program in Evidence-Based Care provides evidence-based care information for health care providers and the public. This is an internationally recognized guideline development program. The aim is to provide clinicians and policy makers the best scientific evidence to support standard practice and policy decisions. The brain metastases guidelines have defined standard practice across Ontario.

2) The ASTRO evidence based brain metastases guidelines were also endorsed by the American Association of Neurological Surgeons/ Congress of Neurosurgeons. The ASTRO guidelines also resulted in an ASTRO self assessment module for Radiation Oncologists and metrics for the ASTRO Radiation Oncology Practice Accreditation Program (ROPA). This guideline is the under the “Most Read” category for the peer reviewed journal Practical Radiation Oncology and has been highlighted in an ASTRO endorsed webinar and podcast. Based on the Agency for Healthcare Research and Quality, United States Department of Health and Human Services, this ASTRO guideline has had 21,375 page views.

3) The meta-analysis evaluating stereotactic radiotherapy, whole brain radiotherapy or both for patients presenting with a limited number of metastases was recognized by the European Association of Neuro-Oncology as one of the best neuro-oncology papers in 2011 among a select group of papers by researchers around the world. This paper was published in Cancer (impact factor 4.771) in the year 2012.

4) The Cochrane Collaboration is an international network of more than 28,000 people from over 100 countries who work to develop internationally recognized high quality information about the effectiveness of health care. Cochrane Reviews are internationally acknowledged as the highest standard in evidence-based health care. In addition, the Cochrane Database of Systematic Reviews has an impact factor of 5.912 and is ranked in the top 10 out of the 153 journals in the Medicine, General and Internal category. The Cochrane review on whole brain radiotherapy for the treatment of multiple brain metastases provided independent high quality evidence for international health care decision making. Based on Google Scholar, the Cochrane meta-analysis (for which I am first author) has been cited 93 times.
My work in meta-analysis has led to invited collaborations with other peer-reviewed publications relating to lung cancer, bone metastases and psychosocial intervention.

This body of work has defined local, national and international standard of practice in the management of brain metastases. My scholarly activities in this area has led to several book chapters, invited presentations for colleagues and teaching sessions for medical students and residents.

2002 Aug - 2013 Jun 30 Theme 2: Treatment guidelines on the role of focussed radiation (radiosurgery) in the management of malignant gliomas.

The ASTRO evidence-based review on the role of radiosurgery for malignant glioma is internationally recognized for summarizing no benefit to the addition of radiosurgery boost after external beam radiotherapy as compared to external beam radiotherapy in patients with malignant gliomas. Outcomes of interest were overall survival, local control and quality of life.

This work in radiation management for malignant glioma includes our series of patients with primary malignant glioma (glioblastoma). Under my supervision, Dr. Paul Sanghera, a previous clinical fellow published our experience with glioblastoma patients treated with external beam radiotherapy and chemotherapy. We demonstrated the imaging follow-up phenomenon of “pseudo-progression” where the brain cancer appears larger with more swelling after radiotherapy due to radiation effect rather than true tumour progression. Dr. Sanghera is presently an oncology consultant at the Queen Elizabeth Hospital, Birmingham, UK.

ASTRO systematic review on the role of radiosurgery for malignant glioma has highlighted the lack of benefit for the use of radiosurgery boost as the initial management for patients with malignant gliomas. Based on Google Scholar, this publication has been cited 105 times.

The phenomenon of “pseudo-progression” is now a recognized radiographic entity and has also been reported by other independent brain tumour investigators. In our group of patients, a third of patients showed pseudo-progression within the first three months of concurrent radiation and chemotherapy. From these findings, maintenance chemotherapy is generally not discontinued on the basis of seemingly discouraging imaging features identified within the first three months of concurrent radiation and chemotherapy.
Curriculum Vitae

Yee Ung

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

Primary Office  Department of Radiation Oncology
     Odette Cancer Centre
     Sunnybrook Health Sciences Centre
     2075 Bayview Avenue
     Toronto, Ontario, Canada
     M4N 3M5
Telephone  416-480-4951
Fax  416-480-6002
Email  yee.ung@sunnybrook.ca

1. EDUCATION

Degrees
1981 - 1985  MD, Faculty of Medicine, University of Alberta, Edmonton, Alberta
1978 - 1981  BSc, Faculty of Science, University of Alberta, Edmonton, Alberta

Postgraduate, Research and Specialty Training
1992 - 1993  Clinical and Research Fellow, Goldberg Fellowship, Department of Radiation Oncology,
             Princess Margaret Hospital, Toronto, Ontario
1991 - 1992  Clinical Research Fellow, McLaughlin Fellowship, Academic Unit, Radiotherapy and
             Oncology, Royal Marsden Hospital, Institute of Cancer Research, Sutton, Surrey, United
             Kingdom
1990        Clinical Fellow, Department of Radiation Oncology, Cross Cancer Institute, Edmonton,
             Alberta
1986 - 1990  Resident in Radiation Oncology, Department of Radiation Oncology, Cross Cancer Institute,
             Edmonton, Alberta
1985 - 1986  Rotating Internship, Pasqua Hospital, Regina, Saskatchewan

Qualifications, Certifications and Licenses
1992        FRCPC (Fellow), Royal College of Physicians and Surgeons of Canada
1986        LMCC (Licensure), Medical Council of Canada
2. EMPLOYMENT

Current Appointments

2009 - present  Associate Professor, Radiation Oncology, University of Toronto
2006 - present  Consultant Oncologist, Toronto East General Hospital
1993 - present  Staff, Radiation Oncologist, Odette Cancer Centre

Previous Appointments

HOSPITAL
1996 - 1998  Consultant Oncologist, Oshawa General Hospital

UNIVERSITY - RANK
2001 - 2009  Assistant Professor, Radiation Oncology, University of Toronto
1993 - 2001  Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received

2009  Best Abstract in Clinical and Population-based Oncology, Canadian Association of Radiation Oncology. (Distinction)
      Annual Scientific Meeting.

2009  People's Choice Award, Canadian Association of Radiation Oncology. (Distinction)
      Annual Scientific Meeting.

PROVINCIAL / REGIONAL
Received

2011 Nov  Quality Award for Project, Cancer Care Ontario. (Distinction)
         "Improving Access through Innovation: Time to Treat"
         Cancer Care Ontario & Cancer Quality Council of Ontario 2nd Annual Quality and Innovation

1981  Scholarship, Province of Alberta. (Distinction)

1979  Scholarship, Province of Alberta. (Distinction)

1978  Scholarship, Province of Alberta. (Distinction)

LOCAL
Received

2007 May  Award Nominee, Peters Boyd Academy. (Distinction)

1992  Goldberg Fellowship, Princess Margaret Hospital. (Distinction)
      Clinical and Laboratory Research.

1991  McLaughlin Fellowship in Medicine, Royal Marsden Hospital. (Distinction)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2007 - present  International Association for the Study of Lung Cancer (IASLC)
2002 - present  American Society of Therapeutic Radiology and Oncology (ASTRO)
2001 - present  American Society of Clinical Oncology (ASCO)
1992 - present  European Society of Therapeutic Radiology and Oncology (ESTRO)
1992 - present  Ontario Medical Association (OMA)
1988 - present  Canadian Association of Radiation Oncologists

Administrative Activities

INTERNATIONAL

American Society of Clinical Oncology
2006 - 2007  Member, Expert Panel on Adjuvant Therapy for Early Stage Resected non-small Cell Lung Cancer

International Association for the Study of Lung Cancer (IASLC)
2008 - 2009  Member, Planning Committee for IASCL 2015 Annual Meeting Bid for Toronto, Ontario
2002 - 2003  Member, Scientific Committee, Annual Meeting of the IASLC, Vancouver, British Columbia.

Lung Cancer Intergroup
2008 - present  Member, National Cancer Institute of Canada, Clinical Trials, Vancouver, British Columbia, Canada.
Representing the National Cancer Institute of Canada, Clinical Trials Group.

NATIONAL

Canadian Association of Radiation Oncologists
2003 - 2010  Member, Translational Biology Advisory Group

Canadian Cancer Society
1999 - 2002  Member, Cancer Information Service Network of Expert Reviewers

Canadian Partnership Against Cancer
2013 Jan - present  Diagnosis and Clinical Care Advisory Group, Canada.
2010 Jun - present  Lung Cancer Screening Committee, Canada.
Yee UNG

2010 - present  Member, Guidelines Development Group

Lung Cancer Canada
2007 - present  Member, Medical Advisory Committee, Ontario, Canada.
2002 - 2013  Member, Nomination and Governance Committee
2002 - 2013  Member, Board of Directors

National Cancer Institute of Canada/Clinical Trials Group
2007 - present  Co-Chair, Lung Disease Site Group
2005 - present  Member, Small Cell Lung Cancer Subcommittee Working Group
2005 - present  Member, Mesothelioma and Thymoma Working Group
2005 - present  Co-Chair, Radiation Subcommittee Working Group
2000 - present  Member, Executive Committee, Lung Cancer Group
1998 - present  Member, Lung Disease Site, Representing Toronto-Sunnybrook Regional Cancer Centre/Odette Cancer Centre
2008 - 2009  Member, Planning Committee, Thymoma and Thymic Carcinoma Conference 2009

PROVINCIAL / REGIONAL
Other Organizations
2012 Oct - present  Provincial PET Steering Committee, Ontario, Canada.

Cancer Care Ontario
2004 - present  Co-Chair, Lung Cancer Disease Site Group
2004 - present  Co-Chair, Lung Disease Site Group, Program In Evidence Based Care
1998 - present  Member, Lung Disease Site Group, Program In Evidence Based Care

McMaster University/University of Toronto
2008 - present  Member, Planning Committee, Annual Thoracic Oncology Cancer Conference
2008  Chair, Planning Committee, 3rd Annual Thoracic Oncology Cancer Conference
2006  Member, Planning Committee, 1st Annual Thoracic Oncology Cancer Conference

Ontario Thoracic Society
2008 Apr  Co-Chair, Meeting Organizing Committee
2006 Apr 8  Co-Chair, Meeting Organizing Committee, Niagara-on-the-Lake.

LOCAL
Odette Cancer Centre
2005 Nov 11  Member, Organizing Committee, Expanding Horizons: Timely Diagnosis and Treatment of Lung Cancer

Odette Cancer Centre, Sunnybrook Health Sciences Centre
2003 - present  Member, PET CT Committee
1997 - present  Lung Site Group Leader
2008 - 2010  Department of Radiation Oncology Representative, Clinical Trials Review Committee
2003 - 2013  Radiation Lung Site Leader, Department of Radiation Oncology
Toronto-Sunnybrook Regional Cancer Centre

2008 - 2009 Chair, Radiation Oncology Associates
2004 Apr 23 Member, Expanding Horizons: New Options in Lung Cancer Management
1996 - 1998 Site Director, Radiation Oncology Fellows Program, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1994 - 1995 Coordinator, Oncology Grand Rounds, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

University of Toronto
2008 - 2009 Member, Planning Committee, Target Insight Meeting 2009

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer

Cancer Investigation
Clinical Oncology
Journal of Pain and Symptom Management
Journal of the National Cancer Institute (JNCI)
Medical Oncology
Radiotherapy and Oncology

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

The overall goal of the NCTN Program is to “conduct definitive, randomized, late phase clinical treatment trials and advanced imaging trials across a broad range of diseases and diverse patient populations, as well as development efforts preliminary to those trials, as part of the NCI’s overall clinical research program for adults and children with cancer.” The mission of the NCIC CTG is “to develop and conduct clinical trials aimed at improving the treatment and prevention of cancer with the ultimate goal of reducing...
morbidity and mortality from this disease.” The overlaps of these goals create a rationale for a Canadian Collaborating Clinical Trials Network. This rationale is further supported by similar societal expectations by Canadians and Americans for improved health outcomes and similar respective strategic priorities of NCIC CTG and the NCTN that recognize that new understandings of the molecular basis of carcinogenesis have the potential to advance health care delivery, including through improved therapeutic targeting of the cancer cell and better identification of therapies for individual patients. The specific objectives of this grant are for NCIC CTG to collaborate with NCI/CTEP and US-based groups, through its newly-formed National Clinical Trials Network Program, to develop new Intergroup trials under NCIC CTG leadership and to ensure more rapid accrual to trials led by US-based groups, to enhance the scientific content of these trials through evaluation of additional endpoints and to contribute to new understandings of clinical trial methodology and analysis. This aim is facilitated by NCIC CTG’s unique information technology supports and understandings of the Canadian regulatory environment. The aims of this application are to facilitate Canadian leadership of NCTN trials that represent value from the perspective of expenditure of U.S. federal dollars and to conduct U.S.-led NCTN trials in Canada.

2010 Aug - 2015 Jul

The purpose of this grant is to provide core programmatic funding for the NCIC Clinical Trials Group to engage in a wide range of multicenter trials in Canada. It helps provide infrastructure support to the CTG to fund highly qualified faculty and other personnel through which trials are developed and conducted in Canada.

2010 Jul - 2015 Jun

Precis: The mission of the NCIC Clinical Trials Group (CTG) is to develop and conduct clinical trials aimed at improving the treatment and prevention of cancer with the ultimate goal of reducing morbidity and mortality from this disease. Trials addressing treatment strategies include testing hypotheses that may prevent, be curative, prolong survival, and/or improve quality of life.

2010 Jul - 2014 Jun

Co-Investigator. A phase III study comparing the proportion of lung cancer patients with symptomatic and quality of life improvements receiving external beam radiation with or

Precis: Non-small cell lung cancer (NSCLC) remains the single leading cause of cancer mortality in Canada. Most patients present with disease advanced beyond that amendable to surgery or other potentially curative interventions, and many patients are treated with external beam radiation (EBR) to improve their underlying symptoms of thoracic disease. But the success of EBR treatment and duration of benefit is limited. From uncontrolled studies, the addition of High Dose Rate Brachytherapy (HDRIB) appears to have the potential to improve the symptomatic benefit achieved by patients by delivering an additional dose of radiation to the epicenter of the luminal disease without significant additional toxicity.

We are proposing to conduct a multi-centered phase III randomized trial of EBR alone (20 Gy/5fractions) versus the same EBR followed by HDRIB (14Gy/2 fractions) in patient subjects with thoracic symptoms of advanced stage, or recurrent NSCLC, that have documented luminal disease and that would otherwise be candidates for EBR alone. Two hundred and fifty subjects will be accrued over a 3 year period.

The primary outcome of the study is the proportion of subject that demonstrate an improvement in the summary question of "lung cancer symptoms" (question 7) of the Lung Cancer Symptom Scale (LCSS) at six weeks following randomization as defined by a 10-point or more improvement on a 100-point scale. Secondary outcomes will include individual symptom scores, quality of life (QOL) as measured by the complete LCSS, symptom progression free survival, overall survival, cost effectiveness, and cost utility.

Our hypothesis is that HDRIB in addition to EBR will provide greater local tumour control compared to EBR alone and will result in improved symptom control and QOL for patients with advanced NSCLC that have luminal disease.


The goal of this grant is to enable collaborative clinical trial conduct between Canada and the US by permitting Canadian contributions to recruitment to US Cooperative group clinical trials and to enable Canadian-led trials with US Cooperative Group involvement to be developed and conducted.

2007 - 2009 Canadian Chair for NCIC CTG. Lung Adjuvant Radiotherapy Trial (Lung ART). National Cancer Institute of Canada (NCIC). [Clinical Trials]

$3000 per case funding.


2006 - 2008 Steering Committee Member. Accelerated hypofractionated 3-dimensional conformal radiotherapy (3DCRT) for inoperable Stage I/II non-small cell lung cancer (NSCLC). National Cancer Institute of Canada (NCIC). [Clinical Trials] $3000 per case funding.


Precis: The goal of this award was to a clinicopathological correlation study of PET CT
images with the final resected pathological specimen in patients undergoing surgical resection as a companion clinical trial to the PET START trial. This study was to evaluate the accuracy of PET CT with the final pathological specimen with applications to targeting by radiation therapy.

2005 Jul - 2007 Jun

**Principal Investigator.** Time to treat initiative for lung cancer patients and PERLA (Patients with Early Resected and Locally Advanced) lung cancer clinic – Linking the community to the cancer centre. Change Foundation (The). Collaborator(s): Meharchand J, Fitch M, Del Guidice L. 100,000. [Grants]

**Precis:** The goal of this award was to develop an effective multi-disciplinary team approach for lung cancer patients that involved a structured multi-disciplinary clinic, satellite clinics in a community hospital and a multi-institutional and multi-disciplinary tumor board to facilitate timely referrals and reduce patient wait times for evaluation and treatment.

2005 Jul - 2007 Jun


**Precis:** The goal of this award was to continue longterm followup for patients on the ELPET trial to determine whether PET standardized uptake values have any prognostic implications in early stage non-small cell lung cancer.

2005


**Precis:** The goal of this award was to see if a system redesign for patient referrals with suspected lung cancer could reduce the time to referral, time to diagnostic tests and time to consultation with lung cancer specialists for lung cancer patients.

2004 Jul - 2009 Jun

**Principal Investigator.** The impact of Positron Emission Tomography (PET) imaging in Stage III non-small cell lung cancer: A prospective randomized clinical trial. Ontario Clinical Oncology Group (OCOG) and the Ontario Ministry of Health and Long-term Care. [Clinical Trials]

$1250 per case funding; (PET START Trial Principal Investigator).

2004 Jul - 2008 Jun

**Principal Investigator.** The impact of Positron Emission Tomography (PET) imaging in staging potentially surgically resectable non-small cell lung cancers: A prospective, multicenter randomized clinical trial. Ontario Clinical Oncology Group (OCOG) and the Ontario Ministry of Health and Long-term Care. [Clinical Trials]

$1250 per case funding; (ELPET Steering Committee Member).

2004 Jul - 2008 Jun

**Principal Investigator.** A Phase III trial of Cisplatin/Etoposide/Radiotherapy with consolidation Docetaxel followed by maintenance therapy with ZD 1839 or placebo in patients with inoperable locally advanced Stage III non-small cell lung cancer. National Cancer Institute of Canada (NCIC). [Clinical Trials]

$3000 per case funding; (NCIC CTG BR 15 Canadian Study Chair).

2003 - 2006

**Principal Site Investigator.** A Phase II study of ZD6474 or placebo in small cell lung cancer patients who have complete or partial response to induction chemotherapy ± radiation therapy. National Cancer Institute of Canada (NCIC). [Clinical Trials]

$3000 per case funding; (Odette Cancer Centre PI).

2002 Jul - 2004 Jun

**Collaborator.** The appropriateness of colorectal cancer treatment in Ontario. Canadian

Precis: The goal of this award was to evaluate the appropriateness of colorectal cancer management in colorectal cancer patients in the province of Ontario. This was done by setting up appropriateness criteria and doing chart reviews.

2000 Jul - 2001 Jun


Precis: The goal of this award was to test the hypothesis that gamma camera coincidence imaging (i.e. positron emission tomography) coregistered with CT for radiation treatment planning in locally advanced non-small cell lung cancer would be superior to CT based planning alone using dose volume histogram analysis for target coverage and normal tissue constraints for lung, heart and spinal cord.

NON-PEER-REVIEWED GRANTS

FUNDED

2012 Jul - 2013 Jun

Principal Investigator. A randomized double blind phase 2 dose ranging study to evaluate the safety and efficacy of Veliparib and whole brain radiation therapy versus placebo and whole brain radiation therapy in subjects with brain metastases from non-small cell lung cancer. [Clinical Trials]

2012 Jul - 2013 Jun

Principal Investigator. Randomized double blind, multicenter phase 2 trial comparing Veliparib plus carboplatin and paclitaxel versus placebo plus carboplatin and paclitaxel in previously untreated metastatic or advanced non-small cell lung cancer (NSCLC). [Clinical Trials]

1999 Jul - 2000 Jun


Precis: The goal of this award was to evaluate the impact of integrating pet images with CT planning in lung cancer patients.

1998


Precis: The goal of this award was to evaluate the impact of combing pet imaging to radiation treatment planning in lung cancer.

1997 Jul - 1998 Jun


Precis: The goal of this award was to test the hypothesis that electron arc radiation therapy was superior to either a direct electron field or a photon field arrangement for treating the chest wall in postmastectomy breast cancer patients by using dose volume histogram analysis of normal tissue constraints for lung, heart and the clinical target volume.
D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   We showed that it was possible to enroll palliative lung patients on a placebo controlled randomized clinical trial that would involve having daily injections of saline (placebo) versus erythropoietin and to measure symptom control outcomes.


   This PET guideline was a thorough systematic review of the role of PET in lung cancer. It highlighted the best available data to guide practitioners in the clinical utility of PET and also showed areas where data is lacking or not of sufficient quality to make definitive conclusion regarding the role for PET.


   This guideline on HDR was a thorough evaluation of the role of HDR brachytherapy for symptom control. Randomized clinical trials are very difficult to do comparing different methods for palliation of symptomatic endobronchial disease and in fact, one attempted randomized trial closed due to lack of accrual. This guideline was an important summary of best available evidence to guide practitioners in the use of HDR brachytherapy.


   This guideline was thorough review of the role for radiation in malignant pleural mesothelioma. There is a paucity of randomized clinical trials involving the use of radiation therapy for mesothelioma and this guideline served as a useful guide for practitioners in this area.


   As the clinical principal investigator, this paper was the first to rigorously evaluate the impact of gamma camera coincidence imaging/PET on changing management intent from radical to palliative and its impact on radiation treatment planning with dose volume histogram analysis.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Book Chapters**


**Editorials**


**Letters to Editor**


Cited


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2002 Visiting Professor. FDG PET and CT coregistration: Essential for radiation treatment planning? Department of Radiation Oncology, Fox Chase Cancer Centre. Philadelphia, United States.


Presented Abstracts


2013 Oct Presenter. A Practice Guidelines for Low Dose CT Screening for Lung Cancer: Evidence Based Recommendations Before Implementation. International Association for the Study of Lung Cancer
Yee UNG

2013 Oct

2013 Oct

2004

Presented and Published Abstracts

2012 Nov

Publication Details:

2012

Publication Details:

2012

Publication Details:

2011

Publication Details:

2011

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2009 Recurrence and survival patterns in Stage 3 non-small cell lung cancer (NSCLC) with the addition of positron emission tomography (PET) imaging to standard CT. World Conference on Lung Cancer
Recurrence and survival patterns in Stage 3 non-small cell lung cancer (NSCLC) with the addition of positron emission tomography (PET) imaging to standard CT. J Thor Oncol. 2009;4(9 Suppl 1):S731, P2.019.

Management change as a result of positron emission tomography (PET) in a prospective randomized clinical trial. World Conference on Lung Cancer (WCLC), International Association for the Study of Lung Cancer (IASLC). San Francisco, United States.

A randomized controlled trial (RCT) of 18 F- Fluorodeoxyglucose (FDG) positron emission tomography (PET) versus conventional imaging (CI) in staging potentially resectable non-small cell lung cancer (NSCLC). American Society of Clinical Oncology (ASCO) Annual Meeting. Chicago, United States.


Publication Details:

2007
Motion in tomotherapy: some dosimetric observations. American Association of Physicists in Medicine (AAPM) Annual Meeting. Minneapolis, United States.

Publication Details:

2007

Publication Details:

2007
Regional Cancer Centre (RCC) and Community Hospital (CH) Collaboration: A new paradigm for lung cancer (LC) service organization? World Conference on Lung Cancer (WCLC), International Association for the Study of Lung Cancer (IASLC) Annual Meeting. Seoul, Korea, Republic Of.

Publication Details:

2007

Publication Details:

2007

Publication Details:

2007
18Fluorodeoxyglucose positron emission tomography and co-registered computed tomography for radiation treatment planning in lung cancer: a systematic review. World Congress on Lung Cancer (WCLC), International Association for the Study of Lung Cancer (IASLC) Annual Meeting. Seoul, Korea, Republic Of.

Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2003 Accelerated fractionated radiotherapy for the palliation of dysphagia in esophageal cancer – a University of Toronto Study. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. Salt Lake City, United States.

Publication Details:


Publication Details:

2002 Immobilization of peripheral lung tumors and reduction of lung mass with the planning target volume using active breathing control (ABC). American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. New Orleans, United States.
**Publication Details:**

2001 FDG-Hybrid PET and CT coregistration improves target volume definition in treatment planning for carcinomas of the anal canal. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, United States.

**Publication Details:**

2001 Feasibility of using active breathing control (ABC) to reproducibly increase lung volume and reduce lung mass within the planning target volume. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Francisco, United States.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2000 Fusing Fluorodeoxyglucose (FDG)-Hybrid PET to CT images significantly alters treatment planning in the radical treatment of non-small cell carcinoma of the lung. American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting. San Antonio, United States.

**Publication Details:**

**Scientific Meetings (Peer-Reviewed)**


2008 Defining the appropriate PET intensity threshold and CT threshold for target delineation in early stage...
Yee UNG


2000 Fusing Fluorodeoxyglucose (FDG)-Hybrid PET to CT images significantly alters treatment planning in the radical treatment of non-small cell carcinomas of the lung. American Society of Therapeutic Radiology and Oncology (ASTRO). Boston, United States.


2. NATIONAL

Invited Lectures and Presentations


2009 Visiting Professor. The role of PET in lung cancer. Department of Oncology, McGill University and Université de Montreal, Visiting Speakers Program. Montreal, Quebec.

2009 Visiting Professor. The role of PET in lung cancer. McGill University of Universite de Montreal. Montreal, Quebec, Canada. Presenter(s): Dr. Yee Ung, Department of Oncology.


2006 Visiting Professor. Multimodality therapy for stage III non-small cell lung cancer: A changing paradigm? Department of Medical Oncology and Radiation Oncology, Winnipeg Regional Cancer Centre. Winnipeg, Manitoba.

2006 Visiting Professor. PET CT for RT planning in NSCLC: Is the target fuzzy or more clear? Department of Medical Oncology and Radiation Oncology, Winnipeg Regional Cancer Centre. Winnipeg, Manitoba.

2006 Visiting Professor. PET CT for radiation treatment planning in non-small cell lung cancer: Is the target clearer or more fuzzy? Winnipeg Regional Cancer Centre. Winnipeg, Manitoba, Canada. Presenter(s): Dr. Yee Ung. Department of Medical and Radiation Oncology.

2006 Visiting Professor. Multi-modality therapy for stage III non-small cell lung cancer: A changing paradigm? Winnipeg Regional Cancer Centre. Winnipeg, Manitoba, Canada. Presenter(s): Dr. Yee Ung. Department of Medical and Radiation Oncology.


Presented Abstracts


Presented and Published Abstracts

2015 Sep 9 Breaking down silos and building up robust systems: an interprofessional team at work! Canadian Association of Radiation Oncologists (CARO). Kelowna, British Columbia, Canada.

Publication Details:


Publication Details:

Publication Details:

2009 PET START: The first randomized clinical trial evaluating the impact of positron emission tomography in Stage III non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009 Developing consensus among clinical experts and non-experts for the role of positron emission tomography in small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:

2009 Radiation treatment planning for positron emission tomography (PET) coregistered with CT may alter recurrence patterns as compared with CT planning alone for patients with stage III non-small cell lung cancer. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Quebec City, Quebec.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2008 Dose escalated radiation in the treatment of locally advanced pancreatic or bile duct cancer using tomotherapy: initial experience at the Odette Cancer Centre. Canadian Association of Radiation
Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2008

PET CT thresholds for target definition in non-small cell lung cancer: How close are we to pathology? Canadian Association of Radiation Oncology (CARO) Annual Meeting. Montreal, Quebec.

Publication Details:

2008


Publication Details:

2007

Co-registered 18f-flurodeoxyglucose positron emission tomography (PET) and computed tomography (CT) imaging for suspected recurrent papillary thyroid cancer: an institutional review. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

Publication Details:
Dahele M, Ung YC, Ehrlich L, Silverberg J, Balogh J, Wong S. Co-registered 18f-flurodeoxyglucose positron emission tomography (PET) and computed tomography (CT) imaging for suspected recurrent papillary thyroid cancer: an institutional review. Radiother Oncol. 2007;84(Suppl 2):S64, 222.

2007


Publication Details:
Dahele M, Ung YC, Ehrlich L, Silverberg J, Balogh J, Wong S. Co-registered 18f-flurodeoxyglucose positron emission tomography (PET) and computed tomography (CT) imaging for suspected recurrent papillary thyroid cancer: an institutional review. Radiother Oncol. 2007;84(Suppl 2):S64, 222.

2007


Publication Details:

2007

Image-guided upper abdominal radiotherapy with the tomotherapy® Hi•Art® treatment system: daily set up verification. Canadian Association of Radiation Oncology (CARO) Annual Meeting. Toronto, Ontario.

Publication Details:
Yee UNG


Publication Details:

2006 Is imaging with co-registered positron emission tomography and computed tomography (PET-CT) superior to computed tomography (CT) alone for determining the gross tumor volume (GTV) and clinical target volume (CTV) in radical conformal radiotherapy for non-small cell lung cancer (NSCLC). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Calgary, Alberta.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2000 Phase II study assessing effectiveness of biafine cream as a prophylactic agent for radiation induced acute skin toxicity to the breast in women undergoing radiotherapy with concomitant chemotherapy (CMF). Canadian Association of Radiation Oncology (CARO) Annual Meeting. Edmonton, Alberta.

Publication Details:


Publication Details:

1999 Congestive heart failure following combined radiation and cyclophosphamide, epirubicin, fluorouracil (CEF) adjuvant treatment for lymph node positive breast cancer: The TSRCC Experience. Canadian Association of Medical Oncologists (CAMO) Annual Meeting.

Publication Details:
Glenns V, Sawka CA, Slingerland J, Sutherland D, Ung YC, Rakovitch E, Ackerman I, Pritchard KI. Congestive heart failure following combined radiation and cyclophosphamide, epirubicin, fluorouracil...

1999

Publication Details:

1998

Publication Details:

1994

Publication Details:

1992

Publication Details:

Media Appearances

Scientific Meetings (Peer-Reviewed)

2001 FDG-Hybrid PET and CT fusion improves target volume definition in treatment planning for carcinomas of the anal canal. Canadian Association of Radiation Oncology (CARO). Quebec City, Quebec.

2001 FDG-Hybrid PET Positron Emission Tomography (PET) and CT coregistration improves target volume definition in treatment planning for carcinomas of the anal canal. Canadian Association of Radiation Oncology (CARO). Quebec City, Quebec.


2000 Fusing Fluorodeoxyglucose (FDG)-Hybrid PET to CT images significantly alters treatment planning in the radical treatment of non-small cell carcinomas of the lung. Canadian Association of Radiation Oncology (CARO). Edmonton, Alberta.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts

Yee UNG


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

Media Appearances


Scientific Meetings (Peer-Reviewed)


2001 FDG-Hybrid PET and CT fusion improves target volume definition in treatment planning for carcinomas of the anal canal. CCO 18th Biennial Research Conference. Lake Couchiching, Orillia.
4. LOCAL

Invited Lectures and Presentations


2011 Feb 7  Neoadjuvant treatment for pancreatic cancer. PMH, Department of Surgical Oncology. (Continuing Education).

2011  So you want to be an oncologist. U of T Medical School 1st & 2nd year medical students. Toronto.

2009  FDG PET in radiation planning for lung cancer: are we on target? Target Insight Meeting. Toronto.


2005  Can PET and CT coregistration imaging adequately determine the gross tumor volume its microscopic extension in NSCLC patients for radical radiation therapy. UHN Thoracic Rounds. Toronto.


2004  Radiation Oncology Debate: “Be it resolved that all potentially respectable stage II and III rectal cancer patients receive pre-operative radiotherapy”. Ontario Gastrointestinal Multidisciplinary Oncology Conference. Toronto.

Media Appearances


Scientific Meetings (Peer-Reviewed)

2001  FDG-Hybrid PET and CT fusion improves target volume definition in treatment planning for carcinomas of the anal canal. Target Insight Meeting. Toronto, Ontario.
F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2000 - 2001  **Primary Supervisor.** B. Sc. A. Parradis, Radiation Sciences Program. *High dose rate brachytherapy for the treatment of symptomatic endobronchial lesions; early experience at Toronto Sunnybrook Regional Cancer Centre.*
Curriculum Vitae

Danny Vesprini

A. Date Curriculum Vitae is Prepared: 2016 August 8

B. Biographical Information

Primary Office Sunnybrook Health Sciences Centre
Odette Cancer Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-4806
Fax 416-480-6002
Email danny.vesprini@sunnybrook.ca

1. EDUCATION

Degrees
1998 Sep - 2002 Jun MD, University of Toronto
1994 Sep - 1997 Sep MSc, Immunology, University of Toronto
1990 Sep - 1994 May BSc, Molecular Biology and Biotechnology, McMaster University, Hamilton, Ontario

Postgraduate, Research and Specialty Training
2007 Jul - 2008 Jun Clinical Fellowship, Radiation Oncology, Dept of Radiation Oncology, Genitourinary Site Group, University of Toronto/Princess Margaret Hospital, Supervisor(s): Drs R. Bristow, C. Catton and P. Warde

Qualifications, Certifications and Licenses
2007 Fellow, Royal College of Physicians and Surgeons of Canada
2000 Licensure, Medical Council of Canada

2. EMPLOYMENT

Current Appointments
2013 Jul - present Consultant Oncologist, Rouge Valley Health Systems, Ontario, Canada
2013 Jul 1 - present Deputy Chief, Odette Cancer Centre, Department of Radiation Oncology, Sunnybrook Health Sciences Centre
2012 Oct - present Affiliate Scientist, Biological Sciences, Sunnybrook Research Institute
2011 - present Consultant Oncologist, Scarborough General Hospital
2009 - present Consultant Oncologist, Toronto East General Hospital
2008 - present Staff, Radiation Oncologist, Odette Cancer Centre, Sunnybrook Health Sciences Centre
2008 - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
Danny VESPRINI

Previous Appointments

HOSPITAL
2009 - 2011 Consultant Oncologist, Royal Victoria Hospital, Barrie, Ontario

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2006 Annual Scientific Meeting – Best Medical Canada Award - Best Resident Oral Presentation, Canadian Association of Radiation Oncology. (Distinction)
2000 Summer Research Scholarship, Medical Research Council of Canada. (Distinction)

LOCAL

Received

2008 R.S. Bush Award for Academic Excellence in Research by a Fellow - Radiation Oncology Fellowship Program, University of Toronto. (Distinction)
2006 Department of Radiation Oncology Research Day – Best Poster Presentation, University of Toronto. (Distinction)
2000 Dr Jean Hogarth Scholarship, University of Toronto. (Distinction)
1999 - 2002 Honours Standing, Faculty of Medicine, University of Toronto. (Distinction)
1999 Summer Research Scholarship, University of Toronto. (Distinction)
1998 Alex G. Climans Scholarship, University of Toronto. (Distinction)
1995 Department of Immunology Connaught Life Sciences Scholarship, University of Toronto. (Distinction)
1994 Deans List (Summa Cum Laude), McMaster University. (Distinction)
1994 Open Fellowship (two-term studentship), University of Toronto. (Distinction)
1990 Dean’s List, Cardinal Newman High School. (Distinction)
1990 Letter Award, Cardinal Newman High School. (Distinction)

Teaching and Education Awards

LOCAL

Received

2013 Best Academic Half-Day Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Society of Therapeutic Radiology and Oncology (ASTRO)
Canadian Association of Radiation Oncologists (CARO)
Ontario Medical Association (OMA)
**Administrative Activities**

**NATIONAL**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Role</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Association of Radiation Oncologist (CARO)</td>
<td>2008</td>
<td>Scientific Moderator - Biomarkers in Clinical Trials Session</td>
</tr>
<tr>
<td>Canadian Association of Radiation Oncologists (CARO)</td>
<td>2012</td>
<td>26th Annual Scientific Meeting, Abstract Review Panel, Canada.</td>
</tr>
<tr>
<td>Prostate Cancer Canada</td>
<td>2012 - 2014</td>
<td>Pilot Grant Panel Reviewer, Canada. <strong>Science Officer</strong>, Canada.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Organisation</th>
<th>Role</th>
<th>Details</th>
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<tbody>
<tr>
<td>Prostate Cancer Research Foundation of Canada</td>
<td>2008 - present</td>
<td><strong>Member</strong>, Clinical Research Fellowship Committee</td>
</tr>
<tr>
<td></td>
<td>2007 - 2008</td>
<td><strong>Science Officer</strong></td>
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**PROVINCIAL / REGIONAL**

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<thead>
<tr>
<th>Organisation</th>
<th>Role</th>
<th>Details</th>
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<tbody>
<tr>
<td>Cancer Care Ontario</td>
<td>2013 - present</td>
<td>Radiation Oncology Professional Advisory Committee (ROPAC)</td>
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<td></td>
<td>2013 - present</td>
<td>Provincial Radiation Treatment Program Committee</td>
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<th>Organisation</th>
<th>Role</th>
<th>Details</th>
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**LOCAL**

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<tr>
<th>Organisation</th>
<th>Role</th>
<th>Details</th>
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<tbody>
<tr>
<td>Odette Cancer Centre</td>
<td>2013 - present</td>
<td>Department of Radiation, Oncology, Deputy Head of Department, Chief of Clinical Operations</td>
</tr>
<tr>
<td></td>
<td>2013 - present</td>
<td>Medical Oncology and Radiation Oncology Occupancy Group</td>
</tr>
<tr>
<td></td>
<td>2013 - present</td>
<td>Radiation Therapy Program Clinical Operations Committee</td>
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<tr>
<td></td>
<td>2013 - present</td>
<td>Radiation Therapy Program Steering Committee</td>
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<tr>
<th>Organisation</th>
<th>Role</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate Cancer Canada Network</td>
<td>2013 - present</td>
<td>Medical Advisor, Ontario, Canada.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Organisation</th>
<th>Role</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunnybrook Health Sciences Centre</td>
<td>2012 - present</td>
<td><strong>Chair</strong>, Radiation Oncology Associates Executive Council, Odette Cancer Centre</td>
</tr>
<tr>
<td></td>
<td>2008 - present</td>
<td><strong>Member</strong>, Prone Breast Board Committee, Department of Radiation Oncology, Odette Cancer Centre</td>
</tr>
<tr>
<td></td>
<td>2011 - 2012</td>
<td><strong>Secretary/Member at Large</strong>, Radiation Oncology Associates Executive Council, Odette Cancer Centre</td>
</tr>
</tbody>
</table>
Toronto Wide Data Warehouse Initiative
2011 - present Member, Department of Radiation Oncology Strategic Plan Committee

University of Toronto
2009 - present Member, Academic Communications Committee (ACC), Department of Radiation Oncology
2009 - present Member, Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2012 Research Day, Poster Discussion Session Chair, Ontario, Canada.
2009 - 2010 Member, Department of Radiation Oncology Executive Committee
2009 Poster Discussant, Department of Radiation Oncology Research Day 2009
2006 - 2007 Member, Internal Review Committee, Department of Radiation Oncology
2006 - 2007 Member, RCPSC, Department of Radiation Oncology, External Review Committee
2006 - 2007 Chief Resident, Department of Radiation Oncology
2006 Member, Search Committee for Chair of Department of Radiation Oncology
2006 Member, Curriculum & Objectives Committee, Faculty of Medicine, Dept of Radiation Oncology
2005 - 2007 Member, Postgraduate Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
1995 - 1996 Member, Executive Council, Department of Immunology

OTHER
University of Toronto
2013 - present Fellowship Selection Committee

Peer Review Activities
ASSOCIATE OR SECTION EDITING
Editor

MANUSCRIPT REVIEWS
Invited Scientific Reviewer
2014 Journal of Urology
2009 Clinical Oncology
2009 Journal of Clinical Oncology
2008 Current Oncology
2006 International Journal or Radiation Oncology, Biology, Physics

Scientific Abstract Reviewer
2009 University of Toronto, Department of Radiation Oncology Research Day
2007 - 2009 Canadian Association of Radiation Oncology (CARO), Annual Meeting
C. Academic Profile

1. RESEARCH STATEMENTS

2016

Dr Vesprini is a radiation oncologist at the Sunnybrook Odette Cancer Centre and a member of the SBRT team. He is the site Lead for the multicentre phase II/III randomized PCS IX trial comparing ADT + enzalutamide +/- SBRT for oligometastatic disease. He is also the prostate site group lead for the Cancer Ablative Therapy (CAT) program at Sunnybrook and a member of the MR Linac Atlantic Consortium which is developing a SBRT protocol for prostate cancer. He is co-PI/co-Investigator on multiple biomarker studies focused on predicting radiation response and prognosis.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2016 Apr - 2018 Apr


2015 Jul - 2016 Jun


2014 Jul - 2021 Jun


2013 Jul - 2015 Jun


2013 Jul - 2015 Jun


2013 Jul - 2015 Jun


2013 Jul - 2014 Jun

Principal Investigator. A urinary microRNA signature for high risk radiation resistant prostate cancer. Motorcycle Ride for Dad. 50,000. [Grants]

2012 Dec - 2013 Nov


**NON-PEER-REVIEWED GRANTS**

**FUNDED**

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Danny VESPRINI


**Book Chapters**


**Comment, Letters to Editor**


**Journal Articles, Review**


2. **NON-PEER-REVIEWED PUBLICATIONS**

**Commentaries**

1. **Vesprini D.** Ask the Doctor - Why PSA Screening is Still Important - Despite What You Might Read or Hear. PCCN-Toronto - Awareness - Newsletter. 2016 May. **Principal Author.**

2. **Vesprini D.** Ask the Doctor: Does Prostate Cancer “Run in the Family”? Who is at Increased Risk of Developing Prostate Cancer and What Are We Doing About It? PCCN-Toronto - Awareness - Newsletter. 2016 Mar. **Principal Author.**

**Multimedia**


**Magazine Entries**

1. **Vesprini D.** A Clearer Picture of Prostate Cancer. Cancer Today. 2015 Jun 26. **Principal Author.**

**Newspaper Articles**

1. **Vesprini D.** New Research Sheds Light on Inheriting Genetic Risk for Cancer. The Globe and Mail. 2016 Feb 5. **Principal Author.**

**Online Resources**

1. **Vesprini D.** Active Surveillance. Prostate Cancer Canada; 2013 Sep. You Tube Videos. **Principal Author.**

2. **Vesprini D.** Brachytherapy. Prostate Cancer Canada; 2013 Sep. You Tube Videos. **Principal Author.**

3. **Vesprini D.** External Beam Radiation. Prostate Cancer Canada; 2013 Sep. You Tube Videos. **Principal Author.**
F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2015 Apr 27 Invited Speaker. Low Tech Solutions in a High Tech World - Position to Decrease Radiation Induced Breast Toxicity. European Society for Therapeutic Radiology and Oncology (ESTRO). Barcelona, Spain.


Presented Abstracts


Presented and Published Abstracts


Publication Details:

Publication Details:


Publication Details:


Publication Details:


2015 Oct **Co-Author or Collaborator.** Phase 1-2 Study of Stereotactic Ablative Radiation Therapy Including Regional Lymph Node Irradiation for Patients With High-Risk Prostate Cancer (SATURN). American Society for Therapeutic Radiology and Oncology (ASTRO). Presenter(s): Musunuru HB, Davidson MT,

**Publication Details:**

2006 **Presenter.** The Addition Of 18-fluorodeoxyglucose Positron Emission Tomography (fdg-pet) To CT Based Radiotherapy Planning Of Carcinoma Of The Esophagus Decreases Both The Intra- And Interobserver Variability Of GTV Delineation. American Society for Therapeutic Radiology and Oncology (ASTRO).

**Publication Details:**

2006 **Presenter.** Evidence for intrinsic tissue sensitivity as a predictor of prostate cancer radioresponse in men undergoing high-dose external beam radiotherapy. American Society for Therapeutic Radiology and Oncology (ASTRO).

**Publication Details:**

2. NATIONAL

**Presented Abstracts**

2008 **Co-Author.** Clinical and pre-clinical measures of radiosensitivity in male BRCA1/2 carriers receiving radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Meeting 2008. Montreal. Authors: Vesprini D, Jalali F, Trachtenberg J, Bristow R.

**Presented and Published Abstracts**


**Publication Details:**


**Publication Details:**
Danny VESPRINI


2015 Sep  Co-Author or Collaborator. To Prep or Not To Prep: That is the Question. Canadian Association of Radiation Oncologists (CARO). Presenter(s): Russell S, DiProspero L, Hadizad F, DeAngelis C, VESPRINI D, D’Alimonte L. Poster Presentation
Abstract 70.

Publication Details:

Abstract 140.

Publication Details:

2015 Sep  Senior Responsible Author. Sunnybrook Familial Prostate Cancer Clinic (FPCC) and Male Oncology and Research (MORE) Program. Canadian Association of Radiation Oncologists (CARO). Poster Presentation
Abstract 147.

Publication Details:
Abstract 147.


Publication Details:


Publication Details:


*Publication Details:* Prospective Study on Stereotactic Body Radiotherapy For Low Intermediate Risk Prostate Cancer: Acute Toxicity and Quality of Life. Radiotherapy and Oncology. 100(Suppl 1):S48. **Coauthor or Collaborator.**


2006 **Presenter.** The impact of fluorodeoxyglucose positron emission tomography (FDG-PET) on radiotherapy planning in carcinoma of the esophagus. Canadian Association of Radiation Oncologists (CARO).

2006 **Presenter.** Correlation between intrinsic sensitivity of normal tissues and tumour tissues in men undergoing high-dose external beam radiotherapy for prostate cancer: initial data pertaining to genetic factors of response. Canadian Association of Radiation Oncologists (CARO).

*Publication Details:*


*Publication Details:*


### Other Lectures and Presentations


### 3. PROVINCIAL / REGIONAL

#### Invited Lectures and Presentations


### 4. LOCAL

#### Invited Lectures and Presentations

2016 May 28 **Invited Speaker.** Prostate Cancer: Identifying Risk Factors and How to Be Proactive. Bramalea Christian Fellowship. Presenter(s): **Vesprini D.**

2016 May 27 **Invited Speaker.** Latest Updates in BRCA2 and BRCA2: A Biannual Conference on Hereditary Breast and Ovarian Cancer. Familial Breast Cancer Research Unit - Women's College Research Institute. Presenter(s): **Vesprini D.**

2015 Apr 15 **Invited Speaker.** Breast Positioning to Decrease Radiation Induced Toxicity. Stronach Regional Cancer Centre. Oncology Grand Rounds.

2014 Nov 12 **Invited Speaker.** Active Surveillance: Long Term Outcomes and Integration of MRI (why the past should not influence the future). Toronto East General Hospital and Odette Cancer Centre Partnership Meeting. Toronto, Ontario, Canada.

2014 May 9 **Invited Speaker.** BRCA Mutations and the Risk of Prostate Cancer: Latest Updates in BRCA1 and BRCA2. Ontario, Canada.

2014 Feb 22 **Invited Speaker.** Prostate Cancer: The Radiation Oncologist’s View: Local to Metastatic Disease. University of Toronto, 14 Annual Basic Science Course in Urology.


2013 Nov 27 **Invited Speaker.** Tackling Aggressive Prostate Cancer: From the Lab to the Clinic. Orillia Prostate Cancer Awareness Group. Orillia, Ontario, Canada.

2013 Oct 23 **Invited Speaker.** Familial Prostate Cancer Clinic and Male Oncology Research and Education (MORE) Program. Sunnybrook Health Sciences Centre, Family Practice Rounds. Toronto, Ontario, Canada.


2013 Sep 18 **Invited Speaker.** Prostate Cancer: Identifying Men at High Risk Before it is Too Late. Prostate Cancer Canada Network, Scotiabank Awareness Night. Toronto, Ontario, Canada.


2013 Feb 8 **Invited Speaker.** Familial Prostate Cancer Clinic and Male Hereditary Cancer Research Program. Odette Cancer Centre, GU Group Research in Progress Rounds.


2010 May 12 **Invited Speaker.** Active Surveillance. Man to Man by Side Prostate Cancer Awareness Night. Toronto, Ontario, Canada.


2009 Sep 1 **Invited Speaker.** A GU Rookies Take on Palliative Radiotherapy. Rapid Response Radiotherapy Program Rounds. Sunnybrook Health Sciences Centre, Odette Cancer Centre.

2009 Jul 3 **Invited Speaker.** Introduction to Radiation Oncology. Medical Oncology Training Program Orientation Week. Sunnybrook Health Sciences Centre (SHSC), University of Toronto.

2006 Oct **Speaker.** Imaging in Cancer Diagnosis and Radiotherapy Planning. Toronto Michener Institute, Radiation Therapy Program. Toronto, Ontario.

**Presented Abstracts**

2015 Jun 23 **Co-Author or Collaborator.** Development of Novel Patient Education Pamphlets: Lessons Learnt from a Collaborative Team Based Approach. 6th Annual IPE/IPC Showcase Planning and Selection Committees, Sunnybrook Health Sciences Centre. Authors: Turner A, Leahey A, Barbera L, Vesprini D.

2008 Apr **Presenter.** Clinical and Pre-Clinical Measures of Radiosensitivity in Male BRCA1/2 Carriers Receiving...


1999 Feb  **Presenter.** Cyp1A1 may explain the negative association with smoking and breast cancer risk in women with a germline BRCA1 or BRCA2 mutation. Toronto Clinical Genetics Rounds. Centre for Research in Women’s Health & Ontario Cancer Institute. Toronto, Ontario.


1995  **Presenter.** The role of illegitimate t cell receptor rearrangements in the development of thymic lymphoma in irradiated newborn SCID mice. Hospital for Sick Children Research Institute 8th Annual Retreat. Toronto, Ontario. Authors: Vesprini DJ, Williams CJ, Danska JS.

5. OTHER

Invited Lectures and Presentations


Presented Abstracts

2016 May 14  **Presenter.** Update: The Male Oncology Research and Education (MORE) Program for Men at High Risk for Prostate Cancer. 6th International Symposium on Hereditary Breast and Ovarian Cancer. Presenter(s): Lorentz J, **Vesprini D.** Poster Presentation.

Presented and Published Abstracts


*Publication Details:*

**Coauthor or Collaborator.**

2015 Sep  **Co-Author or Collaborator.** Testosterone Flare in Patients with High-Risk Localized Prostate Cancer

Publication Details:

2014


Publication Details:

2011


Publication Details:

Other Presentations

2016 Aug


2016


G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Clinical Research Fellow (MD)

2015 Jul - 2016 Jun

Curriculum Vitae

John Nicholas Waldron

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Oncology
Princess Margaret Cancer Centre, University Health Network
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-6522
Fax 416-946-2111
Email John.Waldron@rmp.uhn.on.ca

1. EDUCATION

Degrees
1988 MD, Medicine, Dept of Medicine, Queen’s University at Kingston, Ontario, Canada
1986 MSc, Neurophysiology, Physiology, Queen’s University at Kingston, Ontario, Canada
1983 BSc, Life Sciences, Arts and Science, Faculty of, Queen’s University at Kingston, Ontario, Canada

Postgraduate, Research and Specialty Training
1993 - 1994 Fellow, Radiation Oncology, Princess Margaret Hospital, University of Toronto
1990 - 1993 Resident, Radiation Oncology, Princess Margaret Hospital, University of Toronto
1988 - 1990 Resident, Internal Medicine, Royal Victoria Hospital, McGill University, Montreal, Canada
1984 Jan - 1986 Jun Graduate Student, Neurophysiology, Physiology, Queen’s University at Kingston, Supervisor(s): Peter Zarzecki
1983 - 1984 Student Researcher (seven months), Orthopedic Surgery, Laboratory for Experimental Surgery, International Association for Exchange of Students for Technical Experience (I.A.E.S.T.E.), Davos-Platz, Switzerland

Qualifications, Certifications and Licenses
2009 Aug University Health Network Principles of Clinical Research Practice, ESTRO PIC Meeting Teaching Course, Toronto
2008 Nov - 2009 May Rotman Health Care Leadership Development Program, Rotman School of Management, University of Toronto
2002 Sep Technological Advances in Radiation Oncology, ESTRO PIC Meeting Teaching Course
1999 Aug Acusim (CT Simulator) Fellowship, University of Chicago
1999 Jun Future Directions in Radiation Oncology (CME course), University of Toronto
1997 Jan Integrating the Internet into Clinical Practice (CME course), University of Toronto
2. EMPLOYMENT

Current Appointments

2005 - present  Cross Appointment Staff, Surgery, Otolaryngology, Faculty of Medicine, Princess Margaret Hospital, University Health Network
2000 Jul - present  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto

Previous Appointments

HOSPITAL
1994 - 2000  Lecturer, Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, University Health Network

UNIVERSITY - RANK
1994 - 2000  Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

PROVINCIAL / REGIONAL
Received
1979  Ontario Scholarship. (Distinction)

LOCAL
Received
1993 - 1994  George Knudson Fellowship in Cancer Research, Ontario Cancer Institute/Princess Margaret Hospital, Toronto. (Research Award)
1985  Queen’s Graduate Scholarship, Queen’s University at Kingston. (Distinction)
1984  Queen’s Graduate Scholarship, Queen’s University at Kingston. (Distinction)

Nominated
2014 Jun - present  Gerald Kirsh Humanitarian Award, Princess Margaret Cancer Foundation. (Distinction)  
For outstanding commitment to compassionate care.
Teaching and Education Awards

LOCAL

Received

2009 May
Best Radiation Medicine Program Rounds, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Center. (Multilevel Education, Specialty: Radiation Oncology)

2003 Jul - 2004 Jun
Chief's Choice Best Rounds, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Center. (Specialty: Radiation Oncology)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1993 Jul - present  
Member, Ontario Medical Association

1993 Jul - present  
Fellow, Royal College of Physicians and Surgeons of Canada

1989 - present  
Member, Canadian Association of Radiation Oncologists (CARO)

1989 - 1991  
Member, American Society for Therapeutic Radiology and Oncology (ASTRO)

Administrative Activities

INTERNATIONAL

National Cancer Institute

2012 - present  
Member, Head and Neck Steering Committee

2007 - 2012  
Co-Chair, Head and Neck Tumor Biology and Imaging Task Force

NATIONAL

National Cancer Institute of Canada/Clinical Trials Group

2014 - present  
Chair, Head and Neck Working Group, Canada.

2006 - 2014  
Member, Head and Neck Working Group

PROVINCIAL / REGIONAL

Cancer Care Ontario

2011 - present  
Member, Head and Neck Community of Practice

2007 - present  
Member, Head and Neck Cancer Treatment Standards Group

Princess Margaret Cancer Center  
Member, Wharton Day Organizing Committee

LOCAL

Other Organizations

1995  
Member, Radiation Services Information Systems (RSIS) Committee

Princess Margaret Cancer Center
John Nicholas WALDRON

2014 Jun - present  Member, Radiation Medicine Program Capital Executive Committee
2014 Mar - present  Member, Radiation Medicine Program Space Transformation Committee
2013 - present  Member, Radiation Medicine Program Clinical Protocol Review Committee
2011 Jul - present  Executive, Head and Neck Translational Research Committee, Canada.
2011 Jul - present  Executive, Head and Neck Tissue Committee, Canada.
2008 Jan - 2009 Jan  Chair, Radiation Oncology Partnership
2007 Jul 11 - 2007 Sep 23  Member, Search Committee Head Dental Oncology
1997  Member, Radiation Medicine Program Accreditation Committee

Princess Margaret Cancer Centre
2006 - present  Site Group Leader, Radiation Medicine Program Head and Neck Site Group
2006 - 2010  Member, External Beam Process Committee, Radiation Medicine Program
2005 - 2006  Co-Chair, Radiation Medicine Program, Molecular Imaging Research Group
1997  Member, Medical Advisory Committee, In-Patient Services Committee
1996 - 2004  Director, Radiation Medicine Program Inpatient Services
1996 - 1997  Chair, Department of Radiation Oncology Digital Information Group (DIG)

University Health Network
2013 - 2014  President, (President) UHN Medical Staff Association, Toronto, Canada.
2013 - 2014  President, (President) UHN Medical Staff Association, Toronto, Canada.
2012 - 2013  Member, Research Committee UHN Board of Trustees, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Canada.
2011 - 2013  Member, UHN Medical Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
2011 - 2013  Member, UHN Board of Trustees
2011 - 2013  Member, Finance and Audit Committee UHN Board of Trustees
2011 - 2012  Vice President, UHN Medical Staff Association, Toronto, Ontario, Canada.
2010  Treasurer, UHN Medical Staff Association
2004 - 2008  Member, Research Ethics Board
2004 - 2007  Member, Electronic Health Records Clinical Advisory Committee
Member, MSH UHN Academic MO

University of Toronto
1996 - 1997  Member, Department of Radiation Oncology Accreditation Committee

Peer Review Activities

GRANT REVIEWS
Internal Grant Reviewer
2009 Apr 2  Princess Margaret Cancer Center, Ideas Grant Reviewer
1997  National Cancer Institute of Canada/Clinical Trials Group, Operating grant reviewer

MANUSCRIPT REVIEWS
Reviewer
2001  Clinical Oncology
Other Research and Professional Activities

STRATEGIC RETREAT

*Break out session to address the question: How do we develop, evaluate and approve concepts and take these to a stage of trial activation?*

**C. Academic Profile**

1. **CREATIVE PROFESSIONAL ACTIVITIES STATEMENT**

My Creative Professional Activities have predominantly been within the sub specialty of head and neck cancer management.

1) Professional Innovation and Creative Excellence. In this discipline I have demonstrated professional innovation and creative excellence through clinical trials leadership, education and mentoring.

Examples of clinical trials leadership include the following:

- The National Cancer Institute of Canada Clinical Trials Group (NCIC CTG) HN6 study (Waldron co-PI) served to promote and facilitate the introduction of advanced radiotherapy techniques (IMRT) for the management of head and neck cancer in Canada. At time this study opened many Canadian centers were not routinely using IMRT to manage these patients and this study, by providing detailed radiation planning and treatment guidelines, served to stimulate the adoption of this technology now considered a clinical standard of care. In addition this study has served to consolidate the Canadian national Head and Neck Oncology community by stimulating participation of 17 cancer centers from across Canada to enroll 320 patients and as such has been the largest prospective clinical trial of head and neck cancer ever mounted in Canada.

- The Ontario Clinical Oncology Group (OCOG) study PET PREVENT (Waldron PI) prospectively enrolled over 400 head and neck cancer patients at four Ontario centers. The study which examined the role of PET scanning in treatment decision making was the largest prospective PET study ever mounted in head and neck cancer and led to an oral presentation of results at ASCO. My work in PET imaging resulted in an invitation to write an editorial for the Journal of Clinical Oncology.

- The National Research Group (NRG formerly RTOG) study HN002 (Waldron Canadian PI) will shortly open in North America. This is the first study to examine de-intensification of treatment in patients with favourable risk HPV related oropharyngeal cancer (OPC) and represents a significant paradigm shift in head and neck cancer management. The design of HN002 has been significantly influenced by data published by the PMH Head and Neck site group that was the first to describe a favourable prognosis for a large number of HPV positive OPC patients treated with radiotherapy only.

Examples of Education and Mentoring include:

- The leadership and development of numerous detailed and comprehensive multi-day head and neck IMRT and IGRT CME events delivered to national and international audiences.
- Mentoring in head and neck radiation oncology both on site and with site visits to other provincial and national head and neck cancer programs.

2) Contributions to the Development of Professional Practice

I have provided numerous contributions to the development of professional practice through local, national and...
international leadership positions.

- Locally I have served as leader of the PMH Radiation Medicine Program Head and Neck Site Group (PMH HNSG) since 2006. In this capacity I have been responsible for overseeing the clinical, research and teaching activities of this group. The PMH HNSG consists of 8 Radiation Oncologists, 3 Clinical Physicists, 7 Treatment Planners and numerous Radiation Therapists. This group is the largest of its kind in North America and manages over 500 head and neck cancer patients annually. We have developed and delivered multiple CME courses on advanced radiotherapeutic management (IMRT, IGRT) of head and neck cancer to the national and international community. We have also achieved global impact through our head and neck radiation oncology fellowship program which has trained over 30 national and international fellows. We have developed comprehensive treatment guidelines which have been shared with members of the national and international community. The site group was the first at PMH to introduce an anthology of outcomes for our patient population by prospectively collecting patient data and outcomes at the point of care since 2003. This data set which now contains over 7500 patients has served to facilitate multiple research projects and quality assurance monitoring. Recent supplements to this have included the addition of prospectively collected head and neck patient reported outcomes (a National first) and links to biospecimen repositories.

I have had a number of leadership roles in the Provincial, National and International Head and Neck Oncology Community.

Provincially
- I have been a member of the CCO Evidenced Based Guidelines Committee and Head and Neck Community of Practice
- Principal author of the radiotherapy section of the CCO guidelines document for the management of head and neck cancer in Ontario.
- Led the development of provincial guidelines for the testing for HPV in OPC.

Nationally
- Present co-chair of the NCI (Canada) Clinical Trials Group Head and Neck Working Group. In charge of the development and implementation of head and neck clinical trials run through NCIC CTG.

Internationally
- I am on the ASTRO committee charged with the development of guidelines for the management of OPC.
- National Cancer Institute (US) Head and Neck Steering Committee. This committee consists of North American thought leaders in Head and Neck Cancer and is charged with reviewing and evaluating the major cooperative group clinical trial concepts. I am one of only three Canadian members.
- Co-authored a consensus document resulting from an NCI clinical trials planning meeting to develop clinical trials for the investigation of trans-oral surgery for the management of OPC.
- Co-chaired the NCI Head and Neck Tumor Biology and Imaging Task Force which reviewed the biology and imaging components of trials prior to advancement to the Steering committee for final evaluation.

I have participated in leadership positions within the University Health Network. Specifically I was elected Vice President of the UHN Medical Staff Association advancing to President in my final year. In this capacity I represented the interests of over 800 fulltime dental and medical staff on the UHN Board of Trustees, the Medical Advisory Committee and the Finance and Audit and Research Committees of the Board.

3) Exemplary Professional Practice

I have demonstrated exemplary professional practice as indicated by the leadership positions I have held and the standards of practice I have helped develop and disseminate. I have been regarded by colleagues as a competent and fair leader. Colleagues have sought out my assistance in mentoring head and neck radiation oncology practice at centers within and beyond the province. I have been invited to be an external reviewer of the Head and Neck Oncology Program at the University of Alberta.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


NON-PEER-REVIEWED GRANTS

FUNDED


A collaborative study involving radiation biology (Hill RP), radiation oncology (O’Sullivan B), surgical oncology (Bell R) and cellular transplantation therapy (A. Keating) at the Ontario Cancer Institute / Princess Margaret Hospital, University of Toronto.

Collaborators include experts in head and neck and limb surgery (Gullane P, Wunder J, Bell R, Neligan P), clinical and experimental radiation oncology (O’Sullivan B and Waldron J) and cellular transplantation techniques developed from bone marrow transplantation adapted to mesenchymal cell therapy (Keating A, medical and hematology oncology). Other collaborators on this Grant include expertise in interpretation of mesenchymal tissue and wound pathology (Kandel R), vascularity of healing tissue (Pang C), the use of viral transfection to provide markers for tracking transplanted cells (Sandhu K) and the development of valid instruments for measuring relevant clinical outcomes following surgery and radiotherapy (Davis A).
E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


John Nicholas WALDRON


John Nicholas WALDRON


Letters to Editor


Comment, Letters to Editor

1. Ringash J, Huang SH, **Waldron J**, O’Sullivan B. No evidence for improved TORS post-treatment feeding tube dependency rate relative to standard therapy in early stage oropharyngeal cancer. Oral Oncol. 2015 Sep 1;51(9):e67. **Coauthor or Collaborator.**


Evaluation Studies, Journal Articles


Journal Articles, Multicenter Study


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2004 Nov 19 Quality assurance rounds for head and neck cancer patients managed with radiation therapy are an important aspect of risk management. UICC Meeting of International Cancer Societies. Dublin, Ireland.


John Nicholas WALDRON


Presented Abstracts


2014 Jul Changing mortality profile in long term follow-up of a randomized trial for locally advanced head and neck cancer. 5th World Congress of IFHNOS & Annual Meeting of the AHNS. New York.


2011 Jun Presenter. Results of an Ontario Clinical Oncology Group (OCOG) prospective cohort study on the use of FDG PET/CT to predict the need for neck dissection following radiation therapy of head and neck cancer (HNC). ASCO. Chicago.
2011 Apr  Identification of Metadherin as a Novel Target of MIR-375 in Nasopharyngeal and Head and Neck Squamous Cancers. 102nd Annual Association for Cancer Research. Orlando.


2009 Apr  Comparative predictive value of E6 mRNA vs. HPV 16 ISH for human oropharyngeal carcinoma. 100th Annual American Association for Cancer Research Meeting. Denver, Colorado.


1996 Aug  Carcinoma of the Tonsillar Region: The Influence of prognostic factors and technique in 335 T1 And T2 cases treated with external beam radiotherapy. 4th International Conference on Head and Neck Cancer.
John Nicholas WALDRON

Toronto.

1996 Jul


1995


**Presented and Published Abstracts**

2016 Apr 29

**Invited Speaker.** The prognostication of tumor volume and lower neck lymph nodes in laryngeal cancer treated with IMRT. Poster (PO-0631). 2016 European Society for Therapeutic Radiology and Oncology (ESTRO) Annual Meeting. Turin, Italy. Presenter(s): Huang SH.

**Publication Details:**

2015 May 29


**Publication Details:**
Quality of life (QOL) in a phase III randomized trial of standard fractionation radiotherapy (SFX) with concurrent cisplatin (CIS) versus accelerated fractionation radiotherapy (AFX) with panitumumab (PMab) in patients (pts) with locoregionally advanced squamous cell carcinoma of the head and neck (LA-SCCHN): NCIC Clinical Trials Group HN.6 (NCT00820248). J Clin Oncol 33, 2015 (suppl; abstr 6053). **Coauthor or Collaborator.**

2015 May 29


**Publication Details:**
Phase III randomized trial of standard fractionation radiotherapy (SFX) with concurrent cisplatin (CIS) versus accelerated fractionation radiotherapy (AFX) with panitumumab (PMab) in patients (pts) with locoregionally advanced squamous cell carcinoma of the head and neck (LA-SCCHN): NCIC Clinical Trials Group HN.6 trial. J Clin Oncol 33, 2015 (suppl; abstr 6000). **Coauthor or Collaborator.**

2015 May 29

**Speaker.** Cancer patients’ attitudes, knowledge, and preferences for smoking cessation (SC). 2015 ASCO Annual Meeting. Chicago, Illinois, United States. Presenter(s): Lawson Eng, Devon Alton, Tom Yoannidis, Qin Quinn Kong, Robin Milne, Samantha Sarabia, Zahra Merali, Liam Murphy, M Catherine Brown, **John N. Waldron**, Andrew Pierre, Andrea Bezikak, Andrew J. Hope, Doris Howell, Jennifer M. Jones, Peter Selby, Wei Xu, David Paul Goldstein, Meredith Elana Giuliani, Geoffrey Liu.

**Publication Details:**
Cancer patients’ attitudes, knowledge, and preferences for smoking cessation (SC). J Clin Oncol 33, 2015 (suppl; abstr 9581). **Coauthor or Collaborator.**


*Publication Details:* Differential impact of cisplatin dose intensity on human papillomavirus (HPV)-related (+) and HPV-unrelated (−) locoregionally advanced head and neck squamous cell carcinoma (LAHNSCC). J Clin Oncol 33, 2015 (suppl; abstr 6020). **Coauthor or Collaborator.**

**2014 Apr Supervisor of Presenter.** Definitive radiation therapy for advanced stage oral cavity squamous cell carcinoma (OCSCC). 2014 European Society for Therapeutic Radiology and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria.


**2014 Apr** Differential outcomes following radiotherapy by HPV status in N3 head and neck cancer. European Society for Therapeutic Radiology and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria.


**2014 Apr Supervisor of Presenter.** High pre-radiotherapy neutrophils are associated with compromised outcomes in HPV-related oropharyngeal cancer. European Society for Therapeutic Radiology and Oncology (ESTRO) 33rd Annual Meeting. Vienna, Austria.


Publication Details:

2013 Apr
Altered fractionation radiotherapy for elderly patients with locally advanced head and neck cancer. 2nd ESTRO Forum. Geneva, Switzerland.

Publication Details:

2013 Feb
Supervisor of Presenter. Temporal regression and regional control following primary radiotherapy for HPV(+) vs. HPV(-) head & neck cancers. 4th International Conference on Innovative Approaches in Head & Neck Oncology (4th ICHNO). Barcelona, Spain.

Publication Details:

2013 Feb
De-intensification candidate subgroups in HPV-related oropharyngeal cancer according to minimal risk of distant metastasis. 4th International Conference on Innovative Approaches in Head & Neck Oncology (4th ICHNO). Barcelona, Spain.

Publication Details:

2012 Nov
The role of microRNAs in human nasopharyngeal carcinoma. ASTRO 54th Annual Meeting. Boston.

Publication Details:

2012 Nov

Publication Details:

2012 Nov

Publication Details:

2012 Nov
Publication Details:

2012 May

Publication Details:

2012 Apr

Publication Details:

2012 Apr
Identification of HPV/p16 Associated Micro-RNAs in Primary Oropharyngeal Carcinoma. 103rd Annual American Association for Cancer Research Meeting. Chicago.

Publication Details:

2011 Oct
Supervisor of Presenter. Outcomes for T2N0M0 Glottic Squamous Cell Carcinoma Treated with IMRT Compared with Conventional Parallel Opposed Fields. ASTRO Annual Meeting. Miami.

Publication Details:

2011 Oct

Publication Details:

2011 Oct

Publication Details:
John Nicholas WALDRON


2011 Oct

Publication Details:

2011 Oct
Comparing Epidemiologic Survey Data To Abstracted Data From A Head and Neck Cancer (HNC) Radiation Oncology Administrative Database. ASTRO 53rd Annual Meeting. Miami.

Publication Details:

2011 Sep
Supervisor of Presenter. Impact of Smoking Pack-years on Anatomic Disease Outcomes for HPV-related Oropharyngeal Cancer Treated with Radiotherapy with or without Chemotherapy. ECCO Annual Meeting. Stockholm, Sweden.

Publication Details:

2011 Sep

Publication Details:

2011 Sep
Supervisor of Presenter. Phase I Trial of Albumin-bound Paclitaxel (A), Cisplatin (P) and 5-Fluorouracil (F) as Induction Chemotherapy (IC) Followed by Concurrent Chemotherapy (CRT) with Carboplatin (Cb) in Patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN). ECCO Annual Meeting. Stockholm, Sweden.

Publication Details:
Diaz-Padilla I, Waldron J, Hope A, Chen EX, Chan K, Kim J, O’Sullivan B, Abdul Razak AR, Chin SF, Siu LL. Phase I Trial of Albumin-bound Paclitaxel (A), Cisplatin (P) and 5-Fluorouracil (F) as Induction Chemotherapy (IC) Followed by Concurrent Chemotherapy (CRT) with Carboplatin (Cb) in Patients (pts) with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (SCCHN). European Journal of Cancer. 2011 Sep;47(Suppl 1):S547, A8511.

2011 Sep

Publication Details:
2011 May

**Pattern of distant metastases for HPV-related oropharyngeal cancer treated with radiotherapy.** ESTRO Anniversary Conference.

*Publication Details:*

2011 Feb 24 **Supervisor of Presenter.** Excellent identical outcomes for radiation alone vs. chemoradiation in minimal smoking HPV(+) N0-N2c oropharynx cancer patients. 3rd International Conference on Innovative Approaches in Head & Neck Oncology (3rd ICHNO). Barcelona, Spain.

*Publication Details:*

2011 Feb 24 **Pattern of failure and histopathological features in patients with positive postradiation planned neck dissection.** 3rd International Conference on Innovative Approaches in Head & Neck Oncology (3rd ICHNO). Barcelona, Spain.

*Publication Details:*

2010 Nov **Supervisor of Presenter.** Outcome of Radiotherapy Alone in HPV Associated Oropharyngeal Cancer. 52nd Annual Meeting of the American Society for Radiation Oncology. San Diego.

*Publication Details:*

2010 Nov **Radiation-induced Mandibular Toxicity (RIMT) following Intensity Modulated Radiation Therapy (IMRT) for Head and Neck Malignancy.** 52nd Annual Meeting of the American Society for Radiation Oncology. San Diego.

*Publication Details:*

2010 Nov **Positive postradiotherapy planned neck dissection is strongly associated with increased distant metastasis rather than regional relapse.** 52nd Annual Meeting of the American Society for Radiation Oncology. San Diego.

*Publication Details:*

2010 Nov **Patterns of Failure after Intensity Modulated Radiation Therapy (IMRT) for Nasopharyngeal Cancer.** 52nd Annual Meeting of the American Society for Radiation Oncology. San Diego.
Publication Details:

2010 Sep

Publication Details:

2010 Jun
Cognitive functioning pre and post radiotherapy (RT), chemoradiotherapy (CRT) or bioradiotherapy (BRT) in patients with locally advanced squamous cell cancer of the head and neck (LA-SCCHN). ASCO Annual Meeting. Chicago.

Publication Details:

2010 May
Neuropsychological assessment in patients with head and neck cancer after radiotherapy or chemoradiotherapy. IPOS 12th World Congress of Psycho-Oncology. Quebec City.

Publication Details:

2009 Nov

Publication Details:

2009

Publication Details:

2008 May
Correlation of deviation from intended cisplatin (CDDP) dose intensity with outcome in patients with locally advanced head and neck squamous cell carcinoma (LA-HNSCC) receiving concurrent chemoradiation (CRT). ASCO Meeting. Chicago, United States.

Publication Details:

2008
FACT-H&N and UW-QOL Show Validity and Responsiveness in Nasopharyngeal Carcinoma.
International Society for Quality of Life Research Meeting. Montevideo, Uruguay.

**Publication Details:**


**Publication Details:**

**2007 Oct**  Randomized Trial of Cone Beam CT Evaluating Inter- and Intra-fraction Setup Error of Head and Neck Cancer Patients Treated with a Skin-Sparing Mask Compared to a Standard S-frame Mask. ASTRO Annual Meeting. Los Angeles, California.

**Publication Details:**

**2007 Oct**  Supervisor of Presenter. Changes In Position And Size Of Parotid Glands Assessed With Daily Cone-beam CT During Image-guided IMRT For Head And Neck Cancer: Implications For Dose Received. ASTRO Annual Meeting. Los Angeles, California.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

Publication Details:


Publication Details:


Publication Details:

2. NATIONAL

Invited Lectures and Presentations


2015 Sep 8 Presenter. METASTATIC RISK GROUPS IN HUMAN PAPILLOMAVIRUS-RELATED OROPHARYNGEAL CANCER TREATED WITH DEFINITIVE RADIOTHERAPY WITH OR WITHOUT CHEMOTHERAPY. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Brian O’Sullivan, Shao Hui Huang, John Waldron, Susie Su, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Aaron Hansen, David Goldstein, Li Tong, Bayardo Perez-Ordonez, Ilan Weinreb, Wei Xu.

2015 Sep 8 Presenter. RISK OF RELAPSE PROFILE IN HUMAN PAPILLOMAVIRUS-UNRELATED
OROPHARYNGEAL CARCINOMA TREATED WITH DEFINITIVE RADIOTHERAPY WITH OR WITHOUT CHEMOTHERAPY. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada.

Presenter(s): Shao Hui Huang, John Waldron, Susie Su, Li Tong, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Aaron Hansen, David Goldstein, Bayardo Perez-Ordonez, Ilan Weinreb, Wei Xu, Brian O’Sullivan.

2013 Apr

2011 Sep
Results of an Ontario Clinical Oncology Group (OCOG) Prospective Cohort Study on the Use of FDG PET/CT to Predict the need for Neck Dissection Following Radiation Therapy of Head and Neck Cancer (HNC). CARO Annual Meeting. Winnipeg.

2011 May
Head and Neck Volume Definitions. Target Insight Conference. Toronto.

2010 Apr
HN6: IMRT QA, QARC. NCIC Clinical Trials Group Radiation Oncology Committee. Toronto.

2009 May
HN6: IMRT QA, QARC. NCIC Clinical Trials Group Radiation Oncology Committee. Toronto.

2008 Apr 25

2007 Apr 29
A Phase 3 Trial Concept (Radiation Oncology Forum and Head and Neck Working Group). NCIC CTG Head and Neck Committee Meeting. Toronto.

2007 Apr 27
A Phase 3 Trial Concept (Radiation Oncology Forum and Head and Neck Working Group). NCIC CTG Head and Neck Committee Meeting. Toronto.

Presented Abstracts

2015 Sep 11

2015 Sep 11

2015 Sep 11
Presenter. NATURAL COURSE FOLLOWING FAILURE AFTER DEFINITIVE (CHEMO-) RADIOTHERAPY IN HPV-RELATED AND HPV-UNRELATED OROPHARYNGEAL CANCER. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Shrinivas Rathod, Shao Hui Huang, John Kim, Susie Su, Wei Wu, John Waldron, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, Jolie Ringash, Aaron Hansen, David Goldstein, Li Tong, Bayardo Perez-Ordonez, Ilan Weinreb, Brian O’Sullivan.

2015 Sep 11
Presenter. CLINICAL OUTCOMES FOLLOWING RE-IRRADIATION IN HEAD AND NECK CANCERS. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Satiavani Ramasamy, Shao Hui Huang, Susie Su, Wei Xu, John Waldron, John Cho, Andrew Hope, Andrew Bayley, John Kim, Jolie Ringash, Scott Bratman, Raymond Jang, David Goldstein, Brian O’Sullivan, Meredith Giuliani.

2015 Sep 9
Presenter. Oropharynx. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Waldron, J.

2015 Sep 8
Speaker. CONCURRENT CHEMORADIOThERAPY FOR LOCALLY ADVANCED HEAD AND NECK
CANCER: IMPACT OF RADIATION TECHNIQUE, CISPLATIN DOSE, AND TUMOUR HPV STATUS. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Shao Hui Huang, Sreffico Anne, Wei Xu, Chen Liu, John Waldron, Eric Chen, Jolie Ringash, Andrew Bayley, Kelvin Chan, Andrew Hope, Alibiruni Razak, Bayardo Perez-Ordonez, Ilan Weinreb, John Cho, Raymond Jang, Aaron Hansen, Yuyao Song, Brian O’Sullivan, Lillian Siu, John Kim;

2015 Sep 8 Presenter. NATURAL COURSE FOLLOWING FAILURE AFTER DEFINITIVE (CHEMO-) RADIOTHERAPY IN HPV-RELATED AND HPV-UNRELATED OROPHARYNGEAL CANCER. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Shrinivas Rathod, Shao Hui Huang, John Kim, Susie Su, Wei Wu, John Waldron, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, Jolie Ringash, Aaron Hansen, David Goldstein, Li Tong, Bayardo Perez-Ordonez, Ilan Weinreb, Brian O’Sullivan;

2015 Sep 8 Presenter. IMPACT OF SURGICAL MARGINS ON OUTCOMES IN ORAL CAVITY SQUAMOUS CELL CARCINOMA MANAGED WITH SURGERY AND POSTOPERATIVE RADIOTHERAPY. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Ali Hosni, Shao Hui Huang, Wei Xu, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, Jolie Ringash, John Waldron, David Goldstein, Eric Chen, Brian O’Sullivan, Andrew Hope;

2008 Sep Presenter. Differences in Feeding Tube Requirements for Patients Treated with IMRT Versus Two Dimensional Radiation Techniques for Advanced Head and Neck Cancer. CARO. Montreal, Quebec.


Presented and Published Abstracts


Publication Details:

*Publication Details:*


*Publication Details:*


*Publication Details:*

2014 Aug Elderly patients with advanced head and neck cancer less likely to receive radiation therapy. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

*Publication Details:*

2014 Aug Outcomes following re-irradiation for recurrent nasopharyngeal carcinoma at a Canadian Cancer Centre. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador.

*Publication Details:*


*Publication Details:*


*Publication Details:*

*Publication Details:*  


*Publication Details:*  

2012 Sep  **Supervisor of Presenter.** The characteristics of cervical lymph node resolution following primary radiotherapy +/- chemotherapy for N2-N3 head and neck cancer. CARO 26th Annual Meeting. Ottawa.

*Publication Details:*  

2012 Sep  Outcome of IMRT for hypopharyngeal cancer compared to conventional radiotherapy. CARO 26th Annual Meeting. Ottawa.

*Publication Details:*  

2011 Sep  **Presenter.** Results of an Ontario Clinical Oncology Group (OCOG) Prospective Cohort Study on the use of FDG PET/CT to Predict the Need for Neck Dissection following Radiation Therapy of Head and Neck Cancer (HNC). CARO Annual Meeting. Winnipeg.

*Publication Details:*  


*Publication Details:*  


*Publication Details:*  
John Nicholas WALDRON


2011 Sep

**Supervisor of Presenter.** Clinical Outcomes of Patients Treated with Conformal IMRT for T1N0M0 Glottic Squamous Cell Carcinoma. CARO Annual Meeting. Winnipeg.

**Publication Details:**

2011 Sep

Identification of Metadherin as a Novel Target of MIR-375 in Head and Neck Cancer. CARO Annual Meeting. Winnipeg.

**Publication Details:**

2010 Sep


**Publication Details:**

2010 Sep

**Presenter.** The limitations of bone matching for highly conformal irradiation of early glottic cancers. CARO Annual Meeting. Vancouver, British Columbia.

**Publication Details:**

2009 Sep

Patterns of Care in Elderly Head and Neck Cancer Patients: A Recent Single Institution Experience. CARO Annual Meeting. Montreal, Quebec.

**Publication Details:**

2009 Sep

Intensity modulated radiation therapy (IMRT) for skull base chordomas and chondrosarcomas: outcomes in the image guided era. CARO Annual Meeting. Montreal, Quebec.

**Publication Details:**

2009 Sep

The impact of contouring specialists on the process of head and neck IMRT treatment planning. CARO Annual Meeting. Montreal, Quebec.

**Publication Details:**

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

John Nicholas WALDRON

Publication Details:

2007 Oct


Publication Details:

2007 Oct


Publication Details:

2007 Oct


Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2010 Dec


2008 May


2004 Oct 29

PET Project. Head and Neck Site Group. London Regional Cancer Centre.

1995 Apr 21


4. LOCAL

Invited Lectures and Presentations

2016 May 27

Invited Speaker. Scientific reality: challenges and caveat in Immunotherapy clinical trial design. 18th Annual Wharton/Elia Day. Princess Margaret Cancer Center. Toronto, Ontario, Canada. Presenter(s): Moderator: Irish J.

2016 Feb 1

John Nicholas WALDRON


2013 Apr  Head & Neck Cancer: Setting the Stage. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2013 Apr  Issues in Radical Radiotherapy for Head & Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2013 Apr  Vignette: Early-Stage Larynx Cancer IGRT Lessons Learned. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2013 Apr  Moving Mountains. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2013 Feb  Presenter and Invited Speaker. Head and Neck Site Group’s Perspective on Achieving Quality and Safety. RMP Quality Rounds, Princess Margaret Cancer Centre. Toronto.


2012 Mar  Head & Neck Cancer: Setting the Stage. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2012 Mar  General Principles of Head & Neck Cancer Management. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2012 Mar  Issues in Radical Radiotherapy for Head & Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2012 Mar  Vignette: Early-Stage Larynx Cancer IGRT Lessons Learned. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2012 Mar  Patient Reported Outcomes: Listening to Our Patients. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).


2011 Apr  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2010 Oct  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).


2010 Apr  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2009 Nov  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).


2009 Jun  **Panel Member.** EGFR and Beyond. Annual Wharton Day, Princess Margaret Hospital. Toronto.


2009 Apr  Group Exercise - IMRT Urban Legends. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).


2008 Oct  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).


2008 Apr  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2008 Jan  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2007 Nov  New Information Reforming Clinical Practice. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2007 Nov  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2007 Sep  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from
PMH and around the world. (Continuing Education).

2007 Sep  New Information Reforming Clinical Practice. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2007 Jun 8 Molecular Targeted Agents in Radiotherapy Future Options. Wharton Day, Princess Margaret Hospital.

2007 Jun  IGRT for Head and Neck Cancer. IGRT Education Course, Princess Margaret Cancer Centre. Toronto. ~25-30 radiation oncologists, radiation therapists, medical physicists, and industry representatives from PMH and around the world. (Continuing Education).

2006 Jun 8 This House Believes that Molecular Therapies will substantially Improve the Therapeutic Index for Head and Neck Cancer Patients. Wharton Day "Improving Outcomes in Head and Neck Cancer". Toronto.

2005 Apr 2 The Science and Management of Radiation Late Effects. University of Toronto Department of Radiation Oncology - The Kingbridge Centre. King City, Ontario.


2000 Jun  Clinical Experience with Stereotactic Radiation Therapy for Head and Neck Cancer at PMH. 2nd Annual Wharton Day, Princess Margaret Hospital.

1999 Jun  Conformal Therapy in CNS Cancer. University of Toronto CME Course. (Continuing Education).


1997 Oct 29 Studies of Radiation Sensitivity in Fibroblasts from Patients Receiving Radiation Therapy. Department of Otolaryngology Basic Science Research Meeting, University of Toronto.

1995 Nov 2  **Invited Speaker.** What’s New in Palliative Radiation Oncology? Scarborough Palliative Care Team Rounds Scarborough General Hospital. Scarborough.


**Presented Abstracts**


2010  **Supervisor of Presenter.** Human papillomavirus and oropharyngeal cancers. The 7th annual Radiation Therapy Conference. Toronto.

5. OTHER

Presented and Published Abstracts

2015 Sep 8 Speaker. OUTCOME FOLLOWING DEFINITIVE RADIOTHERAPY FOR SQUAMOUS CELL CARCINOMA OF THE NASAL VESTIBULE. CARO 2015. 29th Annual Scientific Meeting. British Columbia, Canada. Presenter(s): Ibrahim Atean, Shao Hui Huang, John Waldron, Yuyao Song, Wei Xu, Andrew Bayley, Scott Bratman, Meredith Giuliani, Andrew Hope, John Kim, Jolie Ringash, Jonathan Irish, Brian O’Sullivan.

Publication Details:

2011 Jun Results of an Ontario Clinical Oncology Group (OCOG) prospective cohort study on the use of FDG PET/CT to predict the need for neck dissection following radiation therapy of head and neck cancer (HNC).

Publication Details:

2009 Jul The role of FDG PET/CT in clinical decision making for the management of oral cancer.

Publication Details:

2009 Feb Patterns of care in elderly head and neck cancer patients: the recent PMH experience.

Publication Details:

2008 Sep Quality of Life in Patients with Nasopharyngeal Carcinoma after Intensity-Modulated Radiation Therapy.

Publication Details:

2008 Sep Delivery of Less Than Intended Cisplatin (CDDP) Dose Intensity in Patients with Locally Advanced Head and Neck Squamous Cell Carcinoma (LA-HNSCC) Receiving Concurrent Chemoradiation (CRT) Correlates with Poorer Outcome.

Publication Details:

2008 Sep Feeding Tube Requirements for Advanced Head and Neck Cancer (HNC) Patients Treated with IMRT Versus Two Dimensional Radiation Techniques (2DRT).
Publication Details:

2008 Sep
Feasibility of Reducing Radiation Dose to the Brachial Plexus (BP) for Nasopharyngeal Cancer (NPC) Patients Treated with IMRT.

Publication Details:

2008 Sep
Intensity Modulated Radiation Therapy for Nasopharyngeal Carcinoma: Analysis of Quality of Life in a Prospective Phase II Study.

Publication Details:

2008 Sep
Brachial Plexus Contouring Guideline Assessed with Inter Observer Variability during Image Guided IMRT for Head and Neck Cancer.

Publication Details:

2008 Sep
Differences in Feeding Tube Requirements for Patients Treated with IMRT Versus Two Dimensional Radiation Techniques for Advanced Head and Neck Cancer.

Publication Details:

2008 Sep

Publication Details:

Teaching Rounds/Courses

2013 Apr

2012 Dec

2012 Nov

2011 May


2010 Apr  Head and Neck Cancers. Solid Tumor Education Day. Toronto.


2009 Apr  Quality Assurance for IMRT. IGRT Education Course. Toronto.

2009 Feb  Quality Assurance for IMRT. IGRT Education Course. Toronto.


2008 Jan  Head and Neck Cancers. Oncology Course Lecture, the Michener Institute of Applied Health Sciences. Toronto.


2006 Oct  Head and Neck Tumours. PMH Nursing Education Series. Toronto.

2006 May  PET Prevent Study. Hamilton Cancer Centre, Head and Neck Site Group Doctors.

2006 Apr  Head and Neck Cancers. Dental Residents, University of Toronto. Toronto.


2005 Apr  Head and Neck Cancer Education Series. Princess Margaret Hospital, Epidemiology, Diagnosis and Staging of Head and Neck Cancer. Toronto. Two Lectures, April 1st and April 5th.
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postgraduate MD

2000
Primary Supervisor. Core Program. Dr. M. ElMahlah.

1998 - 1999
Primary Supervisor. Core Program. Dr. G. Rodrigues.

Continuing Education

2010

2006 - 2007
Primary Supervisor. Inna Kaminsky, PMH RMP.

2006 - 2007
Primary Supervisor. Jerry Roussos, PMH RMP, Radiation Medicine.

2006 - 2007
Primary Supervisor. Lyndon Johnson, PMH RMP.

Clinical Research Fellow (MD)

2014
Primary Supervisor. Dr. Irene Karam.

2014
Primary Supervisor. Dr. Ali Hosni.

2014
Primary Supervisor. Dr. Vani Ramasamy.

2013
Primary Supervisor. Dr. Sallil Vengalil.

2013
Primary Supervisor. Dr. Mathew Mason.

2013
Primary Supervisor. Dr. Eric Tran.

2012
Primary Supervisor. Dr. Phillipe Rey.

2012
Primary Supervisor. Dr. Joel Yarney.

2011
Primary Supervisor. Dr. Meredith Johnston.

2011
Primary Supervisor. Dr. Isabelle Gauthier.

2011
Primary Supervisor. Dr. Jepp Friborg.

2010
Primary Supervisor. Dr. Pranshu Mohindra.
2010  Primary Supervisor. Dr. Fionnuala Houghton.
2010  Primary Supervisor. Dr. Albert Tiong.
2009  Primary Supervisor. Dr. Ashok Nikapota.
2009  Primary Supervisor. Dr. Seema Arif.
2008 - 2009  Primary Supervisor. Dr. Indranil Mallick. Awards: Best Poster Award - U of T Department Radiation Oncology Research Day.
2008  Primary Supervisor. Dr. Yongjin Wang.
2008  Primary Supervisor. Dr. Christian Stevens.
2006 - 2007  Primary Supervisor. Dr. David Hwang.
2004 - 2005  Primary Supervisor. Dr. Shiroma DeSilva. Awards: Best Oral Presentation - University of Toronto Department of Radiation Oncology Research Day.
1999  Primary Supervisor. Dr. M. Tin.
1998  Primary Supervisor. Dr. A. Curran.
1997  Primary Supervisor. Dr. A. Mis, Department of Ocular Oncology.

2. OTHER SUPERVISION

Undergraduate Education

2013  Radiation Science students, Michener Institute, Toronto.
1996 - 2013  Undergraduate dental student teaching, Faculty of Dentistry, University of Toronto.
1994 - 2009  Undergraduate medical student teaching, Faculty of Medicine, University of Toronto.
1985 - 1986  Medical, nursing, life sciences student physiology laboratory demonstrator, Department of Physiology, Queen's University, Kingston.

Postgraduate MD

1997 - 2013  Dental resident, Radiation Oncology Clinic Rotations, Faculty of Dentistry, University of Toronto.
1994 - 2013  Radiation Oncology Residents-Fellows training, Princess Margaret Cancer Centre, University of Toronto.
Contact Information

- Name: Dr. Yongjin Wang
- Business address:
  Peel Regional Cancer Centre
  Credit Valley Hospital
  2200 Eglinton Avenue West
  Mississauga, ON  L5M 2N1
- Business Telephone: (905) 813-1100 Ext 5147
- Business Fax: (905) 813-3962
- E-mail: ywang@cvh.on.ca
- Date Curriculum Vitae was Last Updated: June 4, 2012

Education

- University Education: MB, Beijing University, China, 1981-1987
- Post-Graduate and Medical Training
  - Residency in Urology, Shandong Provincial Hospital, China, 1990-1994
  - Research Fellow, Department of Urology, Prince Henry Hospital, University of New South Wales, Sydney, Australia, 1994 – 1995
  - Research Fellow, Department of Urology, Cleveland Clinic Foundation, Cleveland, USA, 1995 – 1997
  - Research Fellow, Division of Urology, Toronto Western Hospital, University of Toronto, Toronto, Ontario, 1997 – 2002
  - Ontario International Medical Graduate Program, University of Toronto, 2002 – 2003
  - Radiation Oncology Residency Program, University of Toronto, 2003-2008
  - Radiation Oncology Fellowship Program, University of Toronto, July – Dec 2008
- Continuing Education
  - MSc, Shandong University, China, 1987-1990
- Scholarships and Awards:
  - Second Prize, American Urological Association Essay Contest, American Urological Association, USA, 1999

Biographical Information

- Degrees
  - MB, Beijing University  1987
  - MSc, Shandong University  1990
  - FRCPC, Radiation Oncology 2008
- Hospital/Staff Appointments
  - Staff Radiation Oncologist, Credit Valley Hospital and Trillium Health Centre, Mississauga, ON
- Academic Appointments
  - Lecturer Adjunct, Department of Radiation Oncology, University of Toronto
• Professional Affiliations and Activities e.g. Editor of journal, academic organizations
• Certifications and Licensures
  o Licentiate of the Medical Council of Canada (LMCC No. 89746), 2001
  o College of Physicians and Surgeons of Ontario (CPSO) Independent License, 2008-present
  o Royal College of Physicians and Surgeons of Canada, 2008-present
• Patents and Commercialization Activities
• Administration and Committee Appointments
  Local Committees
  National and Provincial Committees
  International Committees
• Journal and Grant Peer-Reviewed Responsibilities
  i. Provincial/National
  ii. International
• Editorial and Peer-Reviewed Responsibilities
  i. Editor
  ii. Manuscript Peer-Reviewer for:

Statement of Scholarly and Professional Activity

Research Grants
Currently Funded as Principal Investigator
Currently Funded as Co-Principal Investigator
Pending Grants
Previously Funded as Principal Investigator
Previously Funded as Co-Investigator

Clinical Trials

Publications
Refereed Publications

**Non-Refereed Publications**

**Book Chapters**

**Books Edited**

**Published Abstracts and Other Abstracts** e.g. Non-published (non peer-reviewed, peerreviewed & presented)


**Presentations**

**Research Supervision**

- Undergraduate
- Radiation Oncology Residents
- Radiation Oncology Research Fellows
- Graduate Students
- Post-Doctoral Fellows

**Teaching and Design**
Curriculum Vitae

Padraig Warde

A. Date Curriculum Vitae is Prepared: 2016 August 3

B. Biographical Information

Primary Office
Princess Margaret Hospital
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-2122
Fax 416-946-4586
Email padraig.warde@rmp.uhn.on.ca

1. EDUCATION

Degrees
1977 M.B., Ch.B, University of Dublin - Trinity College, Dublin, Ireland
1977 B. A.O. University of Dublin - Trinity College, Dublin, Ireland
1977 BA, University of Dublin - Trinity College, Dublin, Ireland

Postgraduate, Research and Specialty Training
2003 - 2004 Medical Administration, UHN-University of Toronto Rotman Leadership Development Program, University of Toronto, Toronto, Ontario, Canada
1985 - 1986 Chief Resident, Radiation Oncology, Radiation Oncology Training Program, University of Toronto, Toronto, Ontario, Canada
1983 - 1985 Resident, Radiation Oncology, Radiation Oncology Training Program, University of Toronto, Toronto, Ontario, Canada
1982 - 1983 Clinical Fellow, Department of Medical Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1981 - 1982 Medical Registrar, General Medicine/Medical Oncology, Department of Medical Oncology, University College, Dublin, Dublin, Ireland
1980 - 1981 Medical Registrar (Chief Resident), Internal Medicine, Mercer’s Hospital, Dublin, Ireland
1980 - 1981 Tutor, Internal Medicine, University of Dublin - Trinity College, Dublin, Ireland
1978 - 1980 Residency, Internal Medicine, University of Dublin - Trinity College, Dublin, Ireland
1977 - 1978 Internship, Internal Medicine/Medical Oncology, Dr. Steevens Hospital, Dublin, Ireland

Qualifications, Certifications and Licenses
1986 Fellow, Radiation Oncology, Royal College of Physicians of Canada
1986 Diplomate, Radiation Oncology, American Board of Radiology
1983 Licentiate, The Medical Council of Canada
1980 Member, Internal Medicine, Royal College of Physicians of Ireland
2. EMPLOYMENT

Current Appointments

2009 - present Provincial Head, Radiation Treatment Program, Cancer Care Ontario, Toronto, Ontario, Canada
2003 - present Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1987 - present Staff Radiation Oncologist, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2013 - 2014 Apr Interim Vice President, Clinical Programs and Quality Initiatives, Cancer Care Ontario, Toronto, Ontario, Canada
2013 - 2014 Apr Member, Cancer Quality Council of Ontario, Toronto, Ontario, Canada
2008 - 2010 Interim Head, Radiation Medicine Program, Southlake Regional Cancer Centre, Ontario, Canada
2005 - 2012 Deputy Head, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada
2005 - 2009 Medical Director, Clinical Research Unit, Ontario Cancer Institute, Ontario, Canada
1999 - 2005 Associate Director, Medical Programs, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada
1995 - 2002 Site Group Leader, Multidisciplinary Genitourinary Site Group, University Health Network, Toronto, Ontario, Canada
1992 - 2001 Site Group Leader, Genitourinary Site Group, Department of Radiation Oncology, Princess Margaret Hospital, Toronto, Ontario, Canada
1987 - 1996 Consultant, Medicine, Wellesley Hospital, Toronto, Ontario, Canada

UNIVERSITY - RANK
1997 - 2003 Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1987 - 1996 Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2012 Visiting Professor, Virginia Mason Medical Center, Seattle, Washington, United States. (Distinction)
2005 Visiting Professor, University of Pennsylvania, Department of Radiation Oncology, Philadelphia, Pennsylvania, United States. (Distinction)

NATIONAL
Received

2004 Visiting Professor, University of British Columbia, Department of Radiation Oncology, Vancouver, British Columbia, Canada. (Distinction)
2004 Visiting Professor, University of Dalhousie, Department of Oncology, Canada. (Distinction)
1995 Visiting Professor, University of British Columbia, Department of Surgery, Vancouver,
Padraig WARDE

British Columbia, Canada. (Distinction)

1986
Research Fellowship Award, National Cancer Institute of Canada. (Research Award)

1985
Resident Award Session - 1st Prize, Canadian Association of Radiologists, Canada. (Distinction)

LOCAL
Received

2011
Sustained Excellence in Research, University of Toronto, Department of Radiation Oncology, Toronto, Ontario, Canada. (Distinction)

2005
Best Guest Speaker, University of Toronto, Department of Radiation Oncology, Toronto, Ontario, Canada. (Distinction)

2004
Best RMP Rounds for Fall 2004, Princess Margaret Hospital, Toronto, Ontario, Canada. (Distinction)

In recognition of presentation: “Radiation Therapy for Prostate Cancer Adjunctive Hormones for All?” Radiation Medicine Program.

2003
Sustained Excellence in Research, University of Toronto, Department of Radiation Oncology, Toronto, Ontario, Canada. (Distinction)

1977
G.B. McHutchson Final Medical Examination 1st place overall, Trinity College, Dublin, Ireland. (Distinction)

1977
Honours Degree in Medicine, University of Dublin - Trinity College, Dublin, Ireland. (Distinction)

1977
Professor’s Prize in Paediatrics – 1st Place. (Distinction)

1977
Reuben Harvey Memorial Prize, Royal College of Surgeon’s of Ireland, Dublin, Ireland. (Distinction)

1977
Sir Arthur Ball Memorial Prize for 1st Place in Surgery. (Distinction)

Teaching and Education Awards

LOCAL
Received

1999
Residents Award for Excellence in Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

1999
Wightman-Berris Academy Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University Health Network, Toronto, Ontario, Canada for excellence in Undergraduate and Postgraduate teaching, (Toronto General Hospital, Toronto Western Hospital and Princess Margaret Hospital).

1993
Residents Award for Excellence in Clinical Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

Student/Trainee Awards

INTERNATIONAL
Received

2013
GU Merit Award, Awardee Name: Dr. Swetha Sridharan (Fellow). ASCO
NATIONAL

Received

2010  Young Canadian Investigator Award, Awardee Name: Dr. Eric Leung (Radiation Oncology Resident). Novartis Oncology

2006  Young Canadian Investigator Award, Awardee Name: Dr. Jarad Martin (Radiation Oncology Fellow). Novartis Oncology

2001  Grant For Research Protocol, Awardee Name: Dr. Michael Lock (Radiation Oncology Resident). ACURA
A phase III evaluation of gabapentin for the treatment of hot flushes in prostate cancer patients undergoing androgen deprivation therapy. Total Amount: 23,900

LOCAL

Received

2000  R S Bush Award. University of Toronto
Best Fellow’s Presentation, Dr Andrew Bayley (Radiation Oncology Fellow).

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Society of Clinical Oncology
Member, American Society of Therapeutic Radiology and Oncology
Member, American Urological Association
Member, Canadian Association of Radiation Oncologists
Member, Canadian Urological Association
Member, Canadian Uro-Oncology Group
Member, European Society of Radiation Oncology
Member, Ontario Medical Association

Administrative Activities

INTERNATIONAL

International Board of UK
2004 - 2009  Member, Clinical Trials Awards and Advisory Committee (CTAAC), United Kingdom.

Movember Foundation
2013 - present  Chair, Global Testicular Cancer Research Advisory Committee
2013 - present  Member, Prostate Cancer Research Advisory Committee

NATIONAL

Canadian Prostate Cancer Research Initiative
2006 - 2008  Chair, Management Committee, Canada.
2004 - 2006  Board Member, Management Committee, Canada.
2003 - 2006  Member, Management Committee, Canada.
National Cancer Institute of Canada
1994 - present  **Member**, Clinical Trials Group, Genitourinary Committee, Canada.
1999 - 2003  **Member of Executive**, Clinical Trials Group, Genitourinary Committee, Canada.
1995 - 2001  **Representative**, Clinical Trials Group - Princess Margaret Hospital Centre, Canada.

Princess Margaret Hospital Centre

PROVINCIAL / REGIONAL
Cancer Care Ontario
2011 - present  **Chair**, Models of Care Committee, Ontario, Canada.
1996 - present  **Member**, GU Guidelines Committee, Ontario, Canada.
2006 - 2009  **Member**, IMRT Standards Committee, Ontario, Canada.

Ontario Medical Association
1994 - 2001  **Chair**, Tariff Committee, Section of Radiation Oncology, Ontario, Canada.
1991 - 1993  **Executive Member**, Section of Radiation Oncology, Ontario, Canada.
1989 - 1991  **Chair**, Section of Radiation Oncology, Ontario, Canada.

Princess Margaret Hospital
2008 - 2009  **Chair**, Radiation Oncology Provincial Advisory Committee
2005 - 2009  **Member**, Radiation Oncology Provincial Advisory Committee

LOCAL
Department of Radiation Oncology
1998 - 2001  **Chair**, Clinical Research Committee
1997 - 1998  **Chair**, Radiation Therapy Technical Review Committee
1994  **Chair**, Ad-hoc Committee on Radiation Therapy Review Clinics
1992  **Member**, Ad-hoc Committee on Inpatient Care

Princess Margaret Cancer Centre
1992 - 1994  **Chair**, Radiation Services Subcommittee Medical Advisory Committee
1989 - 1992  **Chair**, Clinical Trials Committee
1989 - 1992  **Secretary**, Medical Advisory Committee
1988 - 1989  **Department of Radiation Oncology Representative**, Resource Management Committee
1988 - 1989  **Member**, Ambulatory Care Subcommittee of Medical Advisory Committee
1988 - 1989  **Executive**, Medical Staff Association

University of Toronto
2006 - present  **Member**, Executive Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1999 - 2001  **Member**, Department of Radiation Oncology, Senior Advisory Committee, Toronto, Ontario,
Canada.

1998 Jan - 1999  Chair, Oncology Research Ethics Board II, Toronto, Ontario, Canada.
1995 - 1996 Feb  Member, Oncology Research Ethics Board I, Toronto, Ontario, Canada.
1988 - 1994  Member, Radiation Oncology Residents Committee, Toronto, Ontario, Canada.

Peer Review Activities

EDITORIAL BOARDS
Advisory Editor 2005 - 2013 Our Voice

GRANT REVIEWS
External Grant Reviewer
Alberta Cancer Board
Canadian Prostate Cancer Research Initiative
Clinical Trials and Awards Committee of Cancer Research, UK
Conseil D’évaluation Des Technologies De La Santé, Québec
Institute of Cancer Research, UK
Irish Cancer Society
National Cancer Research Initiative UK
Prostate Cancer UK
Ministry of Health, Ontario, Health research personnel development program

MANUSCRIPT REVIEWS
Reviewer
Canadian Journal of Urology
Cancer
Cellular and Molecular Life Sciences
Clinical Oncology
European Urology
Expert Review of Anticancer Therapy
International Journal of Radiation Oncology, Biology, Physics
Journal of Canadian Association of Urology
Journal of Clinical Oncology
Journal of the National Cancer Institute
Journal of Urology
Lancet
Nature Clinical Practice Urology
Urologic Oncology
Urology
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2013 Jul - present

2011 Oct - 2012

2010 Mar - 2015

2010 Mar - 2013

1995 - 2014
Senior Investigator. Phase III randomized trial comparing total androgen blockage versus total androgen blockage plus irradiation in clinical stage T3-T4, N0, M0 adenocarcinoma of the prostate. National Cancer Institute of Canada Clinical Trials Group /Eastern Co-operative Oncology Group/South Western Oncology Group / Medical Research Council. 2,400,000. [Grants]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Padraig WARDE


Journal Articles, Randomized Controlled Trial


Journal Articles, Review


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Editorials


Commentaries

Letters to Editor


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2013 Sep  "Locally Advanced Prostate Cancer". Presidential Symposium. American Society for Radiation Oncology (ASTRO. Atlanta, Georgia, United States.

2013 Mar  "Does Radiation Therapy Increase the Survival in Patients with Prostate Cancer?". Radiation Oncology in Prostate and Bladder Cancer - Current and Future Concepts. Munich, Germany.

2013 Feb  "Management of Relapsed Stage I Seminoma". ASCO GU. Orlando, Florida, United States.


2009 Feb  "Image-Guided Radiotherapy for Cancer". Highlights in Oncology. CRO. Aviano, Italy.


2008 May  "TIN and Testis Preservation". ESMO International Symposium (EIS) on Testicular Cancer. Munich, Germany.


Presented Abstracts


2. NATIONAL

Invited Lectures and Presentations

2012 Nov  “Radiation Therapy for Prostate Cancer in 2012 and Beyond”. Man to Man, Prostate Cancer Canada. Toronto, Ontario, Canada.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2009 Oct  “Delayed Postoperative Radiotherapy is the Best Treatment for Prostate Cancer”. Prostate Cancer Champions Workshop - Cancer Care Ontario. Toronto, Ontario, Canada.


2009 May  “Prostate Cancer – Role of Hormonal Therapy. GU Rounds, Sudbury Regional Cancer Centre. Sudbury, Ontario, Canada.


4. LOCAL

Invited Lectures and Presentations


2008 Oct Seminoma: “From more to less”. Developments in Cancer Management: Conquering Cancer in our Lifetime. The 8th Princess Margaret Hospital Conference. Toronto, Ontario, Canada.


2007 Feb Adjuvant Hormonal Therapy of Prostate Cancer with Reference to Current Trials. GU Tumour Board Rounds, Credit Valley Hospital. Toronto, Ontario, Canada.
Curriculum Vitae

C Shun Wong
MD, FRCPC

A. Date Curriculum Vitae is Prepared: 2016 August 3

B. Biographical Information

Primary Office
Sunnybrook Health Sciences Centre
Odette Cancer Centre
Department of Radiation Oncology
2075 Bayview Avenue, T2
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-6100 ext 2625
Fax 416-480-6002
Email shun.wong@sunnybrook.ca

1. EDUCATION

Degrees
1980 MD, University of Toronto, Toronto, Ontario, Canada

Postgraduate, Research and Specialty Training
1986 Research Fellow MD, Anderson Cancer Centre, Houston, Texas, United States,
Supervisor(s): Dr. K.K. Ang
1985 Clinical Assistant, Department of Radiation Oncology, Princess Margaret Hospital, Toronto,
Ontario, Canada
1982 - 1985 Resident, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1981 - 1982 Resident, Department of Internal Medicine, University of Toronto, Toronto, Ontario, Canada
1980 - 1981 Intern, Sunnybrook Medical Centre, University of Toronto, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
1986 Therapeutic Radiology, American Board of Radiology, United States
1985 Royal College of Physicians and Surgeons of Canada (FRCPC), Ontario, Canada, License / Membership #: 33377
1985 Fellow, Radiation Oncology, Royal College of Physicians and Surgeons of Canada, Canada
1980 LMCC, Medical Council of Canada, Canada
2. EMPLOYMENT

Current Appointments

2013 - present  Courtesy Staff, Department of Medicine, Rouge Valley Health System, Toronto, Ontario, Canada
2013 - present  Clinician Scientist, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2009 - present  Consultant, Department of Surgery, North York General Hospital, Toronto, Ontario, Canada
2009 - present  Courtesy Staff, Department of Medicine, The Scarborough Hospital, Toronto, Ontario, Canada
2004 - present  Vice-Chair, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2002 - present  Senior Scientist, Biology, Sunnybrook Health Sciences Centre, Ontario, Canada
2002 - present  Staff Radiation Oncologist, Odette Cancer Centre, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
2000 - present  Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2000 - present  Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
2002 - 2013  Chief, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Ontario, Canada
2002 - 2013  Head, Odette Cancer Centre, Radiation Treatment Program, Sunnybrook Health Sciences Centre, Ontario, Canada
1987 - 2002  Staff Radiation Oncologist, Princess Margaret Hospital, Toronto, Ontario, Canada
1987  Staff Radiation Oncologist, Toronto Bayview Regional Cancer Centre, Toronto, Ontario, Canada

RESEARCH
1997 - 2001  Research Director, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada
1996 - 2002  Senior Scientist, Division of Experimental Therapeutics, Ontario Cancer Institute, Ontario, Canada
1996 - 2001  Research Director, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1992 - 1996  Associate Scientist, Division of Experimental Therapeutics, Ontario Cancer Institute, Ontario, Canada

UNIVERSITY - RANK
1994 - 2000  Associate Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
1994 - 2000  Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1988 - 1994  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
1987 - 1988  Lecturer, Department of Radiology, University of Toronto, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

PROVINCIAL / REGIONAL

Received 2013 - 2018

**Clinician Scientist Award**, Ontario Association of Radiation Oncologists, Toronto, Ontario, Canada. (Clinician Scientist Award)
*Total Amount: 500,000 CAD*

LOCAL

Received 2003

**Sustained Excellence in Research Award**, Department of Radiation Oncology, Ontario, Canada. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2009 - present  **Member**, Canadian Association of Neuroscience
2005 - present  **Member**, Society for Neuroscience
1998 - present  **Member**, American Association for Cancer Research
1997 - present  **Member**, Journal Club Chinatown Physicians
1992 - present  **Member**, Canadian Medical Association
1992 - present  **Member**, Ontario Medical Association
1990 - present  **Member**, Radiation Research Society
1989 - present  **Member**, Canadian Association of Radiation Oncologists
1989 - present  **Member**, Chinese Canadian Medical Society
1988 - present  **Member**, Canadian Medical Protective Association

Administrative Activities

INTERNATIONAL

**The American Association of Physicists in Medicine**

2013 - present  **Member**, Working Group on Biological Effects of Hypofractionated Radiotherapy/SBRT, College Park, Maryland, United States.

NATIONAL

**Canadian Association of Radiation Oncologists**

1998  **Chair**, Resident Paper Session, Annual Meeting, Canada.

**Colorectal Cancer Association**

2008  **Member**, Advisory Board, Ontario, Canada.
Eloxatin
2008 Consultant, National Rectal Cancer Consultative Meeting, Ontario, Canada.

Royal College of Physicians and Surgeons of Canada.
2000 Member, Abstract Review Panel, 2000 meeting, Canada.

PROVINCIAL / REGIONAL
Cancer Care Ontario
2015 - present Colorectal Cancer Working Group-Quality Indicators for pre-operative assessment in rectal patients, Ontario, Canada.
2012 - 2015 Member, Pre-treatment Assessment of Rectal Cancer, Program in Evidence Based Care, Ontario, Canada.
2009 Member, Search Committee, Quality Lead, Radiotherapy, Radiation Treatment Program, Ontario, Canada.
2009 Member, Search Committee, Quality Lead, Radiation Oncology, Radiation Treatment Program, Ontario, Canada.
2009 Member, Search Committee, Quality Lead, Medical Physics, Radiation Treatment Program, Ontario, Canada.
2008 Member, Search Committee, Provincial Head for Radiation Treatment Program, Ontario, Canada.
2006 Member, Toronto RCP Performance Monitoring & Improvement Group, Ontario, Canada.
2005 - 2013 Member, Provincial Radiation Treatment Program Committee, Ontario, Canada.
2003 - 2007 Member, Durham Evening Clinic at Sunnybrook Steering Committee, Ontario, Canada.
2002 - 2013 Member, Radiation Oncology Professional Advisory Committee, Ontario, Canada.
2002 - 2003 Member, Radiation Treatment Advisory Committee, Ontario, Canada.

Ontario Medical Association
1996 - 1997 Chair, Education and Programs Committee; Section, Radiation Oncology, Ontario, Canada.
1993 - 1994 Chair, Education and Programs Committee, Section on Radiation Oncology, Toronto, Ontario, Canada.

Royal Victoria Hospital
2007 - 2012 Chair, Search Committee, Radiation Oncologists, Ontario, Canada.

Royal Victoria Hospital/Odette Cancer Center
2008 - 2012 Member, Radiation Treatment Program, Steering Committee, Toronto, Ontario, Canada.

St. Paul L’Amoreaux Senior Centre
1999 - 2001 Board Member, Ontario, Canada.

LOCAL
Princess Margaret Cancer Center
2016 - present Member, Review Committee for Campbell Chair in Breast Cancer Research, Toronto, Ontario, Canada.
Princess Margaret Hospital
1999 - 2001 **Institute Representative**, NCIC CTG Brain Site, Toronto, Ontario, Canada.
1998 - 2001 **Member**, Search Committee for Staff Radiation Oncologists, Toronto, Ontario, Canada.
1998 - 2001 **Chair**, Research Committee, Radiation Medicine Program, Toronto, Ontario, Canada.

1997 **Chair**, Research Sub-committee for Strategic Planning, Radiation Services, Toronto, Ontario, Canada.
1998 - 2001 **Member**, Search Committee for Staff Radiation Oncologists, Toronto, Ontario, Canada.
1998 - 2001 **Chair**, Research Committee, Radiation Medicine Program, Toronto, Ontario, Canada.
1997 **Member**, Ad-Hoc Committee on Academic Programs, Department of Radiation Oncology, Toronto, Ontario, Canada.
1993 - 1995 **Member**, Search Committee for Senior Scientist, Division of Experimental Therapeutics, Toronto, Ontario, Canada.
1993 - 1995 **Member**, Radiographers Education Committee, Toronto, Ontario, Canada.
1993 - 1995 **Chair**, Radiographers Education Committee, Toronto, Ontario, Canada.
1993 - 1999 **Member**, Pharmacy and Therapeutics Committee, Toronto, Ontario, Canada.
1993 - 1995 **Member**, Pharmacy Computerization Review Group, Toronto, Ontario, Canada.
1991 - 1995 **Member**, Search Committee for Academic Programs, Department of Radiation Oncology, Toronto, Ontario, Canada.
1993 - 1995 **Member**, Medical Staff Association Executive, Toronto, Ontario, Canada.
1993 - 1995 **Member**, Symptom Control Subcommittee, Toronto, Ontario, Canada.
1993 - 1995 **Member**, Incident Forms Task Group, Toronto, Ontario, Canada.
1992 - 1993 **Chair**, Research Advisory Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1991 - 1995 **Member**, Medical Staff Association Executive, Toronto, Ontario, Canada.
1991 - 1995 **Member**, Search Committee for Senior Scientist, Division of Experimental Therapeutics, Toronto, Ontario, Canada.
1991 - 1999 **Member**, Pharmacy and Therapeutics Committee, Toronto, Ontario, Canada.
1990 - 1994 **Chair**, Radiographers Education Committee, Toronto, Ontario, Canada.
1988 - 1994 **Member**, Terry Fox Fellowship Committee, Toronto, Ontario, Canada.
1988 - 1994 **Member**, Incident Forms Task Group, Toronto, Ontario, Canada.
1993 - 1999 **Member**, Medical Staff Association Executive, Toronto, Ontario, Canada.
1993 - 1995 **Member**, Search Committee for Senior Scientist, Division of Experimental Therapeutics, Toronto, Ontario, Canada.
1993 - 1995 **Member**, Radiographers Education Committee, Toronto, Ontario, Canada.
1993 - 1995 **Chair**, Radiographers Education Committee, Toronto, Ontario, Canada.
1991 - 1995 **Member**, Search Committee for Senior Scientist, Division of Experimental Therapeutics, Toronto, Ontario, Canada.
1990 - 1994 **Chair**, Radiographers Education Committee, Toronto, Ontario, Canada.
1988 - 1994 **Member**, Terry Fox Fellowship Committee, Toronto, Ontario, Canada.

Sunnybrook Health Sciences Centre
2013 - present **Member**, Search Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2013 **Member**, Cancer Committee, Toronto, Ontario, Canada.
2012 - 2013 **Member**, Search Committee, Head of Division of Medical Oncology/Hematology, Toronto, Ontario, Canada.
2011 **Member**, Search Committee, Chief of Odette Cancer Centre, Toronto, Ontario, Canada.
2008 - 2012 **Chair**, Search Committee for Head of Medical Physics, Toronto, Ontario, Canada.
2008 **Member**, 5-Year Review, Department of Dentistry, Toronto, Ontario, Canada.
2007 - 2010 **Member**, Clinical Trials & Epidemiology Steering Committee, Toronto, Ontario, Canada.
2007 **Member**, External review, CNS Disease Site Group, Toronto, Ontario, Canada.
2007 **Member**, Integrated Management Committee, Toronto, Ontario, Canada.
2006 **Member**, 5-Year Review, Department of Anesthesia, Toronto, Ontario, Canada.
2005 **Member**, Search Committee for Regional VP, Cancer Program, Toronto, Ontario, Canada.
2005 **Member**, TSRCC ICP IM Strategy Committee, Toronto, Ontario, Canada.
2004 - 2013 **Chair**, Steering Committee, Radiation Treatment Program, Toronto, Ontario, Canada.
2004 - 2013 **Member**, Clinical Operations Committee, Radiation Treatment Program, Toronto, Ontario, Canada.
2004 - 2013 **Member**, Research Advisory Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2003 - 2013 **Chair**, PET/CT Committee, Toronto, Ontario, Canada.
C Shun WONG

2003 - 2013  Chair, PET/CT Research Committee, Toronto, Ontario, Canada.
2003 - 2005  Member, Prostate Cancer Steering Committee, Toronto, Ontario, Canada.
2003         Member, Toronto Cancer Research Partnership, Toronto, Ontario, Canada.
2002 - 2013  Member, Medical Advisory Committee, Toronto, Ontario, Canada.
2002 - 2013  Member, Senior Medical Council, Toronto, Ontario, Canada.
2002 - 2013  Member, Program Council, Cancer Program, Toronto, Ontario, Canada.
2002 - 2013  Chair, Radiation Oncology Manpower Committee, Toronto, Ontario, Canada.
2002 - 2013  Chair, Radiation Oncology Staff Committee, Toronto, Ontario, Canada.
2002 - 2013  Member, Editorial Board of Hot Spot Newsletter, Toronto, Ontario, Canada.
2002 - 2013  Member, Site Group Leaders Committee, Toronto, Ontario, Canada.
2002 - 2013  Member, Radiation Oncology Associates Executive, Ontario, Canada.
2002 - 2013  Chief, Department of Radiation Oncology, Toronto, Ontario, Canada.
2002 - 2011  Member, Discipline of Molecular and Cell Biology, Toronto, Ontario, Canada.
2002 - 2004  Member, Academic Medical Council, Toronto, Ontario, Canada.
2002 - 2004  Member, Search Committee for Cancer Research Director, Toronto, Ontario, Canada.
2002 - 2003  Member, Radiation Program Expanded Group, Toronto, Ontario, Canada.
2002 - 2003  Chair, Radiation Program Core Group, Toronto, Ontario, Canada.
2002 - 2003  Chair, Search Committee for Medical Physics Research Director, Toronto, Ontario, Canada.
2002 - 2003  Member, IMRT Committee, Toronto, Ontario, Canada.
2002 - 2003  Member, TSRCC/DRCC Evening Clinic Committee, Toronto, Ontario, Canada.
2002         Member, Search Committee for Chief of Dentistry, Toronto, Ontario, Canada.
2002         Member, Search Committee for Chief of Radiology, Toronto, Ontario, Canada.
2002         Member, Search Committee for Clinician Scientists, Cancer Program, Toronto, Ontario, Canada.
2001 - 2003  Member, TSRCC/CROS Steering Committee, Toronto, Ontario, Canada.

University of Toronto
2015 - present  Member, Executive Committee, Faculty of Medicine, Institute of Medical Science, Multilevel Education, Toronto, Ontario, Canada.
2006 - present  Member, Finance Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2005 - present  Chair, Three-Year Review Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2005 - present  Chair, Appointments Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2005 - present  Member, Vice Chairs Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2005 - present  Chair, Promotions Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2003 - present  Member, EIRR 21st Grants Panel, Toronto, Ontario, Canada.
2001 - present  Member, Executive Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2012 - 2015  Member, IMS, Appointments Committee, Toronto, Ontario, Canada.
2012         Judge, Laidlaw Manuscript Competition, Toronto, Ontario, Canada.
2011         Member, Search Committee for Campbell Chair in Breast Cancer Research, Toronto, Ontario, Canada.
2011         Member, Search Committee for Farghason Chair in Renal Cancer Research, Toronto, Ontario, Canada.
2009  **Acting Chair**, Department of Radiation Oncology, Toronto, Ontario, Canada.
2006  **Member**, Search Committee, Chief of Department of Radiation Oncology, Toronto, Ontario, Canada.
2006  **Member**, Five-year Review Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
2002 - 2013  **Member**, Fellowship Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1997 - 2001  **Chair**, Resident Research Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1997 - 2001  **Member**, Resident Selection Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1997 - 2001  **Member**, Fellowship Selection Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1996 - 2001  **Director**, Research, Department of Radiation Oncology, Toronto, Ontario, Canada.
1996 - 2001  **Member**, Senior Advisory Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1996 - 2001  **Chair**, Research Advisory Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
1996  **Member**, Committee on Graduate Education in Clinical Sciences, for Institutional Self-study for Accreditation, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education, Toronto, Ontario, Canada.
1992 - 2004  **Member**, Promotions Committee, Department of Radiation Oncology, Toronto, Ontario, Canada.
  
*Medical School Applicants.*

**Peer Review Activities**

**ASSOCIATE OR SECTION EDITING**

**Associate Editor**

Case Reports in Medicine

**GRANT REVIEWS**

**Internal Grant Reviewer**

2015 - 2016  Department of Radiation Oncology, University of Toronto, Collaborative Seed Grants
2015  Sunnybrook Health Sciences Centre, Odette Cancer Centre, Tiffin Grants

**Reviewer**

Alberta Cancer Board
Cancer Studies, School of Medicine, University of Manchester
Henry Ford Health Sciences Center, Detroit Saskatchewan Cancer Agency
Medical Research Council
National Cancer Institute of Canada
North Carolina Biotechnology Center Science & Technology Development Program
Saskatchewan Cancer Agency

**Grant Panels**

2016  Canadian Institute for Health Research, Project Grant Competition
2011  Canadian Institute for Health Research, Cancer Biology & Therapeutics
C Shun WONG

2008 - 2009  National Institutes of Health, Special Emphasis Panel
2007 - 2013  Canadian Association of Radiation Oncologists, Rapid AstraZeneca Evaluation of Radiomodifiers (RAZCER) grants
2005       National Institutes of Health, Pharmacology and Diagnostics for Neuropsychiatric Disorders Canadian Breast Cancer Research Alliance, Idea Grant Panel
2003 - 2005  National Cancer Institute of Canada, Panel I: Clinical Trials and Clinical Studies
2003 - 2004  National Aeronautics and Space Administration (USA), Space Radiation Biology Research Panel
1993 - 1996  National Cancer Institute of Canada, Panel E: Photobiology, Physics, Radiobiology

MANUSCRIPT REVIEWS

Reviewer

Acta Oncologica
BioMed Research International
BMC Cancer
Brain Research
Canadian Journal of Neurological Science
Cancer Journal Scientific American
Cancer Research
Case Reports in Medicine
Case Reports in Neurologic Medicine
Clinical and Investigative Medicine
Clinical Cancer Research
Clinical Oncology
Digestive Surgery
Genomics, Proteomics & Bioinformatics
Gynecologic Oncology
International Journal of Radiation Biology
International Journal of Radiation Oncology Biology Physics
Journal of Clinical Oncology
Journal of Neuro-Oncology
Journal of Neuroscience Research
Journal of Surgical Oncology
Lancet Neuroscience
Molecular Cancer Therapeutics
Neurochemistry International
NeuroOncology
Neuroscience
Oncology
Oncology Letters
Oncotarget
Physica Medica: European Journal of Medical Physics
PLOS one
Proceedings of National Academy of Sciences
Radiation Research
Radiotherapy and Oncology
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2009 - 2010  **Co-Investigator.** Ultrasound microbubble enhancement of bladder cancer responses to radiation. American Association for Cancer Research, Henry Sheppard Translational Research Grant. PI: Czarnota GJ. Collaborator(s): **Wong CS**. 125,000 USD. [Grants]


2005 - 2008  **Principal Investigator.** The neuroprotective role of erythropoietin in radiation-induced CNS injury. OCRN. 526,893 CAD. [Grants]


2002 - 2006  **Principal Investigator.** Role of endogenous and exogenous neural stem cells and progenitor cells in CNS radiation responses. National Cancer Institute of Canada (NCIC). 479,403 CAD. [Grants]

2002 - 2004  **Collaborator.** Equipment maintenance support for oncologic molecular micro-imaging.


1997 - 2000  **Principal Investigator.** The role of apoptosis in radiation damage to the central nervous system. National Cancer Institute of Canada (NCIC). 417,603 CAD. [Grants]

1994 - 1997  **Principal Investigator.** Repair and recovery of radiation damage in rat spinal cord. National Cancer Institute of Canada (NCIC). 391,806 CAD. [Grants]


**NON-PEER-REVIEWED GRANTS**

**FUNDED**


2007 - 2014  **Principal Investigator.** Radiation biology of the central nervous system. CS Wong Medicine Corporation. 315,000 CAD. [Grants]


2007 - 2008  **Principal Investigator.** Tissue protective peptide in radiation-induced brain injury. Arain
Pharmaceuticals Inc. 10,665 CAD. [Grants]

2006 - 2008  **Principal Investigator.** Positron emission tomography (PET) evaluation study - Sunnybrook site. Ministry of Health and Long-Term Care Research Grant. 130,000 CAD. [Grants]


2004  **Principal Investigator.** Neuroprotection in a mouse model of behavioral and learning/memory impairment after cranial irradiation. Ortho Biotech. 64,407 CAD. [Grants]

2002 - 2007  **Principal Investigator.** Research Support. Sunnybrook Health Sciences Centre. 635,000 CAD. [Grants]


2002  **Principal Investigator.** Equipment Grant. Sunnybrook Health Sciences Centre. 145,238 CAD. [Grants]


1999  **Principal Investigator.** Travel Award. Radiation Research Society. 500 USD. [Grants]


1992  **Principal Investigator.** Continuing Education Day - Current Controversies in the Colorectal Cancer. Princess Margaret Hospital Foundation. Collaborator(s): Moore M. 19,400 CAD. [Grants]

1978  **Principal Investigator.** A study of the influence of dose fractionation on the radiation tolerance of the rat spinal cord. Princess Margaret Hospital Trust Fund. 2,940 CAD. [Grants]

**2. SALARY SUPPORT AND OTHER FUNDING**

**Personal Salary Support**

D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   Neural progenitors in adult brain undergo p53-dependent apoptosis after irradiation. In contrast, radiation-induced apoptosis of microvascular endothelial cells is regulated by membrane acid sphingomyelinase. Using genetic, pharmacological and transplantation approaches, we provide evidence that endothelial cells may regulate p53-dependent apoptosis of neural progenitors after genotoxic stress.


   Microvascular permeability changes and loss of blood-brain barrier integrity are important features of central nervous system (CNS) radiation injury. Expression of vascular endothelial growth factor (VEGF) is an important determinant of microvascular permeability. Hypoxia mediates VEGF up-regulation through hypoxia-inducible factor-1 alpha (HIF1alpha). In rat spinal cord, we observed increase in astrocytic expression of HIF1-alpha and VEGF before the onset of radiation-induced white matter necrosis and forelimb paralysis. VEGF-low-expressing mice were found to be protected from radiation myelopathy compared to wild type or VEGF-high-expressing mice. Our study provided first evidence for a causative role of VEGF in CNS radiation injury.


   Ionizing radiation results in acute disruption of the blood-brain barrier. Following radiation, microvascular endothelial cells undergo apoptosis, a process mediated by membrane acid sphingomyelinase. We show that in acid sphingomyelinase-deficient mice, ionizing radiation does not result in endothelial cell apoptosis and there is no disruption of the blood-brain barrier after irradiation. Intravenous basic fibroblast growth factor which protects endothelial cell from apoptosis after irradiation also confers protection against disruption of the blood-brain barrier. Our study provides mechanistic insight that links endothelial cell apoptosis to acute blood-brain barrier disruption after irradiation.


   Dysfunction of the blood-brain barrier is associated with radiation-induced white matter lesions. Using the rat radiation myelopathy model, we showed a dose-dependent temporal and spatial association of hypoxia, vascular endothelial growth factor (VEGF) up-regulation, and radiation-induced blood-spinal cord barrier disruption. The results provide the first observation that tissue hypoxia and VEGF up-regulation play a role in blood-brain barrier permeability damage in the spinal cord after ionizing radiation, and add mechanistic insight to the underlying pathophysiology of late CNS effects after irradiation.


   We characterized acute apoptosis in rat spinal cord after irradiation and provided the first observation that apoptotic cells after ionizing radiation in the adult spinal cord are cells of the oligodendroglial lineage.
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


86. Li YQ, Wong CS. Radiation-induced apoptosis in the adult central nervous system is p53 dependent. Cell Death Diff. 7: 712-720, 2000. **Senior Responsible Author.**


89. Li YQ, Wong CS. Radiation-induced apoptosis in the adult central nervous system is p53 dependent. Cell Death Diff. 7: 712-720, 2000. **Senior Responsible Author.**


In Preparation


3. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Editorials


4. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2006  
**Visiting Professor.** CNS Radiation Injury: Present and Future Directions for Neuroprotection. Department of Radiation Oncology, Henry Ford Health System. Detroit, Michigan, United States.

2004  

2003  
**Invited Lecturer.** Molecular targets for disruption of blood-brain barrier following ionizing radiation. Semi-Annual Meeting, Radiation Therapy Oncology Group. Montreal, Quebec, Canada.

2003  
**Invited Speaker.** Endothelial apoptosis initiates acute blood-brain barrier disruption following ionizing radiation. Gordon Research Conference. Ventura, California, United States.

2002  
**Visiting Professor.** Radiation-induced CNS injury: Current concepts and future directions. Cancer Hospital/Cancer Institute, Fudan University. Shanghai, China.

2000  
**Invited Speaker.** Hypoxia and VEGF in radiation-induced blood-brain barrier disruption. European Society of Radiation Biology. Warsaw, Poland.

2000  
**Visiting Professor.** Mechanisms of radiation injury in the central nervous system. Department of Radiation Oncology, University Hospital Nijmegen. Netherlands.

1999  
**Visiting Professor.** Mechanisms of radiation injury in the central nervous system. Medical Department, Brookhaven National Laboratory. New York, United States.

1998  

1996  

1994  
**Visiting Professor.** Radiation myelopathy: Lessons from our patients. Department of Radiotherapy and Oncology, Queen Elizabeth Hospital. Hong Kong, China.

1991  

Presented Abstracts

2016  
**Presenter.** Cranial irradiation induces cellular senescence in mouse hippocampus. 10th FENS. Copenhagen, Denmark.

2015  
**Presenter.** p53 regulates inhibition of hippocampal neurogenesis after irradiation. AACR. Shanghai, China.

2014  

2014  
**Presenter.** p53 mediates distinct DNA damage response in neural stem cells and neuroprogenitors in dentate gyrus. 9th FENS. Milan, Italy.

2013  
**Presenter.** Radiation-induced neural progenitor dysfunction is p53 dependent. FENS Featured Regional Meeting. Prague, Czech Republic.


2008 Role of ICAM1 in CNS radiation injury. 31th Annual Meeting of the Japan Neuroscience Society. Tokyo, Japan.


2005 Systemically administered erythropoietin protects the irradiated brain through anti-inflammatory mechanisms. 96th Annual Meeting, American Association for Cancer Research. Anaheim, California, United States.

2005 Systemically administered erythropoietin protects the irradiated brain through anti-inflammatory mechanisms. 52nd Annual Meeting of the Radiation Research Society. Denver, Colorado, United States.

2005 Systemically administered erythropoietin protects the irradiated brain through anti-inflammatory mechanisms. ASTRO 47th Annual Meeting. Denver, Colorado, United States.


2002 Radiation induces acute endothelial cell loss and blood-brain barrier disruption in the CNS. 93rd Annual Meeting, American Association for Cancer Research. San Francisco, California, United States.


1999 Proliferation parameters in epidermoid carcinomas of the anal canal. 41st Annual Meeting, American
Role of PKB and ceramide in radiation-induced apoptosis in oligodendrocytes. 11th International Congress of Radiation Research. Dublin, Ireland.

Radiation-induced apoptosis in the CNS. 8th International Symposium of Society of Chinese Bioscientists in America. Hong Kong, China.

Radiation-induced apoptosis in the central nervous system. “Growth and death in the nervous system”. XVIth Meeting of the Swiss Society of Neuropathology. St. Moritz, Switzerland.


Expression for p53 protein is an independent prognostic variable in epidermoid carcinoma of the anal canal. 40th Annual Meeting, American Society for Therapeutic Radiology and Oncology. Arizona, Arizona, United States.

Radiation-induced apoptosis and glial cell proliferation in rat spinal cord. 45th Annual Meeting, Radiation Research Society. Providence, Rhode Island, United States.

Proliferation, apoptosis and their relationship to clinical outcome in cancer of the uterine cervix. 39th Annual Meeting, American Society for Therapeutic Radiology and Oncology. Orlando, Florida, United States.


Oligodendrocytes are target cells of radiation-induced apoptosis in CNS. 15th Annual Meeting, European Society for Therapeutic Radiology and Oncology. Vienna, Austria.

Failure of the LQ model to describe the fractionation effect in rat spinal cord. 43rd Annual Meeting, Radiation Research Society. San Jose, California, United States.

Blood-spinal cord-barrier function and morphometry after single doses of X-rays in rat spinal cord. 43rd Annual Meeting, Radiation Research Society. San Jose, California, United States.

Recovery kinetics of radiation damage in rat spinal cord. 10th International Congress of Radiation Research. Wurzburg, Germany.

Time course of radiation-induced apoptosis in the adult ray spinal cord. 8th European Cancer Conference. Paris, France.

Radiation myelopathy after single courses of radiotherapy and retreatment. 76th Annual Meeting, American Radium Society. Bermuda.


Re-irradiation tolerance of rat spinal cord to fractionated X-ray doses. 41st Annual Meeting, Radiation Research Society. Dallas, Texas, United States.

Re-irradiation tolerance in rat spinal cord – influence of level of initial damage. 40th Annual Meeting, Radiation Research Society. Salt Lake City, Utah, United States.
1992 Effect of small doses per fraction on the radiation tolerance of rat spinal cord: Influence of initial versus final top-up doses. 4th International Conference on Dose, Time and Fractionation in Radiation Oncology. Madison, United States.

1992 Local excision and post-operative radiation therapy for cancer of the distal rectum. Annual Meeting, American Society for Therapeutic Radiology and Oncology. San Diego, California, United States.

1991 Linear quadratic model underestimates sparing effect of small doses per fraction in rat spinal cord. 9th International Congress of Radiation Research. Toronto, Ontario, Canada.

1990 No loss of repair capacity in rat spinal cord up to 40 daily fractions. 38th Annual Meeting, Radiation Research Society. New Orleans, Louisiana, United States.

1990 Myelopathy following hyperfractionated accelerated radiotherapy for anaplastic thyroid carcinoma. 9th Annual Meeting, European Society for Therapeutic Radiology and Oncology. Montecatini, Italy.

1986 External irradiation for squamous cell carcinoma of the nasal vestibule. American Society for Therapeutic Radiology and Oncology. Los Angeles, California, United States.

2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


2010 Changes in neural stem cell and progenitor cell populations in mouse brain after ionizing radiation. Canadian Association or Radiation Oncologist, Annual Scientific Meeting. Vancouver, British Columbia, Canada.


1999  VEGF upregulation and hypoxia in radiation-induced white matter necrosis. 2nd Canadian Brain Tumor Network Meeting. Toronto, Ontario, Canada.

1996  Oligodendrocytes undergo radiation-induced apoptosis in rat spinal cord. 7th Canadian Neuro-Oncology Meeting. Montreal, Quebec, Canada.

1995  Recovery kinetics of radiation damage in rat spinal cord. 95th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Montreal, Quebec, Canada.

1994  Permanent myelopathy following re-irradiation of the spinal cord. 6th Canadian Neuro-Oncology Meeting. Lake Louise, Alberta, Canada.

1994  A phase I study of combined radiation therapy, 5-fluorouracil and low dose folinic acid in patients with locally advanced pancreatic or extrabiliary carcinoma. 94th Annual Meeting, Royal College of Physicians and Surgeons of Canada. Toronto, Ontario, Canada.


1992  Influence of level of initial damage on the re-irradiation tolerance in rat spinal cord. 5th Canadian Neuro-Oncology Meeting. Huntsville, Ontario, Canada.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations

2013 Lecturer. Radiation Therapy for Colorectal Cancer. Department of Surgery, University of Toronto. Toronto, Ontario, Canada.


2011 Colon Cancer Care: Coordination Counts. Toronto Surgical Oncology Rounds. Toronto, Ontario, Canada.


Presented Abstracts

1992  Sparing effect of small doses per fraction given once daily in rat spinal cord. University of Toronto, Department of Radiation Oncology Alumni Day. Toronto, Ontario, Canada.

CME Courses

2001  Lecturer. Surgical Oncology Network, Tele-Oncology Rounds - Rectal Cancer. Department of Surgery, University of Toronto. Toronto, Ontario, Canada. (Continuing Education).

2000  Lecturer. Radiation Oncology Nursing Program - CNS malignancies. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).


1993  Lecturer. Introduction to Radiation Oncology, Pharmacy Preceptor Workshop. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

1993  Lecturer. Radiation Therapy Nursing Course, Radiobiologic effect on normal tissues. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

1992  Lecturer. Refresher Course in Radiation Oncology - GI Tumor. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).


1991  Lecturer. Refresher Course in Radiation Oncology - GI Tumor. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

1994  Resource Issues in the practice of Radiation Oncology in the 90’s, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Course Co-Ordinator. Approved for 3.9 type II MOCOMP credits of the Royal College of Physicians and Surgeons of Canada.

1993 - 1998  Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto
Course Co-ordinator: Applied Radiobiology
Eight 1h seminars, with formal written and oral examinations at end of course.

1992 - 1994  Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret
Hospital

*Educational Lecture Series - GI Site Group - Course Co-Ordinator.*

1992

Current controversies in colorectal cancer. Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

*Approved for 8.25 type II MOCOMP credits of the Royal College of Physicians and Surgeons of Canada, Course Co-Ordinators: Wong CS, Moore M.*

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2003 - 2004  

2003  
**Primary Supervisor.** Elective. Justin Lee.

2003  
**Primary Supervisor.** Elective. Stanley Liu.

2003  
**Primary Supervisor.** Medical Student. Josephe (Arie) Greenwald.

1995  

1994 - 1995  

1991  

1990  

Graduate Education

2010 - present  
**Primary Supervisor.** PhD. Wei-Chih Cheng. *The role of p53 in radiation induced inhibition of neurogenesis.*

2010 - present  
**Primary Supervisor.** PhD. Kristopher Dennis, Medical Science. *Radiation-induced nausea and vomiting.*

2005  
**Primary Supervisor.** MSc. Justin Lee, Medical Biophysics. *Vascular growth factors in CNS radiation responses.*

2003 - 2006  
**Co-Supervisor.** MSc. Alina Mihai, Medical Science. *Is the inner shell ionization model predictive for the radiosensitization induced by halogenated pyrimidines?*.

2002 - 2005  
**Primary Supervisor.** MSc. Ashraf Mahmoud-Ahmed, Medical Biophysics. *Early gene expression profile in mouse brain after ionizing radiation.*

2000 - 2003  
**Primary Supervisor.** MSc. Robert Nordal, Medical Biophysics. *Hypoxia in central nervous system radiation injury.*

2000 - 2003  

1996 - 1999  

Undergraduate MD

2002  

2001  

2000  
**Primary Supervisor.** Summer Student. Victor Jain. Awards: Life Science Award $3320.
Completed 2000.


### Postgraduate MD


1994 | **Primary Supervisor.** Resident. Victor Hsue. *A phase I study of combined radiation therapy, 5-fluorouracil and low dose folinic acid in patients with locally advanced pancreatic or extrapolibary carcinoma.*


### Faculty Development

2013 Aug - 2014 Aug | **Primary Supervisor.** Xinhong He, Medical Science. Supervisee Position: Assistant Professor, Supervisee Institution: Fudan University, China. *MRI changes post neoadjuvant chemoradiation for rectal cancer, Non-thesis Project.* Awards: Fudan University, Shanghai Cancer Center. Collaborator(s): Laurent Milot.


### Postdoctoral Research Fellow (PhD)


2007 | **Primary Supervisor.** PhD. Kassum Sinha, Medical Biophysics. *CNS Radiation Response., Completed 2007.*


2002 | **Primary Supervisor.** PhD. Peng-Sheng Zheng, Medical Biophysics. *HPV and p53 in human
anal carcinoma., Completed 2002.


Clinical Research Fellow (MD)

2001 - 2002 Primary Supervisor. MD. Bronwyn Matheson. MRS changes in brain tumors and normal brain after radiotherapy.


2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member


2014 Sep - present MSc. Christianne Hoey, Medical Biophysics. Supervisor(s): Stanley Liu.

2014 Sep - present MSc. Chris Morrone, Laboratory Medicine and Pathobiology. Supervisor(s): JoAnne McLaurin.

2012 - present PhD. Elizabeth de Guzman, Medical Biophysics. Supervisor(s): Brian Nieman.


2010 - 2012 MSc. Christina Kim, Medical Biophysics.

2007 - 2010 MSc. Justin Lee, Medical Biophysics.

2007 - 2009 MSc. Clinton Hubble, Medical Biophysics.


2004 - 2006 MSc. Nick Davies, Medical Biophysics.


2001 - 2004 MSc. Lindsay Park, Medical Biophysics.

1998 - 1999 MSc. A. Molckovsky, Medical Biophysics.

1992 MSc. A. Speke, Medical Biophysics.

1990 - 1992 MSc. T. Haston, Medical Biophysics.

Thesis Examiner

2014 MSc. Tiffany Scarcelli, Laboratory Medicine and Pathobiology.

2012 MSc. Christina Kim, Medical Biophysics.

2010 MSc. Justin Lee, Medical Biophysics.
C Shun WONG

2009  MSc. Clinton Hubble, Medical Biophysics.
2009  MSc. James Bae, Laboratory Medicine and Pathobiology.
2009  PhD. Brian Keller, Medical Science.
2006  MSc. Alina Mihai, Medical Science.
2006  MSc. Amy Wong, Laboratory Medicine and Pathobiology.
2006  MSc. Nick Davies, Medical Biophysics.
2005  MSc. Ashraf Mahmoud-Ahmed, Medical Biophysics.
2004  MSc. Lindsay Park, Medical Biophysics.
2003  PhD. David Wu, Laboratory Medicine and Pathobiology.
2003  MSc. Robert Nordal, Medical Biophysics.
2003  MSc. Shelly Atkinson, Medical Biophysics.
1999  MSc. A. Molckovsky, Medical Biophysics.
1999  MSc. K. De Jaeger, Medical Biophysics.
1999  MSc. Brenda Chow, Medical Biophysics.
1999  MSc. V. Vukovic, Medical Biophysics.
1995  MSc. M-C. Kavanagh, Medical Biophysics.
1992  PhD. C. Newcombe, Medical Biophysics.
1992  MSc. T. Haston, Medical Biophysics.
1992  MSc. A. Speke, Medical Biophysics.

Qualifying/Reclass Examiner
2016 Jun  Chris Morrone, Laboratory Medicine and Pathobiology. Supervisor(s): JoAnne McLaurin.
2015 May  MSc. Xiao Zhao, Medical Science. Supervisor(s): Fei-Fei Liu.
2014  MSc. Priscilla Lai, Medical Biophysics.
2012  MSc. Kristopher Dennis, Medical Science.
2012  PhD. Wei-Chih Cheng, Medical Science, Neuroscience.
2011  MSc. S. Mashouf, Medical Science.

Thesis Committee Member, Foreign Advisor
CURRICULUM VITAE

Name: Jason Wong, MD FRCP(C)

Business Address: Radiation Medicine Program
Stronach Regional Cancer Centre at Southlake Regional Health Centre
596 Davis Drive
Newmarket, Ontario
L3Y 2P9

Telephone: 905-895-4521 ext. 6595
Fax: 905-952-2818
E-Mail: j3wong@southlakeregional.org

EDUCATION

University Education:
1996 – 1999 Bachelor of Science
McMaster University, Hamilton, ON, Canada

Post Graduate and Medical Training:
1999 – 2003 Doctor of Medicine
Queen’s University School of Medicine, Kingston, ON, Canada

2003 – 2008 Residency: Radiation Oncology
Princess Margaret Hospital, University of Toronto, Toronto, ON, Canada

2008 – 2009 Fellowship: Prostate/Gyne Brachytherapy
Seattle Prostate Institute, Swedish Medical Center, Seattle WA

Qualifications & Certifications:
2003 Licentiate of the Medical Council of Canada (LMCC): PART I (PASS)
2003 United States Medical Licensing Examination (USMLE): STEP 1 (PASS)
2003 United States Medical Licensing Examination (USMLE): STEP 2 (PASS)
2004 Licentiate of the Medical Council of Canada (LMCC): PART II (PASS)
2005 United States Medical Licensing Examination (USMLE): STEP 3 (PASS)
2008 - present Fellow of the Royal College of Physicians and Surgeons of Canada
2010 - present American Board of Radiology, Radiation Oncology

Licenses:
2008 Washington
2009-present California
2003-2008 Ontario
2013-present
CURRENT APPOINTMENTS

05/2013 – present  
**Active Staff, Radiation Oncology**  
Stronach Regional Cancer Centre (SRCC)  
Southlake Regional Health Centre, Newmarket, Ontario, Canada

**Active Staff, Radiation Oncology**  
The Princess Margaret Cancer Centre, Toronto, Ontario, Canada

PREVIOUS APPOINTMENTS

5/2012-5/2013  
**Program Director, Radiation Oncology Residency Program**  
Assistant Clinical Professor  
Department of Radiation Oncology  
School of Medicine  
University of California, Irvine

10/2009-5/2013  
**Assistant Clinical Professor**  
Department of Radiation Oncology  
School of Medicine  
University of California, Irvine

08/2008-07/2009  
**Fellow in Radiation Oncology**  
Swedish Medical Center/Prostate Cancer Institute, Seattle, WA

08/2008-07/2009  
**Staff Radiation Oncologist**  
Stevens Hospital, Edmunds, WA  
Highline Medical Center, Burien, WA  
Valley Medical Center, Renton WA  
Northwest Hospital, Seattle, WA

07/2003-06/2008  
**Resident in Radiation Oncology**  
Princess Margaret Hospital, Toronto, ON

05/2001-09/2001  
**Research Assistant**  
Serial tumor blood flow measurements in shionogi tumors  
Prostate Centre, Vancouver General Hospital, University of British Columbia, BC

05/1999-08/1999  
**Research Assistant**  
Ottawa Heart Institute, Ottawa, ON

05/1998-08/1998  
**Research Assistant**  
Implantation of encapsulated myoblasts expressing VEGF in non-muscle sites induces localized angiogenesis  
Department Molecular Biology and Pathology, McMaster University, Hamilton, ON

05/1997-08/1997  
**Research Assistant**  
Gene Therapy: Microencapsulation Gene Therapy  
Department of Pediatrics, Faculty of Health Sciences, McMaster University, Hamilton, ON
HONORS & AWARDS

2012  ASTRO-ARRO Teacher of the Year award (Association Residents in Radiation Oncology)
2011  “Heroes in Healthcare” nomination University of California, Irvine Medical Center/ Chao Family NCI Cancer Center.
2010  Short Listed for Radiation Oncology 2009-2010 Educator of the Year Award
2001  British Columbia Cancer Agency Summer Research Scholarship
2000  Rehabilitation Institute of Chicago Summer Research Scholarship
2000  Queen's University Summer Research Studentship
1999  McMaster University BSc.- Summa Cum laude
1999  McMaster University Merit Senate Scholarship 1999
1999, 1998, 1997  McMaster University's Dean's Honor List

PROFESSIONAL AFFILIATIONS:

2009 - 2010  American Brachytherapy Society
2008 - present  Fellow of the Royal College of Physicians and Surgeons of Canada
2007 - present  American Medical Association
2005 - present  Canadian Association of Radiation Oncologists
2005 - present  American Society for Therapeutic Radiology and Oncology (ASTRO)
2003 - 2008  Royal College of Physicians and Surgeons of Canada: Resident Member
2003 - 2008  College of Physicians and Surgeons of Ontario: Member
1999 - 2010  Ontario Medical Association: Member
1999 - 2010  Canadian Medical Association: Member

CURRENT CLINICAL STUDIES

2014-present  A pilot project to assess the feasibilty of introducing patient reported outcomes into the Standard of Care of patients undergoing radiation treatment for rectal carcinoma in the radical setting.  
Primary Investigator: Kassam, Z 
REB #0065-1314 (SRHC)

2014-present  Prospective Evaluation and Data mining to predict and minimize Individual Clinical Toxicity in Breast cancer radiotherapy (PREDICT – Bre) 
Primary Investigator: Ruschin M, Local Principal Investigator: Fenkell L 
REB # 0012-1415 (SRHC)

2015  A Multicentre Randomized Controlled Clinical Trial for the Reduction of Acute Skin Reaction in Adjuvant Breast Radiation in Large Breasted Women using a Prone Technique 
Primary Investigators: Fenkell, L and Comsa D 
REB # 0005-1516 (SRHC)
PUBLICATIONS

Peer Reviewed Publications:


Abstracts and Posters


• **Wong J**, Sylvester JE. First Report On Seed Migration To The Lung With The Use Of A Thinner I125 Radioactive Seed Within 20 Gauge Needles For Permanent Seed Prostate Brachytherapy. 54th Annual Meeting of American Society for Radiation Oncology, 2012, Boston MA

• Ducote JL*, Sehgal V, **Wong J**, Al-Ghazi M, University of California Irvine, Orange, CA. The Impact of the Number of Subjects for Atlas-Based Automatic Segmentation. 54th Annual Meeting of American Association of Physicists in Medicine (AAPM), 2012, Charlotte, NC

• Pinn-Bingham M., Zhang J.Y., Dietrich S., Braggins W., Sehgal V., Al-Ghazi M., **Wong J**, Kuo J.V., Ramsinghani N.S. Dosimetric Parameters and Clinical Characteristics of Early Stage Breast Cancer patients treated with the SAVI Breast Brachytherapy Device. American Society of Therapeutic Radiology and Oncology (ASTRO), 2011, Miami, FL

• Nguyen TH, Kwok S, **Wong JC**, Murgu SD, Krishnam M, Vajgrt D, Findeiss L, Goodwin S. Pulmonary Artery Stenting for Obstruction Due to Advanced Lung Tumor. Poster Presentation World Conference on Interventional Oncology (WCIO), 2011, New York, NY


• Kozlowski P, **Wong J**, Hochachka PW, and Goldenberg SL. Serial Tumour Blood Flow measurements in the Shionogi tumour model. 57th Meeting of Canadian Urological Association, 2002, St. John’s, NF.


**LANGUAGES**

English, Chinese
Curriculum Vitae

Rebecca Kwok Sum Wong

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office Radiation Medicine Program
5th Floor, 610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-2126
Fax 416-946-6561
Email Rebecca.wong@rmp.uhn.on.ca

1. EDUCATION

Degrees
2001 MSc, Clinical Epidemiology, McMaster University, Canada
1984 MB ChB, Medical School, Sheffield University, United Kingdom

Postgraduate, Research and Specialty Training
2015 Mar Scholar, Health Professional Education, Harvard Macy Institute, Boston, United States

Qualifications, Certifications and Licenses
1989 FRCP, Radiation Oncology, Royal College of Physician and Surgeons of Canada, Canada

2. EMPLOYMENT

Current Appointments
2014 - present Vice Chair, Education, Radiation Oncology, University of Toronto, Canada
2010 - present Full Professor, Radiation Oncology, University of Toronto, Canada
2002 - present Associate member, Institute of Medical Science, University of Toronto, Canada
2002 - present Associate member, Health Policy, Management and Evaluation, University of Toronto, Canada
2001 - present Active staff, Radiation Medicine Program, Princess Margaret Hospital, University Health Network, Canada

Previous Appointments
HOSPITAL
2012 Committee Member, Search Committee for Chief of Radiation Medicine Program, Radiation Medicine Program, Princess Margaret Hospital
1990 - 2001 Active staff, Toronto-Sunnybrook Regional Cancer Centre, Canada
1990 - 2001 Active staff, Sunnybrook and Women’s College Health Sciences Centre, Canada

UNIVERSITY
2008 - 2012 Associate Program Director, Post Graduate Medical Education, Medicine, Faculty of, Radiation Oncology, University of Toronto
2002 - 2008 Director, Medicine, Faculty of, Radiation Oncology, University of Toronto

UNIVERSITY - RANK
2013 - 2014 Acting Vice Chair, Education, Radiation Oncology, University of Toronto, Canada
2012 - 2014 Chair, Social Responsibility, Professionalism and Equity, Radiation Oncology, University of Toronto, Canada
2004 - 2010 Associate Professor, University of Toronto, Canada
1997 - 2004 Assistant Professor, University of Toronto, Canada
1990 - 1997 Lecturer, University of Toronto, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL
Received
2015 Most Influential Research Publication, Princess Margaret Hospital. (Distinction)
2011 Research Leadership Award, Radiation Medicine Program, Princess Margaret Hospital, Canada. (Distinction)
2009 Excellence in Research Leadership, Radiation Oncology, University of Toronto, Canada. (Distinction)
2009 Guest Lecture Award, Medical Radiation Science Program, University of Toronto, Canada. (Distinction)
2007 Most Influential Research Publication, Princess Margaret Hospital. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2013 - present Member, Canadian Society for Epidemiology and Biostatistics
2009 - present Member, American Society of Clinical Oncology, 56211
2000 - present Member, American Society of Therapeutic Radiation Oncology, 35150684
1998 - present Member, Multinational Association for Supportive Care in Cancer
1991 - present Member, Canadian Association of Radiation Oncologists
1990 - present member, Ontario Medical Association
1995 - 2000 Member, Canadian Palliative Care Association

Administrative Activities

INTERNATIONAL
AJCC Cancer Staging System
2014 - present Member, Expert Panel - Neuroendocrine tumor
American Society Therapeutic Radiation Oncology
2013 - present        Annual Meeting Organizing Committee - Palliative Track, United States.
2012 - 2014           Annual Meeting Organizing Committee - Gastrointestinal Track, United States.

ASTRO
2014 - present        Member, Guidelines Sub-Committee
2014 - 2015           Member, Bone Metastases Guideline Working Group
2014 - 2015           Member, Combining Precision Radiotherapy with Precision Molecular Targeting White Paper Working Group
2014                   Member, Guidelines and Best Practice Task Force
2013 - 2014           Member, Health Care Access and Training Subcommittee

Cochrane Collaboration
2001 - 2005           Chair, University of Toronto Committee

Intergroup Esophagogastric Working Group
2006 - present        Member

Multinational Association in Supportive Care
2005 - 2006           Member, Organizing Committee, 2006 Annual Meeting

NRG
2014 - present        Member, Cancer Care Delivery Research Committee
2014 - present        Member, CPC Scientific Committee

Radiation Therapy Oncology Group-
2010 Jul - present     Member, Community Clinical Oncology Program Steering Committee, United States.

UICC
2011 - present        Member, Expert Panel - Upper GI TNM Watch

NATIONAL
Canadian Association of Radiation Oncologists
2006 - 2011           Member, Steering committee, Symptom Control Advisory Board
2004 - 2005           Chair, Symptom Control Advisory Board
2003 - 2004           Chair, Symptom Control Task Force

National Cancer Institute of Canada/Clinical Trials Group
2009 - present        Chair, Symptom Control Committee
2003 - present        Co-Chair, Esophageal Disease Working Group
2001 - 2009           Co-Chair, Symptom Control Committee
1999 - 2009           Member, Gastrointestinal Site Group
1996 - 1998           Member, Symptom Control Committee
Rebecca Kwok Sum WONG

Palliative Radiation Oncology Group, Canada
2002 - 2014  Princess Margaret Hospital Site Chair
2000 - 2014  Founding Co-Chair

PROVINCIAL / REGIONAL

Cancer Care Ontario
2011 - present  Member, Colorectal Cancer Treatment Pathway Expert Panel, Colorectal Cancer Team Disease Management Pathway Initiative
2011 - present  Member, Colorectal Cancer Diagnosis Pathway Expert Panel, Colorectal Cancer Team Disease Management Pathway Initiative
2008 - present  Member, Colorectal Cancer Team Disease Management Pathway Initiative
2013 - 2014  Member, NET Operating Council
2012 Jul 1  Member, Radionuclide Therapy Operating Council & Executive Committee, Ontario, Canada.
2011 - 2014  Member, Report Approval Panel, Practice Guideline Initiative
2008 - 2011  Co-Chair, Gastrointestinal Site Group, Practice Guideline Initiative
2003 - 2004  Chair’s representative, Guidelines Coordinating Committee, Practice Guideline Initiative
2001 - 2008  Co-Chair, Supportive Care Guidelines Group, Practice Guideline Initiative
2001  Founding Co-chair, Supportive Care Guidelines Group, Practice Guideline Initiative
1991 - 2009  Member, Gastrointestinal Site Group, Practice Guideline Initiative
1991 - 1998  Member, Sarcoma Site Group, Practice Guideline Initiative

LOCAL

Other Organizations
2015 Jul - present  Executive Committee, Faculty of Medicine, Dept of Radiation Oncology, MHSc, Graduate Education, Canada.
2014 Jul 1 - present  Admissions Committee, Faculty of Medicine, Institute of Medical Science, Graduate Education, Canada.
2014 Jul 1 - present  Board of Examiners, Faculty of Medicine, Dept of Radiation Oncology, Medical Radiation Science, Ontario, Canada.

Mitchener Institute
2014 - present  Joint Management Committee, Faculty of Medicine, Dept of Radiation Oncology, Canada.

Mitchener Institute for Applied Health Sciences
2001 - 2003  Faculty Advisor, Diploma Program

Toronto-Sunnybrook Regional Cancer Centre
1999 - 2001  Research Director, Rapid Response Radiotherapy Program
1993 - 2001  Member, Sunnybrook Chinese Community Group
1993 - 2001  Member, Patient Education Committee
1992 - 2001  Member, Radiation Oncology Staff Selection Committee

University Health Network, Princess Margaret Hospital
2015 - present  Member, Cancer Education Committee
2011 - present  Cancer Clinical Research Unit Executive Committee, Canada.
2002 - present  Member, Pharmacy & Therapeutics Oncology Subcommittee
2010 - 2011  
**Chair**, Radiation Oncologists Partnership, Radiation Medicine Program

2009 - 2010  
**Vice Chair**, Radiation Oncologists Partnership, Radiation Medicine Program

2008 - 2009  
**Treasurer**, Radiation Oncologists Partnership, Radiation Medicine Program

2004 - 2010  
**Coordinator**, QA rounds, GI site group, Radiation Medicine Program

2001 - 2003  
**Member**, Research Ethics Board

**University Health Network, Princess Margaret Hospital, Radiation Medicine Program**

2004 - present  
**Physician leader**, Super Team IV

2004 - present  
**Coordinator**, Esophageal Cancer, GI site group

2004 - present  
**Leader**, Palliative Radiation Oncology Program

2014 - present  
**Member**, Steering Committee, Canada.

2014 - present  
**Chair**, Education Committee, Canada.

2014 - present  
**Director**, Education, Canada.

2009 - present  
**Director**, Clinical Research Program,

2011 - present  
**Member**, Decanal Promotions Committee, Faculty of Medicine

2003 - present  
**Interviewer**, Medical School Admissions Committee, Faculty of Medicine

2004 - 2007  
**Interviewer**, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation

**University of Toronto - Dept Radiation Oncology**

2013 - present  
**Member**, Executive Committee, Faculty of Medicine, Dept of Radiation Oncology

2013 - present  
**Member**, Fellowship Training Program Committee, Faculty of Medicine, Dept of Radiation Oncology

2013 - present  
**Member**, Appointments Committee, Faculty of Medicine, Dept of Radiation Oncology

2013 - present  
**Member**, Promotions Committee, Faculty of Medicine, Dept of Radiation Oncology

2008 - present  
**Associate Program Director**, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2012 Sep - 2013 May  
**Member**, Target Insight VII organizing committee, Faculty of Medicine, Dept of Radiation Oncology, Ontario, Canada.

2002 - 2008  
**Resident Research Director**, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1993 - 1998  
**Member**, North York General Hospital Post-Graduate Education Committee, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1993 - 1997  
**PGY 1-2 Co-ordinator**, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

1991 - 1998  
**Member**, Radiation Oncology Postgraduate Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

**University of Toronto - IHPME**

2011 - present  
**Member**, Co- Course Instructor Guidelines (HAD 5305), Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation

2004 - 2007  
**Interviewer**, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation
Peer Review Activities

ASSOCIATE OR SECTION EDITING

Associate Editor
2011 Jul - present  Disease of Esophagus
2011 - 2012  Esophagus
2008 - 2009  Research Notes, Biomedcentral
1999 - 2004  HOT SPOT (a newsletter on palliative radiotherapy)

EDITORIAL BOARDS

Editor
2012 - present  World Journal of Meta-Analysis

GRANT REVIEWS

Reviewer
2014 - 2015  Canadian Institutes of Health Research, Quality of Life Panel
2011  Canadian Institutes of Health Research, Doctoral and Masters Research Award Panel
2011  Nova Scotia Health Research Foundation
2004 - 2006  National Cancer Institute of Canada, Grant review panel I (clinical trials)
2004  Canadian Institutes of Health Research
2003  Canadian Institutes of Health Research, Randomized Controlled Trial Panel
2003  Cancer Research UK, Clinical Trials Advisory Awards Committee
2001 - 2002  Saskatchewan Cancer Agency

MANUSCRIPT REVIEWS

Reviewer
2016  Clinical Epidemiology
2016  JAMA Oncology
       ACP Journal Club
       American Journal of Cancer
       Annals in Oncology
       Clinical Cancer Research (Journal for the American Association of Cancer Research)
       Clinical Oncology
       Cochrane Collaboration
       Critical Reviews in Oncology Hematology
       Current Oncology
       Esophagus
       Expert Review of Clinical Pharmacology
       International Journal of Radiation Oncology Biology & Physics
       JAMA
       Journal of Clinical Oncology
       Journal of Pain and Symptom Management
       Journal of Palliative medicine
       Lancet Oncology
       Lung Cancer
C. Academic Profile

1. RESEARCH STATEMENTS

Symptom Control in Radiation Oncology.
The use of palliative radiotherapy to relieve symptoms is well established in clinical practice. However advances to improve on its therapeutic ratio is hampered by the methodological challenges inherent in conducting research in palliative populations.

Capacity building is an important component of research and development in this content area. I served as the research director for the palliative radiotherapy program at Toronto Sunnybrook Regional Cancer Centre between 1999-2001, and the leader for the Palliative Radiation Oncology Program at Princess Margaret Hospital since 2004. I was the founding chair for the Symptom Control Advisory Board for the Canadian Association of Radiation Oncologist, and serve as its chair between 2003-2005, and continue to serve as a member of its steering committee. Specific initiatives implemented during this time included theme symposium in symptom control research at our annual scientific meeting in 2005, symptom control research methods workshop 2005, establishing a annual symptom control research award, and co-founded the Canadian Palliative Radiation Oncology Group, a forum for monthly research discussions across Canada. In collaborating with its current chairs, educational objectives in symptom control for Canadian radiation oncology residents are closing completion. The research and educational environment created has expanded interest in symptom control research amount radiation oncology trainees and attracted international postgraduate trainees, expanding the pool of collaborative talents. To facilitate research at the national level, I have been serving as the chair for the Symptom Control Committee at the National Cancer Institute of Canada Clinical Trials Group since 2001. During this time, palliative radiotherapy trials have been established as one of the four strategic directions for this group, with two national and one international Phase III radiotherapy focused symptom control trials within our portfolio.

At a policy level, I was the founding Chair for the Supportive Care Guidelines Group, Cancer Care Ontario Program in Evidence based Care and serve as its Chair until 2008. During this time, I have attracted talented junior faculty in taking on performing systematic reviews and guidelines development in bone metastases, brain metastases and skin care following radiotherapy. These guidelines have served as key resources and foundations for pattern of practice evaluation.

At a research level, since 2004, I have authored and or collaborated on 23 peer-reviewed articles in the area of symptom control. These research efforts have established the efficacy of dexamethasone in the prophylaxis of radiation induced emesis, described the impact of technology on palliative radiotherapy delivery, and most recently the development and implementation of a 1 step simulate to treatment process resulting in reduced waiting time and improved access and quality of patient care. A series of sequential projects led to the development of a combined story and fact based patient educational resource for patients and caregivers with brain metastases now in clinical use. My work also established the use of virtual consultation to facilitate multidisciplinary care opinion for patients with spinal cord compression, reducing the need for patient transfers while securing reliable multidisciplinary opinions to facilitate timely commencement of optimal patient care.
From Evidence to Guidelines Development.
To translate research results into clinical practice, enabling tools are needed. The methodology of systematic reviews and clinical guidelines provide transparency, while engaging community opinion leaders’ to adapt evidence into clinical practice. I have chosen to engage in this process through involvement with the Cochrane Collaboration and the Cancer Care Ontario Program in Evidence Based Medicine.

At the level of capacity building, I served as the Toronto Chair to the Canadian Cochrane Collaboration and Network between 2001-2005, seeking out potential learners and creating learning opportunities both local and nationally. Specifically, training workshop were tailored and successfully conducted for trainees in internal medicine, family medicine, radiation oncology residents and fellows, and radiation oncology faculty in addition to systematic reviewers from other disciplines. As the Chair to the Supportive Care guidelines Group between 2001-2008, I have led the effort to identify key topics important in supportive care, engage clinical experts across multiple disciplines, serve as a methodological resource, resulting in the development of clinical guidelines on 8 different clinical areas including bone, brain metastases, skin care following radiotherapy, lymphedema, depression, pain, and shortness of breath. These documents represent part of the key resources in the field.

I have authored three Cochrane reviews (bisphosphonates in bone pain, chemoradiotherapy in esophageal cancer, preoperative radiotherapy for rectal cancer). The bisphosphonates review served as the basis for a Health Technology Report on this topic, while both esophageal and rectal reviews served as the basis for clinical practice guidelines for Ontario.

Optimizing the Use of Radiotherapy in the Management of Esophageal Cancer.
Radiotherapy has a key role to play in both the curative and palliative management of esophageal cancer although strategies to improve outcomes are still clearly needed. From a capacity building perspective, I serve as the Chair to the Esophageal Disease working group for the National Cancer Institute of Canada Clinical Trials Group since 2003, and has been a member of the Esophago-Gastric Task Force for the GI Intergroup US.

From a policy perspective, I have authored and co-authored the evidence and practice guidelines on the management of esophageal cancer, leading to improved consistency and quality of care in this area for our province. The availability of PET scan for the staging of esophageal cancer has until now been elusive to Ontarians. I led the review of the literature, co-authored and led the subsequent provincial discussions on PET and esophageal cancer. These efforts have translated into the approval of the use of PET for patients who are potential candidates for curative therapy. These practice changes have a direct effect on optimizing the choice and quality of therapy for esophageal cancer patients.

In terms of research, I have led a phase II study on the use of accelerated fractionation for the palliative management of dysphagia establishing its efficacy and favourable toxicity profile. As the Canadian Principal investigator, in collaboration with the Trans-Tasman Radiation Oncology Group, we are nearing completion of a study examining the effect of radiotherapy with or without chemotherapy for the relief of dysphagia (ES2). As the radiation oncology lead at our institution, we are currently conducting our second phase II study in tri-modality therapy for localized disease, where adjuvant sutent, is being tested. A strategy combining early brachytherapy and our experience in accelerated fractionation in esophageal cancer for the elderly is in development. My research has also contributed to establishing the role of PETCT in improving the quality of radiotherapy planning for esophageal cancer.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

**FUND**

**2009 - present**


Amount: $2,405,000 (962x$2500 per case funding).

**2015 Aug - 2017 Jul**

**Co-Investigator.** Behavioural determinants of Canadian radiation oncologists’ use of single fraction palliative radiation therapy for uncomplicated bone metastases. Canadian Cancer Society Research Institute (CCSRI). Knowledge to Action. PI: Christopher Dennis, Squires, Janet. Collaborator(s): Michael Brundage, Edward Chow, Alysa Fairchild, Ian Graham, Jeremy Grimshaw, Rebecca Wong, Jackson Wu. 79,918 CAD. [Clinical Trials]

**2015 Feb - 2018 Jan**

**Co-Investigator.** A phase III study of palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases. Canadian Cancer Society Research Institute. Quality of Life Research Grants. PI: Dawson, Laura. Collaborator(s): Chris O’Callaghan, Jolie Ringash, Rebecca Kwok Sum Wong, Derek Jonker, Camilla Zimmerman, Sarin Ekizian, Dongsheng Tu. 299,916 CAD. [Clinical Trials]

**A phase III study of palliative radiotherapy for symptomatic hepatocellular carcinoma and liver metastases**

Advanced liver cancer is often not treatable and causes pain that is hard to control. In a prior study, Dr Laura Dawson found that low-dose radiation therapy reduced cancer-related pain in liver cancer patients. In this new clinical trial, she will compare the effectiveness of radiation vs. standard supportive care alone in improving pain in patients with advanced liver cancer who are not candidates for standard therapy. By determining an improved pain management strategy, this study could have a huge impact on quality of life for cancer patients in palliative care.

**2015 Jan - 2016**


**2012 Jul - 2017 Jun**

A randomised phase III trial of preoperative chemoradiotherapy vs preoperative chemotherapy for resectable gastric cancer. National Health and Medical Research Council (Australia). PI: Leong, Trevor. Collaborator(s): John Zalcberg, Carol Swallow, Florian Lordick, Bernard Smithers, Val Gebski, Alex Boussioutas, Karin Haustermans, Rebecca Wong. 2,025,187.7 AUD. [Clinical Trials]

**2012 - 2019**


**2011 - 2016**

**Co-Investigator.** On-PROST: Ontario Patient Reported Outcomes of Symptoms and

2010 - 2017


2010 - 2011


Canadian Radiation Oncology Foundation/Sanofi – Aventis Research Innovation Award (CASARIA).

2009 - 2013


2007 - 2012


2004 - 2013


2004 - 2009


2004 - 2009


2003 - 2012

Principal Investigator. A randomized phase III study in advanced oesophageal cancer to compare quality of life and palliation of dysphagia in patients with radiotherapy versus
chemo-radiotherapy. National Cancer Institute of Canada (NCIC). CTG/ TROG ES2. REB#:03-0839-C. 200,000 CAD. [Grants]
Principal Investigator: Penniment M (Australia).

2003 - 2005

2002 - 2003

2002 - 2003

2001 - 2004

1999 - 2004

1994 - 2004

NON-PEER-REVIEWED GRANTS

FUNDED

2010 - present
(180 patients).

2009 - present
(100 patients).

2015 - 2018


Co-Principal Investigator. A prospective study to evaluate cone-beam CT in the planning of patients for palliative radiotherapy. Elekta Oncology Systems. PI: Jaffray D. Collaborator(s): Wong R. 260,000 CAD. (sample size 100).


1987 - 2002 **Principal Investigator.** A Phase III double blind randomised study to compare the effectiveness in pain control for bony metastasis using combined intravenous bolus Bisphosphonates (Pamidronate) and radiotherapy versus radiotherapy and placebo. Toronto-Sunnybrook Regional Cancer Centre. Department of Radiotherapy Oncology Research Fund. Collaborator(s): Bezjak A, Franssen E, Danjoux C, Szumacher E, Levin W, Mclean M. 61,000 CAD. [Grants]

### E. Publications

#### 1. MOST SIGNIFICANT PUBLICATIONS


   *This is a review paper describing the current evidence supporting indications of radiotherapy in gastric cancer.*


   *This randomized trial was conceived and completed by the symptom control committee Canadian Cancer Clinical Trials Group, establishing the role of a single fraction as effective in providing pain control as pretreatment for bone metastases. It is significant both in its contribution to the practice of radiation oncology, as well as being testament of the impact of the symptom control committee which I am the chair.*

Palliative radiotherapy should be effective and delivered with the least delay. This work formed the basis of the clinical testing and implementation of an on-line planning process. The clinical results are to be published. This has been translated from research to clinical practice.


The first review was published in 2001. This is a substantial update incorporating new contemporary evidence and methodology. This has been a definitive resource in support of the use of combination chemoradiotherapy for the curative management of esophageal cancer. This review formed the foundation of the Ontario Practice Guideline on the same topic.


One of the strategic directions of the Symptom Control Committee at the National Cancer Institute of Canada is to examine strategies to improve the side effects of cancer treatments. Building on the results of SC12, this study established the effect of dexamethasone in the prophylaxis of radiation induced emesis. This work was awarded the most influential publication award in 2007 at Princess Margaret Hospital. Radiation Medicine Program.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


38. Khan L, Wong R, Li Madaline, Zimmermann C, Lo C, Gagliese L, Rodin G. The Role of the Oncologist in Palliative Care – Maintaining the Will to Live of Patients with Advanced Cancer. The Cancer Journal. 2010;16(5). **Coauthor or Collaborator.**


72. Tsao M, Lloyd N, Wong KSR, Supportive Care Guidelines Group of Cancer Care Ontario’s Program in Evidence Based Care. Clinical practice guideline on the optimal radiotherapeutic management of brain metastases. BMC Cancer. 2005;5:34. Senior Responsible Author.


87. Wong R, Malthaner R. Combined Chemotherapy and radiotherapy (without surgery) compared with radiotherapy alone in localised carcinoma of the esophagus (Updated) (Cochrane Review). Cochrane Library. 2003(1). **Principal Author.**


Book Chapters


Editorials


Commentaries


Monographs


Clinical Care Guidelines


**Comment, Letters to Editor**


**Journal Articles, Meta-Analysis, Review**


**3. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Commentaries**

1. Wong, R. Regarding Pascal Buntin, “Results of a randomized trial by Pascal Burtin et al on locally advanced, operable oesophageal cancers responding to radiochemotherapy. Gastroenterology and Endoscopy News. 2004 May. Invited Editorial. **Principal Author.**

**Magazine Entries**

1. Radiotherapy-induced emesis (RIE) – Should dexamethasone be added to 5HT3 antagonist as prophylaxis? HOTSPOT. 2005 Feb;7(1). **Principal Author.**

2. Wong R. Research corner: Defining the research agenda in symptom control in radiation oncology. HOTSPOT. 2003 May;5(1). **Principal Author.**

3. Wong R. Research corner: What have we been up to? Five year update. HOTSPOT. 2003 Feb;5(1). **Principal Author.**


4. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2013 Nov 13 Distinguished Speaker. The role of definitive chemo radiotherapy - how to avoid the knife. Clinical Oncological Society of Australia. Adelaide, Australia. Presenter(s): Dr. Rebecca Wong.


2013 Feb 13 Speaker. Quality assurance for HDR intraluminal brachytherapy. Kuwait Cancer Control Center. Kuwait. Presenter(s): Dr. Rebecca Wong, Dr. Robert Heaton.


2011 **Distinguished Speaker.** Integrating Psychosocial Oncology, Palliative Care and Radiation Therapy: International Perspectives. Annual Commissioned Training Program for Radiation Therapists, Institute of Advanced Allied Health Studies. Hong Kong.

2011 Psychosocial factors and Biological effects. Why is it important for radiation therapists? Annual Commissioned Training Program for Radiation Therapists, Institute of Advanced Allied Health Studies. Hong Kong.


2009 Localized esophageal cancer – which treatment option? World Congress in Cancer. India.

2009 Technology and Palliative Radiotherapy: Opportunities to Enhance Patient Care. World Congress in Cancer. India.


2002 Contemporary indications and expectations from palliative radiotherapy. Second Princess Margaret Hospital Conference: New Developments in Cancer Management. Toronto. An international CME hosted by the Princess Margaret Hospital. (Continuing Education).

2002 **Invited Lecturer.** Esophageal cancer: update on results of adjuvant therapy. Second Princess Margaret Hospital Conference: New Developments in Cancer Management. Toronto. An international CME hosted by the Princess Margaret Hospital. (Continuing Education).

2002 Complex pain management. Skill building in psychosocial oncology: a multidisciplinary course. Toronto. An international workshop hosted by the psychosocial supportive care groups at Princess Margaret Hospital & Mayo Clinic.

**Presented Abstracts**


2016 Sep 23 **Invited Lecturer.** Longer survival with concurrent high dose cisplatin and IMRT for patient with cervical


2012 Jul **Senior Responsible Author.** Real time workload database for clinical trials support unit – from cost recovery to enhancing operational efficiency. Society of Clinical Research Associates. United States. Presenter(s): Singh KP, Wong R.


2000 Oct  **Presenter.** The Use of Symptom “Progression” Instead of “Response” As A Potentially Stable Endpoint For Systematic Reviews Of Clinical Trials Using Subjective Endpoints. 8th Cochrane Colloquium. Cape Town, South Africa. Wong KSR, Chow E, Fung K, Franssen E, Szumacher E.

**Presented and Published Abstracts**


*Publication Details:*

2014 Sep  Prospective Longitudinal Assessment of Quality of Life for Liver Cancer Patients Treated With Stereotactic Body Radiation Therapy. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

*Publication Details:*

2014 Sep  Best Practice in Advanced Esophageal Cancer: A Report on Trans-Tasman Radiation Oncology Group TROG 03.01 and NCIC CTG ES.2 Multinational Phase 3 Study in Advanced Esophageal Cancer (OC) Comparing Quality of Life (QOL) and Palliation of Dysphagia in Patients Treated With Radiation Therapy (RT) or Chemoradiation Therapy (CRT). American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting. San Francisco, California, United States.

*Publication Details:*
Penniment MG, Harvey JA, **Wong R**, Stephens S, Au H, O’Callaghan CJ, Kneebone AB, Ngan S, Ward IG, Roy R, Sullivan T, Nijjar T, Biagi J, Muroy LA. Best Practice in Advanced Esophageal Cancer: A Report on Trans-Tasman Radiation Oncology Group TROG 03.01 and NCIC CTG ES.2 Multinational Phase 3 Study in Advanced Esophageal Cancer (OC) Comparing Quality of Life (QOL) and Palliation of
Dysphagia in Patients Treated With Radiation Therapy (RT) or Chemoradiation Therapy (CRT). Int J Rad Biol Phys. 2014 Sep;90(1S):S3, Abstr CT-03. **Coauthor or Collaborator.**

2013 May

A Phase III study of the impact of a physical activity program on disease-free survival in patients with high-risk stage II or stage III colon cancer: a randomized controlled trial (NCIC CTG CO21). American Society of Clinical Oncology Annual Scientific Meeting.

**Publication Details:**

A randomized trial of single versus multiple fractions (Fx) for re-irradiation (Re-RT) of painful bone metastases (PBM): NCIC CTG SC20. American Society of Clinical Oncology Annual Scientific Meeting.

**Publication Details:**

Promoter polymorphisms of the SWI/SNF chromatin Remodeling complex molecule, BRM, and esophageal adenocarcinoma outcome. American Society of Clinical Oncology Annual Scientific Meeting.

**Publication Details:**

Tailoring Palliative Radiation Therapy (RT) Towards the End of Life - The Importance of ECOG Performance Status. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

**Publication Details:**


**Publication Details:**

Phase I Study of Sorafenib and SBRT for Advanced Hepatocellular Carcinoma. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

**Publication Details:**

Publication Details:

2012 Nov

Phase I Study of Sorafenib and Whole-liver Radiation Therapy (WLRT) or Stereotactic Body Radiation Therapy (SBRT) for Liver Metastases. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

Publication Details:

2011


Publication Details:

2011


Publication Details:

2010


Publication Details:

2010

Evaluating the Dosimetric Impact of 3D vs. 2D Planning Techniques in Palliative Radiotherapy. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

Publication Details:

2009

Assessing compliance with practice treatment guidelines by treatment centers and the reasons for noncompliance. American Society of Clinical Oncology Annual Scientific Meeting. Chicago, United States.

Publication Details:

Publication Details:

2009 Supportive care needs in advanced cancer patients: experience in a hospital based palliative radiotherapy clinic. Multinational Association of Supportive Care in Cancer. Annual Scientific Meeting. Rome, Italy.

Publication Details:


Publication Details:

2009 Dosimetric comparison of two dimensional (2D) vs. three dimensional (3D) planning for bone metastases. American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Chicago, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:
2009  Supportive care needs in advanced cancer patients: experience in a hospital based palliative radiotherapy clinic. Multinational Association of Supportive Care in Cancer. Annual Scientific Meeting. Rome, Italy.

Publication Details:


Publication Details:


Publication Details:

2008  Online Palliative Radiotherapy Planning and Treatment using Cone-beam Computerized Tomography (CBCT). American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Chicago, United States.

Publication Details:


Publication Details:


Publication Details:

2007  A phase II prospective study of standardized steroid dosing for patients with brain metastases undergoing whole brain radiotherapy. 44th Annual Meeting ASCO.

Publication Details:

Publication Details:

2006  Pattern of Practice in Anti-emetic Use In Palliative Radiotherapy for Spinal Metastases. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Toronto, Canada.

Publication Details:

2006  Towards Reality - A Cone Beam Enabled One Step Scan-To-Treat Process For Palliative Radiotherapy. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Toronto, Canada.

Publication Details:

2006  Video/Phone-Conference As A Tool To Facilitate Research And Development In Palliative Radiotherapy- The Canadian Model. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Toronto, Canada.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:


Publication Details:

2005  Optimizing prophylaxis of radiation induced emesis (RIE): A Phase III double blind randomized study comparing ondansetron plus dexamethasone (OndDex) vs Ondansetron alone (OndPlac). 17th Multinational Association of Supportive Care in Cancer. Geneva.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2005

Toxicity, Survival and Predictors of Outcome in Patients Receiving Adjuvant Chemoradiation for Gastric Adenocarcinoma. American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Denver, United States.

**Publication Details:**

2005


**Publication Details:**

2005


**Publication Details:**

2004 Oct 24

A phase III double blind randomized trial comparing ondansetron (OND) plus dexamethasone (DEX) vs. ondalone in the prophylaxis against radiation-induced emesis. A National Cancer Institute of Canada Clinical Trials Group (NCIC CTG) study. ESTRO. Amsterdam.

**Publication Details:**

2004 Oct 16

A Phase II Study Of Preoperative Conformal Radiotherapy and Chemotherapy (CPTII/Cisplatin) for Esophageal Cancer. 47th Annual Meeting of the American Society for Therapeutic Radiology & Oncology. Colorado.

**Publication Details:**

2004 Oct 3

Radiation for painful bone metastases: Comparison of different measures of palliative response. 46th annual meeting for ASTRO. Atlanta, United States.

**Publication Details:**

2004 Oct 3

A prospective comparative study of computerized tomographic simulation versus clinical mark-up in
palliative radiotherapy. 46th annual meeting for ASTRO. Atlanta, United States.

**Publication Details:**

2004 Jun 24
Caregivers and patients with brain metastases: Information needs and expectations. 16th International Symposium Multinational Association of Supportive Care in Cancer. Miami Beach, United States.

**Publication Details:**

2004 Jun 5
A Phase II study to assess the efficacy of combined preoperative irinotecan (I) /cisplatin @ chemotherapy and conformal radiotherapy (RT) followed by surgery for potentially resectable esophageal cancer. American Society of Clinical Oncology. New Orleans.

**Publication Details:**
Knox JJ, Darling G, Guindi M, Keshavjee S, Chen EX, Hornby J, **Wong R**. A Phase II study to assess the efficacy of combined preoperative irinotecan (I) /cisplatin @ chemotherapy and conformal radiotherapy (RT) followed by surgery for potentially resectable esophageal cancer. JCO. 2004;22(14S, 4063):329S. **Senior Responsible Author.**

2004

**Publication Details:**

2003 Oct
Factors influencing the use of single versus multiple fractions of palliative radiotherapy for bone metastases: a 5-year review and comparison to a survey. American Society of Therapeutic Radiation Oncology. Salt Lake City.

**Publication Details:**

2003 Oct

**Publication Details:**

2003 Oct

**Publication Details:**

**Publication Details:**


**Publication Details:**


**Publication Details:**
Tsang C, Wong KSR, Shukla V, Wiffen P. Duplicate referencing: characteristics from an example in Oncology. 2003. **Principal Author.**

2003 Jun  A Systematic review on the management of lymphedema. Multinational Association In Supportive Care In Cancer Meeting. Berlin.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2003 A randomized double blind placebo controlled trial of radiotherapy (XRT) ± single dose pamidronate (PAM) for pain relief in patients with painful bone metastases. ASCO.

**Publication Details:**

**2003**

Evaluating remineralization in breast cancer patients with osteolytic bone metastases undergoing palliative radiotherapy using computerized tomography (CT) density measurements — a feasibility study. American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Salt Lake City, United States.

**Publication Details:**

**2002 Oct 6**


**Publication Details:**
Wong KSR, Wiffen P. Should Bisphosphonates Be Used To Provide Pain Relief For Patients With Painful Bone Metastases? A Systematic Review For The Cochrane Collaboration. Int J Rad Onc Biol Phys. 2002;54(2 Suppl). **Principal Author.**

**2002 Jun 23**

Bisphosphonates for pain relief in metastatic bone cancer? a systematic review for the cochrane collaboration. 14th International meeting of Multinational Association of Supportive Care in Cancer. Boston.

**Publication Details:**
Wong KSR, Wiffen P. Bisphosphonates for pain relief in metastatic bone cancer? a systematic review for the cochrane collaboration. Supportive Care in Cancer. 2002 May;10(4):361. O28. **Principal Author.**

**2002 Jun 23**

Patients with bone metastases – measuring the response to palliative radiation. 14th International meeting of Multinational Association of Supportive Care in Cancer. Boston.

**Publication Details:**

**2002**

Palliative radiation for bone metastases-does pain response reflect the full clinical benefit. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

**Publication Details:**

**2001 Nov 4**

Defining patient expressed minimal clinically important effect size (MCIES) for the relief of cancer pain. 43rd Annual ASTRO meeting. San Francisco.

**Publication Details:**

**2001**

Meta-analysis of single-fraction versus multi-fraction radiotherapy trials for palliation of painful bone
metastases. American Society of Therapeutic Radiation Oncology (ASTRO) Annual Meeting.

Publication Details:

2001

What relative important do patients place upon probability versus duration of pain relief? – treatment decision making in palliative therapies. 13th Multinational Association of Supportive Care.

Publication Details:

2001

Defining Patient Expressed minimal clinically important effect size (MCIES) between two palliative treatments for the relief of cancer pain. 13th Multinational Association of supportive Care. France.

Publication Details:

2000 Oct 22


Publication Details:

2000 Oct 22


Publication Details:

2000 Apr 12


Publication Details:

2000 Mar 23

Prospective Evaluation of the Effectiveness of Pain Relief from Radiotherapy for Bony Metastases within a Palliative Radiotherapy Program. 12th International Symposium of the Multinational Association of Supportive Care. Washington, District of Columbia.

Publication Details:
Wong KSR. Prospective Evaluation of the Effectiveness of Pain Relief from Radiotherapy for Bony Metastases within a Palliative Radiotherapy Program. Supportive Care in Cancer. 2000 May;8(3):244. abstr 16. Principal Author.

2000 Mar 23

Patients with advanced cancer: a survey of their understanding of own illness and expectations from

Publication Details:

2000
Prospective evaluation of the effectiveness of radiotherapy in providing pain relief for bony metastases and the impact of response criteria definition. American Association of Therapeutic Radiation Oncology (ASTRO) Annual Scientific Meeting. Boston, United States.

Publication Details:

2000
Preoperative Chronomodulated Infusion of 5-FU and Leucovorin (LV) and Pelvic Radiotherapy in Patients (PTS) with Locally Advanced/Recurrent Rectal Cancer: A Phase I Study. xxth Annual Meeting American Society of Clinical Oncology.

Publication Details:

1999 Sep

Publication Details:

1999 Feb 18
Rapid Response Radiotherapy Program. Feasibility of Using Clinical Trials Nurse Telephone versus Patient Diary for Eliciting Pain and Analgesic Data in an Outpatient Based Supportive Care Clinical Trial. 11th MASCC International Symposium. Nice, France.

Publication Details:

1999 Feb 18

Publication Details:

1999 Feb 18

Publication Details:

1999

Phase I Study of 5-FU and Leucovorin by Continuous Infusion Chronotherapy and Pelvic Radiotherapy in Patients with Locally Advanced or Recurrent Rectal Cancer. ASCO.

Publication Details:

1999


Publication Details:

1998 Oct

A Phase III study of the efficacy of dexamethasone (DEX) in the prophylaxis of radiation induced emesis (RIE). European Society of Therapeutic Radiation Oncology, ESTRO. Edinburgh, Scotland.

Publication Details:

1998

How do patients want pain relief data to be presented? 10th MASCC International Symposium. San Antonio, Texas.

Publication Details:
Wong KSR, Fitch M. How do patients want pain relief data to be presented? Supportive Care in Cancer. 1998;6(2). Abstract 41. Principal Author.

Session Chair

2014 Sep 14 Chair. ASTRO Annual Scientific Meeting - Palliative Care. ASTRO. San Francisco, California, United States. Presenter(s): Dr. Rebecca Wong & Dirk Rades.


2012 Apr Chair. Esophageal Cancer. 3rd Kuwait International Conference in Gastro-Intestinal Cancer. Kuwait.

2. NATIONAL

Invited Lectures and Presentations


2009 1 step sim and treat workshop. Canadian Association of Radiation Oncologist Annual Scientific Meeting. Quebec.


2005 Is this a positive study? Symptom control methods workshop, Canadian Association of Radiation Oncologist. Victoria.


2002 Symptom control research – where are we going? Workshop on symptom control in radiation oncology, A national workshop hosted by the National Cancer Institute of Canada Clinical Trials Group & Canadian Association of Radiation Oncology. Toronto.


2000 Innovative Approach in Palliation of esophageal cancer. 7th Annual Pain & Symptom Management Conference, A National Multidisciplinary conference hosted by the Continuing Medical Education Office, University of Toronto. (Continuing Education).

2000 Role of palliative radiotherapy in symptom control. 7th Annual Palliative Pain and Symptom Management Conference, A National Multidisciplinary conference hosted by the Continuing Medical Education Office, University of Toronto. (Continuing Education).


1999 Role of Palliative Radiotherapy. 6th Annual Palliative Pain and Symptom Management Conference, A National Multidisciplinary conference hosted by the Continuing Medical Education Office, University of Toronto. (Continuing Education).

1998 Research Activities at the Toronto-Sunnybrook Regional Cancer Centre. National Palliative meeting hosted by the Rapid Response Radiotherapy Program & Palliative Radiation Oncology Program, University of Toronto. This meeting hosted by the University of Toronto palliative radiotherapy programs were designed to bring together national experts to address methodological challenges in building a program in palliative radiotherapy oncology research.

1995 Apr 7 Effectiveness of radiotherapy in the management of pelvis recurrence from colorectal/rectal carcinoma. Controversies in Palliative Radiotherapy. Toronto. The first national meeting in Canada designed to bring together experts in palliative radiotherapy to define a Canadian research agenda. April 7-8, 1995.

Presented Abstracts


2012 Sep Palliative Radiotherapy (RT) in Patients with Poor Performance Status - Should We Tailor Our Treatment?
Rebecca Kwok Sum WONG


2012 Sep

2007 Nov 4

2004 Sep 26

Presented and Published Abstracts

2014 Aug
Effect of Stereotactic Body Radiotherapy for Liver Cancer on Quality of Life. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

2014 Aug
Investigation the Use of Electronic Technologies (ECT) as a Means to Evaluate Treatment Outcome for Patients Completing Palliative Radiotherapy. CARO 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada.

Publication Details:

2014 Aug

Publication Details:

2011
Patterns of practice and its effect on outcomes for patients with localized esophageal (E) and gastroesophageal (GEJ) cancer – a decade of practice. CARO annual meeting. Winnipeg.

Publication Details:

2011
The Role of A Mature Dedicated Palliative Radiotherapy (RT) Program. CARO annual meeting. Winnipeg.

Publication Details:
2011 Outcomes of stereotactic body radiotherapy (SBRT) prospective trials for hepatocellular carcinoma (HCC). CARO annual meeting. Winnipeg.

Publication Details:
Outcomes of stereotactic body radiotherapy (SBRT) prospective trials for hepatocellular carcinoma (HCC). Rad Oncol. 2011.

2010 Experience of An Advanced Practice Nurse - Led Bone Metastases Follow-up Clinic. Association of Supportive Care in Cancer Annual Scientific Meeting. Vancouver.

Publication Details:

2010 Do modern radiotherapy techniques impact on the effectiveness and toxicity of palliative radiotherapy? Association of Supportive Care in Cancer Annual Scientific Meeting. Vancouver.

Publication Details:

2010 Intensity-Modulated Radiotherapy (IMRT) and Concurrent Chemotherapy for Anal and Perianal Cancer: the Princess Margaret Hospital Experience. Canadian Association Radiation Oncology Annual Scientific Meeting. Vancouver.

Publication Details:


Publication Details:

2010 Assessing conformity Between the Clinical Specialist Radiation Therapist (CSRT) and Radiation Oncologists for Target Volume Delineation and Field Placement in Palliative Patients. Canadian Association Radiation Oncology Annual Scientific Meeting. Vancouver.

Publication Details:
Assessing conformity Between the Clinical Specialist Radiation Therapist (CSRT) and Radiation Oncologists for Target Volume Delineation and Field Placement in Palliative Patients. Rad Oncol. 2010;96(Suppl 2):S63. Abs 194.


Publication Details:

2009 Dosimetric comparison of different dose prescriptions and beam weightings for volumetric treatment plans for vertebral metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Development and implementation of a cone beam CT (CBCT) enabled one-step simulation and treatment process for bone metastases (BM). Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Implementation of a semi-automatic vertebra detection and segmentation algorithm for radiotherapy of spinous bone metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Dyspareunia after chemoradiotherapy for anal carcinoma – an under reported complication. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Development of a Canadian palliative radiation oncology curriculum. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009 Factors influencing dose fractionation choices for palliation of bone metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

Publication Details:

2009

Dosimetric comparison of different dose prescriptions and beam weightings for volumetric treatment plans for vertebral metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Quebec City, Quebec.

**Publication Details:**

2007 Oct 9


**Publication Details:**

2007 Oct 9

Pain flare following radiotherapy for painful bone metastases: a joint effort of three cancer centers to determine the incidence. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists Joint Annual Scientific Meeting. Toronto.

**Publication Details:**

2007 Oct 9

Evaluating the use of fact versus story based educational resources for patients and caregivers with brain metastases. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists Joint Annual Scientific Meeting. Toronto.

**Publication Details:**
Chung A, Ng D, Garraway C, Nyhof-Young J, Wong R. Evaluating the use of fact versus story based educational resources for patients and caregivers with brain metastases. Rad Onc. 2007;84(Suppl 2):S61. Abstract 213. **Senior Responsible Author.**

2007 Oct 9

What we should say and how: evaluating a combined story and fact-based educational booklet for patients with brain metastases and their caregivers. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists Joint Annual Scientific Meeting. Toronto.

**Publication Details:**
Garraway C, Damaraju D, Ng D, Chung A, Bezjak A, Nyhof-Young J, Wong R. What we should say and how: evaluating a combined story and fact-based educational booklet for patients with brain metastases and their caregivers. Rad Onc. 2007;84(Suppl 2):S61. Abstract 212. **Senior Responsible Author.**

2007 Oct 9

Feasibility testing of a quality assurance process for a cone-beam CT enabled online planning and treatment model for palliative radiotherapy. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists Joint Annual Scientific Meeting. Toronto.

**Publication Details:**

2007 Oct 9

Publication Details:

Coauthor or Collaborator.

2007

Publication Details:

2007
Evaluating the use of fact versus story based educational resources for patients and caregivers with brain metastases. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Toronto, Ontario.

Publication Details:

2007
What we should say and how: evaluating a combined story and fact-based educational booklet for patients with brain metastases and their caregivers. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Toronto, Ontario.

Publication Details:

2007
Feasibility testing of a quality assurance process for a cone-beam CT enabled online planning and treatment model for palliative radiotherapy. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Toronto, Ontario.

Publication Details:

2007

Publication Details:

2006
What is the impact of 4D-CT on the planning of esophageal cancer? Canadian Association of Radiation Oncologist. Calgary.

Publication Details:

2006
Rebecca Kwok Sum WONG

**Publication Details:**

Coauthor or Collaborator.

2006


**Publication Details:**

2006

A Systematic Review Of Interventions Used To Relieve Pain And Anxiety During Radiation Therapy And Interventional Radiology Procedures. Multinational Association of Supportive Care in Cancer Annual Scientific Meeting. Toronto, Canada.

**Publication Details:**

2006

The impact of fluorodeoxyglucose positron emission tomography (FDG-PET) on radiotherapy planning in carcinoma of the esophagus. Canadian Association of Radiation Oncologist. Calgary.

**Publication Details:**

2006

A prospective cohort study to describe the factors predictive of interruption during fluoroscopic simulation for palliative radiotherapy. Canadian Association of Radiation Oncologist. Calgary.

**Publication Details:**
Christensen E, Maddix K, Wong R. A prospective cohort study to describe the factors predictive of interruption during fluoroscopic simulation for palliative radiotherapy. 2006. Principal Investigator.

2006

A systematic review of interventions used to relieve pain and anxiety during radiation therapy and interventional radiology procedures. Canadian Association of Radiation Oncologist. Calgary.

**Publication Details:**
Christensen E, Wong R. A systematic review of interventions used to relieve pain and anxiety during radiation therapy and interventional radiology procedures. 2006. Principal Investigator.

2006


**Publication Details:**

2006

Methods to reduce intestinal morbidity from radiation therapy to unilateral pelvic bone metastases: An investigation to assess feasibility. Canadian Association of Radiation Oncologists (CARO) Annual Scientific Meeting. Calgary, Alberta.

**Publication Details:**
feasibility. Rad Oncol. 2006;80(Suppl 1):S62, A212. **Senior Responsible Author.**

**2005**


*Publication Details:*

**2005**


*Publication Details:*

**2005**


*Publication Details:*

**2005**


*Publication Details:*

**2004 Sep 9**

Comparison of different measures of palliative response to radiation for painful bone metastases. 18th Annual Scientific Meeting for CARO-ACRO. Halifax, Canada.

*Publication Details:*

**2004 Sep 9**

Telephone Follow-up for Palliative Patients Receiving Treatment - A Radiation Therapists Perspective. CARO-ACRO. Halifax, Canada.

*Publication Details:*
Goodridge C, Easton D, Williams D, Leon G, Macewko C, Bezjak A, **Wong R**. Telephone Follow-up for Palliative Patients Receiving Treatment - A Radiation Therapists Perspective. 2004. **Senior Responsible Author.**

**2004 Sep**

Computerized tomographic simulation compared to clinical mark-up in palliative radiotherapy: a prospective study. CARO Annual Meeting. Halifax.

*Publication Details:*

**Publication Details:**

2004 Sep  The use and toxicity of steroids in the management of patients with brain metastases. CARO Annual Meeting. Halifax.

**Publication Details:**


**Publication Details:**


**Publication Details:**
Wong R. Teaching Systematic Review and the Cochrane Collaboration to postgraduate trainees- a promising strategy? 2003. **Principal Author.**


**Publication Details:**


**Publication Details:**


**Publication Details:**
Wong R, Franssen E, Gafni A, Whelan T, Fung K. What relative importance do patients place upon
probability versus duration of pain relief? – Treatment decision making in palliative therapies. 2001. **Principal Author.**

2001  
Defining a minimal clinically important effect size (MCIES) for two contrasting palliative radiotherapy regimen in patients with pelvic recurrence from rectal cancer. Annual Scientific Meeting Canadian Association of Radiation Oncologist. Quebec City.

**Publication Details:**  

2000 Sep 21  

**Publication Details:**  

2000 Sep  
Patients with advanced cancer – a survey of their understanding of their own illness and expectations from palliative radiotherapy for symptomatic metastases. Annual Meeting of the Royal College of Physicians and Surgeons of Canada and Participating Societies (Radiation Oncology). Edmonton, Alberta.

**Publication Details:**  

2000  

**Publication Details:**  

1999 Sep  
Is combination radiotherapy chemotherapy (RTCT) superior to radiotherapy (RT) alone in the non-surgical management of localized esophageal carcinoma? A systematic review. Annual Meeting of the Royal College of Physicians & Surgeons of Canada and participating Societies (Radiation Oncology). Montreal, Quebec.

**Publication Details:**  
Wong, KSR. Is combination radiotherapy chemotherapy (RTCT) superior to radiotherapy (RT) alone in the non-surgical management of localized esophageal carcinoma? A systematic review. Suppl Clin Inv Med. 1999;372:S50. **Principal Author.**

1999 Sep  
Is combination radiotherapy chemotherapy (RTCT) superior to radiotherapy (RT) alone in the non-surgical management of localized esophageal carcinoma? A systematic review. Annual Meeting of the Royal College of Physicians & Surgeons of Canada and participating Societies (Radiation Oncology). Montreal, Quebec.

**Publication Details:**  
Wong, KSR. Is combination radiotherapy chemotherapy (RTCT) superior to radiotherapy (RT) alone in the non-surgical management of localized esophageal carcinoma? A systematic review. Suppl Clin Inv Med. 1999;372:S50. **Principal Author.**

1999 Sep  
Survey of referring physicians’ satisfaction. Annual Meeting of the Royal College of Physicians &
Surgeons of Canada and participating Societies (Radiation Oncology). Montreal, Quebec.

Publication Details:

1999 Sep

Publication Details:

1999

Publication Details:

1998 Sep

Publication Details:

1998 Sep

Publication Details:

Media Appearances

2000

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2015 Jul 17

2015 Apr 9

2014 Feb 20  **Speaker.** Oligometastases and Stereotactic ablative radiotherapy - Who would benefit? City Wide Oncology Rounds (Toronto). Toronto, Ontario, Canada. Presenter(s): Dr. Rebecca Wong.

2013 Aug 11  **Speaker.** Symptom Control through the Radiotherapy Looking Glass. Journal Club of Chinatown Physicians. Markham, Ontario, Canada. Presenter(s): Dr. Rebecca Wong.


2012 Feb 10  **Speaker.** Gastrointestinal Cancer Update. COMET. Toronto, Ontario, Canada. Presenter(s): Wong R.


2009  Radiotherapy in rectal cancer. GI advisory Board. Toronto.


2000  Developing treatment guidelines in supportive care. Supportive Care Research Workshop. Toronto. A
workshop hosted by the Cancer Care Ontario Practice Guidelines Initiative to bring together leaders in Supportive Care across the province. This meeting formed part of the ground work towards the formation of a province wide guidelines initiative in supportive care, as part of the Cancer Care Ontario Guidelines Initiative.

1999  
Supportive Care for Cancer, Public Education Series. Toronto Lutheran Lord Love Church. Toronto, Ontario. (Presentation to Patients/Public).

1999  
Living with Cancer. Yee Hong Cancer and Palliative Care Centre. Toronto, Ontario. Presented as part of a Public Education Series. (Presentation to Patients/Public).

1999  
Advances in Radiotherapy. Yee Hong Centre for Geriatric Care. Toronto, Ontario. Presented as part of a Public Education Series. (Presentation to Patients/Public).

1998  
Hodgkin's Disease: Treatment Options, Present and Future. Living Well with Lymphoma Family Forum. Toronto, Ontario. A public educational event hosted by the Living well with Lymphoma organization. (Presentation to Patients/Public).

1998  

1997  

Presented Abstracts


4. LOCAL

**Invited Lectures and Presentations**


2012 Feb 23 **Invited Speaker.** Beyond probability of symptom relief – The plight of palliative radiotherapy. University of Toronto Department of Radiation Oncology Rounds. Toronto, Ontario, Canada.


**Presented Abstracts**


5. OTHER

**Presented and Published Abstracts**

2012 Sep Developing the NCIC-CTG SC 24 Randomized Phase II Spine SBRT (Stereotactic Body Radiation Therapy) Study for Complex Spinal Metastases: What Should The Control Group Be?

*Publication Details:*
2012 Sep Palliative Radiotherapy (RT) in Patients with Poor Performance Status - Should We Tailor Our Treatment?

Publication Details:

2012 Sep Subclinical Malignant Spinal Cord Compression - A More Favorable Entity?

Publication Details:

2012 Jun Persistent fatigue in post-treatment survivors: are fatigue perceptions important.

Publication Details:

2012 Jun Cancer-related fatigue in colorectal, breast and prostate cancer survivors.

Publication Details:


Publication Details:


Publication Details:

2011 Adjuvant sunitini (Su) fro locally advanced esophageal cancer (LAEC) Results of a phase II trial.

Publication Details:

2011 Dawson Outcomes following sequential trial of stereotactic body radiotherapy (SBRT) for hepatocellular carcinoma.
G. Teaching and Design

1. Program innovation to build research capacity among radiation oncology oncology trainees

My contribution to residency research can be traced back to 2002. During this time, while research is an expectation, the mechanism in which trainees would initiate their projects were not well defined, and more substantial projects were often deferred due to a delayed start in the planning stages. We hypothesized that the introduction of a defined process, including an instructional research methods course would improve the quality and quantity of research undertaken by our trainees, and contribute to a life time quest for research for improved patient care. With that in mind, I led the creation of the radiation oncology resident research program, putting in place specific goals, objectives, responsibilities and milestones. The framework allowed both residents and faculty to share a common expectation, encouraged dialogue during early months of the residency to secure a supervisor and a research topic. She also designed and implemented the PGY1 research methods course that was first offered in 2002. The program structure was further refined in 2012 with the introduction of the Biannual Resident Research Half Day. The objectives were to provide a forum for residents to present...
their work in progress as well as prior to external dissemination of their findings. It was also expected to serve the dual objective of broadening faculty engagement.

We first compiled the annual Resident Research Report in 2002 summarizing academic deliverables (abstracts, publications, grants etc) to provide metrics and evidence for ongoing improvement of the program. Guidance to consider creative professional activities was introduced in 2011. Each of these process improvements has evolved from novel ideas at the time to become part of our standard curriculum. Metrics for impact can be observed from the research reports, evaluations of the events. Publications during residency provide a and as broad summary indicator.

2. Incorporating pedagogy into the clinical environment

Clinical, education and research excellence is an essential triad for continuously striving for the best outcomes for our patients. In contrast to the robust training in physician training for clinical and research excellence, knowledge based on how to become an excellence teacher receives minimal attention. Mechanisms to bring pedagogical principles to our faculty deserves deliberate and systematic action. It was hypothesized that faculty development that is embedded within our daily activities will enable the greatest uptake. With this in mind, in 2015 put in place the first of a series of efforts. RMP Education Rounds were introduced in Jan 2015, designed to provide a sustained forum to highlight novel education theories, education projects in development and accomplishments by our peers. The Radiation Medicine Summer Series entitled "New Age Education" was launched. Designed to appeal to radiation medicine practitioners and beyond, the series provided frameworks, tools and new ideas in education that would inspire. In 2016, the University of Toronto Department of Radiation Oncology Evening journal club were introduced. This education event goes beyond our organization walls and is designed to build a forum for learning among the radiation medicine community across greater GTA.

e. Teaching research skills to radiation medicine trainees in low and middle income country

Research capacity building is recognized to be critical skill that is required to enable innovation and change. From evidence to practice, knowledge translation requires deliberate intent, action and tools. The Radiation Medicine Program at Princess Margaret Cancer Center has as its vision to be “the radiation medicine education provider of choice” although efficient and careful deployment of resources are needed for sustainability and impact, especially when designing strategies to support colleagues in low and middle income countries. It is hypothesized that a joint mentorship strategy between the host institution and external faculty (e.g. PMH) as a source of methodological expertise and capacity, would be effective in enhancing clinical research capacity. In 2015, the inaugural PMH-Ghana research mentorship program was established. A collaborative project with the national radiation oncology facility in Ghana, this year long mentorship program accepted its first cohort of five radiation oncology trainees in Jan 2015. This successful program will expand her offerings to trainees in Nigeria and Zimbabwe in 2016.

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2016 Jan - present  
Evening Journal Club, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology  
This education event is designed to build a forum for learning among the radiation medicine community across greater GTA. Speakers are invited to show case innovations and research accomplished or planned as a University Department.

2015 Jan - present  
PMH-Ghana research mentorship program, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Center  
A collaborative project with the national radiation oncology facility in Ghana, this year long mentorship program is designed to teach radiation oncology residents in low and middle income countries critical appraisal and basic research methods. It is our vision that teaching and mentorship provided in this way would enable critical evaluation of new technologies and evidence - a life long skill that is the cornerstone for better patient care and outcomes.

2015 Jan - present  
RMP Education Rounds, Faculty Development, Faculty of Medicine, Dept of Radiation Oncology  
Designed to provide a sustained forum to highlight novel education theories, education projects in development and accomplishments by our peers.
2010 - present  Research Methods course - Radiation Oncology Residency Program, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Post-Graduate Medical Education Resident Training Program, Princess Margaret Hospital  
*This is an introductory research course designed for PGY1-2 (delivered during academic block). Topics ranged from Qualitative research to randomized trials.*

2015 Jul - 2015 Aug  Summer Series - New Age Education, Faculty Development, Faculty of Medicine, Dept of Radiation Oncology, Radiation Medicine Program  
*Designed to appeal to radiation medicine practitioners and beyond, the series provided frameworks, tools and new ideas in education that is intended to inspire.*

2012 Jul 1 - 2013 Jun 30  Biannual Research Half Day - Radiation Oncology Residency Program, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Post-Graduate Medical Education Resident Training Program, Princess Margaret Hospital  
*Research Half Day was designed to provide a forum for residents to*  
- present their work in progress  
- present their major research project for approval  
- provide feedback to your peers  
- Obtain feedback from your peers and faculty  
- nominate projects for CARO/ASTRO/UT research day submissions (Jan session)  
- practice presentation for CARO/ASTRO presentations (Aug session).

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2014  **Primary Supervisor.** B. Sc. A Springer. *Strategies to increase clinical trial accrual.*

2011  **Primary Supervisor.** B. Sc. A Ng. *Patient specific quality assurance in radiation oncology.*


2005  **Primary Supervisor.** B. Sc. K Barrett. *A pilot project in the redesign of quality assurance.*

2003  **Primary Supervisor.** B. Sc. C Tsang. *Effect of duplicate publications on systematic reviews.*

2002  **Primary Supervisor.** B. Sc. D Yung. *Validation of surface contour generated by 3D digital surface imaging system using CT generated surface contour.*


2000  **Primary Supervisor.** B. Sc. K Fung. *Determining minimal clinically Important effect size in palliative radiotherapy.*

Graduate Education

2010 - 2011  **Primary Supervisor.** MSc. K Davidge. *Function and Health Status outcomes following soft tissue reconstruction for Limb preservation in extremity soft tissue sarcoma.*

2007  **Primary Supervisor.** MSc. J Wu. *Impact of specialized palliative radiotherapy clinics on radiotherapy utilization.*

2005  **Primary Supervisor.** PhD. D Letourneau. *Cone Beam Enabled One Step sim and treat process for palliative radiotherapy.*

2001  **Primary Supervisor.** MSc. M McQuestion. *A qualitative Descriptive study of patients’ experiences of receiving primary radiation Treatment for head and neck cancer.*

Undergraduate MD

2010  **Primary Supervisor.** Katherine Wheeler.


2004  **Primary Supervisor.** D Ng. *Determinants of Community Health Research Project: Evaluation of short stories as an educational tool for patients with brain metastases.*

2003  **Primary Supervisor.** J Sze. *Qualitative study on the caregiver expectations for patients with brain metastases.*

2002  **Primary Supervisor.** S Marisette. *A qualitative study on the informational needs for coping and treatment decision making for patients with brain metastases.*

**Postgraduate MD**


2010  **Primary Supervisor.** Clinical Fellow. Nichola Naidoo. *Pattern of Practice of a specialized palliative radiation Oncology Program.*


2009  **Primary Supervisor.** Clinical Fellow. Amy Shorthouse. *Retrospective Review of the Pattern of Practice of Esophageal Cancer At Princess Margaret Hospital.*

2009  **Primary Supervisor.** Clinical Fellow. Kathy Pope. *2D vs 3D palliative radiotherapy planning.*

2008  **Primary Supervisor.** Clinical Fellow. A Potter. *Health Outcomes in patients at high risk of fracture from femoral metastases.*

2007  **Primary Supervisor.** Clinical Fellow. D Fitzpatrick. *Virtual consultation to facilitate consultation for malignant spinal cord compression.*

2007  **Primary Supervisor.** I Kong. *Impact of 4DCT on esophageal radiotherapy planning.*

2006  **Primary Supervisor.** D Vesprini. *Role of PET scan in planning of esophageal cancer.*

2005  **Primary Supervisor.** Clinical Fellow. D Grabarz. *Cone beam CT in palliative radiotherapy.*

2004  **Primary Supervisor.** Clinical Fellow. C Elder. *Cone beam CT in palliative radiotherapy.*

2003  **Primary Supervisor.** Clinical Fellow. K Wiltshire. *Organ motion study in esophageal cancer.*

2002  **Primary Supervisor.** Clinical Fellow. P Haddad. *CT simulation in palliative radiotherapy.*
Clinical Research Fellow (MD)

2014 Jul - 2015 Jun  
**Primary Supervisor.** Moises Russos. A systematic review on research capacity building strategies in oncology for low and middle income countries. Completed 2015.

2. OTHER SUPERVISION

Thesis Examiner

2014 Jul  
Francisco Vera-Badillo, Medical Science. *Bias in Reporting of Randomized Clinical Trials in Oncology.* Supervisor(s): Ian Tannock. Completed 2013.

2013 Jul  
Curriculum Vitae

Dr. Frederick Yoon
Radiation Oncologist

Note: Record level details are generally denoted only once for each section. If there are multiple subsections, please use the same format unless noted otherwise.

A. Date Curriculum Vitae is Prepared: 2016/August/27

B. Biographical Information

Primary Office: Simcoe Muskoka Regional Cancer Centre,
Royal Victoria Regional Health Centre,
201 Georgian Drive,
Barrie, Ontario, Canada.
L4M 6M2
Telephone: 705-728-9090 ext. 43352
Cellphone: 705-817-0781
Fax: 705-739-5619
Email: yoonf@rvh.on.ca

1. EDUCATION

Degrees
[Presented in reverse chronological order]
[Start – End Dates] [Title/Position], [Subject/Discipline], [Department/Program],
[Institution/Organization], [City], [Province/State], [Country],
Supervisor(s): [Supervisor(s)]

July 2005 – June 2010 FRCPC, Fellow of the Royal College of Physicians of Canada,
Radiation Oncology with residency training at the University of
Toronto, Toronto, ON, Canada.

September 2001 – April 2005 M.D., Doctor of Medicine, Schulich School of Medicine and
Dentistry, University of Western Ontario, London, ON, Canada.

September 1997 – April 2001 H.BSc. Honour’s Bachelor of Science, Human Biology, University
of Toronto, Toronto, ON, Canada.

Postgraduate, Research and Specialty Training
[Presented in reverse chronological order]
Qualifications, Certifications and Licenses
[Presented in reverse chronological order]

<table>
<thead>
<tr>
<th>Start – End Dates</th>
<th>Title, Specialty, Institution/Organization, City, Province/State, Country, License/ Membership Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>LMCC, Licentiate of the Medical Council of Canada</td>
</tr>
<tr>
<td>2005</td>
<td>USMLE Step 1, United States Medical Licensing Examination</td>
</tr>
<tr>
<td>2005</td>
<td>USMLE Step 2, Clinical Knowledge</td>
</tr>
<tr>
<td>2006</td>
<td>USMLE Step 2, Clinical Skills</td>
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<tr>
<td>2006</td>
<td>USMLE Step 3</td>
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</tbody>
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2. EMPLOYMENT

Current Appointments
[Presented in reverse chronological order]

<table>
<thead>
<tr>
<th>Start – End Dates</th>
<th>Title/Position, Division, Department, Faculty/ School, Institution/Organization, City, Province, Country.</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 23, 2010 – present</td>
<td>Radiation oncologist, Department of Oncology, Simcoe Muskoka Regional Cancer Centre, Royal Victoria Regional Health Centre, 201 Georgian Drive, Barrie, Ontario, Canada. Staff radiation oncologist.</td>
</tr>
<tr>
<td>2011 – present</td>
<td>Regional affiliate, Department of Medicine, Orillia Soldier’s Memorial Hospital, Orillia, ON, Canada.</td>
</tr>
<tr>
<td>2010 – present</td>
<td>Lecturer, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, ON, Canada.</td>
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</table>

Previous Appointments

CLINICAL
[Presented in reverse chronological order]

<table>
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<th>Title/Position, Division, Department, Faculty/ School, Institution/Organization, City, Province, Country.</th>
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</thead>
<tbody>
<tr>
<td>August 23, 2010 – 2013</td>
<td>Courtesy staff, radiation oncologist, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, University of Toronto, 2075 Bayview Ave, Toronto, ON, Canada Part time staff as a radiation oncologist at Sunnybrook Health</td>
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3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received
[Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Role], [Institution/Organization], [City], [Province/State], [Country]. ([Award Type (i.e., Credential, Distinction, or Research Award), Specialty: [Specialty])

Description. Total Amount: [Total Amount] [Currency]

Nominated
[Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Role], [Institution/Organization], [City], [Province/State], [Country]. ([Award Type, (i.e., Credential, Distinction, or Research Award), Specialty: [Specialty])

Description. Total Amount: [Total Amount] [Currency]

NATIONAL

Received

Nominated
PROVINCIAL/ REGIONAL
Received

Nominated

LOCAL
Received

Nominated

Teaching Awards

INTERNATIONAL
Received
[Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Role], [Division], [University Department], [Faculty], [Institution/Organization], [City], [Province/ State], [Country]. (Primary Audience, Year/Stage, Specialty: [Specialty])

Description. Total Amount: [Total Amount] [Currency]

Nominated
[Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Role], [Division], [University Department], [Faculty], [Institution/Organization], [City], [Province/ State], [Country]. (Primary Audience, Year/Stage, Specialty: [Specialty])

Description. Total Amount: [Total Amount] [Currency]

NATIONAL
Received

Nominated

PROVINCIAL/ REGIONAL
Received

Nominated

LOCAL
Received
Nominated

2016 Excellence in Community-Based Clinical Teaching Award (Hospital), Clinical Teaching, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, ON, Canada. Residents in Radiation Oncology.

Student/Trainee Awards

INTERNATIONAL
Received
[Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Specialty], [Role], Awardee Name: [Student Name]. [Institution/ Organization], [City], [Province/ State], [Country].
Description. Total Amount: [Total Amount] [Currency]

Nominated
[Presented in reverse chronological order]

[Start – End Dates] [Name of Award], [Specialty], [Role], Awardee Name: [Student Name]. [Institution/ Organization], [City], [Province/ State], [Country].
Description. Total Amount: [Total Amount] [Currency]

NATIONAL
Received

Nominated

PROVINCIAL/ REGIONAL
Received

Nominated

LOCAL
Received

Nominated
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

[Presented in reverse chronological order]
2010 – present Member, Ontario Medical Association, member number 0917955
2010 – present Member, Canadian Medical Association, member number 131647.

Administrative Activities

INTERNATIONAL
[Institution/Organization name]
[Presented in reverse chronological order]
[Start – End Dates] [Role], [Committee Name], [Faculty], [University Department],
[Division], [Primary Audience], [City], [Province], [Canada].
Description.

NATIONAL

PROVINCIAL / REGIONAL

LOCAL

Peer Review Activities

ASSOCIATE OR SECTION EDITING
[Presented in reverse chronological order]
[Role]
[Start – End Dates] [Institution/Organization], [Journal/Section], Number of Reviews:
[Number of Reviews]

EDITORIAL BOARDS

GRANT REVIEWS

MANUSCRIPT REVIEWS

PRESENTATION REVIEWS

[OTHER ACTIVITY TYPE]

Other Research and Professional Activities

RESEARCH PROJECT
[Presented in reverse chronological order]
[Start – End Dates]  
[Role]. [Title]. [Institution/ Organization], [City], [Province], [Country].  
Supervisor(s): [Supervisor(s) Name]. Collaborators: [Collaborators Name]  
[Description].

THESIS PROJECT

[OTHER ACTIVITY TYPE]

C. Academic Profile

1. RESEARCH STATEMENTS

[Presented in reverse chronological order]
[Start – End Dates]  
[Title/Subject].  
[Description].  
[Impact].

2. TEACHING PHILOSOPHY

[Free text field]

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

[Introduction of CPA (free text field)]

D. Research Funding
1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED
[Presented in reverse chronological order]

[Start – End Dates]  [Role]. [Name of Grant]. [Funding Source]. [Funding Program Name]. [Grant/Account Number]. Principal Investigator: [Last Name, First Name(s)]. Collaborators: [Name(s)]. [Amount] [Currency]. [Funding Type]
Description.

AWARDED BUT DECLINED
[Presented in reverse chronological order]

[Start – End Dates]  [Role]. [Name of Grant]. [Funding Source]. [Funding Program Name]. [Grant/Account Number]. Principal Investigator: [Last Name, First Name(s)]. Collaborators: [Name(s)]. [Amount] [Currency]. [Funding Type]
Description.

NON-PEER-REVIEWED GRANTS

[Presented in reverse chronological order]

FUNDED

AWARDED BUT DECLINED

2. SALARY SUPPORT AND OTHER FUNDING

Personal Salary Support
[Presented in reverse chronological order]

[Start – End Dates]  [Funding Title]. [Funding Source]. [Amount] [Currency]. [City], [Province], [Country]. (Specialty: [Specialty]).

Trainee Salary Support

[Start – End Dates]  [Funding Title]. Trainee Name: [Trainee Name]. [Funding Source]. [Amount] [Currency]. [City], [Province], [Country]. (Specialty: [Specialty]).

Other Funding
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS

[Presented in reverse chronological order]

1. [Author(s) - CV holder’s name bolded], [Article Title]. [Journal Name]. [Year] [Month] [Day]; [Volume][[Issue]][:Page Range]. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Most significant publication details.


2. PEER-REVIEWED PUBLICATIONS

Journal Articles

[Presented in reverse chronological order]

[Author(s) - CV holder’s name bolded], [Article Title]. [Journal Name]. [Year] [Month] [Day]; [Volume][[Issue]][:Page Range]. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Case Reports

1. [Author(s) - CV holder’s name bolded], [Report Title], [Edition], [City] (Canada): [Publisher]; [Year] [Month] [Day]. [# of pages] p. [Report #]. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Books

1. [Author(s) - CV holder’s name bolded], [Book Title], [Edition], [Editors], editor(s). [Volume]. [City] [(Country)]: [Publisher]; [Year]. [# of pages] p. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Books Edited

[Same citation format as “Books”]

Book Chapters

1. [Author(s) - CV holder’s name bolded], [Chapter Title]. In: [Editors], editor(s). [Book Title]. [Edition]. [Volume]. [City] [(Country)]: [Publisher]; [Year]. p. [Page Range]. [Rest of Citation]. Available from: [URL]. [Status - only if “In Press”]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Manuals

1. [Author(s) - CV holder’s name bolded], [Manual Title]. In: [Editors], editor(s). [Name of Journal, Book, etc. where it was published]. [Edition]. [Volume]. [City] [(Country)]: [Publisher]; [Year]. # of pages p. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Editorials

[Same citation format as “Journal Articles”]

Commentaries

[Same citation format as “Journal Articles”]

Letters to Editor

[Same citation format as “Journal Articles”]

Monographs

1. [Author(s) - CV holder’s name bolded], [Title]. [Journal Name]. [Year] [Month] [Day], [Rest of Citation]. (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Multimedia

[Same citation format as “Monographs”]
In Preparation
1. [Author(s) - CV holder’s name bolded], [Paper Title]. [Editors], editor(s). [Year], [#of pages] p. [Rest of Citation]. Available from: [URL]. (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Clinical Care Guidelines
1. [Contributors - CV holder’s name bolded], [Title]. [City] (Canada): [Publisher]; [Year] [Month]. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Journal Issues
1. [Author(s) - CV holder’s name bolded], [Issue Title]. [Journal Name]. [Year] [Month] [Day]; [Volume]([Issue]). [# of pages] p. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Magazine Entries
1. [Author(s) - CV holder’s name bolded], [Article Title]. [Magazine Name]. [Year] [Month] [Day]; [Volume](Issue):[Page Range]. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Newspaper Articles
1. [Author(s) - CV holder’s name bolded], [Article Title]. [Newspaper name] ([Edition]). [Year] [Month] [Day]; [Section]:[Page Range]. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Online Resources
1. [Author(s) - CV holder’s name bolded], [Title]. [Editors], editor(s). [City] ([Country]): [Publisher]; [Year] [Month] [Day]. [Rest of Citation]. Available from: [URL]. Impact Factor [Impact Factor] (Trainee publication, [Trainee Details] - only if it is a trainee publication). [Role].

Other Publications
[Same citation format as “Monographs”]

3. NON-PEER-REVIEWED PUBLICATIONS
[Same citation format as Peer-Reviewed Publications]

Journal Articles
Case Reports

Books

Books Edited

Book Chapters

Manuals

Editorials

Commentaries

Letters to Editor

Monographs

Multimedia

In Preparation

Clinical Care Guidelines

Journal Issues

Magazine Entries

Newspaper Articles
Online Resources

Other Publications

4. SUBMITTED PUBLICATIONS

[Same citation format as Peer-Reviewed Publications]

Journal Articles

Case Reports

Books

Books Edited

Book Chapters

Manuals

Editorials

Commentaries

Letters to Editor

Monographs

Multimedia

Clinical Care Guidelines
F. Intellectual Property

1. PATENTS

[Presented in reverse chronological order]

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. Patent #: [Patent #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].

2. COPYRIGHTS

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. Copyright #: [Copyright #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].

3. LICENSES

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. License #: [License #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].

4. DISCLOSURES

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. Disclosure #: [Disclosure #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].

5. TRADEMARKS

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. Trademark #: [Trademark #], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names].
[Brief Description].
6. OTHER

[Date] [Title]. [Status - Applied or Granted], Filing Date: [Year] [Month]. #: [#], [State/Province], Canada. Joint Holder Name(s): [Joint Holder Names]. [Brief Description].

G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

[Presented in reverse chronological order]

[Date] [Presentation Role]. [Title]. [Organizer]. [City], [State/Province], [Country]. Presenter(s): [Presenter(s)]. [Description/Contribution Value]. Available from: [URL]. (Trainee Presentation - only if it is a trainee presentation).

Presented Abstracts

[Same format as “Invited Lectures and Presentations”]

Presented and Published Abstracts

[Date] [Presentation Role]. [Title]. [Organizer]. [City], [State/Province], [Country]. Presenter(s): [Presenter(s)]. [Description/Contribution Value]. Available from: [URL]. (Trainee Presentation)

Publication Details:

[Author(s)]. [Title]. [Journal Name]. [Year] [Month] [Day];[Volume]([Issue]):[Page Range]. [Rest of Citation]. [Publication Role].


Media Appearances

[Date] [Presentation Role]. [Topic]. Interviewer: [Interviewer]. [Program], [Network]. [City], [State/Province], [Country]. Presenter(s): [Presenter(s)]. [Description/Contribution Value]. End date: [Year] [Month] [Day]. Available from: [URL]. (Trainee Presentation - only if it is a trainee presentation).
Other Presentations

[Same format as “Invited Lectures and Presentations”]

2. NATIONAL

Invited Lectures and Presentations

Presented Abstracts

Presented and Published Abstracts


Media Appearances

Other Presentations

3. PROVINCIAL/ REGIONAL

Invited Lectures and Presentations

Presented Abstracts

Presented and Published Abstracts

Media Appearances
Other Presentations

4. LOCAL

Invited Lectures and Presentations

Presented Abstracts

Presented and Published Abstracts

Media Appearances

Other Presentations

H. Teaching and Design

Please see the Teaching and Educational Report for full details. [Introduction to Teaching and Education Report]

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

[Presented in reverse chronological order]
[Start – End Dates] [Title], [Primary Audience], [Faculty], [University Department], [Division], [Institution/ Organization] [Description]. [Impact].

I. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Multilevel Education
[Presented in reverse chronological order]
[Start – End Dates] [Role], [Year/Stage - if applicable]. [Supervisee Name], [Graduate Unit], [Collaborative Program]. Supervisee Position: [Supervisee Position].
Supervisee Institution: [Supervisee Institution]. [Research Project Title]. Awards: [Supervisee’s Awards Attained]. Supervisor(s): [Supervisor(s)]. Collaborator(s): [Collaborators]. Completed [year student completed degree - if applicable]

Undergraduate Education

Graduate Education

Undergraduate MD

Postgraduate MD

Continuing Education

Faculty Development

Patient and Public Education

Postdoctoral Research Fellow (PhD)

Research Associate

Clinical Research Fellow (MD)

Other

1. OTHER SUPERVISION

Multilevel Education

Secondary Supervisor

[Presented in reverse chronological order]

[Start – End Dates] [Year/Stage], [Supervisee Name], [Graduate Unit], [Collaborative Program]. Supervisee Position: [Supervisee Position], Supervisee Institution: [Supervisee Institution]. [Research Project Title]. Awards: [Supervisee’s Awards Attained]. Supervisor(s): [Supervisor(s)].
Collaborator(s): [Collaborators]. Completed [year student completed degree - if applicable]

Thesis Committee Member
Thesis Examiner
Qualifying/Reclass Examiner
Other

Undergraduate Education

Graduate Education

Undergraduate MD

Postgraduate MD

Continuing Education

Faculty Development

Patient and Public Education

Postdoctoral Research Fellow (PhD)

Research Associate

Clinical Research Fellow (MD)

Other

J. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE
2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

3. EXEMPLARY PROFESSIONAL PRACTICE

2008  Champions of Care, Sunnybrook Health Sciences Centre, February 2008.
Description (taken from http://sunnybrook.ca/foundation/content/?page=champions): If you or a loved one has received special care from a doctor, nurse, technician, volunteer or any staff member, you can recognize them as a Champion of Care by making a donation in their honour. Your Champion of Care will receive an acknowledgement card and a commemorative pin to wear in recognition of your generosity.
Jasper Yuen

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### Peel Radiation Oncology, Peel Regional Cancer Centre, Credit Valley Hospital

**Staff Radiation Oncologist**
- Aug 2009-present
- Head of Brachytherapy
- Physician Lead - Gynecology
- Physician Co-Lead - Thoracic
- Physician Champion - Smoking Cessation Program, Quality Assurance
- Site Groups: Gynecology, Thoracic, Prostate, Breast, Palliative, SBRT
- Hospital Privileges
  - Credit Valley Hospital
  - William Osler Health Centre - Brampton Civic Hospital

### Education

#### Fellowship in Radiation Oncology

**Memorial Sloan-Kettering Cancer Center**  
New York, New York  
- **Brachytherapy Fellowship**  
  - July 2008 – June 2009

#### Residency in Radiation Oncology

**University of Western Ontario**  
London, Ontario  
- **July 2004 – June 2008**  
- **Chief Resident 2007**  
- **PostGraduate Education Committee**  
- **Residency Selection Committee**

#### First Year Internship in Radiation Oncology

**University of Alberta**  
Edmonton, Alberta  
- **July 2003 – June 2004**

#### Doctor of Medicine

**University of Western Ontario**  
London, Ontario  
- **September 1999 – June 2003**  
- **Summer Research Training Program**  
- **Class Secretary and Treasurer**

#### Bachelor of Science with Honours First Class (ssp)

**Queen’s University**  
Kingston, Ontario  
- **Life Sciences – Subject of Specialization**  
- **September 1995 – May 1999**

### Awards received

- **Alexander Rutherford Scholarship**  
  - 1995
<table>
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<tr>
<td>Dean’s Special Award</td>
<td>1996</td>
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<tr>
<td>Ivan H Smith Memorial Prize</td>
<td>2003</td>
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<tr>
<td>University of Western Ontario Resident/Fellow Travel Award</td>
<td>2006</td>
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<tr>
<td><strong>American Brachytherapy Society Resident Travel Award</strong></td>
<td>2007</td>
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<tr>
<td><strong>ABS/Oncura Resident Prostate Brachytherapy Fellowship</strong></td>
<td>2007</td>
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<td>ASTRO 2007 Spring Refresher Course Travel Grant</td>
<td>2007</td>
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<tr>
<td>University of Western Ontario Resident/Fellow Travel Award</td>
<td>2008</td>
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<table>
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<tbody>
<tr>
<td>Licentiate of the Medical Council of Canada Part I</td>
<td>2003</td>
</tr>
<tr>
<td>Licentiate of the Medical Council of Canada Part II</td>
<td>2004</td>
</tr>
<tr>
<td>United States Medical Licensing Examination Step 1</td>
<td>2004</td>
</tr>
<tr>
<td>United States Medical Licensing Examination Step 2</td>
<td>2005</td>
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<td>United States Medical Licensing Examination Step 3</td>
<td>2006</td>
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<table>
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<tbody>
<tr>
<td>Royal College of Physicians and Surgeons of Canada</td>
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<tr>
<td>Canadian Medical Association</td>
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<tr>
<td>College of Physicians and Surgeons of Ontario</td>
<td></td>
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<tr>
<td>Professional Association of Interns and Residents of Ontario</td>
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<tr>
<td>Ontario Medical Association</td>
<td></td>
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<tr>
<td>Alberta Medical Association</td>
<td></td>
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<tr>
<td>Canadian Association of Radiation Oncologists</td>
<td></td>
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<tr>
<td>American Society of Therapeutic Radiology and Oncology</td>
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<tr>
<td>American College of Radiology</td>
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<tr>
<td>American Brachytherapy Society</td>
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<tr>
<td>Radiological Society of North America</td>
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<tr>
<td><strong>MR Spectroscopy Based Treatment Planning in Prostate Cancer Brachytherapy</strong></td>
<td>Memorial Sloan Kettering Cancer Center 2008-2009</td>
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<tr>
<td>• Supervisor: Dr. Michael Zelefsky</td>
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<tr>
<td><strong>3D Image Based Treatment Planning in Cervix Cancer Brachytherapy</strong></td>
<td>University of Western Ontario 2005-2007</td>
</tr>
<tr>
<td>• Supervisor: Dr. David D'Souza</td>
<td></td>
</tr>
<tr>
<td><strong>Advanced Techniques in the Treatment of Early Stage Lung Cancer</strong></td>
<td>University of Western Ontario 2005-2006</td>
</tr>
<tr>
<td>• Supervisor: Dr. Stewart Gaede</td>
<td></td>
</tr>
<tr>
<td><strong>Using Helical Tomotherapy Hypofractionated Treatment of the Pelvis in High-Risk Prostate Cancer</strong></td>
<td>University of Western Ontario 2005-2006</td>
</tr>
<tr>
<td>• Supervisor: Dr. George Rodrigues</td>
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<tr>
<td>• Abbott-CARO Uro-Oncologic Radiation Award</td>
<td></td>
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<tr>
<td><strong>Genetic Determinants of Cardiovascular Disease</strong></td>
<td>University of Western Ontario 2000-2001</td>
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</table>
- Supervisor: Dr. Robert Hegele
- University of Western Ontario Summer Research Training Program Awardee

**Yeast Two-Hybrid Setup for Screening Insect Genes**
Queen’s University in Kingston Ontario 1999
- Supervisor: Dr. William Bendena

**Protein Purification and Classification of Cytochrome c550**
Queen’s University in Kingston Ontario 1998
- Supervisor: Dr. Bruce Hill

**Yeast Two-Hybrid Screen of Fus2**
Queen’s University in Kingston Ontario 1998
- Supervisor: Dr. Charlie Boone

**Hormone Induced Regulation of Gene Expression**
Queen’s University in Kingston Ontario 1998
- Supervisor: Dr. Roger Deeley

**Protein Profile Changes of CHF in the Swine Model**
Queen’s University in Kingston Ontario 1997-1998
- Supervisor: Dr. Jennifer Van-Eyk
- BScH Thesis Project

**Production and Purification of Taq Polymerase**
University of Calgary, Alberta 1997
- Supervisor: Dr. Norman Wong.

<table>
<thead>
<tr>
<th>Current Research Interests</th>
<th>Brachytherapy</th>
</tr>
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**Publications**

- An early report on outcomes from computed tomographic-based high-dose-rate brachytherapy for locally advanced cervix cancer: A single institution experience

- Optimization of HDR cervix brachytherapy applicator placement: The benefits of intraoperative ultrasound guidance
  Davidson M, **Yuen J**, D'Souza D, Radwan J, Hammond J, Batchelar D.
  Brachytherapy. 2008 Jul-Sep;7(3):248-53

- Image-guided cervix HDR brachytherapy treatment planning: does custom CT-planning for each insertion provide better conformal avoidance of organs at risk?
  Davidson M, **Yuen J**, D'Souza D, Batchelar D.

- Comparing two strategies of dynamic intensity modulated radiation therapy (dIMRT) with 3-dimensional conformal radiation therapy (3DCRT) in the
hypofractionated treatment of high-risk prostate cancer
Radiation oncology. 2008 Jan 7;3(1):1

Single nucleotide polymorphisms of the fukutin gene
Cao H, Yuen J, Hegele RA
Journal of Human Genetics 46(8), 487-9

Single nucleotide polymorphisms of the nuclear lamina proteome
Hegele RA, Yuen J, Cao H
Journal of Human Genetics 46(6), 451-4

Abstracts
CT-based HDR cervix brachytherapy: Early toxicity and results using the Vienna fractionation
- L. VanderSpek, M. Davidson, D. D'Souza, J. Yuen, J. Hammond, D. Batchelar
- Awarded Poster Presentation at the 2008 World Congress of Brachytherapy in Boston

The Use of CT Image Based Treatment Planning in Cervical Brachytherapy
- J. Yuen, M. Davidson, D. D'Souza
- Awarded Poster Presentation at the 2007 American Society of Therapeutic Radiology and Oncology Annual Meeting in Los Angeles

Does Intraoperative ultrasound guidance benefit routine intracavitary cervical carcinoma therapy?
- M. Davidson, D. D'Souza, J. Yuen, J. Radwan, J. Hammond, T. Murray, L. Derrah, D. Batchelar
- Awarded Poster Presentation at the 2007 American Society of Therapeutic Radiology and Oncology Annual Meeting in Los Angeles

Comparing Two Strategies of Dynamic Intensity Modulated Radiation Therapy Using Helical Tomotherapy Versus 3D Conformal Radiation Therapy in the Hypofractionated Treatment of the Pelvis in High-Risk Prostate Cancer
- Awarded Poster Presentation at the 2006 Canadian Association of Radiation Oncologists Annual Meeting in Calgary
- Awarded Poster Presentation at the 2006 American Society of Therapeutic Radiology and Oncology Annual Meeting in Philadelphia

Comparing Helical Tomotherapy, Step and Shoot Intensity Modulated Radiation Therapy, and Traditional Conformal Radiation Therapy Using 4-Dimensional Computed Tomography and Respiratory Gating to Treat Early Stage Non Small Cell Lung Cancer
- J. Yuen, S. Gaede, S. Yartsev, E. Yu
- Awarded Poster at the 2006 Canadian Association of Radiation Oncologists Annual Meeting in Calgary

Oral Presentations
Image-Guided HDR Brachytherapy Treatment Planning: Does Custom CT Planning for Each Insertion Provide Better Conformal Avoidance of Organs at Risk?
- J. Yuen, M. Davidson, D. D'Souza, D. Batchelar
- Awarded Oral Presentation at the 2007 Canadian Association of Radiation Oncologists Annual Meeting in Toronto
### 3D Image Based Treatment Planning in Cervix Cancer Brachytherapy: The Use of CT Imaging in Assessing Dose Parameters
- **J. Yuen**, D. Batchelar, D. D’Souza, S. Karnas
  - Awarded Oral Presentation at the 2006 Canadian Association of Radiation Oncologists Annual Meeting in Calgary
  - Awarded Poster Discussion at the 2007 American Brachytherapy Society Annual Meeting in Chicago

### Comparing Two Strategies of Dynamic Intensity Modulated Radiation Therapy Using Helical Tomotherapy Versus 3D Conformal Radiation Therapy in the Hypofractionated Treatment of the Pelvis in High-Risk Prostate Cancer
  - Awarded Oral Presentation at the 2006 University of Western Ontario Oncology Research and Education Day

### Implementation of HDR Brachytherapy for Cervix Carcinoma: Multi-Modality Image-Guidance for Efficient Workflow
- D. Batchelar, M. Davidson, **J. Yuen**, JA. Hammond, J. Radwan, D. D’Souza,
  - Awarded Oral Presentation at the 2007 Canadian Association of Radiation Oncologists Annual Meeting in Toronto
  - Awarded People’s Choice Award for Best Oral Presentation

### Gynaecologic HDR Interstitial Brachytherapy: The Role of Radiation Oncology Nursing in Multidisciplinary Care
  - Awarded Poster at the 2006 Canadian Association of Radiation Oncologists Annual Meeting in Calgary

### Continuing Education
- Radiation Therapy Oncology Group (RTOG) 2005
- London Regional Cancer Program Multidisciplinary Breast Retreat 2005
- 11th Annual Canadian Preparatory Course in Radiation Oncology 2006
- National Cancer Institute of Canada Annual Meeting 2006
- London Regional Cancer Program Multidisciplinary Breast Retreat 2006
- MSKCC Symposium in Prostate Brachytherapy 2006
- Canadian Association of Radiation Oncology Annual Meeting 2006
- American Society of Therapeutic Radiology and Oncology Meeting 2006
- 12th Annual Canadian Preparatory Course in Radiation Oncology 2007
- ASTRO 2007 Spring Refresher Course 2007
- Resident’s Workshop – Seattle Prostate Institute 2007
- ABS/Oncura Resident Prostate Brachytherapy Fellowship - SPI 2007
- Radiation Therapy Oncology Group (RTOG) 2007
- Canadian Association of Radiation Oncology Annual Meeting 2007
- American Society of Therapeutic Radiology and Oncology Meeting 2007
- 13th Annual Canadian Preparatory Course in Radiation Oncology 2008
- American Society of Therapeutic Radiology and Oncology Meeting 2008
- American Brachytherapy Society Annual Meeting 2009
- Radiation Therapy Oncology Group (RTOG) 2009
- American Society of Therapeutic Radiology and Oncology Meeting 2009
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# APPENDIX 9.1b – CVs: UTDRO Radiation Therapists

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<td>Turner, Angela</td>
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<td>Vines, Douglass</td>
<td>6120</td>
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</tbody>
</table>
Curriculum Vitae

Ms. Ruth Barker
Director of Health Professions and Interprofessional Education / Interprofessional Care

A. Date Curriculum Vitae is Prepared: 2012 October 9

B. Biographical Information

Primary Office Sunnymoored Health Sciences Centre
2075 Bayview Avenue, Room H206
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-5830
Cell phone 647-201-5960
Fax 416-480-5024
Email ruth.barker@sunnybrook.ca

1. EDUCATION

Degrees

Department of Curriculum, Teaching and Learning, Ontario Institute for Studies in
Education, Toronto, Ontario, Canada. Supervisor(s): Dr. Ruth Childs.

1984 – 1995 Bachelor of Science Degree, Biology, University of Guelph, Guelph, Ontario,
Canada.

Postgraduate, Research and Specialty Training

June 2011 EHPIC 2011, Educating Health Professionals in Interprofessional Care Certificate,
Continuing Education and Professional Development, Faculty of Medicine, University
of Toronto, Toronto, Ontario, Canada.

2009 – 2011 Interprofessional Care (IPC) Module 6: Leadership in Interprofessional Teams, The
Michener Institute for Applied Health Sciences, Toronto, Ontario, Canada.

2010 Interprofessional Care (IPC) Module 2 – Roles, Stereotypes and Power, The
Michener Institute, Toronto, Ontario, Canada.
2009 – 2010 Sunnybrook-Schulich Advanced Leadership Development Program, Sunnybrook Health Sciences Centre and Schulich School of Business, York University, Toronto, Ontario, Canada.


2009 MRS Clinical Preceptorship Certificate, Canadian Association of Medical Radiation Technologists (CAMRT), Ottawa, Ontario, Canada.


2005 Teacher Training Certificate Program (Stepping Stones), University of Toronto Faculty of Medicine Centre for Faculty Development, Toronto, Ontario, Canada.

2003 Diversity Training Workshop, The Michener Institute, Toronto, Ontario, Canada.

2001 Conflict Resolution Workshop, The Michener Institute, Toronto, Ontario, Canada.

1998 Measuring Student Achievement Certificate, Canadian Association of Medical Radiation Technologists (CAMRT), Ottawa, Ontario, Canada.

1996 CPR Instructor Training Course, Heart and Stroke Foundation, Wellesley Hospital, Toronto, Ontario, Canada.

1992 Diploma, Radiation Therapy, Toronto-Sunnybrook Regional Cancer Centre (T-SRCC) School of Radiation Therapy, Toronto, Ontario, Canada.

Qualifications, Certifications and Licenses

1999 – Present Associated Member, Graduate Appointment, Institute of Medical Science, University of Toronto

1992 – Present Medical Radiation Technologist (Radiation Therapy), College of Medical Radiation Technologists of Ontario, Toronto, Ontario, Canada.
2. EMPLOYMENT

Current Appointments

2009 – Present  
Director of Health Professions, Interprofessional Education and Interprofessional Care, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada.  
Oversee all Health Professional groups that are members of the Professional Advisory Committee (PAC), Chair of the PAC. Report to Chief Nursing Executive and Health Professions and Vice President, Education as well as the Medical Advisory Committee. Oversee Interprofessional Education Structured Placements at Sunnybrook Health Sciences Centre, as well as unstructured Interprofessional Education opportunities. Chair of the Interprofessional Education Committee.

Previous Appointments

CLINICAL

1992 – 1996  
Radiation Therapist, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada.

HOSPITAL

2006 – 2009  
Manager, Education and Research, Radiation Therapy, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada.

2004 – 2006  
Radiation Therapy Clinical Educator, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada.

1998 – 1999  
Interim Program Didactic Teaching Faculty, Princess Margaret Hospital / Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada.

1996 – 1998  
Radiation Therapy Didactic and Clinical Instructor, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada.

1990  

1987 – 1989  
Laboratory Assistant (Haematology)/ Pathology Assistant – Oshawa General Hospital, Oshawa, Ontario, Canada.

RESEARCH

2006 – 2009  
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2003  TMI Research Award for Radiation Faculty Research Project - Phase 1: Evaluating the value of formal ethics training in Radiation Therapy Education. The Michener Institute (TMI), Toronto, Ontario, Canada.

Teaching Awards

LOCAL

Received

2007  Professional Development and Continuing Medical Education Award, University of Toronto Department of Radiation Oncology, Toronto, Ontario, Canada.

2004  Year End Student Award for “Most Positive Faculty”, University of Toronto / The Michener Institute, Toronto, Ontario, Canada.

2004  Medical Radiation Sciences Classroom Teaching Award, University of Toronto Department of Radiation Oncology, Toronto, Ontario, Canada.
Student/Trainee Awards

NATIONAL

Received

1992 Dr. Alon J. Dembo Award for Academic Excellence for receiving the highest marks on the National Certification Examinations, Canadian Association of Medical Radiation Technologists, Ottawa, Ontario, Canada.

Professional Associations

2004 – 2008 Member, Canadian Association of Radiation Oncology (CARO), Ottawa, Ontario, Canada.

1999 – 2006 Member, International Society of Radiographers and Radiological Technologists (ISRRT) Canadian Association of Medical Radiation Technologists (CAMRT/ACTRM), Ottawa, Ontario, Canada.

Administrative Activities

LOCAL

2009 – Present Sunnybrook Health Professions Leadership Representative, Medical Advisory Council. It is a Sunnybrook Health Sciences Centre (Sunnybrook) policy to establish a Medical Advisory Committee (MAC) of the Board to comply with the Public Hospitals Act. The Medical Advisory Committee (MAC) advises the Board concerning, and supervises on behalf of the Board, all aspects of medical, dental and midwifery care appropriate to a university teaching hospital.

2009 – Present Sunnybrook Health Professions Leadership Representative, Quality of Care Committee. It is Sunnybrook policy to establish a Quality of Care Committee to advise the Medical Advisory Committee regarding quality assurance and quality improvement in medical care.

2009 – Present Sunnybrook Health Professions Leadership Representative, Q-CIPA Committee. It is Sunnybrook Health Science Centre (Sunnybrook) policy to establish a Quality of Care Committee under the Quality of Care Information Protection Act [QCIPA], November 1, 2004. This committee will be referred to as the QCIPA-QCC. The purpose and function of this committee is to study, assess or evaluate the provision of health care to a patient or group of patients with a view to improving or maintaining the quality of health care or the level of skill, knowledge and competence of the persons who provide the health care.

2009 – Present Chair, Sunnybrook Health Sciences Centre Professional Advisory Committee
It is Sunnybrook policy to establish a Professional Advisory Committee (PAC). The PAC represents a diverse spectrum of health professionals who provide patient care, education and research. It is an important vehicle for creating a supportive working environment in which health professionals are supported to help achieve the patient care and academic goals of Sunnybrook Health Sciences Centre.

2009 – Present  
**Chair**, Sunnybrook Health Sciences Centre Interprofessional Education Committee.

*It is the policy of Sunnybrook Health Sciences Centre to establish an Interprofessional Education (IPE) Committee to advise on and facilitate Interprofessional learning activities and initiatives throughout the hospital.*

2009  
**Odette Cancer Centre Representative**, Sunnybrook Health Sciences CPR Committee.

*It is a Sunnybrook Health Sciences Centre (Sunnybrook) Policy to establish a CPR Committee to advise and make recommendations to the SB Medical Advisory Committee (MAC) with the view to review, maintain and/or improve processes and practices of cardio-pulmonary resuscitation.*

2009  
**Member of Admissions Committee**, Institute of Medical Science Radiation Therapy Graduate program Admissions Committee, University of Toronto.

2009  
**Member**, PAC Interprofessional Education Planning Sub-committee, Sunnybrook Health Sciences Centre.

2008 – 2009  
**Radiation Therapy Representative**, Sunnybrook Health Sciences Professional Advisory Committee (PAC).

*It is Sunnybrook policy to establish a Professional Advisory Committee (PAC). The PAC represents a diverse spectrum of health professionals who provide patient care, education and research. It is an important vehicle for creating a supportive working environment in which health professionals are supported to help achieve the patient care and academic goals of Sunnybrook Health Sciences Centre.*

2006  
**Co-Chair**, Toronto-Sunnybrook Regional Cancer Centre Department of Radiation Oncology E-Learning Retreat, Feb. 2006.

2004 – 2009  
**Member**, Toronto-Sunnybrook Regional Cancer Centre Radiation Program Education Advisory Committee.

2004 – 2009  
**Chair**, Toronto-Sunnybrook Regional Cancer Centre CPR Executive Committee.

2004 – 2009  
**Member**, Toronto-Sunnybrook Regional Cancer Centre Patient Education Steering Committee

2004 – 2007  
**Co-Chair and Course Director**, University of Toronto Department of Radiation Oncology Toronto Medicine Conference, Kingsbridge, Ontario (2nd – 4th Annual Conferences).

2004 – Present  
**Member**, University of Toronto Academic Leadership Team

2004 – Present  
**Member**, University of Toronto Academic Mentorship Committee
2004 – 2005  Chair, University of Toronto/The Michener Institute Student Assessment Committee
2002 – 2004  Member, Department of Radiation Oncology Educational Advisory Committee
2001 – 2004  Member, University of Toronto/The Michener Institute Admissions Committee
1999 – 2004  Member, University of Toronto/The Michener Institute Joint Curriculum Development Committee
1999 – 2004  Member, University of Toronto/The Michener Institute Radiation Therapy Curriculum Review Committee
1999 – 2004  Member, University of Toronto/The Michener Institute Radiation Therapy Program Review
1999 – 2004  Member, Joint University of Toronto/The Michener Institute Policy and Procedure Committee
1999 – 2000  Member, The Michener Institute Organizational Learning Team
1998 – 2001  Member, Canadian Association of Medical Radiation Technologists Council on Education Committee Radiation Therapy (Certification Examination Board)

Peer Review Activities

EDITORIAL BOARDS

Member
2004 – 2009  Canadian Journal of Medical Imaging and Radiation Sciences, Editorial Board

GRANT REVIEWS

Co-Chair Selection Committee
2009 – 2010  Practice-Based Research (PBR) Awards Committee

C. Academic History

2. RESEARCH AWARDS

Grants, Contracts and Clinical Trials

PEER-REVIEWED GRANTS

Funded

2007 **Collaborator**, Developing an Advanced Practice Radiation Therapy Role in Skin Cancer: Demonstration Phase Funding. Ministry of Health Grant via Advanced Practice for Radiation Therapy Project Oversight Committee. Collaborators: Robson, S., Barker, R., Barnes, T. $72,000 Canadian Funds.

2007 **Collaborator**, Developing an Advanced Practice Radiation Therapy Role in Palliative Care: Demonstration Phase Funding. Ministry of Health Grant via Advanced Practice for Radiation Therapy Project Oversight Committee Developing an Advanced Practice Radiation Therapy. Collaborators: Robson, S., Barker, R., Danjoux C. $72,000 Canadian Funds.

2006 – 2007 **Collaborator**, The effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for three-dimensional radiotherapy for prostate cancer (3D-CRT). CARO – ACURA Award. Collaborators: Szumacher, E., Dumbrowski, A., Crook, J., Harnett, N., Kelly, V., Danjoux, C., Woo, M., Barker, R., Ackerman, I. $10,000 Canadian Funds.


2003 **Collaborator**, Evaluating the value of formal ethics training in Radiation Therapy Education. Radiation Therapy Faculty Research project - Phase 1. The Michener Institute for Applied Health Sciences Research Award. $1,000.00 Canadian Funds.

Salary Support and Other Funding

OTHER FUNDING

TRAVEL GRANTS

2011 Travel Grant. American Society of Radiologic Technologists. $1,000.00. Miami, Florida, U.S.A. Barker, R., Di Prospero, L., What’s all the talk about Interprofessional Education
2011

2010

2009

2009

2008

2008

2007

D. Publications

2. PEER-REVIEWED PUBLICATIONS

Refereed Publications


Abstracts


**Other Publications**


**Barker, Ruth.** A Retrospective Analysis of an Angoff Standard Setting Study Using Generalizability Theory to Determine the Stability of the Cut-Score, the Number of Items and the Number of Raters. Masters Thesis Project submitted in conformity with the requirements for the degree of Masters of Education in Measurement and Evaluation, Department of Curriculum, Teaching and Learning, Ontario Institute for Studies in Education of the University of Toronto, 2004.


**E. Presentations and Special Lectures**

1. INTERNATIONAL

**Invited Lectures and Presentations**


**Other Presentations**
Oral Presentations

**Presenter.** What’s all the talk about Interprofessional Education (IPE)?, ISSRT (International Society of Radiographers and Radiological Technologists), World Congress, Toronto, Ontario, Canada. Presenter: Barker, R. June 7-10, 2012


Poster Presentations

**Presenter.** The Development of an Interprofessional Mentorship Program for Faculty Members Within the Department of Radiation Oncology, University of Toronto – A New Beginning. Association for Medical Education in Europe (AMEE). Genova, Italy. Presenters: Szumacher, E., Ringash, J., Manchul, L., Barker, R., Kane, G., Palmer, C. September 2006.


2. NATIONAL

Abstracts and Other Papers

Invited Lectures and Presentations


Other Presentations

Oral Presentations


Poster Presentations


3. PROVINCIAL/ REGIONAL

Invited Lectures and Presentations

**Presenter.** INVESTIGATING ADVANCE PRACTICE for RADIATION THERAPISTS in ONTARIO – WHAT’S’s HAPPENING at TSRCC? Presented at the 10th Anniversary Celebration of the RRRP, Toronto Sunnybrook Regional Cancer Centre. Toronto, Ontario, Canada. Presenter(s): **R. Barker.** 2005

4. LOCAL

Invited Lectures and Presentations


**Presenter.** CELEBRATING the ACHIEVEMENTS of WOMEN Health CARE -120 YEARS of WOMEN at the UNIVERSITY of TORONTO. University of Toronto Faculty of Medicine Interprofessional Education Seminar Series. Toronto, Ontario, Canada. Presenter(s): **Barker, R.** 2004

**Presenter.** The PURSUIT of a GRADUATE DEGREE – ADVICE for BUSY PROFESSIONALS. Lunchtime Faculty Education Session at The Michener Institute. Toronto, Ontario, Canada. Presenter(s): **Barker, R.** 2003.

Other Presentations

Lay and Media Presentations

**Presenter.** Laying the Foundations for Qualitative Research Workshop Practiced Based Research, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. Presenter: **Barker, R.** October 22, 2010.


**Presenter.** Sun Sense: Prevention and Early Detection of Skin Cancer, Sanofi-Pasteur Lunchtime Employee Information Session, North York, Ontario, Canada. Presenter: **Barker, R.** June 5, 2006,


**Presenter.** A Virtual Tour Through Radiation Therapy Treatment to the Brain. Brain Tumour Awareness Month

**Presenter.** Math Career Day Presentations: Trigonometry in Radiation Therapy. York Regional Catholic School Board, Aurora, Ontario, Canada. Presenter: Barker, R.

**Oral Presentations**

**Presenter:** A Mutual Learning Opportunity, George Brown College Internationally Educated Nursing Students and the Sunnybrook Interprofessional Team, Interprofessional Education(IPE)/Interprofessional Care (IPC) Showcase, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. Presenter: Barker, R. June 6, 2012.

**Presenter:** Interprofessional Education Matters, Interprofessional Education(IPE)/Interprofessional Care (IPC) Showcase, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. Presenter: Barker, R. June 6, 2012.


**Presenter.** Standard Setting, Past, Present and Future. The U of T Faculty of Medicine Donald R. Wilson Centre for Research in Education Research Day, Toronto, Ontario, Canada. Presenter: Barker, R. 2004

**Poster Presentations**

**Presenter.** The development of a screening tool to facilitate the provision of quality patient focused supportive care within a radiation therapy department. Interprofessional Education/Interprofessional Care, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. Presenters: Maamoun, J., Fitch, M., Robson, S., Barker, R., Robson, S., Gillies, C., Turner, A., Lange-Mechlan, I., Kiss, A., and Gardner, S. June 2010

**Presenter.** Standard Setting, Past, Present and Future. The U of T Faculty of Medicine Donald R. Wilson Centre for Research in Education Research Day, Toronto, Ontario, Canada. Presenter: Barker, R. 2004

**F. Teaching and Design**

Please see Teaching Dossier for details.
Curriculum Vitae

Renate Bradley
MRT(T)

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees

2014 Apr - 2017 Dec D.Ed. Distance Education, Distance Education, Centre for, Athabasca University, Alberta, Canada, Supervisor(s): Dr Rory McGreal
2008 Sep - 2012 Jan MMEd. Medical Education, Centre for Medical Education, University of Dundee, United Kingdom, Supervisor(s): Susie Schofield PhD
1998 BSc, Neuroscience, University of Toronto

Postgraduate, Research and Specialty Training

2013 Jun 25 - 2013 Jun 26 Comprehensive CIHR Grant Development Workshop, Ryerson University, Toronto, Ontario, Canada
2012 Preparing for Leadership, Canadian Management Centre, Ontario, Canada
2007 Jan 4 - 2007 Feb 28 A Transformational Leadership Course, The Michener Institute, Toronto, Ontario, Canada
2007 Image Guided Radiation Therapy Workshop, Princess Margaret Hospital
2004 Online Teaching, University of Toronto
2003 Designing and Assessing Learning, Michener Institute for Applied Health Sciences

Qualifications, Certifications and Licenses

1998 - 2000 Certificate in Instructing Adults, Adult Education, George Brown College, Toronto, Canada
1998 Certificate in Medical Dosimetry, Medical Dosimetry, Medical Dosimetry Certification Board, United States
1985 Diploma, Ontario School of Radiation Therapy
License as M.R.T.T. (Medical Radiation Technologist), Radiation therapy, Ontario School of Radiation therapy (Princess Margaret Hospital), Toronto, Canada

2. EMPLOYMENT

Current Appointments

2011 - present  Clinical Liaison Officer (CLO) & Professor, Undergraduate BSc Radiation Therapy, Physics, Laurentian University/Michener Program, Sudbury, Canada

BSc. Radiation Therapy Program, Michener Institute/Laurentian University

2008 - present  Clinical Liaison Officer (CLO) & Professor, Medical Radiation Sciences (UT/Michener), Department of Radiation Oncology, Michener Institute for Applied Health Sciences/University of Toronto, Toronto, Canada

U of T/Michener Joint Program

2001 - present  Instructor, Department of Radiation Oncology, Faculty of Medicine, University of Toronto

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2012 - present  Board Executive member, Medical Dosimetry Certification Board, US

1998 - present  Member, American Association of Medical Dosimetrist

1993 - present  Member, College of Medical Radiation Technology of Ontario

1990 - present  Member, Canadian Association of Medical Radiation Technology

Administrative Activities

LOCAL

Michener Institute for Applied Health Sciences

2009 - present  Member, Interprofessional Curriculum Committee, Undergraduate Education

Academic Coordinators of Clinical Education (ACCE).
Curriculum Vitae

Angela Cashell
M.R.T.(T) A.C.T., B. Sc.(Hons), MSc. CIA

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
2009 MSc, Radiography (Therapeutic Pathway), Sheffield Hallam University, United Kingdom
2005 Jul Leadership, Rotman School of Management, University of Toronto, Toronto, Ontario, Canada
2000 BSc, Radiation Therapy (Hons), Anglia Ruskin University, Cambridge, United Kingdom

Qualifications, Certifications and Licenses
2005 Rotman Leadership Development Certificate, University of Toronto
1994 Adult Education Teaching Certificate, George Brown College, Toronto, Ontario
1990 Advanced Certification, Radiation Therapy, Canadian Association of Medical Radiation Technologists, Ottawa, Ontario, Canada
1984 Diploma of the College of Radiographers, Radiation Therapy, Middlesex Hospital, London, United Kingdom

2. EMPLOYMENT

Current Appointments
2002 - present Instructor, Radiation Oncology, University of Toronto
1999 - present Clinical Educator, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario
3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2003 - present Associate member, Canadian Association of Radiation Oncologists
1986 - present Member, Canadian Association of Medical Radiation Technologists
1986 - present Member, College of Medical Radiation Technologists of Ontario
1986 - present Member, Ontario Association of Medical Radiation Technologists

Administrative Activities

NATIONAL
Canadian Association of Medical Radiation Technologists
2003 - present Member, Continuing Education Advisory Committee

Canadian Association of Radiation Oncology
2007 - present Member, Education Committee

PROVINCIAL / REGIONAL
College of Medical Radiation Technologists of Ontario
2010 - present Peer Assessor, Peer Assessor, Quality Assurance Committee, Ontario, Canada.
2007 - present Elected Member, Inquiries, Complaints and Reports Committee

LOCAL
Princess Margaret Hospital
2002 - present Member, RMP Education Advisory Group
2000 - present Member, Breast Quality Team
1999 - present Member, Patient Education Advisory Committee
1998 - present Chair, Radiation Therapy Education Committee

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2012 - present Journal of Medical Imaging and Radiation Sciences
2011 May - present Journal of Medical Imaging and Radiation Science

PRESENTATION REVIEWS
Reviewer
2010 Dec - present Canadian Association of Medical Radiation Technologists
Curriculum Vitae

Martin J. Chai

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees

1998 - 2000 Master of Theological Studies, Tyndale Seminary, Toronto, Ontario
1992 - 1994 Diploma, Radiation Therapy, Odette Cancer Centre, Toronto, Ontario
1988 - 1992 BSc, Biology (major) and Psychology (minor), Queen’s University at Kingston, Ontario

Qualifications, Certifications and Licenses

1999 - present Basic Cardiac Life Saving Instructor Certification, Heart and Stroke Foundation of Ontario, Toronto, Ontario
1995 - present Certificate of Registration, College of Medical Radiation Technologists of Ontario, Toronto, Ontario

2. EMPLOYMENT

Current Appointments

2009 - present Program Communication Liaison, Radiation Sciences, Michener Institute for Applied Health Sciences, Toronto, Ontario
2000 - present Instructor, Radiation Oncology, University of Toronto, Toronto, Ontario
2000 - present Professor, Radiation Sciences, Michener Institute for Applied Health Sciences, Toronto, Ontario

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES
Professional Associations

2012 - present  
**BLS Instructor**, Michener Institute for Applied Health Sciences - Continuing Education Department

2008 - present  
**Continuing Education Instructor**, Canadian Association of Medical Radiation Technologists

1995 - present  
**Member**, Canadian Association of Medical Radiation Technologists

1995 - present  
**Member**, Ontario Association of Medical Radiation Technologists

Administrative Activities

PROVINCIAL / REGIONAL

College of Medical Radiation Technologists of Ontario

2013 - present  
**Appointed Member**, Discipline Committee

LOCAL

University of Toronto

2011 Jan - present  
**Member**, MRS Program Communication Liaison Committee

2010 - present  
**Member**, Admissions Committee (post-interview)

2009 Oct - present  
**Member**, Policies & Procedures Committee

2009 Oct - present  
**Chair**, Program Review Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education

2009 Oct - present  
**Member**, Academic Oversight Committee

2009 Oct - present  
**Member**, Faculty Liaison Committee

2009 Oct - present  
**Member**, Joint Curriculum Committee

2009 Oct - present  
**Member**, MRS Newsletter Committee

2009 Oct - present  
**Member**, MRS Planning Committee

Peer Review Activities

ASSOCIATE OR SECTION EDITING

**Editor**

2004 - present  
over-X-posure: Medical Radiation Sciences Program Newsletter

ESSAY JUDGE

**Reviewer**

2008 - present  
Canadian Association of Medical Radiation Technologists
Curriculum Vitae

Name: Patricia Charman
Business Address: 610 University Avenue,
Toronto, Ontario
M5G 2M9
Business Telephone #: Pager 416-790-8267
Business Fax 416-946-4493
E-Mail Address: Patricia.Charman@rmp.uhn.on.ca

LAST UPDATED: May 2011

EDUCATION:

University Education
1972-1975 Bachelor of Arts (History, English, Political
Science)
Mount Allison University
New Brunswick
2001 Bachelor of Sciences (Radiation Therapy)
Anglia Polytechnic University
Cambridge, U.K.

Medical Education and (Post Graduate Education):
1989 National Certification (CAMRT) – Radiation
Therapy M.R.T.(T)
Nova Scotia Cancer Treatment & Research
Centre, Nova Scotia
1990 American National Certification (A.A.R.T.)-
Radiation Therapy
Buffalo, N.Y.
2004 C.M.D. Certification in Radiation Dosimetry
M.D.C.B. Alb. New Mexico
Medical Education and (Post Graduate Education) con’t:

University of Toronto Faculty of Medicine
Toronto Ontario

Professional Development/ Continuing Education:

1993 Member, Multi-leaf Collimator and Portal Imager Committee.
Princess Margaret Hospital Toronto

1994 Member, Discharge Planning Committee
Princess Margaret Hospital Toronto

1994 Member, Re-engineering Monitoring Committee
Princess Margaret Hospital Toronto

2002 - 2005 Member, Radiation Morbidity Clinic Research Staff
Princess Margaret Hospital Toronto

2003 - 2004 Member, Quality Assurance Monitoring Committee
Princess Margaret Hospital Toronto

2004 – 2006 Chair, Quality Management sub-committee: Patient Education Initiative
Princess Margaret Hospital Toronto

2004 – present Member, Breast Survivorship Research Group
Princess Margaret Hospital Toronto


2005 – 2007… Member, PMH Radiation Therapist Research Committee.
Princess Margaret Hospital Toronto

2005– ongoing Member, PMH Radiation Therapist Journal Club

2005–2007 Member, Communications Sub-committee : Academic Leadership Committee.
Joint PMH DRO/ U of T endeavour.
Professional Development/ Continuing Education:

2006  **Attendance** at OCRN “Fundamentals of Clinical Research Workshop #1”
      Toronto
2006  **Attendance** at “Target Insight 11 Conference: “Strategies for Target Definition to Enhance the Therapeutic Ratio.”
      Toronto
2006-2007  **Member** of CFD Medical Journal Club-
           Facilitator: Dr L. Manchul
           Princess Margaret Hospital      Toronto
2007  **Attendance** at Paediatric Oncology Group of Ontario
      MultiDisciplinary Symposium: “Childhood Cancer. in the Age of Genomics.”
      Toronto
2007  **Attendance** at 2nd Annual Dyslexia &Learning Disability Conference.
      Toronto
2008  **Attendance** at the 5th Annual Toronto Radiation Medicine Conference: “Global Perspectives, Local Outcomes”
      (Kingsbridge Center)  King City
2008  **Attendance** at 2nd Annual Radiation Therapist Research Symposium.
      Toronto
2008  **Attendance** at “Team Facilitation Skills for Health Care Professionals” workshop.
      St John’s Rehabilitation Hospital      Toronto
      Toronto
2009  Attendance at the Target Insight 111 Conference: “ Next Generation Radiation Medicine: “Putting Biology and Technology To Work.”
      Toronto
2009  **Completed:** UHN On-Line Course:“UHN Workplace Code of Ethics.”
      Princess Margaret Hospital      Toronto
Professional Development/ Continuing Education:

2009  Attendance at 11th Annual Wharton/Elia Day Symposium: “Individualized Care for Head and Neck Cancer Patients.” (with the Sullivan Lecturer: Dr Jeff Siewerdsen) Princess Margaret Hospital Toronto

2010  Attendance at the 7th Annual Radiation Therapy Conference: “Inquire, Inspire and Innovate.” Old Mill Toronto

2010  Attendance at “Reflective Practice and Professional Portfolio” workshop. Featuring: David Eddy - Programme Co-ordinator for Postgraduate Radiotherapy & Oncology Courses - Sheffield Hallam University, U.K. Old Mill Toronto

2011  Attendance at the Radiation Therapy Conference- RTi3 “Inquire, Inspire, and Innovate.” Old Mill Toronto

2010-2011  Attendance at several Team1 Head and Neck Planning Seminars; ~Monthly Sessions detailing various considerations related to head and neck IMRT planning. P.M.H. Toronto

2010-2011  Attendance at monthly meetings at the Office of Student Affairs; Medical Sciences Bldg; Various topics covered related to the counselling / advisor role to students in the Medical Radiation Sciences Program. University of Toronto Toronto
SCHOLARSHIPS & AWARDS

1972  History and Biology Prize
      Bridgetown Nova Scotia
1972  Minnie Beatrice Bent University Entrance Scholarship
      Bridgetown Nova Scotia
1972-1975 Mount Allison University Renewable Entrance Scholarship
       Sackville New Brunswick

BIOGRAPHICAL INFORMATION:
Degrees
1975  Bachelor of Arts – Mount Allison University
      Sackville New Brunswick
2001  Bachelor of Sciences – Anglia Polytechnic University
       (Cambridge University) Cambridge England

BIOGRAPHICAL INFORMATION:
Hospital/ Staff Appointments/ Employment:
1989-1999 Radiation Therapist
       Princess Margaret Hospital Toronto
2001-2009 Treatment Specialist/ Dosimetrist (A.I.P.)
       Princess Margaret Hospital Toronto
2004-present Dosimetrist/Treatment Specialist 50/50 (AIP)
       Princess Margaret Hospital Toronto
2004-present Student Counselor/Remedial Counselor
       Medical Radiation Sciences Program
       University of Toronto/ Michener Institute of Applied Health Sciences Toronto
2005-2006 Interim Research Co-ordinator for Soft Tissue Fibrosis Study. P.I. Dr A. Davis Toronto Western Hospital
2006-2007  **Member**: Radiation Therapy Quality Assurance Team  
Princess Margaret Hospital     Toronto

**Academic Appointments**

2004-ongoing  Appointment at level of **Instructor** (Status-only)  
University of Toronto     Toronto

**Professional Affiliations and Activities**

1989 – ongoing  **Member** of the Canadian Association of Medical  
Radiation Technologists. (C.A.M.R.T)
1989 – ongoing  **Member** of the Ontario Association of Medical  
Radiation Technologists. (O.A.M.R.T.)
1990-2007  **Member** of the American Association of Radiologic  
Technologists. (A.A.R.T)
1993-ongoing  **Member** of the newly founded College of Medical  
Radiation Technologists of Ontario. (C.M.R.T.O.)
2006 –present  **Member** of MARCOM (Marketing & Communications)  
Committee;  Ontario Association Medical Radiation Technologists.

**Certifications and Licensures**

**Certificates:**

1989-ongoing  **CPR certification** - Basic Cardiac Life Saving :  
recertification obtained annually.
1989  **National Certification** obtained in Radiation Therapy.
1990  **American Certification** obtained in Radiation  
Therapy.
2004  **American Certification** obtained in Radiation  
Dosimetry. (C.M.D.)

**Licenses:**

1989-ongoing  **Member** of Canadian Association of Medical  
Radiation Technologists – National Licensing Board for  
the practice of Radiation Therapy.

1990-2007 **Member** of the American Association of Radiologic Technologists. (A.A.R.T.)

1993 - present **Member**, College Of Medical Radiation Technologists of Ontario. Provincial Licensing Board for the practice of Radiation Therapy.

2004 - present **Member** of the American College of Medical Dosimetrists. American licensing board for the practice Of Radiation Dosimetry.

**Administration and Committee Appointments:**

**Local/Hospital:**

1993 **Member**, Multi-leaf Collimator and Portal Imager Committee
Princess Margaret Hospital  Toronto

1994 **Member**, Discharge Planning Committee
Princess Margaret Hospital  Toronto

1994 **Member**, Re-engineering Monitoring Committee
Princess Margaret Hospital  Toronto

2002 - 2005 **Member**, Radiation Morbidity Clinic Research Staff
Princess Margaret Hospital  Toronto

**Administration and Committee Appointments (con’t):**

**Local/Hospital**

2003 - 2004 **Member**, Quality Assurance Monitoring Committee
2004 – 2006 Chair, Quality Management sub-committee: Patient Education Initiative.
Princess Margaret Hospital  Toronto

Princess Margaret Hospital  Toronto
2005–2007 Member, Communications Sub-committee: Academic Leadership Committee.
Joint PMH DRO/ U of T endeavour.

Administration and Committee Appointments (con’t):

Provincial:
2006–present Member of MARCOM (Marketing & Communications) Committee: “Recruitment and Retention.”
Ontario Association Medical Radiation Technologists.

ACADEMIC HISTORY:

Research Endeavours:

Anglia Polytechnic University/Cambridge University.

2000  Author: BSc. Research Project – “The Value and Pitfalls of Interviews and Questionnaires as Research Tools.”
Anglia Polytechnic University/Cambridge University.

2001  Author: BSc. Research Project - Case Study:” An Examination of the Perceived and Actual Knowledge Base of a Group of Radiation Therapists at Princess Margaret Hospital, on the Topic of Lymphoedema.”
Anglia Polytechnic University/Cambridge University.

Research Endeavours (con’t):

2008  **Author**: Final Draft: Developed a needs assessment for Medical Radiation Sciences (M.R.S.) Students with regards to their roles and goals as Medical Radiation Sciences Students in the Uof T/ Michener Institute of Applied Sciences Degree Program. Uof T/ Michener Institute Toronto

2009  **Author**: Draft stage – Development of Survey Instrument: Radiation Therapist Understanding of Ethics as Relates to the Teaching & Assessment of Clinical Students.

**PUBLICATIONS:**

**Non-Refereed Publications:**

2006  **Author** of Article for the University of Toronto (UofT) Medical Radiation Sciences Fall Edition Newsletter: “Over-X-Posure.” Article titled: “Who are you going to call, if the going gets tough……The Medical Radiation Sciences Counselors: We’re here to help!”

**Manuscripts in Preparation:**
PRESENTATIONS:


2005  “Fractures Following Radiotherapy + Limb Salvage Surgery for Lower Extremity Soft Tissue Sarcomas: A Comparison of High-Dose and Low-Dose Radiotherapy.” Co- Presenter at the PMH RT Journal Club. Princess Margaret Hospital Toronto

2006: University of Toronto Orientation week Seminar presentation to the Medical Radiation Sciences Students on: The Role of the Medical Radiation Sciences (M.R.S.) Student Counseling Service: “How We Can Help.” University of Toronto Toronto

2006 Introduction to The Medical Radiation Sciences Student Counseling Service. Short Seminar presentation to 1st year clinical Radiation Therapy Students at Princess Margaret Hospital. Toronto

2007 Co-Facilitator/Co-Developer of Lab-based Clinical Scenario/ Simulated Patient Care Session for Didactic- Level Radiation Therapy Students. Michener Institute of Applied Sciences Toronto
2007  Co-Author/Presenter at Seminar presentation to 1st year Radiation Therapy Students: *Clinical Skills: Tips for Success in the Clinical Environment.*
Michener Institute of Applied Sciences  Toronto

2008  Co-Author/Presenter: Seminar for 1st year Radiation Therapy Clinical Students: *Orientation to the Clinical Environment: Tips to Thrive And Not Just Survive!*
Michener Institute of Applied Sciences  Toronto

PRESENTATIONS (con’t):

2009  Co-Author/Presenter at Seminar discussing : The Transition from the Academic to the Clinical Environment: “Steps to Success”.
Michener Institute of Applied Sciences  Toronto

2010  Presenter/Author – Seminar/Lecture: Communication Challenges in Clinic: “It’s Not Just What You Say, But How You Say It Too.” (1 hour presentation to the Nuclear Medicine Students)
Michener Institute of Applied Sciences  Toronto

TEACHING DOSSIER:

Undergraduate Teaching/Courses
Remedial academic and clinical instruction provided to Radiation Therapy students experiencing difficulties in these areas. Remedial clinical training provided through the development of simulated clinical/treatment scenarios and patient care/education interactions. Cultural and ESL issues also addressed in this setting.

TEACHING DOSSIER: con’t:

Undergraduate Teaching/Courses; con’t:

2006 Development of a formal proposal and outline for clinical remedial teaching via a lab-simulated, clinical clinical environment and pilot-study implementation of same with a 1st year clinical Radiation Therapy student.

2006-ongoing Implementation of clinical remedial teaching via a simulated clinical environment, in a lab setting, (at the Michener Institute); targeted to students experiencing difficulty functioning within the team-based clinical environment of Radiation Therapy departments and training centers.

Michener Institute of Applied Sciences Toronto

2008- ongoing “Mock” interviews conducted individually with graduate level Radiation Therapy students, to prepare them for seeking employment in their professional field. Interview tips and questions drawn from personal professional experience and also from data provided by a group of my peers.
**MENTORING:**

**2004-2005 Mentoring:**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>NUMBER OF PEOPLE</th>
<th>NUMBER OF HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided one-on-one clinical scenario teaching and ESL-style teaching to a student experiencing ongoing clinical difficulties.</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Provided one-on-one clinical scenario teaching, plus mentoring of student, to increase self-confidence in her skills.</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Provided mentorship and support to London MRS (Radiation Therapy) student experiencing clinical difficulties and personal issues.</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Provided one-on-one clinical scenario training, and ESL style teaching to an MRS student (Radiation Therapy) experiencing ongoing clinical difficulties.</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Mentoring of MRS (Nuclear Medicine) student experiencing personal and clinical difficulties; Student graduated this term.</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Mentoring and consolidation of clinical training skills of MRS students (Radiation Therapy) who required self-confidence building in this area.</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Mentoring of MRS student (Nuclear Medicine) experiencing personal issues impacting her academic performance.</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Mentoring of MRS student (Radiologic Technology), experiencing personal crisis and impacting academic performance.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Mentoring of MRS students (Nuclear Medicine + who required assistance with clinical situations.</td>
<td>4</td>
<td>2.5</td>
</tr>
</tbody>
</table>
MENTORING:

2004-2005 Mentoring (con’t):

<table>
<thead>
<tr>
<th>Activity</th>
<th>1</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching of MRS student (Nuclear Medicine) regarding Radiation Therapy treatment principles for patients with Hodgkins Lymphoma.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentoring of same student for personal issues impacting academic performance.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Developed role-play scenarios for use with Radiation Therapy Students to build problem-solving skills, and to build self-confidence to enhance clinical performance.</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>
## 2006-2007 Mentoring:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>NUMBER OF PEOPLE</th>
<th>NUMBER OF HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided support and mentoring to two Nuclear Medicine students...</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Provided one-on-one role-play scenario...</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Mentorship of 2nd year Radiologic Technology student...</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Provided one-on-one clinical scenario...</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Mentoring/tutoring provided for 2nd year Radiation Therapy student...</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Mentoring and consolidation of clinical training skills (Patient Care)...</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Mentoring/role play teaching of 2nd year Radiation Therapy student...</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Mentoring of distressed Radiation Therapy Student...</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Patricia Charman
### Mentoring 2006-2007 (con’t):

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>NUMBER OF PEOPLE</th>
<th>NUMBER OF HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentoring of A Radiation Therapy Student requiring ongoing counselling regarding leaving the Program, including dealing with the personal and cultural impact of this decision.</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Provided one-on-one training to students experiencing ESL difficulties in clinic, including both verbal and nonverbal communication skills.</td>
<td>3</td>
<td>16.5</td>
</tr>
<tr>
<td>Ongoing provision of support and professional cultural training for a Radiation Therapy student, regarding more effective strategies for dealing with constructive criticism from treatment unit staff.</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Intensive counselling and support for Radiation Therapy student experiencing communication and cultural related difficulties in clinic.</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Continuation of simulated lab related remedial clinical training for Radiation Therapy students experiencing difficulty in performing clinical duties. Provision of mentoring through role model performance of clinical skills.</td>
<td>3</td>
<td>5.5</td>
</tr>
<tr>
<td>Provided communication training for Radiologic Technology Student with ESL related issues.</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Mentoring of Radiation Therapy student wishing to practice interview skills for career advancement when she has graduated.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
### 2008-2009 Mentoring

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>NUMBER OF PEOPLE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Emotional support and counseling of Radiation Therapy student undertaking career path change.</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Mentoring students at the graduation level, with respect to developing interview skills for employment purposes. Mock interview situations.</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Michener Lab scenario sessions for students experiencing clinical difficulties with respect to patient set-ups (Radiation Therapy)</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Patient education/patient care lab sessions with Radiation Therapy students who were experiencing interpersonal skills/communication difficulties.</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>Patient communication/professional communication labs for Radiologic Technology ESL students</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Consolidation of Oncology &amp; Treatment Planning Theory and its application to the clinical situation for Radiation Therapy students.</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>Used role-play scenarios for use with Radiation Therapy Students to build problem-solving skills, and to build self-confidence to enhance clinical performance.</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Academic /theory challenges presented to a student to enhance her knowledge base and to build her level of self confidence, before progressing to “real life” planning of site based treatment distributions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dosimetry/Treatment Planning training, using the Pinnacle Planning system, provided to a Radiation Therapy Student, who had failed her Treatment Planning examinations. By the end of the remedial sessions, the student achieved over 80% in her final didactic level examination.</td>
<td>1</td>
<td>24 (12 sessions X 2 hours)</td>
</tr>
</tbody>
</table>
Mentoring 2008-2009 (con’t):

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>NUMBER OF PEOPLE</th>
<th>NUMBER OF HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentored several Radiation Therapy students with Middle Eastern cultural backgrounds, to ease their transition into the professional customs and traditions and expectations of Western/Canadian Radiation Therapy clinic staff.</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Mentored the same Radiation Therapy students of Middle Eastern cultural background, in the social customs, and non-verbal communication customs of Western society. Also assisted these students with role-play situations or discussions re how to interact on a social level with their clinic staff.</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Assisted 2 Chinese Radiologic Technology Students in adapting to professional and social customs and expectations of Canadian Hospital staff.</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Mentored a student with anxiety and clinical issues in the difficult transition from 1 clinical site to another. Orientation and information provided to student about new clinic, ie: policies, procedures, Mosaiq record + verify treatment system, imaging, etc.</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Ongoing support and feedback provided to a student with anxiety issues and who was experiencing difficulties in the clinical environment.</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Developed and provided new communication scenarios for the use of students in all 3 Radiation Sciences disciplines (ie Nuclear Medicine, Radiation Therapy, and Radiologic Technology).</td>
<td></td>
<td>3.75</td>
</tr>
<tr>
<td>Initiated and conducted a review of theory for senior Radiation Therapy Students to prepare for their final clinical examination before they graduated.</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>NUMBER OF PEOPLE</td>
<td>NUMBER OF HOURS</td>
</tr>
<tr>
<td>----------</td>
<td>------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Provided regular assistance to students with clinical training issues related to treatment procedures/set-ups in Radiation Therapy. Had a number of these students participate in simulated scenarios/role plays, designed by myself, to aid in building their problem solving skills and their technical skills.</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>Developed simulated scenarios designed to build communication skills, to assist a Radiation Therapy student dealing with shyness. In latter sessions, invited (with student’s permission) a second staff member, to assist in the scenarios. This was designed to more closely emulate the actual clinic environment, with multiple personalities and stressors.</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Assisted a Radiologic Technology student with ESL issues, to build his communication skills. Role play scenarios enlisted to provide realistic patient and staff situations, thus building the student’s professional and social communication skills.</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Provided ongoing emotional support to a student facing possible termination from clinical training. Over the course of many appointments, also encouraged the student to see that even if he wasn’t not successful in his program, that this would not constitute a failure in life. Reminded the student of his strengths and discussed other possible options that might make better use of his talents, if he was not successful in his training program. Informed him also, of University and outside services that were available to help him choose another career path, should he elect to do so. Encouraged the student to be realistic about his situation, while at the same time, being supportive of his desires and fears.</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>
Mentoring 2009-2010 (con’t):

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>NUMBER OF PEOPLE</th>
<th>NUMBER OF HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>In lab setting, “three point set-up” simulated. Discussion with didactic students re: the</td>
<td>2</td>
<td>1hr per session (2 sessions)</td>
</tr>
<tr>
<td>rationale behind this set-up, and its importance as the foundation of most radiation therapy set-ups, from simple to complex. Students were presented with a number of clinical scenarios related to the 3 point set-up, and which demanded the use of their trouble-shooting skills to solve. Students were required to defend their clinical judgements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In a lab setting, students (individually) required to interpret documented isocenter shifts correctly, for a variety of patient set-up positions (ie: supine, prone, lateral decubitus, “feet-to-gantry”, and “head to gantry”). Students were also asked to identify when a shift had been performed incorrectly in a number of given examples.</td>
<td>4</td>
<td>4 sessions 1 hr each</td>
</tr>
<tr>
<td>Counseled a student dealing with long-term grief issues about the possible signs and symptoms of depression. Encouraged the student to seek medical assessment for their situation. Offered to provide on-going emotional support for the student, in addition to any medical/psychological interventions that might be introduced.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Counseled a student on the process of applying for a “leave of absence” (LOA), including a lengthy discussion of the possible merits and drawbacks of this situation. Aim was to ensure the student had accurate information upon which to make an informed decision whether to initiate the LOA process.</td>
<td>1</td>
<td>1.5</td>
</tr>
</tbody>
</table>
**Mentoring 2010-2011:**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>NUMBER OF PEOPLE</th>
<th>NUMBER OF HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinnacle labs with individual student related to parallel pair, four field box, breast tangents, and conformal planning techniques.</td>
<td>1</td>
<td>8 hrs</td>
</tr>
<tr>
<td>Patient communication and patient care labs with and ESL student designed to increase her proficiency in the English language (professional and social communications). Discussion also re non-verbal communication cues.</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Role play/scenarios: pt care and communication labs with Radiation Therapy students related to “New Patient Teaching” (treatment procedures and side effects).</td>
<td>6</td>
<td>~18.5</td>
</tr>
<tr>
<td>Scenarios presented to various students in clinic designed to develop / hone their critical thinking skills. “Real-life” treatment set-up problems related to students whose task was to trouble shoot the situations and provide solutions.</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Examples of clinical documentation entries presented to students to: 1) identify any ambiguities: 2) to identify the potential for error(s) that may result from the ambiguities; and 3) to provide their own documentation entries to clarify the pt set-up instructions.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Individual mentoring provided to a Radiologic Technology student experiencing great difficulty in her professional communications with departmental staff. Time spent working with student on improving her verbal communication skills, through role play and scenarios.</td>
<td>1</td>
<td>5+</td>
</tr>
<tr>
<td>Patient Care scenarios presented to Radiation Therapy students, requiring them to provide appropriate symptom management. The students were also asked to identify the situations, where it would not be appropriate to proceed to treat the patient without first having the patient seen by the Radiation Oncologist.</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>
Mentoring 2010-2011 con’t:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
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<td>Elekta Teaching/Mentoring Lab at Michener Institute with Radiation Therapy student; Thorax, abdomen, and pelvis set-up scenarios employed with isocenter shifts and also involving trouble shooting/problem solving skills. Student asked to set-up “Pixie” according to instructions given; to provide reasons why “set-up” parameters were not matching “planned” parameters (ie depths, tattoos alignment, isocenter displacements and corrections); and to provide solutions to the problems, or to provide correct actions to be taken in response to the treatment set-up issues (ie: call the planner, or Dr to set-up, etc).</td>
<td>1</td>
<td>2 hrs</td>
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<td>Assisted students lacking confidence in their assessment skills regarding isocenter displacements in treatment volumes. Daily treatment field images (in Mosaq operating system) used and the students were asked to identify those images that had no displacements and those that did. The students were also to indicate the correction(s) necessary to properly locate the isocenter in the treatment volume.</td>
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<td>Provided ongoing counselling to several students, individually, who required emotional support through difficult periods in their clinical and academic training.</td>
<td>8</td>
<td>24</td>
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Mentoring 2011-2012:

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Mentoring 2011-2012 con’t:

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</table>
Curriculum Vitae

Name: Laura D’ALIMONTE
Business Address: Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario M4N 3M5
Business Telephone #: (416) 480-6100 Ext.89638
E-mail Address: laura.dalimonte@sunnybrook.ca
Date of Preparation: August 1, 2014

BIOGRAPHICAL INFORMATION:

EDUCATION:

Degrees
BSc (Biological Sciences), University of Windsor, 2000
BSc (Radiation Sciences), University of Toronto, 2005
MHSc, University of Toronto, 2013

Certifications and Licenses
• MRT(T), College of Medical Radiation Technologists of Ontario (CMRTO), Radiation Therapy, 2005

EMPLOYMENT:

Current Employment:
Sunnybrook Odette Cancer Centre, Radiation Therapist
Appointed: 2006

Odette Cancer Centre, Research Radiation Therapist
Appointed: 2009

Odette Cancer Centre, CSRT Brachytherapy
Appointed: 2012
PROFESSIONAL AFFILIATIONS AND ACTIVITIES:

Professional Associations:
- Canadian Association of Radiation Oncology
- Status Appointment: Clinical Educator at The Michener Institute for Applied Health Sciences
- Status Appointment: Lecturer, Department of Radiation Oncology, University of Toronto
- General Member with the Centre for Interprofessional Education

Administrative Activities:

Local Committees (Odette)
- MRT week: Co-Chair, 2009 & 2010
- GU and Gyne Site Group: Member
- Policy & Procedures Committee: Member
- DRO Professional Education Program: Member
- OCC MyChart™ Committee: Member
- RT Research Interest Group: Member
- Breast Redesign Group: Member
- RTi3 Planning Committee: Member
- Oncology Program Newsletter: Member

National Committees
- Canadian Partnership for Quality Radiotherapy (CPQR) Advisory Group: Member 2011
- CARO Education Committee: Member 2011
- CSRT Community of Practice (CoP): Co-lead 2014
- Gyne Community of Practice (CoP): Member 2014

Peer Review Activities:
- RTi3 Proffered Paper Session Moderator: 2011 & 2013
- 2012 ISRRRT World Congress/CAMRT Annual General Conference Abstract Reviewer: 2012
- Manuscript Reviewer for Health Expectations: 2012

Research Endeavours

In-House Studies

1. To Prep or Not to Prep: That is the Question. Study PI


3. Empowering patients through education: Development of an educational intervention for
endometrial cancer patients undergoing brachytherapy. **Study PI**

4. Psychological impact of daily bowel preparation on prostate patients who receive radiation therapy. **Co-Investigator**

5. An Evaluation of a Clinical Training Program for Volumetric Imaging at the OCC. **Co-Investigator**

6. A Retrospective Review of Patient Outcomes Following a Concurrent Chemotherapy, External Beam Radiation Therapy and High Dose Rate Brachytherapy Treatment Schedule for Cervical Cancer. **Study PI**

7. Whole-gland Salvage HDR Prostate Brachytherapy for Locally Recurrent Prostate Cancer. **Co-Investigator**

8. Empowering patients through education: Development of an educational intervention for cervical cancer patients undergoing brachytherapy. **Study PI**

**Teaching Awards:**

2010  Department of Radiation Oncology, University of Toronto  
Medical Radiation Sciences Program Excellence in Research Supervision Award

2012  Department of Radiation Therapy, Odette Cancer Centre  
Radiation Therapy Research Leadership Award

**Research Awards:**

2012  Sunnybrook’s Third Interprofessional Education and Interprofessional Care Showcase, Sunnybrook Health Sciences Centre  
Third Prize Poster

2012  Sunnybrook’s Third Interprofessional Education and Interprofessional Care Showcase, Sunnybrook Health Sciences Centre  
Top 3 Oral Presentation

**Peer-Reviewed Grants**

2009  Travel Grant  
Sponsor: ASRT November 1-3, 2009  
Amount: $1000.00
2009  Identifying the Challenges and Opportunities faced by Radiation Therapists in Initiating and Developing Research Projects: The Odette Cancer Centre Experience.
Sponsor: PBR Sunnybrook Health Sciences Centre award
Principal Investigator: D’Alimonte L. & Turner A.
Co-Investigator: Fitch M.
Amount: $4,675.00

2010  An Evaluation of Two Immobilization Devices for Prostate Cancer Treatment in the Era of Image Guided Radiation Therapy (IGRT): Does it matter?
Sponsor: PBR Sunnybrook Health Sciences Centre award
Principal Investigator: D’Alimonte L. & Holden L.
Co-Investigators: Liszewski B. & Vesprini D.
Amount: $7,980.00

2011  To Prep or Not To Prep: That is the Question
Sponsor: CARO-ACURA Award
Principal Investigator: D’Alimonte L
Amount: $23,554

2013  Empowering patients through education: Development of an educational intervention for endometrial cancer patients undergoing brachytherapy
Sponsor: SEAC ERC Education Research and Scholarship Grant, Sunnybrook
Principal Investigators: Laura D’Alimonte
Co-Investigators: Dr. Lisa Barbera, Dr. Gillian Thomas, Dr. Ida Ackerman, Dr. Toni Barnes, Dr. Eve-lynne Marchand, Lisa Di Prospero, Tamara Harth Larissa Day, Alison McAndrew
Amount: $6,500

2013  Empowering patients through education: Development of an educational intervention for cervical cancer patients undergoing brachytherapy
Sponsor: Gyne Disease Site Group Award, Sunnybrook
Principal Investigators: Laura D’Alimonte
Co-Investigators: Dr. Lisa Barbera, Dr. Gillian Thomas, Dr. Ida Ackerman, Dr. Toni Barnes, Dr. Eve-lynne Marchand, Lisa Di Prospero, Tamara Harth Larissa Day, Alison McAndrew
Amount: $10,000

2014  Whole gland salvage HDR prostate brachytherapy for locally recurrent prostate cancer
Sponsor: Motorcycle Ride for Dad & CARO-ACURA Grant
Principal Investigators: Hans Chung
Co-Investigators: Andrew Loblaw, Gerard Morton, Laura D’Alimonte, Masoom Haider, Ananth Ravi
Amount: $29,750 & $29,300

PUBLICATIONS:

Peer Reviewed Publications:


Book Chapters

1. D’Alimonte L, Bristow B, Macri R. Chapter 4: Research Ethics Application. Research for Radiation Therapy

Other Publications


PRESENTATIONS AND LECTURES

INTERNATIONAL

Papers/Posters/ Abstracts


Stage I, Hormonally Sensitive, Breast Cancer Considering Adjuvant Treatment Post-Lumpectomy. Association for Medical Education in Europe (AMEE) Meeting. Vienna, Austria. 2011 Collaborator


**Invited Lectures**

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<th>Year</th>
<th>Title</th>
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<tr>
<td>2009</td>
<td>A Retrospective Review of the Effect of Foot Immobilization on Incidence and Frequency of Isocentre Shifts for the Treatment of Prostate Cancer. American Society of Radiation Therapy (ASRT) Annual General Meeting, Chicago, USA.</td>
</tr>
<tr>
<td>2013</td>
<td>Does prostate biopsy after HDR brachytherapy have any clinical significance? American Brachytherapy Society (ABS), New Orleans, Louisiana</td>
</tr>
</tbody>
</table>

**NATIONAL**

**Papers/Posters/ Abstracts**

1. James T, **D’Alimonte L**. A Retrospective Review of the Effect of Foot Immobilization on Incidence and Frequency of Isocentre Shifts for the Treatment of Prostate Cancer. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting, Montreal, 2008. Principal Author

2. **D’Alimonte L**, Sinclair E, Seed S. An Evaluation of Patterns of Radiotherapy Practice for Patients with Rib Metastases: A Single Institution Study. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting, Quebec City, 2009. Principal Author
3. Liszewski B, Choo E, D’Alimonte L. A Retrospective Analysis of Prostate CBCT Image Registration: A Tale of Two Techniques. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting, Vancouver, 2010. Senior Responsible Author


tool for older breast cancer patients. ISRRT/CAMRT Conference, June 2012. Toronto Co-Investigator


17. D’Alimonte L et al. Does Prostate Biopsy after HDR Brachytherapy Have any Clinical Significance? RTi3 Toronto 2014

18.

**Invited Lectures**

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<tr>
<th>Year</th>
<th>Title</th>
<th>Details</th>
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<tr>
<td>2009</td>
<td>An Evaluation of Patterns of Radiotherapy Practice for Patients with Rib Metastases: A Single Institution Study. Canadian Association of Radiation Oncology (CARO) Annual Meeting, Quebec City.</td>
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<tr>
<td>2012</td>
<td>“Times they are a Changin”: Innovations in Breast Cancer. Toronto Cancer Conference, Toronto, Ontario</td>
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<td>2012</td>
<td>Radiation Therapists’ experiences in tracking patient outcomes and late toxicities. RTi3 Webinar, Toronto, Ontario</td>
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<td>2013</td>
<td>Jumping outside the Box! UT/DRO Rounds, Toronto, Ontario</td>
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<td>2013</td>
<td>Focal Salvage HDR Prostate Brachytherapy for Prostate Cancer. UT/DRO Rounds, Toronto, Ontario</td>
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<tr>
<td>2014</td>
<td>A Prospective Cohort Analysis of Two Brachytherapy Techniques for Low/Intermediate Risk Prostate Cancer. RTi3, Toronto, ON</td>
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**PROVINCIAL/ REGIONAL**
Papers/Posters/Abstracts


5. Yasir K, Liszewski B, **D’Alimonte L**. A Retrospective Analysis of the Dosimetric Effect of Cone Beam Computed Tomography (CBCT) Image Registration during Prostate Cancer Treatment: To Shift or Not to Shift. RTi3 Conference, Toronto, 2011.


Teaching and Design

Teaching

1. Course Supervisor, Research Methods 2, MRS Students University of Toronto/The Michener Institute (undergraduate-level)

2. Lecturer, MHSc GU Session, MHSc Students University of Toronto (graduate-level)

3. Gyne Disease Site: RT Peer Review

4. Brachy Education Modules

5. Aseptic Technique Workshop

Research Supervision

Curriculum Vitae

Krista Dawdy
Clinical Educator/Clinical Coordinator, Radiation Therapy, Edmond Odette Cancer Centre, Sunnybrook Health Sciences

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
2007 Sep - 2009 Apr BSc, Cambridge Campus, Anglia Ruskin University, United Kingdom

Postgraduate, Research and Specialty Training
2015 Mar Contrast Injection for Radiation Technologists, Michener Institute of Applied Health Sciences
2015 Jan IV Insertion and Maintenance Workshop, Michener Institute of Applied Health Sciences
2013 Dec Designing Learning ADL 129-021, The University of Calgary
2013 Jul 31 Being A Coach Leader, Sunnybrook Leadership Institute
2013 Jul 10 Foundations of Coaching, Sunnybrook Leadership Institute
2013 Apr 25 Instructional Design and Articulate Storyboarding, Sunnybrook Hospital, Office of Technology
2013 Feb 23 Mosaiq Education Day, The Michener Institute for Applied Health Sciences
2013 Jan 18 Best Practice Spotlight Organization, Evidence Based Culture, Registered Nurses’ Association of Ontario
2013 Jan Protecting Your Patients from Injurious Falls, Institute for Healthcare Improvement
2012 Apr Ottawa Model for Smoking Cessation Workshop, Ottawa Heart Institute
2012 Jan 13 - 2012 Jan 18 Best Practice Champion Development and Training, Registered Nurses’ Association of Ontario
2012 Jan 13 - 2012 Jan 18 Best Practice Implementation & Quality Improvement Methods, Registered Nurses’ Association of Ontario
2011 Jan 18 Managing Concurrent Chemoradiation in GI cancers: a Multi-
disciplinary Approach, Odette Cancer Centre, Sunnybrook Hospital
2011
Interprofessional Collaboration in Healthcare, Michener Institute of Applied Health Sciences
2010 Jun 23
Enhancing Cancer Care through Technology, Odette Cancer Centre, Sunnybrook Hospital
2009 Sep 18 - 2009 Sep 19
IMRT Education Course, Princess Margaret Hospital, Toronto, Canada
2009
Clinical Preceptorship Education Course, Princess Margaret Hospital
2007
Oncology Clinical Applications Training, Odette Cancer Centre, Sunnybrook Hospital

Qualifications, Certifications and Licenses
1993 Sep
Radiation Therapy Diploma, Ottawa Regional Cancer Centre

2. EMPLOYMENT

Current Appointments
2012 - present
Clinical Adjunct Professor, The Michener Institute for Applied Health Sciences
2010 - present
Clinical Educator/Clinical Coordinator, Radiation Therapy, Odette Cancer Centre at Sunnybrook Health Sciences Centre
The Clinical Educator is responsible for design, implementation, feedback and evaluation of training workshops that is innovative and integrated with radiation therapy program vision and culture.
The Clinical Coordinator is responsible for supervising and evaluating students in the clinical environment during their clinical practicum. Provides technical and educational support for MRS students during their clinical placement including design, implementation, feedback and evaluation of the new curriculum and learning activities.
2009 - present
Clinical Coordinator, Radiation Therapy, Odette Cancer Centre at Sunnybrook Health Sciences Centre

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2015
E.I. Hood Award, Joint Congress on Medical Imaging and Radiation Sciences. (Distinction)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

- 2013 - present  **Member**, General Membership, Centre for Interprofessional Education (CIPE)
- 2013 - present  **Member**, The Canadian Society for Training and Development (CSTD)
- 2010 - present  **Member**, An International Association for Medical Education (AMEE)
- 1993 - present  **Member**, Canadian Association of Medical Radiation Technologists
- 1993 - present  **Member**, Medical Radiation Technologist (Radiation Therapy), College of Medical Radiation Technologists of Ontario (CMRTO)
- 1993 - present  **Member**, Ontario Association of Medical Radiation Sciences

Administrative Activities

LOCAL

**Odette Cancer Centre**
- 2011 - present  **Chair**, Committee on Medical Radiation Technology Professional Recognition
- 2005 - present  **Member**, Quality Management Committee Radiation Program
- 2000 - present  **Member**, Application Specialist Radiation Program

**Sunnybrook Health Sciences Centre**
- 2012 - present  **Member**, Sunnybrook Education Advisory Subcommittee (SEAC) Educator Development
- 2013 - 2015  **Member**, Sunnybrook Interprofessional Conference Planning Committee

Peer Review Activities

**PRESENTATION REVIEWS**

**Abstract Reviewer**
- 2015  Sunnybrook Health Sciences Centre, Interprofessional Education Conference
A. Date Curriculum Vitae is Prepared: 2016 December

B. Biographical Information

Primary Office Cobalt Lounge, Princess Margaret Cancer Centre
610 University Ave
Toronto, Ontario, Canada
M5G 2M9
Telephone: 416 946 4501 x3467
Cell phone: 416 826 6246
Email: colleen.dickie@rmp.uhn.on.ca

1. EDUCATION

Degrees
2007 – 2010 MSc, Radiation Therapy, Faculty of Health, Social Care & Education, Anglia Ruskin University, Cambridge, United Kingdom. Supervisor: Jon Svensson/ Brian O’Sullivan.
1994 – 1998 Undergraduate Studies, Department of Physiology, University of Toronto, Toronto, Ontario.

Qualifications, Certifications and Licenses
2004 – current Licensed Medical Radiation Technologist (Magnetic Resonance Imaging), College of Medical Radiation Technologists of Ontario, Toronto, Ontario, Canada. [License: 10805]
2001 – 2004 Diploma, Magnetic Resonance Imaging, University of Toronto / The Michener Institute, Toronto, Ontario, Canada.
1999 – current Licensed Medical Radiation Technologist (Radiation Therapy), College of Medical Radiation Technologists of Ontario, Toronto, Ontario, Canada. [License: 10805]
1995 – 1999 Diploma, Radiation Therapy, School of Radiation Therapy, Princess Margaret Hospital, Toronto, Ontario, Canada.

Leadership Courses
2016 Box of Crayons learning workshops that focus on integrating coaching and mentoring. Department of Organization and Employee Development, University Health Network, Toronto, Ontario, Canada
2015 Employee Opinion Deep Dive Training with JUICE-The Power of Conversation. Brady G. Wilson, Department of Organization and Employee Development, University Health Network, Toronto, Ontario, Canada
2. EMPLOYMENT

Current Appointments

2015 – current Radiation Therapy Process Development and Integration Practice Leader, Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada

2012 – current Assistant Professor, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada.

2014 – current Clinical Implementation Lead for the MRgRT Facility, Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada.

2015 – current Regional Sarcoma Radiotherapy Peer Review Quality Assurance Rounds Coordinator, Princess Margaret Cancer Centre, Toronto, Ontario, Canada.

2015 – current MRI research therapist, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada.

2010 – current Manager of Sarcoma Clinical Radiation Therapy Research, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada.

1999 – current Radiation therapist, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada.

Previous Appointments

CLINICAL

2005 – 2006 Planning / treatment radiation therapist combined role (50% / 50% FTE), Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada.

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received


2015 Best Poster Award for “A survey assessing immobilisation of limb extremity soft tissue sarcomas in United Kingdom radiotherapy centres”. The British Sarcoma Study Group Annual Meeting, East Midlands Conference Centre, University of Nottingham, UK. February 26th. (Co-Principal Investigator)

2010 ARRO best of ASTRO award for “Phase II Study of Preoperative Intensity Modulated Radiation Therapy for Lower Limb Soft Tissue Sarcoma”. ASTRO Annual Meeting, San Diego, USA.
2009  **ARRO best of ASTRO award** for “The relationship between local recurrence and radiotherapy treatment volume for soft tissue sarcomas treated with external beam radiotherapy and function preservation surgery” ASTRO Annual Meeting, Chicago, USA.

2007  **Outstanding poster presentation.** “Bone fractures following external beam radiotherapy and limb-preservation surgery for extremity soft tissue sarcoma: relationship to irradiated bone length, volume and dose” 13th annual meeting of the Connective Tissue Oncology Society (CTOS), Seattle, USA.

**NATIONAL Received**

2008  **“People’s choice” best podium presentation.** 2nd annual radiation therapist research symposium, Toronto, Ontario, Canada.

2006  **Outstanding podium presentation.** 3rd annual radiation medicine conference, Toronto, Ontario, Canada.

2003  **Highest academic achievement in Physics of magnetic resonance imaging course.** The Michener Institute / University of Toronto, Toronto, Ontario, Canada

**LOCAL Received**

2015  **Outstanding Research Potential Award.** Radiation medicine program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada.

2015  **Top-Ranked Abstract for “inspire” category at the RTi3 Annual Meeting.** Development of Evidence-based Region of Interest Matching Guidelines to Standardize Volumetric Image-Guided Radiation Therapy Practice for Sarcoma, Princess Margaret Cancer Centre, Toronto, Ontario, Canada. (Co-Author)

2012  **Best Guest Lecturer Award.** Master of Health Science in Medical Radiation Sciences, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

2010  **Most influential research publication.** “Bone Fractures following external beam radiotherapy and limb-preservation surgery for lower extremity soft tissue sarcoma: relationship to irradiated bone length, volume, tumor location and dose”. Radiation medicine program, Princess Margaret Hospital, Toronto, Ontario, Canada.

1996  **Highest achievement in undergraduate psychology.** University of Toronto (PSY 100), Toronto, Ontario, Canada.

**Student/Trainee Awards**

**PROVINCIAL/ REGIONAL Received**

Total Amount: $4500
Total Amount: $3000

Professional Associations

2011 – current Member, Canadian Radiation Research Network
2010 – current Member, European Society of Therapeutic Radiology and Oncology, [Membership Number: E-32878]
2006 – current Member, American Society for Therapeutic Radiology and Oncology, [Membership Number: 35207716]
1999 – current Member, Canadian Association of Medical Radiation Technologists/Ontario Association of Medical Radiation Sciences, [Membership Number: 26574]
1999 – current Member, College of Medical Radiation Technologists of Ontario, [Membership Number: 10805]
Administrative Activities

INTERNATIONAL

*Details*: International, open access journal which brings together technology and patient care in the field of radiation oncology to complement ESTRO’s leading publication, Radiotherapy & Oncology.


2016 – current  **Member**, IAEA Consultants’ meeting to Draft International Training Material for Radiation Therapists (RTTs) in collaboration with ESTRO.

2015 – current  **Member**, AJCC Soft Tissue Sarcoma Head and Neck Disease Team, 8th edition of the American Joint Committee on Cancer manual, International Head and Neck Sarcoma Specialists

REGIONAL & PROVINCIAL

**Musculoskeletal oncology group**

2015 - current  **Sarcoma Delphi Process Group**, Validation of Tier One Sarcoma Quality Indicators Modified Delphi process Group, CCO Clinical Program and Quality Initiatives.  
*Details*: To develop consensus and the inclusion of the 8 indicators in Tier One for the Sarcoma Program.

2016 - current  **CCO Advisory Committee for EVOQ**, Cancer Care Ontario, Princess Margaret Cancer Centre.  
*Details*: CCO and key stakeholders from the regional cancer programs to ensure EVOQ software meets CCO and RCP requirements.

*Details*: Responsible for coordinating and leading Radiotherapy Peer Review QA Rounds. Audience includes Radiation Oncologist Site Group Leaders and other specialized radiation medicine professionals from the designated Specialized Sarcoma Provincial Centers for Radiotherapy Delivery.

2014 – current  **Sarcoma Community of Practice Coordinator**, Cancer Care Ontario Community of Practice Radiation Therapy, CCO, Radiation Therapy Soft Tissue Sarcoma Specialists.  
*Details*: This is an informal group developed with CCO’s support from the RTT CoP to develop and communicate best practices for Sarcoma Care to align with the Provincial Sarcoma Services Plan.

2005 – current  **Radiation Therapy Team Lead**, Interdisciplinary health research team, Musculoskeletal oncology department, Mount Sinai hospital, Surgical and Radiation Oncology professionals.  
*Details*: Responsible for the development / support of an enhanced interdisciplinary collaborative research model.

LOCAL

**Radiation Medicine Program, Princess Margaret Cancer Centre, University Health Network**

2015- current  **Member**, Employee Engagement Survey Deep Dive Team and Training, Department of Organization and Employee Development, University Health Network.

2015- current  **Member**, Radiation Therapist Research Advisory Council, Radiation Medicine Program, Princess Margaret Cancer Centre.

2010 – current  **Manager of Sarcoma Clinical Radiation Therapy Research**, Radiation Medicine Program, Princess Margaret Cancer Centre. Responsible for managing all clinical radiation therapy sarcoma research for the RMP.
2014 – current **Co-Chair**, Magnetic Resonance Guided Radiotherapy Clinical Implementation Group, Radiation medicine program, Princess Margaret Cancer Centre, Radiation medicine professionals. *Details:* Responsible for the coordination and integration of clinical activity in the MRgRT facility.

2015 – current **Member**, Magnetic Resonance Guided Radiotherapy Clinical Implementation TASK Group, Radiation medicine program, Princess Margaret Cancer Centre, MRgRT leadership.

2011 **Member**, Imaging literacy and competency group, Radiation medicine program, Princess Margaret Hospital, Radiation medicine professionals.

2010 – 2012 **Member**, Molecular imaged guided Therapeutics committee (GTx Committee), Radiation medicine program/MaRS, Princess Margaret Hospital, Radiation medicine professionals and Molecular imaging research scientists. *Details:* Representation of the Sarcoma Site Group to promote future collaboration in the pursuit of an image guided surgical suite.

2010 – 2011 **RT Leader**, Sarcoma site group, Radiation Medicine Program, Princess Margaret Hospital, Radiation medicine professionals. *Details:* Assumed responsibility for updating all existing protocols and for developing the framework for the introduction and implementation of two clinical trials to RMP (NIRS and PRODIGI trial).

2008 – 2010 **Member**, MRI research group. Radiation Medicine Program, Princess Margaret Hospital, Radiation medicine professionals.

2007 – current **Member**, Radiation therapist journal club, Radiation Medicine Program, Princess Margaret Hospital, Radiation therapists. *Details:* Lead for the critique of various sarcoma publications.

2007 – 2008 **Member**, Accreditation team, Human Resources Department, University Health Network, Medical professionals. *Details:* Lead for front line employee initiatives within UHN representing RMP.

2007 – 2008 **Member**, Accreditation team, Radiation Medicine Program, Princess Margaret Hospital, Radiation medicine professionals. *Details:* Share the experience of the UHN Human Resources Department Accreditation and was a team member in the organization of RMP accreditation.

2006 – 2007 **RT Leader (First)**, Sarcoma site group, Radiation Medicine Program, Princess Margaret Hospital, Radiation medicine professionals. *Details:* Responsible for developing all initial protocols and procedures for Imaging, Scanning, Planning, and Treatment of Soft Tissue Sarcoma Patients for RMP following organizational restructuring into anatomical site based teams.

2005 – 2006 **Member**, Accreditation team, Human Resources Department, University Health Network, Medical professionals. *Details:* Lead for front line employee initiatives within UHN representing RMP.

1998 – 2003 **Chair**, Image processing committee (Kodac), Radiation medicine program, Princess Margaret Hospital, Radiation medicine professionals. *Details:* Responsible for coordination of the imaging processor team and daily maintenance of the equipment for all imaging in the RMP.

**University of Toronto**

2011 – 2012 **Member**, Target Insights conference committee, Department of radiation oncology, University of Toronto, Radiation medicine professionals.

2011 – current **Member**, Dose accumulation and adaptive radiation therapy workflow group, Department of radiation oncology, University of Toronto, Radiation medicine professionals.

2010 – 2012 **Member**, Image guided radiation therapy course organizing committee, Department of radiation oncology, University of Toronto, Radiation medicine professionals.

2010 – current **Member**, "GTx" tracking and navigation research group, Department of radiation oncology, University of Toronto, Radiation medicine professionals.

2009 – 2010 **Member**, Strategic planning thinking group, Department of radiation oncology, University of Toronto, Radiation medicine professionals.
Peer Review Activities

MANUSCRIPT REVIEWS

Manuscript reviewer
2016 – current Technical Innovations & Patient Support in Radiation Oncology (tipsRO)
2016 – current Radiotherapy and Oncology (Green Journal)
2015 – current European Radiology
2010 – current Annuls of Surgical Oncology.
2010 – current International Journal of Radiation Oncology, Biology and Physics (Red Journal)

PRESENTATION REVIEWS

Abstract reviewer
2016 ESTRO 36 Annual General Meeting
2015 ESTRO 3rd Forum Annual General Meeting

OTHER


C. Academic History

1. RESEARCH STATEMENTS


2016 Co-Investigator: Phase III Study of Preoperative vs Postoperative Intensity Modulated Radiation Therapy For Truncal/Extremity Soft Tissue Sarcoma. REB# 15-9263
Principal Investigator: Peter Chung
Co-Investigators: Brian O’Sullivan, Colleen Dickie, Anthony Griffin, David Schultz, Charles Catton, Jay Wunder, Peter Ferguson

Sponsor: Musculoskeletal Oncology Department, Mount Sinai Hospital
Principal Investigator: Brian O’Sullivan
Co-Investigators: Anthony Griffin, Dr. Charles Catton, Christine Hill, Amy Parent, Dr. Peter Chung, Dr. Peter Ferguson, Dr. Jay Wunder
2015 **Principal Investigator:** Online Learning Module for Evidence-Based Radiation Treatment of Soft Tissue Sarcoma. (Prospective Study). UHN REB #: 15-8828
Sponsor: Musculoskeletal Oncology Department, Mount Sinai Hospital
Co-Investigators: Dr. Brian O’Sullivan, Dr. Charles Catton, Nicole Harnett, Christine Hill, Michael Sharpe

2015 **Co-Investigator:** Locally Recurrent or Radiation-Induced Soft Tissue Sarcoma: Outcomes with Re-irradiation and Surgical Excision. REB# 15-0036-C MSH
Principal Investigator: Dr. Peter Ferguson
Co-Investigators: Anthony Griffin, Dr. Charles Catton, Christine Hill, Amy Parent, Dr. Peter Chung, Dr. Jay Wunder, Dr. Brian O’Sullivan

2015 **Co-Investigator:** Intraoperative 3D Imaging and Navigation for Sarcoma Surgical Patients (Prospective Trial). REB# 15-0035-A MSH
Principal Investigator: Dr. Peter Ferguson
Co-Investigators: Anthony Griffin, Dr. Charles Catton, Dr. Peter Chung, Dr. Jay Wunder, Dr. Brian O’Sullivan, Dr. David Jaffray, Dr. Jon Irish, Robert Weersink, Michael Daly

2015 **Co-Investigator:** Oncologic Outcome for Patients with Myxofibrosarcoma. REB# 14-0286-C MSH
Principal Investigator: Dr. Peter Ferguson
Co-Investigators: Anthony Griffin, Dr. Charles Catton, Dr. Peter Chung, Dr. Jay Wunder, Dr. Brian O’Sullivan

2013 – current **Principal Investigator:** Radiotherapy Designed With Evidence-Based Bone Avoidance Objectives Reduces the Risk Of Bone Fracture In The Management Of Extremity Soft Tissue Sarcoma (Chart Review)
Sponsor: Musculoskeletal Oncology Department, Mount Sinai Hospital
Co-Investigators: Anthony Griffin, Dr. Brian O’Sullivan, Dr. Peter Chung, Dr. Charles Catton, Dr. Jay Wunder, Dr. Peter Ferguson, Anna Simeonov, Dr. Rakesh Mohankumar
REB#: 13-0183-C

2012 – current **Principal Investigator:** Examining radiation response on pre and post radiotherapy MRIs and its relation to development of wound complications following surgery for soft tissue sarcomas of the thigh.
Sponsor: Musculoskeletal Oncology Department, Mount Sinai Hospital
Co-Investigators: Anthony Griffin, Dr. Brian O’Sullivan, Dr. Peter Chung, Dr. Charles Catton, Dr. Jay Wunder, Dr. Peter Ferguson, Anna Simeonov, Dr. Rakesh Mohankumar
REB#: 13-0183-C

2012 – 2016 **Co-Principal Investigator:** An International Survey of Limb Extremity Immobilization in Radiation Therapy for Soft Tissue Sarcomas - A Review and Analysis of Current Practice
Sponsor: Weston Park Hospital Cancer Charity and The University of Sheffield
Principal Investigators: Colleen Dickie, James Swinscoe
Co-Investigator: Rob Ireland
REB#: SMBRER275 The University of Sheffield- Academic Unit of Clinical Oncology

2011 – 2014 **Co-Investigator:** Use of High Precision Radiotherapy in the Management of Soft-Tissue Sarcomas.
Sponsor: Radiation Medicine Program, University Health Network
Principal Investigators: Charles Catton, Brian O’Sullivan, Peter Chung, Philip Wong, Colleen Dickie
REB#: 10-0854-CE

Sponsor: Toronto Academic Health Sciences Network (TAHSN)
Principal Investigator: Wey Liang Leong
Co-Investigators: Dr. Ralph DaCosta, Dr. Brian Wilson, Dr. Peter Ferguson, Dr. Jay Wunder, Colleen Dickie
REB#: 05-0048-CE

2011 – current  **Co-Investigator.** Evaluating Bacterial Response During Sarcoma Treatment Using An Optically Tracked, 'Hand-Held' Fluorescent Imaging Device
Sponsor: University Health Network
Principal Investigator: Dr. Peter Ferguson, Dr. Jay Wunder
Co-Investigators: Dr. Ralph DaCosta, Dr. Brian Wilson, Colleen Dickie, Anthony Griffin, Dr. Brian O’Sullivan, Dr. Peter Chung, Dr. Charles Catton, Dr. David Jaffray
REB#: 09-0015-A

2011 – 2014  **Co-Investigator.** Retrospective Study of Volume Changes in Two Pathological Subtypes of Sarcoma using Deformation Image Registration.
Sponsor: University Health Network
Principal Investigator: Dr. Brian O’Sullivan
Co-Investigators: **Colleen Dickie,** Amy Parent, Kara Magierowski
REB#: 07-0106-CE

2008 – 2011  **Co-Investigator.** Clinical and Functional Outcome of Patients with Radiation-induced Soft Tissue Sarcoma (Chart Review)
Sponsor: University Health Network
Principal Investigator: Dr. Brian O’Sullivan
Co-Investigators: **Colleen Dickie,** Soha Riad, Anthony Griffin
REB#: 06-0732-CE

2008 – 2011  **Principal Investigator:** A Retrospective Review of Magnetic Resonance (MRI) Simulation of Lower Extremity Soft Tissue Sarcoma (LE-STS) Patients Treated with Intensity Modulated Radiation Therapy (IMRT) (Chart Review)
Principal Investigator: **Colleen Dickie**
Co-Investigators: Charles Catton, Dr. Brian O’Sullivan, Amy Parent
REB#: 08-0498-CE

2009 – 2010  **Co-Investigator.** Determining the Location of Local Recurrence after External Beam Radiotherapy (EBRT) Combined with Limb-salvage Surgery for Extremity Soft Tissue Sarcoma Patients (LE-STS) (Chart Review)
Sponsor: University Health Network
Principal Investigator: Dr. Brian O’Sullivan
Co-Investigators: **Colleen Dickie,** Amy Parent
REB#: 08-0496-CE

2007 – 2009  **Co-Investigator.** Bone Fractures Following Treatment of Extremity Soft Tissue Sarcoma: Relationship of Radiation Field Size and Radiation Dose to Bone (Chart Review)
Sponsor: University Health Network
Principal Investigator: Dr. Brian O’Sullivan
Co-Investigators: **Colleen Dickie,** Amy Parent, Anthony Griffin
REB#: 05-0083-CE
2. RESEARCH AWARDS

Grants, Contracts and Clinical Trials

PEER-REVIEWED GRANTS

Funded

2015

Principal Investigator. CAMRT Research Grant. Online Learning Module for Evidence-Based Radiation Treatment of Soft Tissue Sarcoma. Co-Investigators: Dr. Charles Catton, Dr. Michael Sharpe, Nicole Harnett, Lynn Nguyen. $5000.00 over one year. REB: #15-8828.

Description: This is a prospective study to assess a Soft Tissue Sarcoma (STS) mobile / electronic learning module that has been developed to disseminate principles of safe, evidence-based practice for image-guided radiotherapy using a pre/post evaluation.

2009 – 2013

Co-Investigator. Evaluation of Near Infrared Point Spectroscopy to Assess Tissue Viability Following Pre-operative Radiation for Extremity Soft Tissue Sarcoma. Sponsor: National Research Council of Canada, Winnipeg Manitoba, University of Toronto, Faculty of Medicine

Principal Investigators: Jay Wunder, Peter Ferguson, Brian O’Sullivan

Co-Investigators: Colleen Dickie, Anthony Griffin, Karen Cross, Joel Fish, Mike Sowa, Rebecca Zhu

Description: This is a phase II study to evaluate the oxy-hemoglobin, deoxy- hemoglobin and micro circulation levels just below the skin surface for patients undergoing preoperative IMRT and limb sparing surgery for lower extremity soft tissue sarcoma. These variables may be related to wound complication rates for this patient population.

2005 – 2009


REB#: 03-0107-C. $228,236 over 3 years.

Description: This is a phase II study to investigate Lower extremity soft tissue sarcoma wound complication rates following preoperative IMRT combined with limb sparing surgery. Secondary outcomes are to measure limb fibrosis, subcutaneous edema, joint stiffness, local recurrence rates, overall survival rates and disease specific survival rates.

3. PATENTS

2010


D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


Details: This study described the local disease relapse relative to the previous radiotherapy treatment volumes in the largest population of soft tissue sarcoma reported to date. For the 61 local recurrences, we investigated the location relative to the radiotherapy (RT) volumes delivered both pre and post operatively. Other studies have investigated this topic either in the preoperative or postoperative setting. The first comparable study was by Cleator et al. 2001 and included 28 patients who received postoperative RT. The most recent two, Delaney et al., 2010 included 6 patients and Alektiar et al., 2011 included 5 patients that experienced local recurrence. Our paper was cited by the later study (Alektiar et al., 2011) in a podium presentation at the ASTRO annual general meeting (2011), Miami, USA. Most recently this paper was mentioned in a podium presentation and a sarcoma refresher session at the ASTRO annual meeting 2013, Atlanta, USA.


Details: This study received “the most influential research publication” award (2010) from the Radiation medicine program, Princess Margaret Hospital, Toronto, Ontario, Canada. Radiotherapy related parameters associated with radiation induced bone fractures was investigated for soft tissue sarcoma. This is the only study to date that has retrieved dosimetric details that provide dose objectives for bone avoidance in intensity modulated radiotherapy planning. Since this publication, the Radiation Medicine Program has changed their institutional planning policy to incorporate these avoidance objectives in the RT planning process. Most recently this paper was mentioned in podium presentations at the ASTRO annual meeting 2013, ASTRO AGM 2015 and ASTRO AGM 2016.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Abstracts**


**2016**


**2015**


**2015**


**2015**


**2015**

**Principal Author.** CI Dickie, C Hill. Online Learning Module For Evidence-Based Radiation Treatment Of Soft Tissue Sarcoma. RTi3 Annual Meeting. Workshop.

**2015**

**Senior Author.** L Nguyen, N Harnett, C Gillan, C Catton, C Dickie. Student eLearning imaging module initiative for soft tissue sarcoma radiotherapy treatment. RTi3 Annual Meeting.

**2015**


**2014**


**2014**


**2013**


**2013**


**2013**


2010 **Principal Author.** **Dickie C**; A. Griffin; A. Parent; P. Chung; C. Catton; J. Wunder; P. Ferguson; M. Sharpe; R. Bell; B. O'Sullivan. Phase II Study of Preoperative Intensity Modulated Radiation Therapy for Lower Limb Soft Tissue Sarcoma. Int J Rad Onc, Biol, Phys (November 2010), 78 (3), Supplement, pg. S84-S85


2009 **Principal Author.** **C.I. Dickie**; A. Parent; A. Griffin; T. Panzarella; P. Ferguson; J. Wunder; M. Sharpe; P. Chung; C. Catton; B. O'Sullivan. Examining the Relationship between the Location of Local Tumor Recurrence and the Radiotherapy Treatment Volume for Extremity Soft Tissue Sarcoma Patients Treated with Limb Salvage Surgery and External Beam Radiotherapy. Int J Rad Onc, Biol, Phys (November 2009), 75 (3), Supplement, pg. S65-S66


2008 **Principal Author.** **C.I. Dickie**; A. Parent; A. Griffin; P. Chung; C. Catton; T. Craig; M. Sharpe; B. O'Sullivan. Measuring Interfraction and Intrafraction Motion with Cone Beam Computed Tomography (CBCT) and an Optical Localization System (OLS) for Lower Extremity Soft Tissue Sarcoma Patients Treated with Preoperative Intensity Modulated Radiation Therapy (IMRT). Int J Rad Onc, Biol, Phys (September 2008), 72 (1), Supplement, pg. S105-S105


2005 **Co-Author.** Griffin A, Euler C, Wunder J, O'Sullivan B. A Massive Chest Wall High Grade Liposarcoma Illustrating a Principle of Targeting with Pre-operative Radiotherapy. CTOS Annual Scientific Meeting Proceedings, Montreal, Canada.


Book Chapters


3. NON-PEER-REVIEWED PUBLICATIONS

Abstracts


Multimedia


2010 Co-Author. Dickie C, Parent A. “RMP welcomes the RT-6060 T-Form Extremity Immobilizer”. RMP news, Princess Margaret Hospital Volume No.9, Issue No. 3 (page 2) 2010


Other Publications


E. Presentations and Special Lectures

1. PEER REVIEWED PRESENTATIONS


2014  **Co-Author.** The Influence Of Time Interval Between Preoperative Radiation And Surgical Resection On The Development Of Wound Healing Complications In Extremity Soft Tissue Sarcoma. CTOS Annual Meeting. Berlin, Germany. Griffin AM, Dickie CI, Catton CN, Chung PWM, Ferguson PC, Wunder JS, O’Sullivan B


2008 **Presenter.** Measuring Inter fraction and Intra fraction Motion with Cone Beam Computed Tomography and an Optical Localization System for Lower Extremity Soft Tissue Sarcoma Patients Treated with Preoperative Intensity Modulated Radiation Therapy. ASTRO Annual Scientific Meeting, Boston, USA. **Dickie C,** Parent A, Griffin A, Chung P, Catton C, Wunder J, Ferguson P, Sharpe M, O’Sullivan B.


2005 **Presenter.** A Massive Chest Wall High Grade Liposarcoma Illustrating a Principle of Targeting with Pre-operative Radiotherapy. CTOS Annual Scientific Meeting, Montreal, Canada. **Griffin A,** **Euler C,** Wunder J, O’Sullivan B.
INVITED LECTURES AND PRESENTATIONS

1. INTERNATIONAL

2017 **Chair.** Session type: Teaching Lecture, High tech or low tech for metastatic disease, how does one decide and what is the cost-benefit? May 6, ESTRO 36, Vienna, Austria


2015 **Chair.** Advances in Breast Cancer Treatment. ESTRO 3rd Forum Annual Meeting, Barcelona.

2014 **Co-Chair Panel Presenter.** ESTRO Session Title: Train the trainers programme: An update. 1 hour session. ESTRO33 Annual Meeting, Vienna, Austria.

2011 **Invited Scholar.** Gray Institute for Radiation Oncology and Biology, University of Oxford, London, UK. 1 hour invited lecture “Sarcoma Research in the Clinical Setting”, then 3 hours of case review and discussion.


2. NATIONAL

2017 **Invited Speaker.** Use of MRI in Radiation Therapy. Radiation Therapy program at the CAMRT/OAMRS Annual General Conference, April 28-30, Ottawa, Canada.

2016 **Invited Speaker.** RTi3 Webinar Feb. 9th 2016. MRI Impact on RTT Practice: the past, present and future of MRI in RT Practice, University of Toronto, Toronto, Ontario

2015 **Invited Speaker.** Target Insights 2015. Informatics for a Rare Disease. University of Toronto, Toronto, Ontario.


2010 **Presenter.** Sarcoma Research in the Radiation Medicine Program. Canadian Association of Medical Radiation Technologists Annual Conference, Quebec, Canada.

2005 **Presenter.** Innovative Immobilization for Conformal Radiation Treatment of Extremity Soft Tissue Sarcoma. Western Canada Conference, Calgary, Canada.

2005 **Presenter.** Refining Sarcoma Immobilization for High Precision Image Guided Intensity Modulated Radiation Therapy. Western Canada Conference, Calgary, Canada.
3. PROVINCIAL/ REGIONAL


2014 Invited Speaker. CCO Provincial Community of Practice Committee Meeting. Sarcoma eLearning Module and discussion of the formation of a Sarcoma Community of Practice.


4. LOCAL

Invited Lectures and Presentations


2016 Guest Lecturer. “Sarcoma Research in Radiotherapy”, Master of Health Science in Medical Radiation Sciences, Radiation Oncology, The University of Toronto, Toronto, Canada.


2016 Invited Speaker. RMP Education Rounds, April. Innovative Sarcoma APP, Radiation Medicine Program, The University of Toronto, Toronto, Canada.


2015 Invited Speaker. Radiation Therapy Lunch and Learn Session. Sarcoma Adaptive Radiotherapy and Informatics on a Rare Disease. Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Canada.


2013  **Guest Lecturer.** “Sarcoma Program Overview”, Master of Health Science in Medical Radiation Sciences, Radiation Oncology, The University of Toronto, Toronto, Canada.

2012  **Guest Lecturer.** “Sarcoma Research Paradigm”, Master of Health Science in Medical Radiation Sciences, Radiation Oncology, The University of Toronto, Toronto, Canada.

2011  **Rosen-Daniels Visiting Professorship in Surgical Oncology Translational Research Invited Speaker.** “Sarcoma Research in the Clinical Setting”. Mount Sinai Hospital, Toronto, Canada

2011  **Invited Speaker.** “From the Collamy to the RT 6060 T-Form Extremity Immobilizer”. RTi3 8th Annual Radiation Therapy Conference, Toronto, Canada.

2010  **Invited Speaker.** “MRI applications for Radiation Therapy”, Radiation Therapy Research Rounds at Sunnybrook Health Sciences Center, Toronto, Canada.

2010  **Invited Speaker.** “Sarcoma research, from theory to therapy”. Interdisciplinary Health Research Rounds, Mount Sinai Hospital, Toronto, Canada.

2009  **Invited Speaker- “MRI clinical use”, The Michener Institute and The University of Toronto, Toronto**

2009  **Invited Speaker.** “Volumetric imaging using Cone Beam CT for soft tissue sarcoma radiotherapy treatment”. Ontario Association of Medical Radiation Technologists, Central Education Day, Toronto, Canada


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**F. Teaching and Design**

**1. TEACHING**

2009  Supervision, Teaching & Training of Radiation Sciences Program Students for the Princess Margaret Hospital Practical Selectives Course: Sarcoma Research in the radiation therapy department, Princess Margaret Hospital (1.0 hour presentation)

2009  RMP Rounds, “Sarcoma Research in Radiation Therapy, Research Bites”, The Princess Margaret Hospital/ University Health Network and The University of Toronto, Toronto (0.5 hour presentation)
2006  Supervision, Teaching & Training of Radiation Sciences Program Students for the Princess Margaret Hospital Practical Selectives Course: Sarcoma Research in the radiation therapy department, Princess Margaret Hospital  
(1.0 hour presentation)

2. COURSE DESIGN

2011  RT 6060 Extremity Immobilizer implementation: Small group sessions of supervision, teaching, training, monitoring, evaluation of equipment competency as well as feedback to improve performance of radiation therapists for the clinical implementation of the “new collamy” device commercialized through BIONIX radiation therapy for extremity immobilization for radiotherapy treatment. Hands-on practical component. Radiation Medicine Program, Princess Margaret Hospital.  
(20.0 hours of direct interaction and interaction via email)

2011  Couch Extension implementation: Small group sessions of supervision, teaching, training, monitoring, evaluation of equipment competency as well as feedback to improve performance of radiation therapists for the clinical implementation of the Elekta couch extension board for asymmetric patient setups. Protocol written and posted and the intranet. Radiation Medicine Program, Princess Margaret Hospital.  
(10.0 hours of direct interaction and interaction via email)

2011  PRODIGI implementation: Small group sessions of supervision, teaching, training, monitoring, evaluation of equipment competency as well as feedback to improve performance of radiation therapists for the clinical implementation of the handheld imaging device to monitor bacterial load on a patient's skin surface. Radiation Medicine Program, Princess Margaret Hospital.  
(10.0 hours of direct interaction and interaction via email)

2010  NIRS implementation: Small group sessions of supervision, teaching, training, monitoring, evaluation of equipment competency as well as feedback to improve performance of radiation therapists for the clinical implementation of the Near Infrared Spectroscopy system for monitoring oxyhemoglobin, deoxyhemoglobin and microcirculation. Radiation Medicine Program, Princess Margaret Hospital.  
(10.0 hours of direct interaction and interaction via email)

2009  Clinical course content supervisor for the Princess Margaret Hospital Practical Selectives Course (Y. Li, Course Code: RSC 510 Y1): Research in the radiation therapy department, Princess Margaret Hospital / University of Toronto  
(30 hours of educational administration and direct interaction, ongoing monitoring and feedback)

2009  CBCT implementation: Small group sessions of supervision, teaching of when to perform imaging, training, monitoring, evaluation of equipment competency as well as feedback to improve performance of radiation therapists for the clinical implementation of 3 dimensional cone beam CT for image guided IMRT. This technology was introduced as part of the Phase II IMRT study for lower extremity soft tissue sarcoma. Radiation Medicine Program, Princess Margaret Hospital.  
(10.0 hours of direct interaction and interaction via email)

Page 22 of 27  
October, 2011  
CONFIDENTIAL DOCUMENT
2008
OWL implementation: Small group sessions of supervision, teaching, training, monitoring, evaluation of equipment competency as well as feedback to improve performance of radiation therapists for the clinical implementation of the optical localization system for monitoring intrafraction patient motion. Radiation Medicine Program, Princess Margaret Hospital.
(10.0 hours of direct interaction and interaction via email)

2008
Course Design: One week site visit- the Netherland Cancer Institute (NKI). Organized and coordinated all lectures, tours of facilities, activities within RMP and Mount Sinai Hospital for Dr. Rick Haas, (Radiation Oncologist), Anja Anken (Radiation Therapist), and a medical physicist from NKI.
(30 hours of educational administration and direct interaction)

2007
Clinical course content supervisor for the Princess Margaret Hospital Practical Selectives Course (Y. Khan, Course Code: RSC 510 Y1) Research in the radiation therapy department, Princess Margaret Hospital / University of Toronto.
(30 hours of educational administration and direct interaction, on going monitoring and feedback)

2006
Collamy implementation: Small group sessions of supervision, teaching, training, monitoring, evaluation of equipment competency as well as feedback to improve performance of radiation therapists for the clinical implementation of the "collamy" device for extremity immobilization for radiotherapy treatment. Hands-on practical component. Radiation Medicine Program, Princess Margaret Hospital.
(20.0 hours of direct interaction and interaction via email)

G. Research Supervision

UNDERGRADUATE EDUCATION

2015 – 2016

2014 – 2015

2009 – 2010

2008 – 2009
GRADUATE EDUCATION


2012 – current RT Stream Coordinator, Translational Radiobiology Course, Master of Health Science in Medical Radiation Sciences, Radiation Oncology, The University of Toronto, Toronto, Canada.

UNDERGRADUATE MD


POSTGRADUATE MD

2009 Abstract reviewer and poster competition judge for the UofT DRO Academic Day. (Preparation time: 4 hours, Academic Day 9 hours).

CONTINUING EDUCATION


Internal Publications

Radiation Medicine Program Manuals (Sarcoma Site Group Review)


2009  **Principal Author.** Dickie C. Institutional CTscan protocol NIRS study: Soft Tissue Sarcoma. Radiation Medicine Program, Institutional Policies and Procedures, Clinical Practice, Super Team 4, Sarcoma. Princess Margaret Hospital, Ontario, Canada.


Curriculum Vitae

Lisa Di Prospero  
BSc, MSc, M.R.T.(T.)

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
1994 Dec MSc, Molecular Biology (Radiation Biology), McMaster University
1992 Apr BSc, Biology (Genetics), McMaster University

Postgraduate, Research and Specialty Training
2003 Sep - 2004 Jun Stepping Stones Teacher Training Certificate, Centre for Faculty Development, Faculty of Medicine, University of Toronto
2002 Jun Certificate of Good Clinical Practice II, Advanced Clinical Trial Research, Canadian Dermatology Nurses Association
2001 Jun Certificate of Good Clinical Practice, How to be a successful clinical trials research nurse, Canadian Dermatology Nurses Association
1996 Sep Medical Radiation Technology (Therapy), School of Radiation Therapy, Toronto-Sunnybrook Regional Cancer Centre

2. EMPLOYMENT

Current Appointments
2008 May - present Associate Member, Institute of Medical Science, University of Toronto
2004 Nov - present Lecturer, Radiation Oncology, Faculty of Medicine, University of Toronto

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES
Administrative Activities

NATIONAL
Canadian Association of Medical Radiation Technologists
2010 Jan - present  **Member**, Advanced Practice Competency Development Committee

PROVINCIAL / REGIONAL
College of Medical Radiation Technologists of Ontario (CMRTO)
2011 - present  **Member**, Disciplines Committee

LOCAL
Odette Cancer Centre
2010 Jan - present  **Member**, Research Advisory Committee – Radiation Oncology Program
2010 Jan - present  **Member**, Professional Education Program Committee – Radiation Oncology Program
2010 Jan - present  **Member**, Oncology Grand Rounds Committee – Odette Cancer Centre, Continuing Education
2010 Jan - present  **Member**, Patient Education Advisory Committee

Sunnybrook Health Sciences Centre
2010 Jan - present  **Member**, Professional Advisory Committee
2010 Jan - present  **Member**, Interprofessional Education Committee
2010 Jan - present  **Member**, Sunnybrook Education Advisory Committee

University of Toronto
2010 Jan - present  **Member**, Academic Leadership Advisory Group – Department of Radiation Oncology
2010 Jan - present  **Member**, Teaching Effectiveness Committee – Department of Radiation Oncology
2010 Jan - present  **Interviewer**, Undergraduate MRS Program
2010 Jan - present  **Assessor**, Physician Assistant MMI
2010 Jan - present  **Member**, DRO annual accreditation review (external audit)

Peer Review Activities

ASSOCIATE OR SECTION EDITING
**Editor**
2011 Jul - present  Journal of Medical Imaging and Radiation Sciences (JMI RS)
Curriculum Vitae

Carina Feuz
Clinical Coordinator

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees

- 2010 - 2014 MSc, Supportive and Palliative Care, Faculty of Health and Wellbeing, Sheffield Hallam University, United Kingdom
- 1999 - 2002 Health Sciences Diploma, Radiation Therapy, The Michener Institute for Applied Health Sciences, Ontario, Canada
- 1999 - 2002 BSc, Radiation Sciences, Medicine, Faculty of, University of Toronto, Ontario, Canada
- 1994 - 1999 BSc, Honours Genetics, Science, Faculty of, Western University, Ontario, Canada

Qualifications, Certifications and Licenses

- 2002 Jun - present Registered Medical Radiation Technologist, Radiation Therapy MRT (T), College of Medical Radiation Technologists of Ontario (CMRTO)
- 2002 Jun - present Certified Full Practicing Member Radiation Technologist – Therapy (RTT), Canadian Association of Medical Radiation Technologists (CAMRT)
- 2002 May - present Certified Full Practicing Member Radiation Technologist – Radiation Therapy (RTT), Ontario Association of Medical Radiation Sciences (OAMRS)
- 1999 Sep - 2002 Jun Student Member Radiation Technologist – Therapy, Ontario Association of Medical Radiation Technologists (OAMRT)
- 1999 Sep - 2002 Jun Student Member Radiation Technologist – Therapy, Canadian Association of Medical Radiation Technologists (CAMRT)
- 2009 Interprofessional Collaboration (IPC) Certificate, Michener Institute for Applied Health Sciences
- 2007 Clinical Educator’s Certificate, Michener Institute for Applied Health Sciences
2. EMPLOYMENT

Current Appointments

2011 - present  Status Appointment – Instructor, Radiation Oncology, University of Toronto
2008 - present  Status Appointment – Clinical Coordinator, Medical Radiation Sciences, Michener Institute for Applied Health Sciences, Toronto, Ontario, Canada
2007 Jan - present  Clinical Coordinator, Faculty of Medicine, University Health Network-Princess Margaret Cancer Centre, Toronto, Ontario, Canada

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2012 Jun - present  Member, Ontario Association of Medical Radiation Sciences (OAMRS)
2011 - present  Member, Canadian Radiation Research Network
2002 - present  Member, Canadian Association of Medical Radiation Technologists (CAMRT)

Administrative Activities

NATIONAL
Canadian Association of Medical Radiation Technologists (CAMRT)
2014 Jan - 2016 Jan  Member, Exam Validation Committee Member, Canada. Participated as part of a working group to validate questions for the for the CAMRT (Radiation Therapy) exam for certification for assessment of competency for entry-to-practice technologists.

LOCAL
Princess Margaret Cancer Centre - Radiation Therapy
2011 - present  Member, Radiation Therapy Education Committee, Ontario, Canada.

University of Toronto
2011 - present  Member, Academic Leadership Advisory Group (ALAG)

Peer Review Activities

ASSOCIATE OR SECTION EDITING
Editor/Contributing Member
2010 - present  Radiation Medicine Program (RMP) Education and Research Newsletter
C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Abstract


2. SUBMITTED PUBLICATIONS

Journal Articles


D. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

B. Biographical Information

Princess Margaret Cancer Centre, University Health Network
610 University Ave
Toronto, Ontario, Canada
M5G 2M9
(416) 946-4501 ext. 5303
wendy.flanagan@rmp.uhn.on.ca

1. EDUCATION

Degrees
Bachelor of Science, 2001, Anglia Polytechnic University, U.K,

Qualifications, Certifications and Licenses
Interprofessional Collaboration Certificate, 2009, Michener Institute, Toronto, Ontario
Toronto Stepping Stones Teaching Certificate, 2005, Centre for Faculty Development, Faculty of Medicine, University of Toronto, Toronto, Ontario
Certificate in Teaching and Training Adults, George Brown College, Canada 1990
Diploma in Radiation Therapy, Princess Margaret Hospital, Toronto, Ontario, 1975

2. EMPLOYMENT

Current Appointments
2001 - Present: Clinical Coordinator, Radiation Science Program, University of Toronto/Michener Institute, Princess Margaret Hospital, Canada

Previous Appointments

CLINICAL
1999 - 2000: Patient Care Course Coordinator and Anatomy and Physiology Instructor, School of Radiation Therapy, Princess Margaret Hospital, Toronto, Canada
1999 - 2000: Treatment Planning and Dosimetry Course Instructor and Coordinator, School of Radiation Therapy, Princess Margaret Hospital, Canada
1992 - 2000: Radiation Physics and Protection Lab Instructor, School of Radiation Therapy, Princess Margaret Hospital, Canada
1992, 1996: Treatment Planning and Dosimetry Course Instructor, School of Radiation Therapy, Princess Margaret Hospital, Canada
1992 - 2001: Clinical Instructor, School of Radiation Therapy, Princess Margaret Hospital, Canada
1988 - 1992: Treatment Planning and Dosimetry Instructor, School of Radiation Therapy, Princess Margaret Hospital, Canada
1975 - 1988: Radiation Therapy Technologist Princess Margaret Hospital, Canada
1978: Intermediate, Radiation Therapy Technologist, Mould Room

UNIVERSITY

2001 – present: Instructor, Department of Radiation Oncology, University of Toronto, Canada

3. HONOURS AND CAREER AWARDS

Teaching Awards

LOCAL

Received

2016 Values in Action, The Michener Institute, Toronto Canada
2012 Team Innovation in Clinical Education, The Michener Institute, Toronto Canada
2010 Values in Action The Michener Institute, Toronto Canada
2005 Clinical Teacher, Radiation Medicine Program, Princess Margaret Hospital, Toronto Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Canadian Association of Medical Radiation Technologists
Canadian Association Radiation Oncologists
College of Medical Radiation Technologists of Ontario
1998 –1999: CMRTO Fitness to Practise Committee, Radiation Therapy
1973 – 1975: Student Representative to the Executive Committee, Ontario Society of Radiological Technicians,

E. Publications

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


G. Presentations and Special Lectures
2. NATIONAL

Invited Lectures and Presentations

Participation in interprofessional education within the medical radiation sciences: students’ perception of their experience. CAMRT Conference, Saskatoon, Canada (2012)

Lessons learned from the OR: How the introduction of a checklist has improved perceived outcomes for medical radiation science students. CAMRT Conference, Saskatoon (2011)

Maintaining clinical competence of an essential skill: Perceptions of radiation therapists on their ability to perform manual calculations, 17th ISSRRT World Congress/ 70th CAMRT Annual General Conference, Toronto, Canada (2011)

Learning Together: An Interprofessional Education Placement in a Palliative Radiation Oncology Program, CAMRT Conference, Quebec City (2010)

Bridging the Gap for Students from Developing Countries: An Educators’ Anecdotal Experience. CAMRT Conference, Quebec City (2010)

3. PROVINCIAL/ REGIONAL

Abstracts and Other Papers

Feuz C., Tan K., Flanagan W, Lessons learned from the OR: How the introduction of a checklist has improved perceived outcomes for medical radiation science students. RTi3 Conference, Toronto (2011)

Tan K., Flanagan W, Feuz C, Bolderston A, Bridging the Gap for Students from Developing Countries: An Educators’ Anecdotal Experience. RTi3 Conference, Toronto (2010)

Invited Lectures and Presentations


Bridging the Gap for Students from Developing Countries: An Educators’ Anecdotal Experience. RTi3 Conference, Toronto (2010)
H. Teaching and Design

Teaching Dossier

Academic Year 2001-2002

CLRT 520/RSP531Y1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations. Develop, implement and evaluated remedial courses as required.

CLRT 510/RSP530Y1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations. Develop, implement and evaluated remedial courses as required.

CLRT 410/RSP430Y1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations. Develop, implement and evaluated remedial courses as required.

RERE510/RSC541Y: 20 hours
Facilitation of clinical research groups and collation of presentation and participation marks
Mentoring of individual students

CLRT 310/RSP350Y1: 300 hours
Instruct students in clinical environment; conduct clinical competency assessments and behavioral evaluations.

IGRD310/RSC320H1: 107 hours
Conducted Imaging Course Labs for radiation sciences program at The Michener Institute.

Academic Year 2002-2003

CLRT 520/RSP531Y1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations. Develop, implement and evaluated remedial courses as required.

CLRT 510/RSP530Y1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations. Develop, implement and evaluated remedial courses as required.

CLRT 410/RSP430Y1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations. Develop, implement and evaluated remedial courses as required.

RERE510/RSC541Y: 20 hours
Facilitation of clinical research groups and collation of presentation and participation marks
Mentoring of individual students

CLRT 310/RSP350Y1: 60 hours
Instruct students in clinical environment; conduct clinical competency assessments and behavioral evaluations.
**Academic Year 2003-2004**

CLRT 520/RSP531Y1: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation

CLRT 510/RSP530Y1: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations for CLRT 520/RSP531Y1 including remediation courses

CLRT 410/RSP430Y1: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

RERE510/RSC541Y: 20 hours  
Facilitation of clinical research groups and collation of presentation and participation marks  
Mentoring of individual students

**Academic Year 2004-2005**

CLRT 250/MRS151H1: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation

CLRT 360/ MRS152H1: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations for CLRT 520/RSP531Y1 including remediation courses

CLRT 370/ MRS153H1: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

PJRD36/MRS176H1: 44 hours  
Facilitation of clinical research groups and collation of presentation and participation marks  
Mentoring of individual students

PJRD36/MRS177H1: 44 hours  
Facilitation of clinical research groups and collation of presentation and participation marks  
Mentoring of individual students

**Academic Year 2005-2006**

CLRT 250/MRS151H1: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation

CLRT 360/ MRS152H1: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses
CLRT 370/ MRS153H1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

PJRD36/MRS176H1: 44 hours
Facilitation of clinical research groups and collation of presentation and participation marks
Mentoring of individual students

PJRD36/MRS177H1: 44 hours
Facilitation of clinical research groups and collation of presentation and participation marks
Mentoring of individual students

Academic Year 2006-2007

CLRT 250/MRS151H1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation

CLRT 360/ MRS152H1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

CLRT 370/ MRS153H1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

PJRD36/MRS176H1: 44 hours
Facilitation of clinical research groups and collation of presentation and participation marks
Mentoring of individual students

PJRD36/MRS177H1: 44 hours
Facilitation of clinical research groups and collation of presentation and participation marks
Mentoring of individual students

Academic Year 2006-2007

CLRT 250/MRS151Y1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

CLRT 360/ MRS152H1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

CLRT 370/ MRS153H1: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

PJRD36/MRS176H1: 44 hours
Facilitation of clinical research groups and collation of presentation and participation marks
Mentoring of individual students

**PJR36/MRS177H1**: 44 hours
Facilitation of clinical research groups and collation of presentation and participation marks
Mentoring of individual students

**Academic Year 2007-2008**

**CLRT 130/MRS156H1**: 320 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

**CLRT 360/MRS152H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

**CLRT 370/MRS153H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

**Academic Year 2008-2009**

**CLRT 130/MRS156H1**: 320 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

**CLRT 371/MRS152H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

**CLRT 380/MRS153H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

**Academic Year 2009-2010**

**CLRT 130/MRS156H1**: 320 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

**CLRT 261/MRS241H1**: 120 hours
Instruct in a treatment planning lab setting and conduct clinical competency assessments.

**CLRT 371/MRS152H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

**CLRT 330/MRS153H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

**Academic Year 2010-2011**

**CLRT 130/MRS156H1**: 320 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

**CLRT 261-MRS241H1**: 60 hours
Instruct in a treatment planning lab setting and conduct clinical competency assessments.

**CLRT 371/ MRS152H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

**CLRT 380/ MRS153H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

**Academic Year 2011-2012**

**CLRT 130/MRS156H1**: 320 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

**CLRT 261-MRS241H1**: 120 hours
Instruct in a treatment planning lab setting and conduct clinical competency assessments.

**CLRT 371/ MRS152H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

**CLRT 380/ MRS153H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

**Academic Year 2012-2013**

**CLRT 130/MRS156H1**: 320 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

**CLRT 261-MRS241H1**: 120 hours
Instruct in a treatment planning lab setting and conduct clinical competency assessments.

**CLRT 371/ MRS152H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

**CLRT 380/ MRS153H1**: 600 hours
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

**Academic Year 2013-2014**

**CLRT 130/MRS156H1**: 320 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

**CLRT 261-MRS241H1**: 120 hours  
Instruct in a treatment planning lab setting and conduct clinical competency assessments.

**CLRT 371/ MRS152H1**: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

**CLRT 380/ MRS153H1**: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

**Academic Year 2014-2015**

**CLRT 130/MRS156H1**: 320 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

**CLRT 261-MRS241H1**: 120 hours  
Instruct in a treatment planning lab setting and conduct clinical competency assessments.

**CLRT 371/ MRS242H1**: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

**CLRT 380/ MRS153H1**: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations

**Academic Year 2015-2016**

**CLRT 130/MRS156H1**: 320 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations, including remediation courses

**CLRT 371/ MRS242H1**: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations including remediation courses

**CLRT 380/ MRS153H1**: 600 hours  
Instruct students in clinical environment and conduct clinical competency assessments and behavioral evaluations
CURRICULUM VITAE

AUDREY JUSKO FRIEDMAN

Business Telephone Number: (416) 581-8600
E-mail Address: audrey.friedman@rmpuhn.ca

Last Updated: August 2013
EDUCATION

Degrees

McGill University, Montreal, Quebec: M.S.W. 1993
McGill University, Montreal, Quebec: B.S.W. 1992
McGill University, Montreal, Quebec: B.A. (Psychology) 1990
Dawson College/ McGill University, Montreal, Quebec M.R.T.(T) 1974

Diplomas / Certificates

Certificate Critical Incident Stress Debriefing 1993
Advanced Certification Radiation Therapy (ACT) 1986

BIOGRAPHICAL INFORMATION

Director, Patient Education 2011-present
University Health Network

Director, Patient Education and Survivorship 1999-present
Princess Margaret Cancer Centre, University Health Network

Provincial Head Patient Education 2004-present
Cancer Care Ontario

Associate Director, ELLICS: Electronic Living Laboratory for Interdisciplinary Research 2010-present

Consultant: Patient Education 2011-present
Kuwait Cancer Control Center, Kuwait

CEGEP Marie Victoria

Manager: Foyer for Caregivers 1995-1996
CLSC Rene Cassin - Institute of Social Gerontology of Quebec

Clinical Instructor and Field Supervisor 1995-1998
McGill University School of Social Work

Clinical Social Worker/Supervisor 1994-1999
Jewish Family Services of the Baron de Hirsch Institute/Catholic Family Services

Manager Family Services 1990
Beth Zion Synagogue

McGill Department of Radiation Oncology 1984-1986

Radiation Therapist/Field Supervisor 1976-1980
SCHOLARLY ACTIVITIES/COMMITTEE MEMBERSHIPS

National/International

2011-2012  In Our Genes Advisory Committee, Willow Breast Cancer Support Canada
2010-2012  Professional Development Committee, CPEN
2009-2010  Co-Chair Planning Committee, Cancer Patient Education Network-American Association of Cancer Education-European Association of Cancer Education Annual Meeting and Conference
2009-2010  National Survivorship Working Group, Canadian Partnership Against Cancer
2009-2011  Pan-Canadian Guideline Multidisciplinary Expert Panel - Canadian Partnership Against Cancer
2008-2010  Chair, Patient Education, Sub Committee, Rebalance Focus Education Committee Canadian Partnership Against Cancer
2008-2012  Steering Committee, Canadian Psychosocial Oncology Partnership (CPOP)
2007-2011  Rebalance Focus Education Committee, Canadian Partners Against Cancer
2002-2010  National Executive Steering Committee, National Executive Steering Committee, Cancer Patient Education Network of Canada (elected)
2001-Present  Publication Reviewer, Office of Education and Special Initiatives, National Cancer Institute
2001-2009  National Task Force, Canadian Health Network
2001-2010  Research Committee, National Cancer Institute: Cancer Patient Education Network
2007  Course Co-Director, Sharing the Journey: With, Through and Beyond Cancer
2004-2005  Chair, National Cancer Institute’s Cancer Patient Education Network (elected)
2004  Steering Committee Member. Supportive Care Task Force Ontario
2003  Course Co-Director, National Planning Committee, Canadian Cancer Patient Education Network
2003  Policy Advisor, Canadian Association of Provincial Cancer Agencies
2003  Publication Reviewer, AMGEN
2002-2004  Founding Chair, Cancer Patient Education Network of Canada (elected)
2002-2004  Education Steering Committee, Canadian Association Psychosocial Oncology
2002  Course Director, National Planning Committee, First Canadian Cancer Patient Education Network Symposium

Provincial/Regional

2012-2013  CRC Patient Education Expert Panel
2012-Present  Patient Education Indicators Working Group, Cancer Care Ontario
2011-2012  Patient Experience Steering Committee, Cancer Care Ontario
2010-2012  Lead, Patient Experience Navigation Working Group, Cancer Care Ontario
2009-2012  Co-Chair, Registered Nurses Association of Ontario, Patient Education Guideline Committee
2008-2009  Canadian Cancer Society Survivorship Conference Planning Committee
2006-Present  Clinical Leadership Operations Committee, Cancer Care Ontario
2006-2012  Disease Pathway Management Council, Cancer Care Ontario
2006-Present  Program in Evidence-based Care, Disease Site Group/Guideline Development Group, Cancer Care Ontario
2006-2010 Communications and Stakeholder Relations Advisory Board, Cancer Care Ontario
2006-2012 Human Touch Award Panel Member, Cancer Care Ontario
2002-Present Supportive Care Collaborative Network Advisory Committee
2004-Present Chair, Patient Education Committee, Cancer Care Ontario
2004-Present Clinical Council, Cancer Care Ontario
2003-2009 Medical Resource Council, Gilda’s Club
1999-2003 Education Advisory Committee, Cancer Care Ontario
1999-2003 Education Advisory Committee, Cancer Care Ontario Region-Central East

University Health Network (UHN)/Princess Margaret Cancer Centre

2012-Present UHN Patient Portal Steering Committee (Co-Chair)
2012-Present UHN Web Executive Sponsor Committee
2012-Present UHN Annual Research Review Committee
2012-Present UHN Patient Navigation Working Group
2012-Present UHN Patient Experience Steering Committee
2011-Present UHN Education Advisory Committee
2011-Present RMP Education Committee
2011-2012 Kensington Hospice Planning Committee
2011-2012 Toronto Cancer Conference Planning Committee
2010-Present National Cancer Survivors Day Planning Committee
2009-2010 Princess Margaret Conference Planning Committee
2009-2011 Ambulatory Services Redesign, Empowerment Work Stream Lead
2007-Present Senior Operations Committee (ELLICSR)
2007-2012 Patient Portal Working Group
2006-2010 Ambulatory Services Management Council
2005-Present Survivorship Outcomes Subcommittee
2004-Present Breast Cancer Survivorship Program Executive
2003-2005 UHN Diversity and Patient Task Force
2003-2005 UHN Interpretation Services Advisory Committee
2002-2005 Chair, Patient Education Task Force, Curriculum Committee, University Health Network
2003-2011 UHN Patient Education Network Executive
2000-Present Chair, OMH Oncology Patient Education Advisory Committee
1999-Present Member, UHN Leadership Group
1999-Present Member, PMH Management Committee
2007 Course Co-Director, Sharing the Journey: With, Through and Beyond Cancer

ACADEMIC AWARDS & HONOURS

Dave Davis CEPD Research Award, Faculty of Medicine University of Toronto. (Research Award) December 2010
Cancer Patient Education Network Excellence in Patient Education Award, National Cancer Institute, United States. (Distinction) October 2010
Ivan Silver Award for Excellence in Continuing Mental Health Education, Department of Psychiatry, University of Toronto. (Research Award) July 2010
Maximizing your Patient Education Skills. June 2010
KT for Cancer Control in Canada Casebook, Maximizing your Patient Education Skills (Research) June 2010
Survivor Advocate Program Scholarship Award, Biennial Cancer Survivorship Research Conference (Research) June 2010
Cancer Patient Education Network Distinguished Service Award, October 2009
McKesson VIP Award for Innovation (UHN/SIMS: $10,000) (Innovation) September 2007
Cancer Care Ontario Team Innovation Award. (Innovation) November 2006
Cancer Patient Education Network Gold Star Award. (Distinction) October 2003

EXTERNALLY FUNDED RESEARCH ACTIVITIES

Title: The Status of Patient Education in Canada: A Cross Canada Survey
Name of Co-Principal-Investigator: Jusko Friedman A, Jones J, Nyhof-Young J, Catton P.
Agent: PMH Foundation Education Development Grant
Dollar Amount: $5,000
Dates/year(s): 2001

Title: The Impact of SARS on Information Seeking and Psychosocial Functioning of Newly Diagnosed Patients and Their Family Members in the Department of Radiation Oncology at Princess Margaret Hospital
Name of Co-Principal-Investigator: Nyhof-Young J, Jusko Friedman A, Wiljer D, Catton P.
Agent: Department of Radiation Oncology at Princess Margaret Hospital
Dollar Amount: $6,000
Dates/year(s): 2003-2004

Title: PMH Virtual Tour
Name of Co-Principal-investigator: Wiljer D, Nyhof-Young J, Jusko Friedman A, Catton P, Awrey S, Laperriere N.
Agent: Princess Margaret Hospital Foundation
Dollar Amount: $30,000
Dates/years: 2003-2004

Title: Playful Learning: a Paediatric Radiation Multimedia Project
Agent: Princess Margaret Hospital Foundation
Dollar Amount: $70,000
Dates/year(s): 2003-2004

Title: Playful Learning: A Pediatric Radiation Multimedia Project
Agent: BRAIN Child Foundation.
Dollar Amount: $25,000

Title: Playful Learning: a Pediatric Radiation Multimedia Project
Agent: Pediatric Oncology Group of Ontario
Dollar Amount: $100,000
Dates/year(s): 2004–2005

Title: Playful Learning: a Pediatric Radiation Multimedia Project
Agent: Ronald McDonald Children’s Charities
Dollar Amount: $30,000
Dates/year(s): 2004–2005
Title: Sharing the Journey: With, Through and Beyond Cancer  
Principal Applicant: Jones, J.  
Co-Applicants: Jusko Friedman A, Catton P, Rodin G.  
Agent: Canadian Breast Cancer Foundation Opportunities Grant  
Dollar Amount: $22,000  
Dates/year(s): 2007

Title: Advanced Patient Education for Cancer Survivorship APECS  
Name of Principal Investigator: Luke R  
Agent: SSHRC  
Dollar Amount: $142,900  
Dates/year(s): June 2007 - May 2009

Title: Evaluating an Innovative Inter-professional Communication and Patient Education Skills Training Course  
Name of Principal Investigator: Jusko Friedman A, Jones, JM  
Agent: CEPD Research and Development Grant, Faculty of Medicine, University of Toronto  
Dollar Amount: $5,000  
Agent: Cancer Care Ontario  
Dollar Amount: $10,000  
Dates/year(s): January 2009 - September 2009

Title: Oncology Interactive Navigator  
Name of Principal Investigator: Loiselle C  
Name of Local Principal Investigator: D. Wiljer, Jusko Friedman A.  
Agent: Canadian Partnership Against Cancer  
Dollar Amount: $24,052  
Dates/year(s): March 2009 - August 2009

Title: Creating social networks for sustainable symptom control  
Name of Co-Principal Investigators: Urowitz S, Wiljer D  
Name of Co-Investigators: Green E, Jusko Friedman A, Turnbull G, Catton P.  
Agent: Canadian Institutes of Health Research (CIHR) Meetings, Planning and Dissemination Grant  
Dollar Amount: $15,000  
Dates/year(s): 2009

Title: Developing a Conceptual Framework of Patient Mediated Knowledge Translation: Systematic Review Using a Realist Approach  
Funding Agency: Canadian Institutes of Health Research Knowledge Synthesis  
Name of Principal Investigator: Gagliardi A  
Dollar Amount: $99,045  
Dates/year(s): 2009-2010
Title: Maximizing your Patient Education Skills (MPES) Course  
Funding Agency: De Souza Institute  
Name of Co-Principal-Investigators: Jusko Friedman A, Jones JM, Catton P, Sawka C.  
Dollar Amount: $150 000  
Dates/year(s): 2009-2010

Title: Maximizing your Patient Education Skills (MPES) Course  
Funding Agency: De Souza Institute  
Name of Co-Principal-Investigators: Jusko Friedman A, Jones JM, Catton P, Sawka C.  
Dollar Amount: $150 000  
Dates/year(s): 2009-2012

Title: Integrating Self-Management Support in Cancer Care to Optimize Health and Living with Cancer  
Name of Principal Investigator: Howell D  
Agent: Canadian Institutes of Health Research (CIHR)  
Dollar Amount: $ 301,602  
Dates/year(s): 2010 – 2012

Title: Navigating Your Cancer Journey - Improving the Patient Experience  
Names of Co-Principal-Investigators: Jusko Friedman A, Wiljer D, Catton P.  
Names of Co-Investigators: Papadakos J, Urowitz S.  
Agent: PMH Foundation Education Development Grant  
Dollar Amount: $500,000  
Dates/year(s): 2010-2013

Title: Transition to Survivorship: Translating Knowledge Into Action for Testicular and Endometrial Cancer Populations  
Name of Principal Investigator: Jones J, Howell D  
Agent: Canadian Institutes of Health Research (CIHR)  
Dollar Amount: $ 256,581  
Dates/year(s): 01 July 2010 – 31 July 2013

Title: Engaging Survivors to Improve Patient Experiences Throughout the Cancer Journey  
Name of Principal Investigator: Green E  
Agent: Canadian Health Services Research Foundation (CHSRF)  
Dollar Amount: $ 200,000  
Dates/year(s): 15 October 2010 – 15 October 2012
Title: Developing a Rapid Diagnostic Patient Education Program
Name of Co-investigators: Jusko Friedman A, Wiljer D, Catton P
Agent: Gattuso Rapid Diagnostic Centre
Dollar Amount: $250,000
Dates/year(s): 2011 – 2012

Title: Integrating Self-Management Support in Cancer Care to Optimize Health and Living with Cancer
Agent: Canadian Institutes of Health Research.
Name of Principle Investigator: Howell D
Dollar Amount: $301,602.00
Dates/year(s): 2010-2012.

Title: Optimizing Health and Patient Experience of Cancer: Planning for Implementation and Research to Tailor and Evaluate Chronic Disease Self-Management Applied to Cancer
Name of Principle Investigator: Howell D
Name of Principle Decision-Maker Lead: Jusko Friedman A
Agent: Canadian Institutes of Health Research (CIHR)
Dollar Amount: $25,000
Dates/year(s): 2012-2013

Title: Nutrition Health and Wellness – Health eConcierge Survivors with Nutrition Self-Management Skill Building.
Names of Co-Principal-Investigators: Jusko Friedman A, Wiljer D, Urowitz S, Fierini D, Catton P.
Agent: PMH Foundation Education Development Grant
Dollar Amount: $225,000
Dates/year(s): 2012-2014

PENDING GRANTS

PEER REVIEWED MANUSCRIPTS PUBLISHED


MANUSCRIPTS IN PRESS


MANUSCRIPTS REVIEWED

2011 Journal of Cancer Education
2012 Journal of Cancer Education
2013 Journal of Cancer Education

PUBLISHED ABSTRACTS


GUIDELINES


PEER REVIEWED ABSTRACTS PRESENTED

International/National


85. Arbuckle M (Presenter), Wiljer D, Jones E, Jones J, **Jusko Friedman A**, Catton P. Caring to the End of Life: Developing an Online Tailored Palliative Care Resource for Patients, Caregivers and Health Care Professionals. CPEN. St. Louis, Missouri. October 25-28, 2006.


Submitted for Presentation

Publications

1. Wiljer D, Jusko Friedman A, Catton P. Empowering Cancer Patients Through the Use of Information and Communication Technologies. Supportive Care Quarterly. Spring, 2007. (Co-A)


INVITED PRESENTATIONS


TEACHING & CURRICULUM DEVELOPMENT


Post-Graduate


Continuing Education


Patient Education


Other Studies


PA = Principal Author; SRA = Senior Responsible Author; Co-PA = Co-Principal Author; Co-SRA = Co-Senior Responsible Author; C = Collaborator; Co-A = Co-Author
A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees

2006 May - 2009 Apr MEd, Master of Education, Higher Ed, Health Prof Ed, OISE/UT, University of Toronto, Toronto, Ontario, Canada
2004 Sep - 2007 Aug BSc, Medical Radiation Sciences, Dept of Medicine, University of Toronto, Toronto, Ontario, Canada
2000 Sep - 2004 Apr BSc, Biological Science (Hons), University of Guelph, Ontario, Canada

Postgraduate, Research and Specialty Training

2010 May Principles of Good Clinical Research Practice, University Health Network, Toronto, Ontario, Canada
2008 Nov - 2009 Apr MRS Clinical Preceptorship Course, University of Toronto, Toronto, Ontario, Canada
2007 Jun Image-Guided Radiation Therapy Education Course, Princess Margaret Hospital, Toronto, Ontario, Canada
2004 Sep - 2007 Aug Advanced Diploma Radiation Therapy, Michener Institute for Applied Health Sciences, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

2007 Oct - present . Canadian Association of Medical Radiation Technologists, Canada
2007 Oct - present . College of Medical Radiation Technologists of Ontario, Ontario, Canada

2. EMPLOYMENT
Current Appointments

2012 Jun - present  Associate Member, Institute of Medical Science, University of Toronto

2012 May - present  Associate Director - Curriculum, Medical Radiation Sciences Program, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

2010 Mar - present  Clinical Educator (Status Appointment), Michener Institute for Applied Health Sciences, Toronto, Ontario, Canada

2009 Nov 30 - present  Assistant Professor, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

2008 Jan - present  Radiation Therapist, Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2011 - present  Member, International Society of Radiographers & Radiological Technologists

2009 - present  Associate Member, Canadian Association of Radiation Oncology

2005 - present  Member, Canadian Association of Medical Radiation Technologists

2005 - present  Member, Ontario Association of Medical Radiation Technologists

Administrative Activities

NATIONAL

Canadian Association of Medical Radiation Technologists

2015 Jul - present  Advanced Practice Radiation Therapy Certification Committee, Canada.

Canadian Association of Radiation Oncology

2014 May - present  Member, Membership Committee, Canada.

Canadian Partnership for Quality Radiotherapy (CPQR)

2010 - present  Member, Steering Committee, Canada.

2010 - present  Member, Patient Engagement Working Group, Canada.

LOCAL

Radiation Medicine Program, Princess Margaret Cancer Centre

2014 Sep - present  Member, Radiation Therapy Professional Council, Toronto, Ontario, Canada.

2014 Jan - present  Member, Radiation Medicine Program Education Committee, Toronto, Ontario, Canada.
Peer Review Activities

EDITORIAL BOARDS

Editor
2005 - present University of Toronto, MRS “Over-X-Posure” Newsletter

MANUSCRIPT REVIEWS

Reviewer
2014 - present Journal of Medical Imaging and Radiation Sciences

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


This grant will support the universal availability of high quality and safe radiotherapy across Canada through sustainable system performance improvement and the development of consensus-based guidelines and indicators to aid in radiation treatment program development and evaluation.

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles

Curriculum Vitae

Nicole Harnett
MRT(T) BSc AC(T) MEd

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

1. EDUCATION

Degrees
2003 MEd, Health Professional Education, OISE/UT, University of Toronto
1994 BSc, Lakehead University, Thunder Bay, Ontario

Qualifications, Certifications and Licenses
1990 Advanced Certification in Radiation Therapy, Canadian Association of Medical Radiation Technologists
1984 Certification in Radiation Therapy, Canadian Association of Medical Radiation Technologists

2. EMPLOYMENT

Current Appointments
2009 - present Assistant Professor, Radiation Oncology, University of Toronto
2007 - present Associate Member, Institute of Medical Science, University of Toronto
2004 Nov - present Director, Radiation Skills Lab, Radiation Medicine Program, Princess Margaret Hospital
2004 Nov - present Director, Medical Radiation Sciences Graduate Program, Radiation Oncology, University of Toronto
2004 Nov - present Manager, Clinical Specialist Radiation Therapist Project, Cancer Care Ontario

Previous Appointments

HOSPITAL
1994 - 1998 Sep Clinical / Didactic Instructor, School of Radiation Therapy, Toronto-Sunnybrook Regional Cancer Centre
1990 - 1994 Clinical Co-ordinator, Radiation Therapy training program, Northwestern Ontario Regional Cancer Centre
1984 - 1990 Senior/Staff Therapist, Northwestern Ontario Regional Cancer Centre

UNIVERSITY
2002 Sep - 2004 Oct Dean, Diagnostic Imaging and Therapy, Michener Institute for Applied Health Sciences
2001 Sep - 2002 Sep Division Director, Laboratory and Radiation Sciences, Michener Institute for Applied Health
Nicole HARNETT

Sciences

1999 Apr - 2001 Sep
Coordinator, Radiation Therapy Program, Laboratory and Radiation Sciences, Michener Institute for Applied Health Sciences

Project Manager, Development of Radiation Therapy Program, Laboratory and Radiation Sciences, Michener Institute for Applied Health Sciences

UNIVERSITY - RANK
1999 - 2009
Lecturer, Radiation Oncology, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2010
Rouse Educational Trust K.C. Clarke Memorial Orator, New Zealand Institute of Medical Radiation Technologists. (Distinction)
Award winner travels to the annual NZIMRT Conference as Keynote Speaker. (Conference cancelled due to earthquake in Christchurch, NZ). Total Amount: 10,000

NATIONAL
Received

2011 Jun
Dr. Petrie Memorial Award, Canadian Association of Medical Radiation Technologists. (Research Award)

2011 Jun
Welch Memorial Lecturer, Canadian Association of Medical Radiation Technologists. (Distinction)
Awarded for the 69th CAMRT Conference: Annual national honour awarded (by nomination and vote) to a Canadian MRT who is deemed to have made significant contributions to the profession over his/her career. Winner travels to and speaks at the CAMRT conference. Total Amount: 3,000

2010
Winner, Radiation Therapy Speaker Competition, Canadian Association of Medical Radiation Technologists. (Research Award)
Annual national award to the best radiation therapy related abstract submitted. Winner travels to and speaks at the ASRT Annual General Meeting as invited speaker. Total Amount: 3,000

Teaching and Education Awards

LOCAL
Received

2009 May
Best Educational Mentor, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2007 - present  
Associate Member, Canadian Association of Radiation Oncology

2000 - present  
Member, International Society of Radiographers and Radiological Technologists

1999 - present  
Member, Wilson Centre for Research in Education

1984 - present  
Member, Canadian Association of Medical Radiation Technologists

1984 - present  
Member, College of Medical Radiation Technologists of Ontario

1984 - 2003  
Member, American Registry Radiation Technologies

Administrative Activities

INTERNATIONAL

Canadian Association of Medical Radiation Technologists / International Society of Radiographers and Radiation Therapists

2010 - present  
Conference Chair, Joint 70th CAMRT Annual General Conference / 17th World Congress for the International Society of Radiographers and Radiation Therapists

NATIONAL

Alberta Health

2012  
Consultant
On move to degree preparation for Radiation Therapy.

Atlantic Health Sciences Centre

2005  
Member

BCIT / BC Cancer Agency

2002  
Consultant, Joint Degree / Diploma Program
On development of program.

British Columbia Institute of Technology

2002  
Chair

Canadian Association of Medical Radiation Technologists

2010 - present  
Chair, Advanced Practice for Radiation Therapists Steering Committee

2009 - present  
Member, Continuity of Practice Committee

1995 - 2004  
Member, Council on Education, Advanced Certification (Radiation Therapy)

Canadian Medical Association

2000 - present  
Surveyor, Conjoint Committee for Accreditation in Education

Cancer Care Manitoba and Partner Sites

2001  
Member
Ontario Oncology Advanced Practice Nurse e-Mentorship Program
2007 - 2010 Invited Member, National Steering Committee

PROVINCIAL / REGIONAL
College of Medical Radiation Technologists of Ontario
2012 Consultant
On the potential development of an additional class of registration for advanced practice radiation therapists in Ontario.
2009 Consultant, Interprofessional Collaborative Scope of Practice Working Group
Responding to HPRAC directives regarding changes to regulations.

McMaster University
2007 - 2010 Expert invited panelist, PEPPA Framework, School of Nursing
For preparation of tool kit for use of framework.

Ontario Association of Medical Radiation Technologists
2010 - present Consultant
Preparation of certification process for advanced radiation therapy practice.
2005 Consultant
Preparation of advanced practice project for radiological technologists.
1995 - 1997 Chair, Professional Standards and Practices Committee

Ontario Ministry of Health and Long Term Care
1999 - 2003 Member, Cancer Human Resources Committee

Ontario Radiation Therapy
2003 - present Member, Advanced Practice Steering Committee

University of Toronto / Ryerson University
2011 - present Chair, Collaborative Programming Working Group
To develop collaborative programming between UTDRO and the MSc (Medical Physics) Program at Ryerson University.

LOCAL
University of Toronto
2010 - present Member, Evaluation Subcommittee, Radiation Oncology Residency Program, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD
2009 - present Member, Planning Committee, Target Insight Conferences (2009, 2010), Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2009 - present Chair, MHSc Medical Radiation Sciences Admissions Committee, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education
2009 - present Member, Admissions Committee, Faculty of Medicine, Institute of Medical Science
2007 - present Chair, MHSc Medical Radiation Sciences Program Committee, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education
2006 - present Member, Physics Residency Program Committee, Department of Radiation Oncology (Graduate)
2005 - present Member, Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology,
Continuing Education

2005 - present  Member, Academic Leadership Advisory Group, Radiation Therapy, Department of Radiation Oncology
2005 - present  Member, Faculty Council, Faculty of Medicine
2004 - present  Member, Executive Committee, Department of Radiation Oncology
2002 - present  Member, MSC/MHSc Curriculum Development Committee, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education
2000 - present  Member, Radiation Oncology Education Advisory Committee, Department of Radiation Oncology

2012  Member, Planning Committee, UTDRO Research Day, Department of Radiation Oncology (Graduate)
2011  Co-Chair, Target Insight Conference, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2011  Member, Communications Committee, Department of Radiation Oncology
2011  Member, Planning Committee, UTDRO Research Day, Department of Radiation Oncology (Graduate)
2009  Member, Planning Committee, UTDRO Research Day, Department of Radiation Oncology (Graduate)
2008 - 2011  Member, Planning Committee, Toronto Radiation Medicine/RTi3 Conferences (2009, 2010), Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2008 - 2010  Member, Curriculum Committee, Faculty of Medicine, Institute of Medical Science
2004 - 2006  Member, Physics Doctoral Program Development Committee, Department of Radiation Oncology (Graduate)
2003 - 2004  Member, Joint Curriculum Committee, Medical Radiation Sciences, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD
2001 - 2004  Member, Medical Radiation Sciences Oversight Committee, Department of Radiation Oncology (Undergraduate)
2001 - 2004  Co-Chair, Joint Curriculum Committee, Medical Radiation Sciences, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD
2000 - 2004  Member, Medical Radiation Sciences Planning Committee, Department of Radiation Oncology (Undergraduate)
1999 - 2004  Member, Joint Management Committee, Medical Radiation Sciences, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD
1999 - 2001  Member, Joint Curriculum Committee, Medical Radiation Sciences, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate MD
1999 - 2001  Chair, Faculty Liaison Committee, Radiation Therapy Program, Department of Radiation Oncology (Undergraduate)

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2008 - present  Journal of Medical Imaging and Radiation Sciences (CAMRT)
2008 - present  Journal of Radiotherapy in Practice
Other Research and Professional Activities

RESEARCH PROJECT

2003 Mar Principal Author. Examining the reliability and overall utility of a proposed structured interview tool for the selection of radiation therapy students. University of Toronto. Major research project for Master of Education program requirements, OISE. Unpublished.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2006 Dec Co-Investigator. The effectiveness of prostate and rectal contouring workshop on precise delineation of prostate and rectum in planning for three-dimensional radiotherapy for prostate cancer (3D-CRT). Canadian Association of Radiation Oncologists (CARO). ACURA Grant. PI: Szumacher, Ewa. 10,000. [Grants]

2006 Jun - 2006 Sep To present at the ISRRRT World Congress III, Denver CO and Advanced Practice Conference, Sheffield UK. Ontario Ministry of Health and Long-Term Care. Individual Travel Grant. 5,000. [Grants]

Ontario Ministry of Health and Long-Term Care. Collaborator(s): P. Catton (Co-investigator). 444,320. [Grants]

2005 Sep  
To present at the Radiotherapy in Practice Conference, Sheffield UK. Ontario Ministry of Health and Long-Term Care. Individual Travel Grant. 3,000. [Grants]

2004 Sep  
Co-Principal Investigator. Onsite visits to Sheffield Hallam University and Lincolnshire Trust, UK. Ontario Ministry of Health and Long-Term Care. Individual Travel Grant. 3,000. [Grants]

2004 May - 2006 Mar  

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Editorials

2. NON-PEER-REVIEWED PUBLICATIONS

Multimedia

3. SUBMITTED PUBLICATIONS

Journal Articles

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations
2009 Oct Advanced practice evidence base: build it and they will come. The RANZCR/AIR/FRO/ACPSEM Combined Scientific Meeting. Brisbane, Australia. Presenter(s): Harnett N.


2009 Oct Not “business as usual” – a glance at interprofessionalism in radiation medicine. The RANZCR/AIR/FRO/ACPSEM Combined Scientific Meeting. Brisbane, Australia. Presenter(s): Harnett N.

2007 Sep International Forum on Advanced Practice’ (workshop). International Conference on Advanced Practice in Radiotherapy & Oncology. Sheffield, United Kingdom. Presenter(s): Harnett N, Smoke M.

2007 Sep Keynote Address: “The Questions of Advancing Practice”. International Conference on Advanced Practice in Radiotherapy & Oncology. Sheffield, United Kingdom. Presenter(s): Harnett N.
Presented Abstracts


2006  Rise and Shine: One Departments Effort to Elevate Radiation Therapy Practice. ISRRRT World Congress. Presenter(s): **Harnett N**, Bolderston A, Palmer C.

2006  Role Rehearsal: A Project Examining the Potential for Advanced Practice for Radiation Therapists. ISRRRT World Congress. Presenter(s): **Harnett N**, Bolderston A, Smoke M.


2003  Offering Distance Programs in Allied Health Professions. World Health Congress III. San Juan, Puerto Rico. Presenter(s): **Harnett N**, Cowling C.


2. NATIONAL

Invited Lectures and Presentations

2012 Apr  Putting the “you” in professional “contribution”. Alberta College of Medical Diagnostic and Therapeutic Technologies. Calgary, Alberta. Presenter(s): **Harnett N**.
2011 Jun  Our professional comm-"YOU"-nity. Canadian Association of Medical Radiation Technologists' Welch Memorial Lecture. Saskatoon, Saskatchewan. Presenter(s): Harnett N.

2010 Apr  On your mark: tackling advanced practice. Alberta College of Medical Diagnostic and Therapeutic Technologies. Calgary, Alberta. Presenter(s): Harnett, N.


2010  Advancing practice: Lessons learned from radiation therapy. 68th Annual CAMRT Conference. Quebec City. Presenter(s): Harnett N.


Presented Abstracts


Other Lectures and Presentations


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2011 Dec Developing Advanced Practice in Radiation Therapy: respond, research and report. College of Medical Radiation Technologists of Ontario Annual Education Dinner. Toronto. Presenter(s): Harnett N.


2007 May Radiation Therapy Advanced Practice – How did we get there and where are we now? Ontario Association of Medical Radiation Technologists (OAMRT) Annual General Meeting. Hamilton, Ontario. Presenter(s): Harnett N, Smoke M.


Presented Abstracts


2000 Exposing the reflective process in the radiation therapy curriculum. Ontario Medical Education Network

Other Lectures and Presentations


4. LOCAL

Presented Abstracts


F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2010 - present In-training evaluations, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Harnett N, Ackerman, I. Redesign of in-training evaluations for the radiation oncology residents in UTDRO.

2009 - present Clinical Internship I and II, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Harnett N. Development and implementation of the Clinical Internship I and II courses for the MHScMRS students. Including design of assessment, development of internship experiences with supervisors, mentorship and guidance for both students and supervisors.

2008 - present Clinical Reasoning and Decision Making in Radiotherapy I, II, III, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Harnett N, Catton P. Co-Course Director - Implementation, evaluation and revision of Clinical Reasoning and Decision Making in Radiotherapy I, II, III – a 3-suite course for the MHScMRS program.

2004 - present Graduate Diploma for Medical Physicists, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology, University of Toronto

Catton P, et al. Contribution to curriculum development and preparation for program accreditation for graduate program.
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


2. OTHER SUPERVISION

Continuing Education

2008 - present  Julie Blain, Juravinski Cancer Centre.

Other

2008 - present  Lilian Doerwald-Munoz, Juravinski Cancer Centre.
2008 - present  Gregory Fox, Ottawa Civic Cancer Centre.
2008 - present  Lynda Jackson, Kingston Regional Cancer Centre.
2008 - present  Shannon Seed, Ottawa Civic Cancer Centre.
2008 - present  Emily Sinclair, Odette Cancer Centre.
2007 - present  Dale Breen, Odette Cancer Centre.
2007 - present  Biu Chan, Princess Margaret Hospital.
2007 - present  Michelle Lau, Princess Margaret Hospital.
2008 - 2009  Shannon Pearson, Princess Margaret Hospital.
2007 - 2008  Grace Lee, Princess Margaret Hospital.
Curriculum Vitae

JANE HIGGINS (DEROCCHIS)
Lecturer University of Toronto
Research Radiation Therapist
Clinical Radiation Therapist

Date of Last Update: January 4, 2017

Biographical Information

Name: Jane Ann Higgins
Business Address: Radiation Medicine Program, Radiation Therapy
Princess Margaret Hospital
610 University Avenue
Toronto, Ontario
M5G 2M9

Business Telephone #: 416-946-4501
E-mail Address: Jane.Higgins@rmp.uhn.on.ca

ACADEMIC APPOINTMENTS

2003 – 2011  
Instructor
University of Toronto, Toronto, Canada

2011 – Present  
Lecturer
University of Toronto, Toronto, Canada

1. EDUCATION

Degrees
Sept 1994 - July 1997  Radiation Therapist, Bachelor of Science (Honors 2:1), Therapy Radiography, Portsmouth University, ENGLAND, U.K

Postgraduate, Research and Specialty Training

Feb 2009 – April 2009  Integrated Roles – Radiation Treatment Planning
Location – Princess Margaret Hospital, Toronto, Canada

Location – George Brown College, Toronto, Canada

April 2004 – June 2004  RT 800 - Dosimetry and Planning Certificate
Location - Toronto Michener Institute, Toronto, Canada
March 2003 - April 2005  *Certificate in Instructing Adults (CIA)*  
Location - George Brown College, Toronto, Canada

January 2001  *CAMRT Diploma – Radiation Therapy*  
College of Medical Radiation Technologists, Ontario, Canada

**Qualifications, Certifications and Licenses**

**Annual**  
March 2001 – Present  
CPR Re-Certification, Toronto, Ontario

**March 2001 – Present**  
Certificate of Registration, Ontario Association of Medical Radiation Technologists, Toronto, Ontario

**March 2001 – Present**  
Certificate of Registration, College of Medical Radiation Technologists of Ontario, Toronto, Ontario

**March 2001 – Present**  
Certificate of Registration, Canadian Association of Medical Radiation Technologists, Toronto, Ontario

**3. EMPLOYMENT**

**Current Appointments**

March 2015-Present  
**Clinical Planner/Research Radiation Therapist**  
Princess Margaret Cancer Centre, Toronto, Canada

**Previous Appointments**

**March 2014-March 2015**  
**Maternity Leave**

**March 2013-March 2014**  
**Clinical Planner/Research Radiation Therapist**  
Princess Margaret Cancer Centre, Toronto, Canada

**March 2012-March 2013**  
**Maternity Leave**

**Sept 2006 – March 2012**  
**Lung RESEARCH/Clinical Radiation Therapist**  
Princess Margaret Hospital, Toronto, Canada

**Aug 2005 – Sept 2006**  
**Reference Radiation Therapist (Unit 12 - Research CBCT Unit)**  
Princess Margaret Hospital, Toronto, Canada

**July 2003 – Aug 2005**  
**Clinical Coordinator/Instructor**  
UT/TMI Radiation Sciences Program

**May 2003 –July 2003**  
**Radiation Therapist**  
Princess Margaret Hospital, Toronto, Ontario, Canada

**Nov 2002 – May 2003**  
**Clinical Coordinator (Secondment)**  
UT/TMI Radiation Sciences Program  
Princess Margaret Hospital, Canada

**March 2001 – Nov 2002**  
**Radiation Therapist**  
Princess Margaret Hospital, Canada

**June 1999 – March 2001**  
**Senior II Radiation Therapist**  
Christie Hospital (U.K)

**Sept 1997 – June 1999**  
**Radiation Therapist**
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received
n/a

Nominated
n/a

NATIONAL

Received

2010  Rosewall T, Butler AM, Higgins J, Slapnicar E, Wiljer D. Canadian Institutes of Health Research (CIHR) Grant awarded for the “8th Annual Toronto Radiation Medicine Conference: RTi3: Inquire, Inspire and Innovate. CIHR Grant - $20,000

2006  Higgins J and Davey C. Radiation Therapists’ Perceived Values in Conducting Research: Related Challenges and Opportunities M.E (Beth) Wastle Bursary - $1000

Nominated
n/a

PROVINCIAL/ REGIONAL

Received
n/a

Nominated
n/a

LOCAL

Received
n/a

Nominated
n/a
Teaching Awards

INTERNATIONAL
Received  
n/a  
Nominated  
n/a

NATIONAL
Received  
n/a  
Nominated  
n/a

PROVINCIAL/ REGIONAL
Received  
n/a  
Nominated

2005  
Lochhead C and Higgins J. Fostering of Team Dynamics in Clinical Student Radiation Therapists Using Orientation Workshops  
*Poster – Award presented at CAMRT PEI 2005 - $500*

LOCAL
Received  
n/a  
Nominated  

2011  
Higgins J.  
RMP Education Award  
AEP Award: *Highest Overall Average Teaching Effectiveness Score*

Student/Trainee Awards

INTERNATIONAL

Received  
n/a  
Nominated  
n/a

NATIONAL

Received  
n/a  

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CONFIDENTIAL DOCUMENT
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

April 2014 – Present  
**Member**, Adaptive RT Group, PMCC, Toronto

May 2010 – 2011  
**Member**, RTi3 Committee, UofT, Toronto

Jan 2009 – 2011  
**Member**, Radiation Therapist Writing Group, PMH, Toronto

Dec 2007 – May 2011  
**Chair** of the Radiation Therapy Research Committee (RTRC), PMH, Toronto

Jan 2005 – 2007  
**Member**, Quality Task Group, PMH, Toronto

July 2005 – 2007  
**Member**, Communication Committee, PMH, Toronto

Jan 2004 – Present  
**Member**, Journal Club, PMH, Toronto

June 2002 – Nov 2007  
**Member**, Radiation Therapy Research Committee, PMH, Toronto

March 2001 – Present  
**Member**, Canadian Association of Medical Radiation Technologists/Ontario Association of Medical Radiation Technologists

March 2001 – Present  
**Member**, College of Medical Radiation Technologists of Ontario
Sept 1998 – March 2001  **Member**, Education Committee, Christie Hospital, U.K

Administrative Activities
INTERNATIONAL

NATIONAL

PROVINCIAL / REGIONAL

LOCAL

**Peer Review Activities**

ASSOCIATE OR SECTION EDITING
EDITORIAL BOARDS
GRANT REVIEWS

**MANUSCRIPT REVIEWS**

Jan 2017  JOURNAL OF RADIOThERAPY IN PRACTICE
*Title:* The Elekta Active Breathing Coordinator (ABC) in the reduction of potential cardiac toxicity for left sided breast radiotherapy

May 2016  JOURNAL OF MEDICAL IMAGING
*Title:* Enhancing Dose Homogeneity for Forward Planning Breast Radiotherapy

Feb 2016  JOURNAL OF RADIOThERAPY IN PRACTICE
*Title:* The impact of breast size on mean lung dose for patients receiving tangential radiotherapy to the whole breast.

Jan 2014  JOURNAL OF RADIOThERAPY IN PRACTICE
*Title:* Impact of Manual Adjustments of Automatic Matching in Prostate Image Guided Radiotherapy

May 2013  INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY, BIOLOGY AND PHYSICS
*Title:* Interfraction Displacement of Primary Tumor and Involved Lymph Nodes Relative to Anatomical Landmarks in Image-Guided Radiotherapy of Locally Advanced Lung Cancer
February 2012  JOURNAL OF RADIOTHERAPY IN PRACTICE  
*Title:* Evaluation of Interfraction patient setup for prostate and head-and-neck intensity modulated radiotherapy using Elekta KVcone CT and Tomotherapy MVCT

September 2011  RADIOTHERAPY AND ONCOLOGY  
*Title:* An evaluation of automatic image registration parameters in cone-beam computed tomography imaging for verification of ABC gated radical radiotherapy in patients with NSCLC

March 2011  JOURNAL OF RADIOTHERAPY IN PRACTICE  
*Title:* Set-up accuracy of an external immobilization system for patients receiving radical radiotherapy for prostate cancer

October 2010  JOURNAL OF RADIOTHERAPY IN PRACTICE  
*Title:* The use of retrospective analysis within radiotherapy

July 2010  RADIATION ONCOLOGY  
*Title:* Volumetric Image-Guided Radiotherapy for Lung Cancer: Which anatomic landmark is the optimal surrogate of the target?

April 2010  RADIOTHERAPY AND ONCOLOGY  
*Title:* The feasibility of contrast enhanced Cone-Beam CT for target localization and monitoring

PRESENTATION REVIEWS

[OTHER ACTIVITY TYPE]

**Other Research and Professional Activities**

**RESEARCH PROJECT**

Jan 2017  
*Title:* Dosimetric Impact of Setup Error and Anatomical Change on Lung Radiotherapy during a Course of Treatment

  Manuscript in Progress

[OTHER ACTIVITY TYPE]
C. Academic Profile

1. RESEARCH STATEMENTS

2. TEACHING PHILOSOPHY

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

Jan 2017 Clinical Teaching – Treatment Planning – Lung and Breast Planning
5 hrs training Clinical and Theory – Residents x 2 and Physics x 3

Jan 2016 Clinical Teaching – Treatment Planning – Lung and Breast Planning
12 hrs training Clinical and Theory – Individual Radiation Therapist

March 2016 Clinical Teaching – Treatment Planning – Breast Planning
2.0 hrs Training and Theory – Fellow from Kenya

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS
AWARDED BUT DECLINED

NON-PEER-REVIEWED GRANTS
FUNDED
2009-present 08-0269-C PET CT RE-PLANNING NSCLC
Prospective Study of CT and PET Imaging During a Course of Radical Radiotherapy to Determine the Dosimetric Benefits of Re-Planning in Non-Small Cell Lung Cancer
Sponsor – Canadian Cancer Society #020348
Principal Investigators – Sun A and Bissonnette JP.

AWARDED BUT DECLINED
2. SALARY SUPPORT AND OTHER FUNDING

Personal Salary Support
[Presented in reverse chronological order]

[Start – End Dates] [Funding Title] [Funding Source] [Amount] [Currency] [City] [Province] [Country].

Trainee Salary Support

Other Funding

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Manuscript selected as Feature Article for Online ASTRO/Red Journal CME Offering**


Case Reports - none

Abstracts


Books - none
Books Edited - none
Book Chapters - none
Manuals - none
Editorials - none
Commentaries - none
Letters to Editor - none
Monographs - none
Multimedia - none
Other Publications - none

3. NON-PEER-REVIEWED PUBLICATIONS

4. SUBMITTED PUBLICATIONS

F. Patents and Copyrights

None

G. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers


Invited Lectures and Presentations

Media Appearances

Other Presentations
2. NATIONAL

Abstracts and Other Papers

Impact of Daily Volumetric Imaging in Reducing Setup Margins for Lung Cancer Patients Treated with Conventionally Fractionated Radiotherapy Canadian Association of Radiation Oncologists (CARO), Quebec City, 2009

Invited Lectures and Presentations

Media Appearances

Other Presentations

Workshop: Lava-Life for Lung IGRT – Finding your Best Match! Canadian Association of Radiation Oncologists (CARO), Quebec City, 2009

3. PROVINCIAL/REGIONAL

Abstracts and Other Papers

Exploring PMH Radiation Therapists’ Perceived Values in Conducting Research: Related Challenges and Opportunities, Canadian Association of Radiation Oncologists (CARO), Montreal, 2008

Cone-Beam CT Guided Lung Radiotherapy: Suitability of Bone, Carina and Tumor for Daily Treatment Verification, Kingsbridge Conference, Toronto, 2007

Invited Lectures and Presentations

Finding your Best Match: 3D and 4D lung Image-Guided Radiotherapy, Ontario Association of Medical Radiation Technologists (OAMRT), Huntsville Deerhurst, 2011


Radiation Therapists’ Perceived Values in Conducting Research: Related Challenges and Opportunities, 4th Annual Toronto Radiation Medicine Conference, Old Mill, Toronto, 2009

Media Appearances

Other Presentations

A Retrospective Comparison of Carina and Bone as Registration Landmarks for Volumetric Image-Guided Lung Radiotherapy. Canadian Association of Radiation Oncologists (CARO), Toronto, 2007
4. LOCAL

Abstracts and Other Papers

Geometric Accuracy in Cone-Beam CT Guided Lung Radiotherapy - What Should We Match to? 2\textsuperscript{nd} RT Research Symposium, Toronto Michener Institute (TMI), Toronto, 2008

Invited Lectures and Presentations - none

Impact of Daily CBCT on Setup Error and Setup Margins for Conventionally Fractionated Lung Radiotherapy Patients, Radiation Therapy Conference: Inquire Inspire Innovate (RTi3), Toronto, 2010

Media Appearances - none

Other Presentations

4DPET/CT Re-Planning Lung Study, Lung Research Rounds, Princess Margaret Hospital, Toronto, 2011
(3 presentations throughout the year to update team on project)

New Information Reforming Clinical Practice, Image-Guided Radiotherapy (IGRT) Course, Princess Margaret Hospital, Toronto, 2005-present
(3 to 5 presentations per year)

Conventionally Fractionated & Stereotactic Lung Radiotherapy, Image-Guided Radiotherapy (IGRT) Course, Princess Margaret Hospital, Toronto, 2005-present
(3 to 5 presentations per year)

Research Bites: How Many Images? RMP Rounds, Radiation Medicine Program, Princess Margaret Hospital, Toronto, 2009
Every Breath You Take, RMP Rounds, Princess Margaret Hospital, Toronto, 2008

A Review of Cone-Beam CT of Lung Radiotherapy, Lung Case Review Rounds, Princess Margaret Hospital, Toronto, 2007

Incidents on the Treatment Units, RMP QA Rounds, Princess Margaret Hospital, Toronto, 2006

QA Procedures on Treatment Units, Princess Margaret Hospital, Toronto, 2006
H. Teaching and Design

Nov 2002 – 2006 Implementation of the Radiation Therapy Clinical Course (RST350Y1, RSP430Y1, 530Y1, 531Y1/CLRT410, 510, 520)

Nov 2002 – 2006 Development and Implementation of Site/Team Based Teaching Modules for Radiation Therapy Students (Team 4)

Jan 2003 – 2006 Liaison with TMI, Electronic Documentation Platform (IQ Web) for Recording Student Evaluations and Competency Assessments.


Sept 2003 – 2006 Facilitation of course tutorials for the Research Methods II Course (RSC510Y/RERE510)

2006 – 2010 Provided in TEACHING DOSSIER, 2013 (separate document)

April 2008 Contributed to design and development of IGRT Course for Student Radiation Therapists

April 2008 Designed, developed and implemented IGRT Matching Course for Radiation Therapists External Staff

Feb 2007 Contributed to design, development and Implementation of 1st Annual Radiation Therapists Research Symposium Radiation Therapy Research Committee (RTRC) Initiative

April 2006 – 2009 Designed, Developed and Implemented Cone Beam Training Course for Radiation Therapists, Residents and Fellows, PMH, Toronto

Feb 2010 Designed, developed and implemented End-Note Training Session for Radiation Therapists, PMH, Toronto
1.0 MDCB credits approved for attendants.
2.0
1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

I. Research Supervision

1. MULTILEVEL EDUCATION

2. UNDERGRADUATE EDUCATION

2007 – 2009 Supervised and Mentored Clinical Project Students from UT/TMI (see teaching dossier for extensive list)

2002 – 2006 Supervision, Teaching & Training for Students in the Radiation Sciences Program (UT/TMI)
Clinical Aspects of Radiation Therapy
PMH, Toronto, Canada
(21 hours per week)

3. GRADUATE EDUCATION

4. UNDERGRADUATE MD

5. POSTGRADUATE MD

6. CONTINUING EDUCATION

7. FACULTY DEVELOPMENT

8. PATIENT AND PUBLIC EDUCATION
J. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

Nov 2009  Attended ASTRO Annual Scientific Meeting, Delivered Podium Presentation
Chicago, USA

Sept 2009  Attended CARO Annual Scientific Meeting, Delivered Podium Presentation
Quebec City, Canada

Sept 2009  Attended CARO Annual Scientific Meeting, Delivered IGRT Workshop
Quebec City, Canada

June 2009  Attended Target Insight III Annual Meeting
Next Generation Radiation Medicine: Putting Biology and Technology to Work
Toronto, Ontario, Canada

March 2009  Dosimetry & Planning Module
Completed the Dosimetry and Planning Training Module = Pass.
PMH, Toronto, Ontario

Sept 2008  Attended ASTRO Annual Meeting Poster
Boston, USA

Sept 2008  Attended CARO Annual Scientific Meeting
Delivered Podium Presentation & Poster
Montreal, Canada

Oct 2007  Attended ASTRO Annual Meeting Poster
Los Angeles, CA, USA
Oct 2007  Attended CARO-COMP Annual Scientific Meeting, Podium Presentation
Toronto, Ontario, Canada

April 2007  Attended Kingbridge Conference
Podium Presentation
Toronto, Ontario, Canada

Jan 2007  Attended Elekta Users Meeting
Nice, France

Jan 2006-Present  Faculty Member and Presenter at IGRT courses
PMH, Toronto, Canada

Oct 2005  Completed Image Guided Radiation Therapy (IGRT), Post Graduate Course (2 days)
PMH, Toronto.

Oct 2005  Attended CARO Annual Scientific Meeting
Poster
Victoria, BC, Canada

Oct 2004  Attended ASRTO Annual Meeting
Atlanta, GA, USA

May 2004  Completed Dosimetry and Treatment Planning (RT 800)
Post Graduate Online Course (16 weeks in length)

Sept 2003  Attended Lecture
Healthy Lifestyles in Children with Malignant Diseases,
Pediatric Oncology Group of Ontario (POGO)
Toronto, Canada

March 2003  Attended Lecture
Physics Seminars Series for Radiation Medicine Professional
Treatment Planning-From Manual Technique to Pencil Beam; Distribution Optimization,
PMH, Toronto, Canada

March 2003  Attended Lecture
The Challenges involved when looking after Patients with Bone Metastases
Radiation Medicine Program, PMH, Toronto, Ontario, Canada

March 2003  Development of Staff and Student Training for
IQ Web
PMH, Toronto, Ontario, Canada
March 2003 Attended Lecture
What’s New in Accelerators and Immobilization
Imaging in Radiotherapy: From Fluoroscopy to Functional Imaging

Sept 2002 Attended Lecture
Skill Building in Psychosocial Oncology:
A Multidisciplinary Course, Palliative Care,
PMH Psychosocial Program, Toronto.

Nov 2001 Clinical Teaching Skills Certificate
The Michener Institute for Applied Health Sciences, Toronto
PMH, Toronto, Canada

3. EXEMPLARY PROFESSIONAL PRACTICE
Curriculum Vitae

Lori Holden
Advanced Practice Radiation Therapist

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
1995 BSc, University of Waterloo

Qualifications, Certifications and Licenses
2006 - present Certified Clinical Research Professional (CCRP) certification, Society of Clinical Research Associates (SoCRA)

2. EMPLOYMENT

Current Appointments
2008 - present Advanced Practice Radiation Therapist – RRRP and BMC, Odette Cancer Centre
2007 - present Faculty Associate Member, Institute of Medical Science, University of Toronto
2005 - present Assistant Professor, Radiation Oncology, University of Toronto
1999 - present MRT(T), Radiation Therapy, Odette Cancer Centre

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS
Curriculum Vitae

Shao Hui Sophie Huang
MSc, MRT(T)

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
1987 - 1990 MD, Nephrology, Shanghai Second Medical University, China
1982 - 1987 MD, Shanghai Second Military Medical University, China
2003 BSc, Radiation Therapy, with Distinction, University of Toronto, Canada

Qualifications, Certifications and Licenses
2003 License, College of Medical Radiation Technologists of Ontario (CMRTO)

2. EMPLOYMENT

Current Appointments
2009 Sep - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
2004 - present Head and Neck Clinical Data Research Therapist, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario
2003 - present Radiation Therapist, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1
<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
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<tbody>
<tr>
<td>2007 - present</td>
<td><strong>Member</strong>, American Society for Radiation Oncology (ASTRO)</td>
</tr>
<tr>
<td>2006 - present</td>
<td><strong>Member</strong>, European Society for Therapeutic Radiology and Oncology (ESTRO)</td>
</tr>
<tr>
<td>2004 - present</td>
<td><strong>Member</strong>, Canadian Association of Radiation Oncology (CARO)</td>
</tr>
<tr>
<td>2003 - present</td>
<td><strong>Member</strong>, Canadian Association of Medical Radiation Technologists (CAMRT)</td>
</tr>
<tr>
<td>2003 - present</td>
<td><strong>Member</strong>, Ontario Association of Medical Radiation Technologists (OAMRT)</td>
</tr>
</tbody>
</table>

**Administrative Activities**

**LOCAL**

**Princess Margaret Hospital**

<table>
<thead>
<tr>
<th>Year</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 - present</td>
<td><strong>Coordinator</strong>, Head and Neck Tumour Board</td>
</tr>
<tr>
<td>2004 - present</td>
<td><strong>Member</strong>, Radiation Therapist Research Committee</td>
</tr>
<tr>
<td>2004 - present</td>
<td><strong>Member</strong>, Head and Neck Tumour Board</td>
</tr>
<tr>
<td>2003 - present</td>
<td><strong>Member</strong>, Radiation Therapist Journal Club</td>
</tr>
</tbody>
</table>

**Peer Review Activities**

**EDITORIAL BOARDS**

**Reviewer**

<table>
<thead>
<tr>
<th>Year</th>
<th>Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Jul 1 - present</td>
<td>UICC and Wiley Publisher, UICC Manual of Clinical Oncology (9th edition), Number of Reviews: 6</td>
</tr>
</tbody>
</table>

**MANUSCRIPT REVIEWS**

**Reviewer**

<table>
<thead>
<tr>
<th>Year</th>
<th>Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 Jan - present</td>
<td>Radiotherapy and Oncology, Number of Reviews: 1</td>
</tr>
<tr>
<td>2012 Jul 1 - present</td>
<td>Head &amp; Neck, Number of Reviews: 4</td>
</tr>
<tr>
<td>2012 - present</td>
<td>Journal of Geriatric Oncology, Number of Reviews: 1</td>
</tr>
<tr>
<td>2009 - present</td>
<td>Journal of Radiotherapy in Practice, Number of Reviews: 2</td>
</tr>
<tr>
<td>2008 - present</td>
<td>Journal of Medical Imaging and Radiation Sciences, Number of Reviews: 5</td>
</tr>
</tbody>
</table>

**PRESENTATION REVIEWS**

**Reviewer**

<table>
<thead>
<tr>
<th>Year</th>
<th>Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 Jul - present</td>
<td>RTi3 Conference, Number of Reviews: 80</td>
</tr>
</tbody>
</table>
Name: Florencia Siu Moon Jon BSc, MRT(T)

Address: Department of Radiation Therapy
Odette Cancer Center
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada M4N 3M5
416-480-6100 ext 7543
Email: Florencia.jon@sunnybrook.ca

Title: Research Radiation Therapist
Rapid Response Radiotherapy Program
Staff Radiation Therapist
Department of Radiation Therapy
Odette Cancer Center
Sunnybrook Health Sciences Centre

Education:

2001-2004: Bachelor of Science & Diploma in Radiation Science,
Joint degree/diploma program of University of Toronto and The Michener Institute
Stream of Radiation Therapy

1997-2001: Honour Bachelor of Arts and Sciences, University of Toronto
Majors: Human Biology & Psychology

Membership:

Canadian Association of Medical Radiation Technologists

The College of Medical Radiation Technologists of Ontario

Ontario Association of Radiation Technologists
Publications:

PA = Principal Author; SRA = Senior Responsible Author; CPA = Co-Principal Author; C = Collaborator

Peer-reviewed Publications:


Manuscripts Submitted:


Presentations:

1. What is Interprofessional Clinic? An introduction of Rapid Response Radiotherapy Program and the Bone Metastases Clinic. Presented in Department of Radiation Therapy for 1st year Radiation Therapy Students at Odette Cancer Centre, May 2010

2. An Interprofessional Approach to patient care at the Odette Cancer Centre: Rapid Response Radiotherapy Program (RRRP) and Bone Metastases Clinic (BMC) Sunnybrook 1st annual showcase, Toronto, Ontario, June 2010

3. Dedicated out patient palliative radiotherapy clinics in Canada and abroad + Case reports from RRRP. Presented in Department of Clinical Oncology, University of Hong Kong, Queen Mary Hospital, Hong Kong, September 2010

5. Radiation Technique Lecture. The Michener Institute. To 2nd year radiation therapy student. Toronto, Ontario, November 2010

Teaching Dossier

2008 Laura Tong, third year radiation therapy student, The Michener Institute

2010 Aaron Cumal, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Alvin Liu, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Faiza Hussain, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Hayley Mills, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Kai Ma, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Kathy Yip, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Lily Huang, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Madette Galapin, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Marco Vane, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Michael Hui, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Mikhael Quaasalmy, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP
2010 Rebecca Reinhart, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Rebekah Shin, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Xun Liu, 1st year radiation therapy student, The Michener Institute
3 hours clinic time in RRRP

2010 Shaelyn Culleton, second year undergraduate student, University of Waterloo.

2010 Janet Nguyen, third year undergraduate student, University of Waterloo

2010 Liang Zeng, second year undergraduate student, University of Waterloo.

2010 Justin Kwong, third year undergraduate student, University of Western Ontario.

2010 Cassandra Uy, third year undergraduate student, McMaster University.

2010 Karrie Wong, first year undergraduate student, McMaster University.

2010 Esther Chan, first year medical student, University of Western Ontario.

2010 Kaitlin Koo, second year undergraduate student, University of Waterloo
Curriculum Vitae

Valerie Kelly

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

Primary Office 1B-706, Princess Margaret Hospital
610 University Ave.
Toronto, Ontario, Canada
M5G2M9
Telephone (416) 946 2000
Email Valerie.Kelly@rmpuhn.on.ca

1. EDUCATION

Degrees
2007 - present PhD, Health Science, Charles Sturt University, Australia
2003 - 2006 MSc, Radiography, Anglia Ruskin University, United Kingdom
2000 - 2003 BSc, Radiography (Hons), Anglia Ruskin University, United Kingdom
1983 - 1986 Professional Education, Northern Ireland School of Therapeutic Radiography, Belfast, United Kingdom
1976 - 1983 High School Education, Glenlola Collegiate Grammar School, Bangor, United Kingdom

Postgraduate, Research and Specialty Training
2008 Gender and Health core course, University of Toronto, Toronto, Ontario, Canada
2008 Collaborative Program in Women’s Heath (Commence), Women’s College Research Institute, University of Toronto, Toronto, Ontario, Canada
1986 Radiography Diploma, College of Radiographers, United Kingdom

Qualifications, Certifications and Licenses
2002 Certificate of Clinical Teaching, The Michener Institute, Toronto, Ontario, Canada
1998 Certificate of IV Contrast, Toronto Administration, The Michener Institute, Toronto, Ontario, Canada
1998 Certificate of Medical Dosimetry, US Medical Dosimetry Board Certification Board, United States
1992 Certificate of Patient Counselling, Centennial College, Toronto, Ontario, Canada
2. EMPLOYMENT

Current Appointments
2009 - present Clinical Educator Status, Michener Institute for Applied Health Sciences, Toronto, Ontario, Canada
2008 - present Associate Member (restricted), Institute of Medical Science School of Graduate Studies, University of Toronto, Toronto, Ontario, Canada
2006 - present Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2003 - present Radiation Treatment Planner (integrated role), Princess Margaret Hospital, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
2007 - 2011 Research Therapist (Adaptive Radiotherapy Planning for Gynaecological Cancer) and Treatment Planner, Princess Margaret Hospital, Toronto, Ontario, Canada
2006 - 2007 Research Therapist and Treatment Planner (Pelvic Lymph Node Radiotherapy) and Treatment Planner, Princess Margaret Hospital, Toronto, Ontario, Canada
2005 - 2006 Planning Image Definition and Contouring Advanced Practice Radiation Therapist role investigator and Treatment Planner, Princess Margaret Hospital, Toronto, Ontario, Canada
2000 - 2003 Radiation Treatment Planning Process Development Leader, Princess Margaret Hospital, Toronto, Ontario, Canada
1995 - 2000 Radiation Treatment Planner, Princess Margaret Hospital, Toronto, Ontario, Canada
1990 - 1995 Radiation Therapist, Treatment / Planning Process Development, Princess Margaret Hospital, Toronto, Ontario, Canada
1988 Feb - 1988 Oct Medical Physics Technician, Department of Nuclear Medicine, St Williams’ Hospital, Rochester, United Kingdom
1988 - 1990 Therapeutic Radiographer, Department of Radioisotopes, London Hospital, Whitechapel, London, United Kingdom
1986 - 1988 Therapeutic Radiographer, Department of Medical Physics, Northern Ireland Radiotherapy Centre, Ireland

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
2007 Scholarship Award, Canadian Association of Medical Radiation Technologists Foundation, Canada. (Distinction)

LOCAL
Received
2007 Professional Development Scholarship, Medical Radiation Sciences, Department of Radiation Oncology, DRO Faculty, University of Toronto, Toronto, Ontario, Canada. (Distinction)
2005 Clinical Research Supervision Award, DRO Faculty, University of Toronto, Toronto, Ontario, Canada. (Distinction)

2005 Research Supervision Award, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada. (Distinction) (Joint).

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

<table>
<thead>
<tr>
<th>Year</th>
<th>Organization</th>
</tr>
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<tbody>
<tr>
<td>2006-present</td>
<td>Canadian Association of Radiation Oncologists</td>
</tr>
<tr>
<td>1998-present</td>
<td>Certified Medical Dosimetrist</td>
</tr>
<tr>
<td>1990-present</td>
<td>Canadian Association of Medical Radiation Technologists</td>
</tr>
<tr>
<td>1990-present</td>
<td>College of Medical Radiation Technologists of Ontario</td>
</tr>
<tr>
<td>2006-2008</td>
<td>European Association of Radiation Oncologists</td>
</tr>
<tr>
<td>2006-2008</td>
<td>International Society of Gastrointestinal Oncology</td>
</tr>
<tr>
<td>1986-2006</td>
<td>Council for Professions Supplementary to Medicine</td>
</tr>
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</table>

Administrative Activities

INTERNATIONAL

US Medical Dosimetrist Certification

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td>2010-2011</td>
<td>Chair, Nominations committee, United States.</td>
</tr>
<tr>
<td>2010-2011</td>
<td>Immediate Past-President, Board of Directors, United States.</td>
</tr>
<tr>
<td>2009-2011</td>
<td>Chair, Test Eligibility committee, United States.</td>
</tr>
<tr>
<td>2009-2010</td>
<td>President, Board of Directors, United States.</td>
</tr>
<tr>
<td>2008-2009</td>
<td>President Elect, Board of Directors, United States.</td>
</tr>
<tr>
<td>2007-2008</td>
<td>Chair, Finance Committee, United States.</td>
</tr>
<tr>
<td>2007-2008</td>
<td>Secretary/Treasurer, Board of Directors, United States.</td>
</tr>
<tr>
<td>2006-2007</td>
<td>Member-at-large, Board of Directors, United States.</td>
</tr>
<tr>
<td>2006-2007</td>
<td>Chair, Marketing and Publishing Committee, United States.</td>
</tr>
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</table>

PROVINCIAL / REGIONAL

College of Medical Radiation Technologists of Ontario (CMRTO)

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-present</td>
<td>Member and panel member, Discipline Committee, Ontario, Canada.</td>
</tr>
</tbody>
</table>

Ontario Association of Medical Radiation Technologists (OAMRT)

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2009</td>
<td>Member, Professional Development Advisory Team, Toronto, Ontario, Canada.</td>
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</table>

LOCAL

Princess Margaret Hospital

<table>
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<tr>
<th>Year</th>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td>2006-present</td>
<td>Member, Radiation Medicine Program Research Committee, Toronto, Ontario, Canada.</td>
</tr>
<tr>
<td>2005-2006</td>
<td>Organizer, GI multidisciplinary QA rounds, Toronto, Ontario, Canada.</td>
</tr>
<tr>
<td>2004-2005</td>
<td>Member, Radiation Medicine Program External Beam Process Committee, Toronto, Ontario, Canada.</td>
</tr>
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</table>

2002 - 2004  **Member**, Head and neck tumour site group accreditation team, Toronto, Ontario, Canada.


2001 - 2004  **Organizer**, GU multidisciplinary tumour site group rounds, Toronto, Ontario, Canada.

2001 - 2004  **Organizer**, Head and neck multidisciplinary tumour site group rounds, Toronto, Ontario, Canada.

2001 - 2004  **Member**, Radiation Medicine Program Informatics Committee, Toronto, Ontario, Canada.

---

**University of Toronto**

2007 - 2009  **Member**, Medical Radiation Sciences Academic Leadership Committee, Toronto, Ontario, Canada.

---

**Women’s College Hospital**

2008 - present  **Member**, Research Ethics Board, Toronto, Ontario, Canada.

---

**C. Research Funding**

---

**1. GRANTS, CONTRACTS AND CLINICAL TRIALS**

**PEER-REVIEWED GRANTS**

**FUNDED**

**2007 Jul - 2008 Jun**  **Co-Investigator**. The effectiveness of an educational intervention on the congruence of prostate and rectal contouring as compared to a gold standard in planning for three-dimensional radiotherapy for prostate cancer. ACURA. PI: Szumacher E. Collaborator(s): Dubrowski A, Harnett N, **Kelly V**, Danjoux C, Woo M, Barker R, Ackerman I. 10,000 CAD. [Grants]

**2007 Jul - 2008 Jun**  **Co-Investigator**. A prospective quantification of patient-reported adverse events following marker insertion and therapist matching variability within an established intra-prostatic marker program. ACURA. Collaborator(s): Rosewall T, Catton C, Bayley A, **Kelly V**, Kong V, Menard C, Toi A, Warde P. 12,000. [Grants]

**2007 Jul - 2008 Jun**  **Co-Investigator**. A prospective quantification of therapist matching variability within an established intra-prostatic marker program. Ontario Association of Medical Radiation Technologists M. E. Beth Wastle Research Bursary. Collaborator(s): Kong V, Pelizzari A, **Kelly V**, Rosewell T. 1,000. [Grants]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2007 The Distribution of Kolb Learning Styles Across Radiation Therapy, Physics and Oncology. European Interprofessional Education Network in health and social care (EIPEN) First International Conference. Krakow, Poland. Selected by Competition (Extramural).


Presented Abstracts


2. NATIONAL

Invited Lectures and Presentations

2006  “SMART” QA for Patients with GI Cancers. Canadian Association of Medical Radiation technologists Annual General Conference. Calgary, Alberta, Canada. Selected by Competition (Extramural).


Presented Abstracts


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2008  Sex, Gender and Radiotherapy. Women’s College Research Institute, University of Toronto 7th Annual Graduate Student Research Day. Toronto, Ontario, Canada. Selected by Competition (Extramural).

2008  Sex, Gender and High Precision Radiotherapy. Collaborative Program in Women’s Health Seminar Series, Women’s College Research Institute. Toronto, Ontario, Canada. Selected by Competition (Extramural).

2006  The Role of the Radiation Therapist in Multidisciplinary QA. Juravinski Cancer Centre. Hamilton, Ontario, Canada. Selected by Competition (Extramural).

4. LOCAL

Invited Lectures and Presentations

2008  Mentorship and Radiation Therapy. UT/TMI undergrad RT students and RT mentors. Presentations at Scientific Meeting (Intramural).

2006  Everything you ever wanted to know about the CMRTO Discipline Committee… but were too afraid to ask! PMH Radiation Therapy departmental meeting. Presentations at Scientific Meeting (Intramural).
The Loneliness of the Long-Distance Learner: A tale of two theses. Radiation Medicine Interdisciplinary rounds. Presentations at Scientific Meeting (Intramural).

Therapy Planning Image Definition and Contouring (PIDAC) Advanced Practice Role. PMH Radiation Therapy departmental meeting. Presentations at Scientific Meeting (Intramural).

Therapy Planning Image Definition and Contouring (PIDAC) Advanced Practice Role. Toronto Interdepartmental Advanced Practice Group meeting. Presentations at Scientific Meeting (Intramural).

Presented Abstracts


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2007 Primary Supervisor. L Mak: University of Toronto Medial Radiation Science Undergraduate Student. *Patient Satisfaction on Sexual Function Education during Radiotherapy for Prostate Cancer.*

2007 Primary Supervisor. J. Austin, University of Toronto Medial Radiation Science Undergraduate Student. *Changes in Bladder Volume Throughout Radiotherapy for Women with Gynaecologic Cancers.*

2004 Primary Supervisor. S. Yang, University of Toronto Medial Radiation Science Undergraduate Student. *A retrospective analysis of acute radiation toxicities associated with radical endometrial radiotherapy (following hysterectomy).*

2003 Primary Supervisor. A. Barradas, University of Toronto Medial Radiation Science Undergraduate Student. *A Retrospective Analysis of the Radiotherapy Planning Process for Patients with Head and Neck Cancer: Would optimization of Scheduling protocols improve access to Treatment?*

Curriculum Vitae

Natalie Lauzon

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
2003 BSc, Radiation Sciences, University of Toronto
2000 BSc, Biological Science, College of, University of Guelph

Qualifications, Certifications and Licenses
2003 MRT(T), Radiation Therapy, College of Medical Radiation Technologists of Ontario (CMRTO)

2. EMPLOYMENT

Current Appointments
2003 - present Radiation Therapist, Sunnybrook Odette Cancer Centre

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

LOCAL
Sunnybrook and Odette Cancer Centre
2013 - present Member, Gynecological site group

Peer Review Activities

1
MANUSCRIPT REVIEWS
Reviewer
2013 - present   Journal of Medical Imaging and Radiation Sciences (JMIRS)
Curriculum Vitae

Winnie Li

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
2000 - 2003 BSc, Radiation Sciences, Joint Degree/Diploma Program, University of Toronto/ The Michener Institute
1996 - 2000 BSc, Toxicology Major, University of Toronto

Qualifications, Certifications and Licenses
2003 Licentiate, College of Medical Radiation Technologists of Ontario

2. EMPLOYMENT

Current Appointments
2010 - present Clinical Educator, The Michener Institute
2010 - present Lecturer, Radiation Oncology, University of Toronto

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
2003 - present Member, Canadian Association of Medical Radiation Technologist
2003 - present Member, Canadian Medical Radiation Technologists of Ontario
2003 - present Member, Ontario Association of Medical Radiation Technologist

Administrative Activities
LOCAL
University of Toronto
2010 - present
Lecturer Member, Medical Radiation Sciences Academic Leadership Advisory Group
Curriculum Vitae

Nadiya Makhani M.R.T.(T)

A. Date Curriculum Vitae is Prepared:  2013, October 11th

B. Biographical Information

Primary Office: Odette Cancer Centre, Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone  416-480-6100 Ext 1080
Cell phone  647-502-4456
Fax  416-480-4672
Email  Nadiya.Makhani@sunnybrook.ca

1. EDUCATION

Qualifications, Certifications and Licenses

Diploma of Society of Radiographers (Radiotherapy)
  • 1973 DSSR (R)
  • 1974 DSSR (T)

2. EMPLOYMENT

Current Appointments


UNIVERSITY - CROSS APPOINTMENT

Status Appointment – Clinical Educator

Previous Appointments

CLINICAL:

[Nov 1983 to Nov 1984] Acting Director of Radiation Therapy, Department of Radiation Therapy, the Saskatchewan Cancer Foundation, Toronto, Allan Blair Memorial Service Regina, Saskatchewan, Canada.

[Nov 1984 to Jul 1986] Assistant Director & Dosimetrist, Department of Radiation Therapy, The Saskatchewan Cancer Foundation, Toronto, Allan Blair Memorial Service Regina, Saskatchewan, Canada

[Nov 1983 - Nov 1984] Radiation Therapist, Department of Radiation Therapy, The Saskatchewan Cancer Foundation, Toronto, Allan Blair Memorial Service Regina, Saskatchewan, Canada

[1977-1983] Senior I and Senior II Radiographer, Department of Radiation Therapy, Northampton General Hospital, Northampton, UK.
Nadiya Makhani

[1974-1977] Senior I and Basic Grade Radiographer. Department of Radiation Therapy, King’s College Hospital and other centers in the UK.

CONSULTING:

(March 2013) **Consult and Teach Dosimetry and Treatment Planning** at the Royal Victoria Hospital (Barrie)
Ongoing consultation via email for any complex treatment planning issues

(Sep 2012 to Oct 2012) **Consult and Teach Dosimetry and Treatment Planning** at the Royal Victoria Hospital (Barrie)

(Dec 2006 to Jan 2007) **Consult and Teach Dosimetry and Treatment Planning** at the Ibn –Zuhr Cancer Centre at the Aga Khan University Hospital in Karachi, Pakistan. Voluntary Service

3. HONOURS AND CAREER AWARDS

PROVINCIAL/ REGIONAL

May 1991

*Percy Ghent Award*
Exhibit presented at OAMRT Conference. Title: Canine Nasopharyngeal Tumors

Teaching Awards:

LOCAL

Oct 1995

*Golden Apple Award* - Awarded by Odette Cancer Centre Radiotherapy department for excellence in Teaching

Oct 1994

*Golden Apple Award* - Awarded by Odette Cancer Centre Radiotherapy department for excellence in Teaching

Oct 1993

*Golden Apple Award* - Awarded by Odette Cancer Centre Radiotherapy department for excellence in Teaching

Professional Associations

[1986-present ] **Medical Radiation Technologist (Therapist)**, College of Medical Radiation Technologists (CMRTO)

[1983-present] **Medical Radiation Technologist (Therapist)**, Canadian Association of Medical Radiation Technologists (CAMRT / OAMRT)

Innovations and Development in Teaching and Education

[June 2012] Physics/Dosimetry Curriculum Update for PGY 3 Radiation Oncology residents and Medical Physics Residents from University of Toronto

Page 2 of 4
October 2013
CONFIDENTIAL DOCUMENT
Nadiya Makhani

[Feb2008 – Mar2008] Developed new format for Physics/Dosimetry Curriculum for PGY 3 Radiation Oncology residents and Medical Physics Residents from University of Toronto


[Nov2005 – Jan2006] Developed Physics/Dosimetry Curriculum for PGY 3 Radiation Oncology residents and Medical Physics Residents from University of Toronto


D. Publications

2. PEER-REVIEWED PUBLICATIONS

Journal Articles

- Chow E., Makhani L, Culleton S, Makhani N, Davis L, PH.D., Compos S, B.SC.(C),and Sinclair E, Would larger radiation fields lead to a faster onset of onset of pain relief in the palliation of bone metastases?” published in the Red Journal. Int. J. Radiation Oncology Biol. Phys., Vol. 74, No. 5, pp. 1563–1566,


Multimedia

- Participated in the development of "Whole Craniospinal Irradiation:CT-Simulation Technique" –CD ROM, Toronto Sunnybrook Regional Cancer Centre" Sept 1999. Whole CNS Technique Guide to Treatment Planning

E. Presentations and Special Lectures

1. INTERNATIONAL

- Co-Author Poster :" Image Guided Supine Cranio-spinal Irradiation Using Kilovoltage (kV) Radiographs", ASTRO-American Society for Radiation Oncologists, San Diego, CA, October 2010

4. LOCAL


Page 3 of 4
October 2013
CONFIDENTIAL DOCUMENT
Other Presentations

NATIONAL

- Co- Author Poster: “Uterine Perforation Detection during Selectron Insertion with Routine Pelvic CT”
  CARO - Canadian Association of Radiation Oncologists, Montreal, Canada 2003

LOCAL

- Presentation (with Dr. A.Kim): The Evolution of the Treatment of the Whole CNS: From 3D Conformal Techniques to Tomotherapy
  RTi3-8th Annual Radiation Therapy Conference, Toronto, March 2011
- Presentation: “Partial Breast Irradiation using permanent seed implant at Odette Cancer Centre” at RTi3 Conference, March 2010
- Presentation: Radiation Therapy in Karachi, Pakistan, Odette Cancer Centre; Nov 2007
- Presentation: "Dosimetry of Current Breast Techniques used at Toronto Sunnybrook Regional Cancer Centre”, CT SIM Workshop, March 2001
- Presentation: Overview of Current Breast Techniques used at Toronto Sunnybrook Regional Cancer Centre @TSRCC Rounds May 2000
- Presentation: "Stereotactic Planning for AVM's" at Radiation Therapy Continuing Education Rounds, Toronto Sunnybrook Regional Cancer Centre” June 1999
- Presentation: "Selectron O.R. Procedure and Dosimetry" for Radiation Oncology Residents, Toronto Sunnybrook Regional Cancer Centre” October 1999

F. Teaching and Design

Department of Radiation Oncology, Faculty of Medicine, University of Toronto

[2005-present] Course Instructor: Treatment Planning 2. Clinical Treatment Planning Rotation, UT DRO.
Medical Physics Residency Program. University of Toronto

Treatment planning
Conducted various treatment technique labs in Simulator for Radiation Therapists as well as R/T students
Clinical educator for Medical Physics Residents teaching them concepts of treatment planning
Helped Radiation Oncology residents with concepts of treatment planning

[1983 – 1986] Conducted various treatment technique labs in Simulator for Radiation Therapists as well as R/T students at Allan Blair Memorial Clinic, Regina, Saskatchewan
Clinical education with R/T students rotating through treatment planning on concepts of treatment planning.
A. Date Curriculum Vitae is Prepared: 2016 July 12

Only includes Activities from July 1982 to July 2016

B. Biographical Information

1. EDUCATION

Degrees

2000 BSc, Therapeutic Radiography (Hons), Anglia Polytechnic University, United Kingdom

Qualifications, Certifications and Licenses

2015 Nov - present Certified Training and Development Professional, The Institute for Performance and Learning, Toronto, Ontario, Canada, License / Membership #: 31171

2011 - present Stepping Stones Teacher Development Certificate Program, University of Toronto at St. Michael’s Hospital, Ontario, Canada

2009 - present Interprofessional Collaboration Certificate, Michener Institute for Applied Health Sciences, Ontario, Canada

2009 - present MRS Clinical Preceptorship Course Certificate, University of Toronto/The Michener Institute of Applied Health Sciences, Ontario, Canada

1989 Nov - present Advanced Certification, Canadian Association of Medical Radiation Technologist, Ontario, Canada, License / Membership #: 18732

1984 Nov - present College of Medical Radiation Technologists, Ontario, Canada, License / Membership #: 06266

1984 Nov - present Registered Technologist Therapy R.T.(T). Canadian Association of Medical Radiation Technologist, Canada, License / Membership #: 18732

1992 Diploma In Adult Education, Ontario Association of Medical Radiation Technologists

1991 Adult Education-Staff Training and Development Certificate (with High Honours), Seneca College for Applied Arts and Technology

1989 Advanced Certificate in Radiotherapy; A.C.T. Canadian Association of Medical Radiation Technologists

1984 Diploma in Radiotherapy; R.T.T. Canadian Association of Medical Radiation Technologists

1984 M.R.T.(T), College of Medical Radiation Technologists of Ontario
2. EMPLOYMENT

Current Appointments

2012 May - present  Clinical Adjunct Professor, Michener Institute of Applied Health Sciences
2009 - present  Clinical Coordinator (Status Appointment), Michener Institute for Applied Health Sciences
2006 - present  Lecturer, Radiation Oncology, University of Toronto

Previous Appointments

UNIVERSITY

2005 - 2008  Clinical Associate, Michener Institute for Applied Health Sciences
2000 - 2010  Clinical Education Director, Radiation Sciences, Michener Institute for Applied Health Sciences

Responsible to administer the clinical education of Michener students, according to the criteria and standards established and approved by the UT/TMI Medical Radiation Sciences Program, its Advisory Council and the CMA accreditation Guidelines

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2008  Philips Exhibit Award, Canadian Association of Medical Radiation Technologists. (Distinction)
For Annual General Conference Poster: “An Instructional Strategy to Improve Inter-rater Reliability in the Assessment and Evaluation of Student Clinical Performance” - Carol Gillies, Karen Moline (Co-authors).

1985  Mallinckrodt Award, Canadian Association of Medical Radiation Technologists. (Distinction)
For achieving the highest aggregate mark in the national exams of the CAMRT in radiation therapy.

1983  Bursary, Canadian Cancer Society. (Distinction)

PROVINCIAL / REGIONAL

Received

2009  Professional Recognition Award (for 25 years), Ontario Association of Medical Radiation Technologists. (Distinction)

2008  Certificate of Merit - Percy Ghent Exhibit, Ontario Association of Medical Radiation Technologists. (Distinction)
For Annual General Conference Poster: “An Instructional Strategy to Improve Inter-rater Reliability in the Assessment and Evaluation of Student Clinical Performance” - Carol Gillies, Karen Moline (Co-authors).

1990  Long Service Awards, Cancer Care Ontario. (Distinction)
For 5, 10, 15 Years of Services at the Toronto-Sunnybrook Regional Cancer Centre.
LOCAL
Received

2014 Jul - 2015 Jun  Long Service Award, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada. (Distinction)
For 30 years of service at the Odette Cancer Centre.

2013 Apr - 2014 Jun  Travel Grant, Centre for Interprofessional Education, University of Toronto, Toronto, Ontario, Canada. (Travel Grant)
competitive call for travel grant to attend Collaborating Across Borders IPE Conference. Total Amount: 500 CAD

2011  “Inspire” Top-Rated Abstract, RTi3 Radiation Oncology Conference. (Distinction)

2010  Long Service Award, Sunnybrook Health Sciences Centre. (Distinction)
For 25 years of service at the Odette Cancer Centre.

2008  Champions of Care Award, Sunnybrook Foundation. (Distinction)

2007  Certificate of Appreciation, Michener Institute for Applied Health Sciences. (Distinction)
Recognizing valuable contributions to student achievements. Presented by fellow clinical coordinators at Faculty Liaison Committee meeting.

2005  Long Service Award, Sunnybrook and Women’s College Health Sciences Centre. (Distinction)
For 20 years of service at the Toronto Sunnybrook Regional Cancer Centre.

1982  Principal's Citation, Honour Crest, Fisher Park High School, Ottawa, Ontario. (Distinction)

Teaching and Education Awards

PROVINCIAL / REGIONAL
Received

2014 Nov  Excellence in Clinical Teaching and Supervision Award (The Crystal Apple Award), Dept of Radiation Oncology, Faculty of Medicine, The Michener Institute for Applied Health Sciences, Toronto, Ontario, Canada. (Undergraduate Education, B. Sc. Specialty: Radiation Therapy)
Excellence in Clinical Teaching and Supervision Award (The Crystal Apple Award)}

LOCAL
Received

2010  Interprofessional Education Award, Dept of Radiation Oncology, Faculty of Medicine, Peters-Boyd Academy (Sunnybrook Health Sciences Centre)

Nominated

2011  PAC and Nursing Education Award, Sunnybrook Health Sciences Centre. (Undergraduate Education)
In recognition of outstanding teaching efforts.
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

**Professional Associations**

2015 Jul - present  member, The Institute for Performance and Learning, 31171
2012 - present  General Member, Centre for Interprofessional Education, University of Toronto
1984 Nov - present  member, Canadian Association of Medical Radiation Technologists, 18732
1984 Nov - present  member, Ontario Association of Medical Radiation Sciences, 18732
1984  Canadian Association of Medical Radiation Technologists
1984  College of Medical Radiation Technologists of Ontario, 06266
1984  Ontario Association of Medical Radiation Technologists

**Administrative Activities**

**NATIONAL**

Canadian Association of Medical Radiation Technologists
1999  Reviewer, Essay Awards Competition
1995 - 2000  Marker/ Expert, Advanced Certification Committee

**PROVINCIAL / REGIONAL**

Ontario Association of Medical Radiation Technologists
1994 - 1997  Chair, Diploma in Adult Education
1994 - 1997  Coordinator, Diploma in Adult Education

Ontario Schools of Radiation Therapy
1997 - 2000  Member, Academic Affairs Committee
1997 - 2000  Member, Council Committee
1994 - 1995  Member, Academic Affairs Committee
1994 - 1995  Member, Council Committee

**LOCAL**

Sunnybrook Health Sciences Centre
2012 - present  Member, IPE/IPC Showcase Planning Committee Meeting
2012 - present  Member, IPE/IPC Showcase Planning Committee Meeting, Toronto, Ontario, Canada.
2011 - present  Member, Simulator Sub-Committee, Sunnybrook Education Action Committee, Faculty of Medicine, Dept of Radiation Oncology, Multilevel Education
2015 Jul - 2016 Jul  Interprofessional Education Elective Sub Committee, Toronto, Ontario, Canada.

Toronto-Sunnybrook Regional Cancer Centre
2005 - 2006  Member, Professional Education Leader Committee
2002 - 2010  Member, Radiation Program Education Advisory Committee
1989 - 2001  Member, Faculty Liaison Committee
1989 - 2001  Member, Education Advisory Committee
1989 - 1995  Member, Management Committee, Department of Radiation Therapy
1987 - 1988  Chair, Continuing Education Committee - Radiotherapy Dept
1985 - 1987  **Co-Chair**, Continuing Education Committee

**University of Toronto/The Michener Institute for Applied Health Sciences**

2000 - present  **Member**, Faculty Liaison Committee, Medical Radiation Sciences Program (MRS)
2012 - 2013 Nov  **Chair**, FLC Subcommittee, Toronto, Ontario, Canada.
   *To define indicators for “entry-level”.*
2008  **Secretary**, Faculty Liaison Committee, Medical Radiation Sciences Program (MRS)
2007  **Member**, Clinical Mentor Project
2006 - 2007  **Member**, Clinical Simulation Semester Development Committee
2006 - 2007  **Member**, Clinical Practicum Course Development
2005 - 2007  **Member**, IPE Advisory Council Committee
2004 - 2005  **Secretary**, Faculty Liaison Committee, Medical Radiation Sciences Program (MRS)
2003 - 2006  **Member**, Selectives Working Committee
2001 - 2002  **Member**, Stream Specific Research Review Committee
2000 - 2004  **Member**, Program Advisory Committee, Radiation Sciences Program (MRS)
1998 - 2000  **Member**, Radiation Therapy Program Development Committee
   *Proposed Joint UT/TMI Program for Radiation Therapists.*
1998 - 2000  **Member**, Curriculum Committee
   *Proposed Joint UT/TMI Program for Radiation Therapists.*

**Other Research and Professional Activities**

**RESEARCH PROJECT**

2011 Nov - 2012 Dec  **Co Investigator**. Developing Effective Preceptorship Skills and Support for Radiation Therapists. Collaborator(s): Peacock Marnie, MRT (T), B.Sc. (Hons) **Moline Karen**, MRT (T), A.C.(T.), B.Sc. (Hons) Feuz Carina, MRT (T), B.Sc. (Hons) Tan Kieng, MRT (T), B.Sc. M.Ed.
   *The primary outcome is to develop a customized curriculum addressing the radiation therapy preceptor’s needs for providing preceptorship to students in the Medical Radiation Sciences (MRS) Radiation Therapy program.*

2011 Apr - 2011 Dec  **Co Investigator**. ARCTIC - Appreciating Roles and Collaboration To Improve Care. Collaborator(s): Susan Sutherland, DDS, MSc.
   *Interprofessional Education - to measure change in student’s attitudes and preceptions regarding interprofessional collaboration using the Interdisciplinary Education Perception Scale* (Leutch et al, 1990).

1999  **Principal Author**. The Challenge of Maintaining Competence as a Practicing Radiation Therapist in Ontario. Anglia Polytechnic University. Supervisor(s): Jon Svensson.
   *Research paper submitted in partial fulfillment of the requirements for the degree of Bachelor of Science Honours Radiography (Therapeutic).*

**CONFERENCE REVIEWER FOR PROFFERED PAPERS**


**Review Abstract Submissions for CAMRT annual general conference.**

**PROCESS AND QUALITY IMPROVEMENT INITIATIVE**


The preceptorship pilot was designed to augment the learning experience of radiation therapy students in the planning area by enhancing a learning environment that creates safety, engages the students, and facilitates coaching while providing excellence in care.

**REVIEWER FOR PROFFERED PODIUM AND POSTER PRESENTATIONS**


**C. Research Funding**

**1. GRANTS, CONTRACTS AND CLINICAL TRIALS**

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2013 Feb - 2013 Nov  **Co-Developer.** ARCTIC - Appreciating Roles and Collaboration to Improve Care - Head and Neck Oncology, Case for UT curriculum. Centre for Interprofessional Education, University of Toronto. Centre for Interprofessional Education. Collaborator(s): Dr. Susan. Sutherland. 500 CAD. [Grants] DVD production of a patient case study for IPE elective at UT.
D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

Journal Articles


3. NON-PEER-REVIEWED PUBLICATIONS

Monographs


3. Ali A, Doswell J, Edgerton H, Harnett N, Maier B, Moline K, Stevenson C. Clinical and Didactic Integration Program. © Toronto-Sunnybrook Regional Cancer Centre, Ontario Cancer Treatment & Research Foundation, Sunnybrook Medical Centre, University of Waterloo, 1996. Précis: This document is the clinical program for competency assessment of the Diploma, Degree Radiation Therapy Program of the Toronto-Sunnybrook Regional Cancer Centre and the University of Waterloo. It is a competency based formalized clinical learning experience, designed to integrate course instruction with clinical skills. The objectives for each clinical placement, clinical expectations and didactic assignments are identified with clear performance criteria for assessment. Editor.

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2015 Sep 7  **Speaking Poster presentation.** The Evolution of A Popular IPE Elective. AMEE - An International Association for Medical Education. Glasgow, Glasgow City, United Kingdom. Presenter(s): Karen Moline, M.R.T.(T.), A.C.(T.), B.Sc.(Hons). Co-Author Susan E. Sutherland DDS MSc.

2014 Sep 16  **collaborator.** Support for MRS radiation therapy preceptors: A needs assessment analysis. ASRT. San Francisco, California, United States. Presenter(s): Kieng Tan (presenter), Carina Feuz, Marnie Peacock, Karen Moline.


2012 Oct 30  **Invited Speaker.** Clinical Teaching: Developing Fundamental Skills to Become a Better Educator in the Clinical Environment. American Society of Radiologic Technologists. Boston, Massachusetts, United States. Presenter(s): Karen Moline, MRT(T), ACT, BSc; Marnie Peacock, BSc ,MRT(T). 60 minute workshop.

2012  **Invited Lecturer.** CLINICAL TEACHER 101: Essential Skills for Clinicians to Become Better Educators Within Their Inter-professional Clinical Practice. Internation Society of Radiographers and Radiological Technologists. Presenter(s): Moline K, Peacock M, McGuffin M, Dawdy K.

2. NATIONAL

Presented Abstracts

2014 Apr 27  **Poster Presentation.** What I need to become a better preceptor. 72nd CAMRT Annual General Conference. Edmonton, Ontario, Canada. Presenter(s): Marnie Peacock, Karen Moline, Kieng Tan, Carina Feuz.

2008 Jun  **An Instructional Strategy to Improve Inter-rater Reliability in the Assessment and Evaluation of Student Clinical Performance (Poster Presentation).** Canadian Association of Medical Radiation Technologists Annual General Conference. Moncton, New Brunswick. Presenter(s): Gillies C, Moline K. Philips Exhibit Award.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


4. LOCAL

Invited Lectures and Presentations

2015 Dec  Facilitator. Clinical Skills - recalls knowledge and mosaic documentation. K Osmar Clinical Educator. Toronto, Ontario, Canada. provided 12 sessions to departmental staff mandatory training.

2014 Dec  Presenter. Preceptorship Level 1 workshop series. Medical Radiation Sciences Clinical Preceptorship Workshop 2, Odette Cancer Centre and Princess Margaret Hospital. Toronto, Ontario, Canada. Feuz, C. Peacock M. Moline, K. Tan, K.

2014 Nov  Presenter. Preceptorship Level 1 workshop series. Medical Radiation Sciences Clinical Preceptorship Workshop 1, Odette Cancer Centre and Princess Margaret Hospital. Toronto, Ontario, Canada. Feuz, C. Peacock M. Moline, K. Tan, K.

2014 Feb 6  Presenter. Preceptorship Level 2 workshop series. Medical Radiation Sciences Clinical Preceptorship Workshop 2, Odette Cancer Centre and Princess Margaret Hospital. Toronto, Ontario, Canada. Feuz, C. Peacock M. Moline, K. Tan, K.

2014 Jan 23  Presenter. Preceptorship Level 2 workshop series. Medical Radiation Sciences Clinical Preceptorship Workshop 1, Odette Cancer Centre and Princess Margaret Hospital. Toronto, Ontario, Canada. Feuz, C. Peacock M. Moline, K. Tan, K.


2013 Nov 6  Presenter. Preceptorship Level 1 workshop series. Medical Radiation Sciences Clinical Preceptorship Workshop 2, Odette Cancer Centre and Princess Margaret Hospital. Toronto, Ontario, Canada. Feuz, C. Peacock M. Moline, K. Tan, K.

2013 Oct 9  Presenter. Preceptorship Level 1 workshop series. Medical Radiation Sciences Clinical Preceptorship Workshop 1, Odette Cancer Centre and Princess Margaret Hospital. Toronto, Ontario, Canada. Feuz, C. Peacock M. Moline, K. Tan, K.

2013 Feb  Presenter. Preceptorship Level 2 workshop series. Medical Radiation Sciences Clinical Preceptorship Workshop 2, Odette Cancer Centre and Princess Margaret Hospital. Toronto, Ontario, Canada. Feuz, C. Peacock M. Moline, K. Tan, K.

2013  Presenter. Preceptorship Level 2 workshop series. Medical Radiation Sciences Clinical Preceptorship
Karen A. MOLINE

Workshop 1, Odette Cancer Centre and Princess Margaret Hospital. Toronto, Ontario, Canada. Feuz, C. Peacock M. Moline, K. Tan, K.


2012 Preceptorship Certificate Course. Medical Radiation Sciences Clinical Preceptorship Workshop 1, Odette Cancer Centre. Toronto, Ontario. Moline K, Peacock M.

2011 Preceptorship Certificate Course, Medical Radiation Sciences Clinical Preceptorship. Workshop 1, Odette Cancer Centre. Toronto, Ontario. Moline K, Peacock M.


2010 Spiritual Care Workshop. 2 sessions, Odette Cancer Centre. Toronto, Ontario. Moline K, Ford B.

2010 Head and Neck Cancer. Interprofessional Education Event, Sunnybrook Health Sciences Centre. Toronto, Ontario. Moline K, Sutherland S.

2009 Spiritual Care Workshop. 2 sessions, Odette Cancer Centre. Toronto, Ontario.


2008 Spiritual Care Workshop. 2 sessions, Odette Cancer Centre. Toronto, Ontario.


2004 Introduction to the Clinical Environment, MRS144H1. The University of Toronto, Michener Institute for Applied Health Sciences. Toronto, Ontario.

2004 Evaluation Methods Workshop for Radiation Therapists (12 sessions). Toronto Sunnybrook Regional
Karen A. MOLINE

Cancer Centre. Toronto, Ontario. **Moline K**, Gillies C.

**2004**

**2003**
Introduction to the Clinical Environment, MRS144H1. The University of Toronto, Michener Institute for Applied Health Sciences. Toronto, Ontario.

**1990**

**1989**

**Presented Abstracts**

**2012 Oct 4** **Presenter**. Sunnybrook’s RESPECT Agreement and Clinical Teaching Skills, How Do They Connect? Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada. Presenter(s): Karen Moline, MRT(T), ACT, BSc; Marnie Peacock, BSc ,MRT(T). Poster Presentation.

**2011**

**2011**

**2007 Oct 25**
An Instructional Strategy to Improve Inter-rater Reliability in the Assessment and Evaluation of Student Clinical Performance (Poster Presentation). Teaching & Learning Symposium, University of Toronto. Toronto, Ontario. Presenter(s): Gillies C, **Moline K**. [http://www.provost.utoronto.ca/tlsymposium.htm].

**2005 May**

**Poster**


**Poster Presentation**

**2012 Oct 4** **Poster Presentation**. Sunnybrook’s RESPECT Agreement and Clinical Teaching Skills. Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada. Presenter(s): **Karen Moline**, MRT(T), ACT, BSc; Marnie Peacock, BSc ,MRT(T). Education and Simulation Expo at Sunnybrook Health Sciences Centre.
F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2015 Jul - 2016 Jun
Team preceptors in planning, Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology, Sunnybrook HSC, Odette Cancer Centre
recruited volunteer preceptors in radiation planning department to provide guidance and support to radiation therapy students

9 preceptors
11 3yr students each completing 6 weeks in planning
14 1st yr students each completing 2 weeks in planning.

improved clinical experience for radiation therapy students.

2015 Jul - 2016 Jun
IPE Outside the Building, Multilevel Education, Faculty of Medicine, Dept of Radiation Oncology, Sunnybrook HSC
Co-Curriculum developer, work in progress for an elective IPE offering focussing on spiritual and emotional health within the health professions.

2014 Jul 25
Spiritual Care Workshop, Multilevel Education, Faculty of Medicine, Centre for Interprofessional Education, Sunnybrook Health Sciences Centre
2 -2 hour sessions-interactive components including large and small group participation- over a minimum of one week apart
Spiritual Care Workshop for healthcare professionals providing care to cancer patients. Explore patient's and family's reflections on the cancer journey and its impact.

Orange Elective in PIPEs.

2013 Feb
Preceptorship Level 2 Course, Continuing Education, Radiation Therapists, Department of Radiation Oncology, Odette Cancer Centre and Princess Margaret Hospital
Feuz C., Peacock M. Moline K, Tan K, Preceptorship Level 2, for 2 half day sessions.
Created workshop based on Research project based on the results of the needs assessment.

2012
Preceptorship Certificate Course, Continuing Education, Department of Radiation Oncology Moline K, Peacock M. Feuz C. Customized Workshop 1 and Workshop 2, for a one day session specialized to the needs of the Credit Valley Hospital Radiation Therapy Department.
Revised workshop activities, modified format, increased interactivity, relevance.

2011
Clinical Preceptorship Certificate Course, Preceptorship Workshop 1 Moline K, Peacock, M.
Revised workshop activities, updated presentation, increased interactivity, relevance.

2011
Preceptorship Certificate Course, Workshop 2 Feuz C, Moline K.
Revised workshop activities, updated presentation, increased interactivity, relevance.

2011
ARCTIC: Appreciating Roles and Collaboration to Improve Care, Head & Neck Cancer, University of Toronto Moline K, Sutherland S.
Awarded ORANGE status as an IPE elective from PIPES, Office of Interprofessional Education.

2011
Small IPE Group Facilitation Workshop, Sunnybrook Health Sciences Centre Davies R, Jackson L, Moline K, Sutherland S. Collaborated to develop a workshop to train IPE facilitators specifically for our ARCTIC event.

2011
Spiritual Care Workshop (revised), 2 sessions, Odette Cancer Centre Ford B, Moline K.

2011
Developed new Simulator Rotation Guidelines for Clinical Students

2011
Developed and designed new IPE rotation for Skin clinic and competency assessment for skin cancer
2011
Clinical Teaching Skills Workshop 1, Department of Radiation Therapy, Sunnybrook Health Sciences Centre
_Moline K, Peacock M, McGuffin M, Dawdy K._

2011
Clinical Teaching Skills Workshop 2, Department of Radiation Therapy, Sunnybrook Health Sciences Centre

2010
Head & Neck Cancer, Interprofessional Education Event, Sunnybrook Health Sciences Centre
_Moline K, Sutherland S._

2009
Spiritual Care Workshop, 2 sessions, Odette Cancer Centre
_Ford B, Moline K._

2008
Clinical Radiation II and Clinical Radiation III, MRS242H1, MRS243H1, Michener Institute for Applied Health Sciences
Consultant and expert advisor on the development of these courses.

2008
Spiritual Care Workshop, 2 sessions, Odette Cancer Centre
_Cyr D, Moline K, Perusco M._

2007
Clinical Simulation Semester Course (Framework), Simulated Clinical Experience: Radiation Therapy, MRS241H1, Michener Institute for Applied Health Sciences
_Potvin M, Chai M, Moline K, McParland N, Williams A, McArdle S. Curriculum development committee member, University of Toronto._

2004
Evaluation Methods Workshop for Radiation Therapists, Toronto-Sunnybrook Regional Cancer Centre
_Moline K, Gillies C._

2002
Introduction to Clinical Oncology, MRS144H1, Michener Institute for Applied Health Sciences
_Paddon L, Palmer C, Moline K, Spence-Ariemma. Curriculum development committee member._

1999 Jun
Clinical and Didactic Integration Program Student Curriculum, Toronto-Sunnybrook Regional Cancer Centre
_Ali A, Doswell J, Edgerton J, Gillies C, Harnett N, Maier B, Moline K (Editor & Contributing Author)._}

1996
Clinical and Didactic Integration Program®©, University of Waterloo
_Ali A, Doswell J, Edgerton H, Harnett N, Maier B, Moline K (Editor & Contributing Author), Stevenson C. Toronto-Sunnybrook Regional Cancer Centre, Ontario Cancer Treatment & Research Foundation, Sunnybrook Medical Centre._

1994
Orientation Program, University of Waterloo
_Comprehensive Orientation Program for First Year Radiation Therapy Students to meet the CAMRT Curriculum Guide requirements, Toronto Bayview Regional Cancer Centre, School of Radiation Therapy._

1994
Anatomy and Physiology Course, University of Waterloo
_Development of the section on pelvis for the new Sectional Anatomy course, Toronto Bayview Regional Cancer Centre, School of Radiation Therapy._

1994
Paediatric Clinical Program Workshop, Toronto Bayview Regional Cancer Centre
_Moline K, Bolton W, Griffiths A._

1994
Module A: Single Beam Calculations, University of Waterloo
_Treatment Planning Course, Toronto Bayview Regional Cancer Centre, School of Radiation Therapy._

1994
Module B: Multiple Beam Calculations, University of Waterloo
_Treatment Planning Course, Toronto Bayview Regional Cancer Centre, School of Radiation Therapy._

1994
Module C: Wedges, University of Waterloo
_Treatment Planning Course, Toronto Bayview Regional Cancer Centre, School of Radiation Therapy._

1994
Module: Gaps, University of Waterloo
Karen A. MOLINE

_Treatment Planning Course, Toronto Bayview Regional Cancer Centre, School of Radiation Therapy._

1994
Module: Irregular Fields, University of Waterloo
_Treatment Planning Course, Toronto Bayview Regional Cancer Centre, School of Radiation Therapy._

1992
Technique Lab Course, University of Waterloo
_Toronto Bayview Regional Cancer Centre, School of Radiation Therapy_

Innovative Course to provide the student with practical experience to apply treatment planning theory with the radiotherapeutic aspects of the oncology course. For the student to become familiar with the patients position, the technique, the volume and the dose through simulating techniques used to treat disease sites.

1991
Perceptor Program, University of Waterloo
_Toronto Bayview Regional Cancer Centre, School of Radiation Therapy._

**G. Creative Professional Activities**

1. **PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE**

2015 Jul - 2016 Jun
IPE outside the building.
Co-curriculum developer of an IPE elective on spiritual and emotional well being.
tbd
A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees

2006 - 2011 MEd, Masters of Adult Education and Community Development Workplace Literacy and Social Change, OISE/UT, University of Toronto, Ontario, Canada

1994 - 1997 Diploma Radiation Therapy, School of Radiation Therapy, Toronto-Sunnybrook Regional Cancer Centre, Ontario, Canada

1990 - 1994 BSc, Brock University

2. EMPLOYMENT

Current Appointments

2006 - present Clinical Educator, Radiation Therapy, Odette Cancer Centre, Toronto, Ontario, Canada

2006 - present Instructor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

2005 - present CPR Instructor, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

NATIONAL

Occupational Health and Safety
2001 - present Certified Worker and committee member, Canada.

LOCAL
Sunnybrook and Women’s College Hospital
2003 - present Certified Worker and committee member, Joint Occupational Health and Safety Committee, Canada.

C. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2. NATIONAL

Invited Lectures and Presentations

Presented and Published Abstracts

Publication Details:
Curriculum Vitae

Cathryne Palmer

A. Date Curriculum Vitae is Prepared: 2016 July 11

B. Biographical Information

Primary Office  Stewart Building, Suite 504
                149 College Street
                Toronto, Ontario, Canada
                M5T 1P5
Telephone      (416) 978-7838
Email          cathryne.palmer@rmp.uhn.on.ca

1. EDUCATION

Degrees
2003          MSc, Radiography (Therapeutic Pathway), Anglia University, Cambridge, United Kingdom
1999          BSc, Radiation Therapy, Anglia University, Cambridge, United Kingdom
1986          High School, St. John Rigby College, Orrell, Wigan, Gtr. Manchester, United Kingdom
1983          High School, St.Peters R.C High School, Orrell, Wigan, Gtr. Manchester, United Kingdom

Qualifications, Certifications and Licenses
2012 - 2014   Certificate of Completion, Education Scholars Program, Centre for Faculty Development, University of Toronto
1990 - present Member, College of Medical Radiation Technologists of Ontario
1997          Certificate in Instructing Adults, George Brown College, Toronto
1989          Diploma of the College of Radiographers (Therapy), Royal Marsden Hospital, Sutton, Surrey, United Kingdom

2. EMPLOYMENT

Current Appointments
2012 - present  Director, Medical Radiation Sciences Program, Radiation Oncology, Faculty of Medicine, University of Toronto, Ontario, Canada
2009 - present  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
2007 - present  Associate Member, Institute of Medical Science, Faculty of Medicine, University of Toronto
2003 - present  Radiation Sciences Undergraduate Education Manager, Princess Margaret Hospital, Toronto
Previous Appointments

HOSPITAL
2001 - 2003  Clinical Co-ordinator, UT/TMI Radiation Sciences Program, Princess Margaret Hospital
2001 - 2003  Clinical Education Director, UT/TMI Radiation Sciences Program, Princess Margaret Hospital
1999        Didactic Instructor, School of Radiation Therapy, Princess Margaret Hospital, Toronto
1996 - 2001  Clinical Instructor, School of Radiation Therapy, Princess Margaret Hospital, Toronto
1995 - 1996  Treatment Planner, Princess Margaret Hospital, Toronto
1993 - 1995  Acting Senior Radiation Therapist, Princess Margaret Hospital, Toronto
1990 - 1993  Radiation Therapist, Princess Margaret Hospital, Toronto
1989 - 1990  Radiographer, Radiation Therapy, Middlesex Hospital, London, United Kingdom
1989        Radiographer, Radiation Therapy, Royal Marsden Hospital, Sutton, Surrey, United Kingdom

UNIVERSITY
2003 - 2012  Academic Coordinator, Medical Radiation Sciences Program, Radiation Oncology, University of Toronto

UNIVERSITY - RANK
2002 - 2009  Lecturer, Radiation Oncology, Faculty of Medicine, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received

2010  Certificate of Merit, E.I.Hood Award, Canadian Association of Medical Radiation Technologists. (Distinction)

LOCAL
Received

2009  Educational Leadership, Radiation Medicine Program, Princess Margaret Hospital. (Distinction)
2007  Research Supervision Award, Department of Radiation Oncology, University of Toronto. (Distinction)
2003  Nursing and Professional Services Scholarship, University Health Network. (Distinction)

Teaching and Education Awards

LOCAL
Received

2011  Postgraduate Classroom Teaching, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD)

Nominated
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2003 - present Member, Association of Educators in Radiological Sciences, USA
2003 - present Associate member, Canadian Association of Radiation Oncologists
1996 - present Associate member, International Society of Radiographers and Radiological Technologists
1990 - present Member, Canadian Association of Medical Radiation Technologists
1990 - present Member, Ontario Association of Medical Radiation Technologists

Administrative Activities

INTERNATIONAL
Association of Educators in Radiological Sciences
2004 - 2007 Member, Editorial Review Board, United States.
2004 - 2005 Member, Graduate Curriculum Taskforce, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education, United States.

NATIONAL
Canadian Association of Medical Radiation Technologists
2012 Future Technologies Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology

Canadian Association of Radiation Oncologists
2005 - 2010 Member, Education Committee

Canadian Medical Association, Conjoint Accreditation Services
2008 - 2011 Chair, Accreditation Survey
2007 - 2010 Member, Accreditation Survey

PROVINCIAL / REGIONAL
College of Medical Radiation Technologists of Ontario
2010 - present Elected Member, Council
2010 - present Elected Member, Registration Committee
2010 - present Elected Member, Elections Committee
2010 - present Member, Certification and Examination Committee
1999 - 2008 Elected Member, Registration Committee
LOCAL

Medical Physics Residency
2004 - 2007 Member, Residency Program Committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

Medical Radiation Sciences Graduate Degree Program
2001 - 2003 Member, Curriculum Sub-Committee, MSc Medical Radiation Sciences Graduate Program, Faculty of Medicine, Dept of Radiation Oncology, Graduate Education

Medical Radiation Sciences Undergraduate Degree Program
2016 – present Member, Joint Medical Radiation Sciences Strategic Executive
2009 - present Member, Joint Curriculum Committee
2008 - present Chair, Academic Oversight Committee
2007 - present Member, Program Advisory Committee
2003 - present Chair, Policies and Procedures Sub-Committee
2003 - 2007 Member, Medical Radiation Sciences Planning Committee
2003 - 2016 Member, Joint Management Committee
2003 - present Chair, Academic Coordinators Committee
2005 - 2009 Chair, Joint Curriculum Committee
2003 - 2007 Member, Academic Oversight Committee
2003 - 2005 Co-Chair, Joint Curriculum Committee
2003 - 2005 Member, Student Assessment Sub-committee
2000 - 2003 Member, Executive, Program Advisory Council
1999 - 2003 Member, Faculty Liaison Committee

Michener Institute for Applied Health Sciences
2008 - 2010 Member, Ethics Review Board

Princess Margaret Hospital
2009 Member, RMP Pandemic Planning Task Force
2002 - 2003 Member, Radiation Therapy Education Committee, Faculty of Medicine, Dept of Radiation Oncology
2002 Member, Curriculum Sub-Committee, RMP Skills Lab Project, Faculty of Medicine, Dept of Radiation Oncology
1999 - 2002 Member, Radiation Medicine Program Education Committee, Faculty of Medicine, Dept of Radiation Oncology

Radiation Oncology Residency Program
2009 - 2012 Member, Curriculum Sub-committee, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

University of Toronto
2013 - 2015 Member, Faculty of Medicine Education Council
2013 - present Member, Hospital- University Education Committee, Faculty of Medicine,
2012 - 2014 Member, Health Sciences Admissions/Recruitment Working Group, Faculty of Medicine,
2011 - 2015 Member, Council of Health Sciences Education Sub-committee, Faculty of Medicine,
2011 - 2014 Member, Implementation Group on Valuing Academic Performance
Cathryne PALMER

2010 - 2011  Member, Task Force on Valuing Academic Performance Phase 2
2009 - present  Member, Health Sciences Committee on Emergency Preparedness

University of Toronto, Department of Radiation Oncology
2004 - present  Member, Executive Committee
2004 - 2012  Chair, Medical Radiation Sciences Academic Leadership
2009 - 2010  Member, 2010 Toronto Radiation Medicine Organizing Committee
2008 - 2009  Member, 2009 Toronto Radiation Medicine Organizing Committee
2006 - 2010  Member, Teaching Effectiveness Committee
2003 - 2004  Member, 2004 Toronto Radiation Medicine Organizing Committee

University of Toronto, Faculty of Medicine
2011 - present  Member, Faculty Council Education Committee,
2009 - present  Member, Steering Committee, Physician Assistant Education Program,
2009 - 2012  Reviewer, Determinants of Community Health 2, Undergraduate MD
2007 - 2012  Member, Interfaculty Curriculum Committee, Centre for Interprofessional Education,

Peer Review Activities

EDITORIAL BOARDS
Editor
2004 - present  MRS Newsletter, Medical Radiation Sciences Undergraduate Degree Program

MANUSCRIPT REVIEWS
Associate Editor
2013 - present  Canadian Association of Medical Radiation Technologists, Journal of Medical Imaging and Radiation Sciences

ABSTRACT REVIEWER
Reviewer
2007 - present  Canadian Association of Radiation Oncology, Annual Scientific Meeting
2011  2012 ISRRT World Congress/CAMRT Annual General Conference, Toronto, Ontario

Other Research and Professional Activities
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUNDED


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2006 An interprofessional approach to remediation in undergraduate education: The experience of the Medical Radiation Sciences Program. 12th International Ottawa Conference on Clinical Competence.

Presented Abstracts

2012 Presenter. Is there an app for that? Getting connected to the Millennial Generation. ISRRT World Congress/CAMRT AGC. Toronto, Ontario. Authors: N. Kee and J. Davis.


2007 Helping learners in difficulty - the experience from the program review committee at the Medical Radiation Sciences Program, University of Toronto and the Michener Institute for Applied Health Sciences. 4th Asia-
2007

2006

2006

2006

2006

2006

2006

2006

2004

2004

2. NATIONAL

Invited Lectures and Presentations

2013
**Keynote Speaker.** We are at a crossroads! What opportunities will you make of it? Prince Edward Island
Association of Medical Radiation Technologists. Charlottetown, Prince Edward Island, Canada.

2011  From chalkboards to iPads: Teaching across the generations. CARO 25th Annual Scientific Meeting.

2008  Getting Grounded: An Introduction to Qualitative Research. CARO 2008: Targeting the Tumour Microenvironment in Radiation Oncology.


Presented Abstracts


2010  From Chalkboard to Blackboard: Transitioning to an Online Human Physiology Course. Canadian Association of Medical Radiation Technologists Annual General Conference. Quebec City, Quebec. Authors: Palmer C, Kee N, Matthews SG, Perumalla C.

2010  Impact of Key Stakeholders’ Perceptions on Simulation-Enhanced Curriculum Design. Canadian Association of Medical Radiation Technologists Annual General Conference. Quebec City, Quebec. Authors: Palmer C, Cherryman F, Weltz S, Craig R.


3. PROVINCIAL / REGIONAL

Presented Abstracts


2009  Evolving Perceptions of Simulation as a Key Ingredient to Curriculum Success in a Medical Radiation

4. LOCAL

Invited Lectures and Presentations


2007 Helping students with performance difficulties. Radiation Therapy Department, RMP.

2006 Putting qualitative inquiry to work in educational research. Radiotherapy in Practice III.

2005 Putting qualitative inquiry to work in educational research. Advancing Education in the Health Sciences: Sharing our innovations, improving what we do. OMEN Educational Research Symposium.

2004 Getting Ground: An Introduction to Qualitative Research. The Science and Management of Radiation Late Effects Conference. (Continuing Education).

2004 Research: It’s not just about the numbers! An Introduction to Qualitative Research. L&L Sessions, Radiation Therapy Department, RMP.

2001 Work-related Stress Factors Affecting Radiation Therapists, MSc Research Project. L&L Sessions, Radiation Therapy Department, RMP.

1993 Orientation to the Simulator. Radiation Therapy Students. Princess Margaret Hospital.

1993 Introduction to Radiation Therapy. Pharmacy Department. Princess Margaret Hospital.

1993 Introduction to Radiation Therapy. Oncologic Imaging Department. Princess Margaret Hospital.

Presented Abstracts


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2007  Primary Supervisor. C. Gillan, Medical Radiation Science. *Radiation therapy students’ teaching expectations of therapists over the course of clinical practicums: a longitudinal study.*

2005  Primary Supervisor. N. Naccarato, Medical Radiation Science. *Differences in radiation therapy staff and students’ perceptions of clinical teaching characteristics.*

2004  Primary Supervisor. M. Chan, Medical Radiation Science. *Investigating the current occupational stress factors of radiation therapists at Princess Margaret Hospital.*

2004  Primary Supervisor. K. Slikowski, Medical Radiation Science. *Is this the right treatment for me: A look at media influence on breast cancer patients.*

2003  Primary Supervisor. W. Li, Medical Radiation Science. *Investigating the effectiveness of reflective journaling for radiation therapy students: A student perspective.*
Curriculum Vitae

CONTACT INFORMATION:
Name: Marc J. Potvin
Business Address: 222 St. Patrick St., Toronto, Ontario, M5T 1V4
Business Telephone #: (416) 596-3101 x3228
Business Fax #: (416) 596-3152
E-mail Address: mpotvin@michener.ca

Date of Last Update: May 2011

EDUCATION:

University Education
1988 Bachelor of Science - Biology major, York University, Toronto, Ontario

Post-Graduate and Medical Training
1993 Diploma in Radiation Therapy, Ontario Cancer Institute/Princess Margaret Hospital School of Radiation Therapy, Toronto, Ontario
1997-1998 Princess Margaret Hospital, Department of Radiation Physics, Preparatory courses in radiation physics and treatment planning theory and application, Toronto, Ontario
2008 Master of MedRadSci. Candidate, Charles Sturt University, Australia

Continuing Education
1999 Seagate Software, Course in Advanced Level Crystal Reports, Toronto, Ontario
2000 Learning Tree International, Course in VBA Programming, Toronto, Ontario
2001 Instructional Skills Workshop, Michener Institute, Toronto, Ontario
2001-2004 Continuing education courses – Medical Ethics, Canadian Health System, Occupational Health and Law for Health Managers, Ryerson University, Toronto, Ontario
2004-2007 Continuing distant education courses – Radiation Therapy Treatment Planning Systems, Diagnostic Imaging for Radiation Therapists, and Brachytherapy Theory, Theory of Treatment Planning Calculations, University of Sydney, Australia
Scholarships and Awards


2010 **Potvin M**, Chai M, Evans M. “Implementation of MOSAIQ for Student Evaluation & Feedback” The Michener Institute for Applied Health Sciences Award for Team Innovation

**BIOGRAPHICAL INFORMATION:**

**Hospital/Staff Appointments**

1993-2001 Radiation Therapist, Princess Margaret Hospital, Toronto, Ontario

**Academic Appointments**

2001-present Instructor, Department of Radiation Oncology, Faculty of Medicine, The University of Toronto (UT), Toronto, Ontario

2001-present Professor, Medical Radiation Sciences Program, The Michener Institute for Applied Health Sciences (TMI), Toronto, Ontario

**Professional Affiliations and Activities**

1993-present Member, Canadian Association of Medical Radiation Technologists/Ontario Association of Medical Radiation Technologists

2008-present Member, American Association of Medical Dosimetrists

2009-2010 Judge, Canadian Association of Medical Radiation Technologists 2009 & 2010 Essay Competitions

**Certifications and Licensures**

1993-present Certificate of Registration, College of Medical Radiation Technologists of Ontario, Toronto, Ontario

2001-present Certificate of Registration, Medical Dosimetrist Certification Board, Mt. Laurel, New Jersey, USA

**Administration and Committee Appointments**

2002–2009 Member, UT Board of Examiners, Medical Radiation Sciences Program

2002-present TMI Academic Appeals Committee

2003-2009 MRS representative, UT Year I IPE Event organizing committee
2004-2006 Chair, Program Review Committee, Radiation Therapy
2004-2006 Member, MRS Academic Oversight
2004-present Member, Joint Curriculum Committee, MRS program
2004-2006 Member, Divisional Curriculum Committee, TMI
2004-2006 Member, MRS Policy and Procedures Committee
2009-present Co-Chair, UT Year I IPE Event organizing committee

STATEMENT OF SCHOLARLY AND PROFESSIONAL ACTIVITY:

PUBLICATIONS:

Refereed Publications


Book Chapters


Published Abstracts


Invited Presentations

Potvin M. Radiation Therapy Management using Multi-Access and Crystal Reports. IMPAC Users Group Meeting, American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Conference, Boston, USA. 2000

Potvin M. The implementation and impact of a comprehensive radiotherapy information management system. Ontario Association of Medical Radiation Technologist (OAMRT) Annual Conference, Markham. 2001


Potvin M. Are Degrees a Necessary First Step for Therapy Specialization? Canadian Association of Radiation Oncologist (CARO) Annual Conference, Toronto. 2002


Potvin M, Evans M. Clinical Simulation in Undergraduate Radiation Therapy Education. 7th Annual Radiation Therapy Conference (RTi3), Toronto. 2010

TEACHING AND DESIGN:

Undergraduate Courses Taught (teaching contact hours)

2009-2010 (UT/TMI MRS Program)

- Radiation Science I (RSRT310/MRS142H1) (16 hrs)
- Radiation Science II (RSRT320/MRS145H1) (26 hrs)
- Treatment Planning I (RSRT231/MRS244H1) (71 hrs)
- Treatment Planning II (RSRT241/MRS245H1) (71 hrs)
- Simulated Clinical Experience (CLRT261/MRS241H1) (96 hrs)

2008-2009 (UT/TMI MRS Program)

- Radiation Science I (RSRT310/MRS142H1) (16 hrs)
- Treatment Planning I (RSRT231/MRS244H1) (71 hrs)
- Treatment Planning II (RSRT241/MRS245H1) (71 hrs)
- Simulated Clinical Experience (CLRT261/MRS241H1) (120 hrs)

2007-2008 (UT/TMI MRS Program)

- Treatment Planning (RSRT230/MRS148Y1) (265 hrs)
- Patient Care in Radiation Therapy II (HCRT410/MRS147H1) (51 hrs)

2006-2007 (UT/TMI MRS Program)

- Treatment Planning (RSRT230/MRS148Y1) (265 hrs)
- Comparative Imaging Modalities (IGRT120/MRS167H1) (26 hrs)
- Introduction to Clinical Oncology (ONRT120/MRS144H1) (39 hrs)

2005-2006 (UT/TMI MRS Program)

- Program Liaison, Radiation Therapy (300 equivalent teaching hours)
- Treatment Planning (RSRT230/MRS148Y1) (265 hrs)
Comparative Imaging Modalities (IGRT120/MRS167H1) (26 hrs)

2004-2005 (UT/TMI MRS Program)

Program Liaison, Radiation Therapy (300 equivalent teaching hours)
Treatment Planning (RSRT230/MRS148Y1) (265 hrs)
Comparative Imaging Modalities (IGRT120/MRS167H1) (20 hrs)

2003-2004 (UT/TMI MRS Program)

Treatment Planning (RSRT230/MRS148Y1) (265 hrs)
Comparative Imaging Modalities (IGRD120) (20 hrs)
Introduction to Patient Care (HCRT310/RSP330H1) (43.5 hrs)

2002-2003 (UT/TMI MRS Program)

Treatment Planning (RSRT410) (265 hrs)
Specialized Imaging (IGRD410/RSC430H1) (38 hrs)

2001-2002 (UT/TMI MRS Program)

Treatment Planning (RSRT410) (265 hrs)
Specialized Imaging Modalities (IGRD410/RSC430H1) (48 hrs)

Continuing Education

2004-2005 (TMI)

Introduction to Dosimetry (RT803) – Post graduate on-line course (9 weeks in length)
Dosimetry and Treatment Planning (RT800) – Post graduate on-line course (13 weeks in length)

2003-2004 (TMI)

Dosimetry and Treatment Planning (RT800) – Post graduate on-line course (13 weeks in length)

2002-2003 (TMI)

Dosimetry and Treatment Planning (RT800) – Post graduate on-line course (13 weeks in length)
The Changing Role of Imaging in Radiation Therapy (RT900) – (1 day seminar with laboratory session)

Course Design

2008-2009 (UT/TMI MRS Program)

Developed the course MRS241H1/CLRT261 Simulated Clinical Experience: Radiation Therapy

2007-2008 (UT/TMI MRS Program)

Redesigned the undergraduate radiation therapy treatment planning curriculum (MRS244H1/RSRT231 & MRS244H1/RSRT241)
2006-2007 (UT/TMI MRS Program)

Framework developed for clinical simulation semester for the radiation therapy program

2005-2006 (UT/TMI MRS Program)

Implemented drama therapy program for radiation therapy students with communication difficulties

2004-2005 (TMI)
Redeveloped the treatment planning laboratory course in RSRT230/MRS148Y1 as the result of the implementation of a new treatment planning system (Pinnacle)

Developed the curriculum for the on-line course (RT800) Introduction to Dosimetry. This course was created for the Princess Margaret Hospital for therapists beginning a new rotation in treatment planning

2003-2004 (UT/TMI MRS Program)
Continuing development of the laboratory component for RSRT410 (Treatment Planning)

2002-2003 (UT/TMI MRS Program)
Created the conformal treatment planning module for the continuing education course RT900 (The Changing Role of Imaging in Radiation Therapy)

Assisted in the development of the Dosimetry and Treatment Planning continuing education course (RT800) as well as the technical implementation of Theraplan Plus/Metaframe for remote treatment planning

Created the medical terminology module for the course HCRT310 (Introduction to Patient Care)

2001 (UT/TMI MRS Program)
Developed the digital fluoroscopy and computed radiography labs for IGRD410 (Specialized Imaging Modalities)
Curriculum Vitae

Joe Presutti
B.Sc., M.R.T. (T), Radiation Therapist

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
1991 Sep - 1995 Apr BSc, Biology minor, Department Of Science, University of Waterloo, Waterloo, Ontario, Canada

Qualifications, Certifications and Licenses
1995 Sep - 1998 Apr Medical Radiation Technologist Accreditation M.R.T.(T), Hamilton School of Radiation Therapy, Hamilton Regional Cancer Center (Juravinski Cancer Centre), Hamilton, Ontario, Canada

2. EMPLOYMENT

Current Appointments
2005 Jun - present Dosimetrist, Department of Radiation Therapy, Odette Cancer Centre, Toronto, Ontario, Canada

Responsible for radical and palliative treatment planning of all treatment sites including:
• Dose distribution production and evaluation for conventional, 3D conformal, IMRT, VMAT, SBRT, Stereotactic and electron techniques
• Calculations, Record and Verify data entry, contouring of normal structures
• Regular quality assurance of colleagues plans
• HDR brachytherapy planning for gynecological, prostate, skin and lung tumours
• Member of the OCC Gyne and GI site group teams
• Problem solving for difficult setups on the simulator and treatment units
3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1998 Mar - present  Medical Radiation Technologist (therapist), College of Medical Radiation Technologists (CMRTO)
Curriculum Vitae

Tara Rosewall
MRT(T)

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees

2007 - present PhD, Health Science, Health Science, Charles Sturt University, Wagga Wagga, New South Wales, Australia
2003 Sep - 2006 Jun MSc, Therapeutic Radiography (with distinction), Health Science, Anglia Ruskin University, Cambridge, Cambridgeshire, United Kingdom
2001 Sep - 2003 Jun BSc, Radiography (Therapeutic), Health Science, Anglia Polytechnic University, Cambridge, Cambridgeshire, United Kingdom

Qualifications, Certifications and Licenses

2011 Jun - present Fellow, Radiation Therapy, Canadian Association of Medical Radiation Technologists, Canada, License / Membership #: 23308
1992 - present Licentiate, Medical Radiation Technology (Therapy), College of Medical Radiation Technologists of Ontario, Toronto, Ontario, Canada, License / Membership #: 09007
1997 - 2003 Certificate of Medical Dosimetry, American Association of Medical Dosimetrists, United States
1987 - 1990 Diploma of the College of Radiographers, Therapeutic Radiography, Southwest School of Radiography, Bristol, Bristol, City of, United Kingdom

2. EMPLOYMENT

Current Appointments

2010 - present Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
2007 - present  Associate Member, Medical Science, Institute of, School of Graduate Studies, University of Toronto
2004 - present  Radiation therapy research and development leader, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2011 - present  Member, Canadian Radiation Research Network
2005 - present  Member, European Society of Therapeutic Radiology and Oncology
2004 - present  Associate Member, Canadian Association of Radiation Oncology
1992 Aug - present  Member, Canadian Association of Medical Radiation Technologists, 23308
1992 Aug - present  Member, College of Medical Radiation Technologists of Ontario, 09007
1992 Aug - present  Member, Ontario Association of Medical Radiation Technologists, 23308

Administrative Activities

INTERNATIONAL
University of Toronto, Department of Radiation Oncology
2012 - present  Chair, RTi3 Conference Organizing Committee

NATIONAL
Canadian Association of Radiation Oncology
2011 - present  Member, Annual Scientific Meeting Organizing Committee

PROVINCIAL / REGIONAL
Ontario Association of Medical Radiation Technologists
2007 - present  Chair, ME Wastle Bursary Committee

LOCAL
Princess Margaret Hospital
2012 - present  Member, Research Protocol Review Committee
2005 - present  Member, Radiation Medicine Program Research Committee

Princess Margaret Hospital, Radiation Medicine Program
2012 - present  Member, Radiation Therapist Journal Club

University of Toronto
2011 - present  Member, Teaching Effectiveness Committee, Faculty of Medicine,
Dept of Radiation Oncology

University of Toronto, Department of Radiation Oncology
2005 - present Member, RT Academic Leadership Committee

Peer Review Activities

EDITORIAL BOARDS
Associate Editor
2011 - present Journal of Medical Imaging and Radiation Sciences

MANUSCRIPT REVIEWS
Reviewer
2011 - present Radiation Oncology, North America
2010 - present International Journal of Radiation Oncology*Biology*Physics, North America
2010 - present Journal of Radiotherapy in Practice, United Kingdom

PRESENTATION REVIEWS
Reviewer
2010 - present Abstract Reviewer, Canadian Association of Medical Radiation Technologists Annual General Meeting, Canada.
2009 - present Abstract Reviewer, Canadian Association of Radiation Oncology, Canada

C. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


2. OTHER SUPERVISION

Graduate Education
Thesis Committee Member

2011 - present

A. Date Curriculum Vitae is Prepared: 2016 September 22

B. Biographical Information

Primary Office
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Ave
North York, Ontario, Canada

Telephone (416) 480-5000, ext. 81218
Email aisha.sheikh@sunnybrook.ca

1. EDUCATION

Degrees
1998 - 1999 BEd, Intermediate/Senior- Science and Environmental Science, OISE/UT, University of Toronto
1989 - 1993 MSc, Dept. of Cellular and Molecular Pathology, University of Toronto
1984 - 1988 BSc, Microbiology Specialist, University of Toronto

Postgraduate, Research and Specialty Training
2011 safeTALK - Suicide Alertness Certificate, University of Toronto
2009 MRS Clinical Preceptorship Course Certificate, Princess Margaret Hospital, Toronto
2009 Preceptor Education Program (online) Certificate, Western University
2007 Teaching For Learning and Collaboration Program Certificate, Centre for Faculty Development, University of Toronto
2005 - 2006 Stepping Stones: Teacher Training Program Certificate, Centre for Faculty Development, University of Toronto
2004 - 2005 Primary Diversity Learning Series Certificate, University Health Network
1993 - 1995 Radiation Therapy Diploma, Toronto-Sunnybrook Regional Cancer Centre

2. EMPLOYMENT

Current Appointments
2004 - present Instructor, Radiation Oncology, Faculty of Medicine, University of Toronto
1999 - present Staff Radiation Therapist, Radiation Therapy, Odette Cancer Centre - Sunnybrook Health Sciences Centre
Aisha SHEIKH

Previous Appointments

HOSPITAL
2014 - 2015 Part-time Clinical Coordinator, Radiation Therapy, Odette Cancer Centre - Sunnybrook Health Sciences Centre
2002 - 2004 Clinical Coordinator, Radiation Sciences Program, Toronto-Sunnybrook Regional Cancer Centre
   Spring-Summer 2002, 2003, 2004
1996 - 1998 Staff Radiation Therapist, Toronto-Sunnybrook Regional Cancer Centre

UNIVERSITY
2004 - 2012 Student Counselor - Medical Radiation Sciences (MRS) Program, Office of Health Professions Student Affairs, Faculty of Medicine, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL
Received
1989 - 1991 Open Masters Fellowship, University of Toronto. (Credential)

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, College of Medical Radiation Technologists of Ontario

Administrative Activities

INTERNATIONAL
RTi3 Radiation Therapy Conference
2010 - 2011 Member, Planning Committee
   In charge of obtaining Copyright/Conflict of Interest forms from all presenters.

LOCAL
Sunnybrook Health Sciences Centre
2007 - present Member, Patient Education/Translation Group, Odette Cancer Centre, Patient and Public Education
2002 - present Patient Translator – Urdu and Punjabi
2000 - present Member, Patient Education Committee (Wellspring), Odette Cancer Centre
2010 - 2012 Member, Clinical Skills Day Working Group, Odette Cancer Centre
2010 Member, Patient Education/Orientation Session Sub-Committee, Odette Cancer Centre
2009 Collaborator, Multi-lingual electronic tool for patients undergoing radiation treatment at Odette Cancer Centre
Peer Review Activities

PRESENTATION REVIEWS
Abstract Reviewer
2010 Nov RTi3 Radiation Therapy Conference

C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Newsletters

D. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


Other Lectures and Presentations

2011 Mar 4 Workshop Moderator. Career Planning: Are you failing to plan or planning to fail? RTi3 Radiation Therapy Conference. (Continuing Education).

2. LOCAL

Invited Lectures and Presentations

1995 The Pathophysiology of Cancer. Toronto-Sunnybrook Regional Cancer Centre. Seminar presented to oncology nurses. (Continuing Education).

Other Lectures and Presentations


2010 Sep 2  Office of Health Professions Student Affairs Orientation for MRS Class of 2012. The Michener Institute Auditorium.


2009 Apr 8  Clinical Practicum: How to Succeed In Clinic. The Michener Institute. Preclinical Session for First Year Nuclear Medicine and Radiological Technology Students.

2009 Apr 8  Clinical Practicum: How to Succeed In Clinic. The Michener Institute. A Lunch and Learn Preclinical Session for First Year Radiation Therapy Students.

2008 Sep 19  Co-Facilitator/Tutor. Conflict in Professional Life. Office of Interprofessional Education, Faculty of Medicine, University of Toronto. Small group session. An IPE Seminar/Workshop for Third Year Medical Students, Final Year Nusing and Social Work Students.


2007 Sep 23  Co-Facilitator/Tutor. Conflict in Professional Life. Faculty of Medicine, University of Toronto. Small group session. An IPE Seminar/Workshop for Upper Year Medical, Nursing, and Social Work Students.


Curriculum Vitae

Anna K. Simeonov

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
2003 - 2007 MSc, Master of Applied Health Science (MRI), Charles Sturt University, Australia
1984 - 1986 BSc, Bachelor of Science Degree (Radiography), College for Applied Health Sciences, Bulgaria

Qualifications, Certifications and Licenses
Registered Technologist Magnetic Resonance and Radiography, Canadian Association of Medical Radiation Technologists, Canada, License / Membership #: 26537
Medical Radiation Technologist (Radiography), (Magnetic Resonance) registered, The College of Medical Radiation Technologists of Ontario, Ontario, Canada, License / Membership #: 10729

2. EMPLOYMENT

Current Appointments
2009 - present Lecturer, Radiation Oncology, University of Toronto
2003 - present Senior Technologist, MR Simulator, Radiation Physics Dept, Princess Margaret Hospital, Toronto, Ontario, Canada

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES
Professional Associations

2002 - present  Member, Society of Magnetic Resonance Technologist section of the International Society of Magnetic Resonance in Medicine (ISMRM)
1998 - present  Member, Canadian Association of Medical Radiation Technologist
1998 - present  Member, College of Medical Radiation Technologist of Ontario
1998 - present  Member, Ontario Association of Medical Radiation Technologist

Administrative Activities

INTERNATIONAL
Society of Magnetic Resonance in Medicine (SMRT/ISMRM)
2009 - present  Member, Education and Program committees

LOCAL
CMRTO
2010 - present  Appointed member, Registration committee, Toronto, Ontario, Canada.

University Health Network
2006 - present  Member, MRI safety committee, Toronto, Ontario, Canada.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

FUND ED

Curriculum Vitae
Updated: May 2016

Name:  Emily Rodger Sinclair BSc, MRT (T) MSc (C)
Address:   Department of Radiation Therapy
           Toronto Sunnybrook Regional Cancer Centre
           Sunnybrook Health Sciences Centre
           2075 Bayview Avenue
           Toronto, Ontario, Canada M4N 3M5
           Tel:       (416) 480-5000 # 3469
           Fax:      (416) 480-4672
           Email:  Emily.Sinclair@sunnybrook.ca

Present Position:  Advanced Practice Radiation Therapist

EDUCATION

1970 – 1976  7  O Levels and 5 H Levels
            Knightswood Secondary School, Glasgow, Scotland

1976 – 1979  Diploma of the College of Radiographers (Therapy),
            Glasgow School of Radiotherapeutics and Oncology, Scotland, UK.

1983 – 1985  SHNC in Business Studies
            Banff and Buchan College of Further Education, Fraserburgh, Scotland, UK.

1991  C.P.R. Instructors Course
      Heart and Stroke Foundation of Ontario, Wellesley Hospital, Toronto, Canada

1999  C.P.R. Instructor / Trainer Course
      Heart and Stroke Foundation of Ontario, Toronto, Canada
1993 – 1995    **Bachelor of Science, Radiotherapy**  
Anglia University, England, UK.

2012 – Present    **Masters Degree in Advanced Practice, Radiation Therapy**  
Sheffield, Hallam University, England, UK.
FURTHER EDUCATION COURSES CERTIFICATE LEVEL

1991  Spoken French Level 3,
1992  Preparation for a Supervisory Role, Seneca Management Course.
1992  Counseling Skills in Oncology,
1992  Computer Skills and Word Perfect
1993  Managing Change Successfully, Seneca management Course.
1994  Radiation Therapy Quality Control Course, C.A.M.R.T.
2003  Cochrane Workshop
2003  Applied Research Methods, Ontario Hospital Association
2004  Ovid Training, Sunnybrook Campus
2005  Human Relations, Seneca Ontario Management Development Program
2005-present Leadership Skills Certificate, Seneca College
2006  Human Participants Protection Education for Research Teams, NIH
2008  Informed Consent Course: Writing, Obtaining and Documenting
2008  Clinical Preceptorship Course
2008  Drawing Outside The Lines (Caring for your own feelings as well as your patients)
2009  Clinical Preceptorship part 2
2009  Instructor workshop adult education HSFO
2010  Instructor Trainer qualification HSFO
2011  CAMRT Skin Cancer course
2014  Instructor Trainer re certification with new guidelines HSFC
2013-2015 Leadership courses offered from Sunnybrook
2016  I-Lead Champion Course
EMPLOYMENT HISTORY

1979 – 1982 Grampian Health Board, Aberdeen Royal Infirmary, Scotland
   Position: Therapeutic Radiographer, Student Trainer.

1983 – 1989 Glasgow Health Board, Western Infirmary, Scotland
   Position: Therapeutic Radiographer, Senior 2, Student Instructor,

1990 – 1999 Toronto Bayview Regional Cancer Centre
   Position: Radiation Therapist, Supervision of Radiation Therapy students.

2000 – 2003 Toronto Sunnybrook Regional Cancer Centre (T.S.R.C.C.)
   Position: Resource Radiation Therapist, Michener radiation therapy student supervision and training.

   Position: Palliative Care Radiation Therapist, Research therapist, student supervision and education

2008 -2009 Palliative Care, Odette Cancer Centre,
   Position: Advanced Practice Palliative Care Radiation Therapist
   Clinical Specialist Radiation Therapist (CSRT)

2010- 2012 Odette Cancer Centre,
   Position: Resource Radiation Therapist, Michener radiation therapy student supervision and training.

2012-present Skin Clinic, Odette Cancer Centre,
   Position: Advanced Practice Radiation Therapist for Skin
   Clinical Specialist Radiation Therapist
# ADMINISTRATION / COMMITTEE AT SUNNYBROOK HEALTH SCIENCES CENTRE

<table>
<thead>
<tr>
<th>Group</th>
<th>Years</th>
<th>Position</th>
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<tbody>
<tr>
<td>Prostate Support Group</td>
<td>1992–1995</td>
<td>Chair</td>
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<tr>
<td>C.P.R. Executive Committee</td>
<td>1991–1995</td>
<td>Chair</td>
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<td></td>
<td>1995–Present</td>
<td>Member</td>
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<tr>
<td>Continuity of set-up Committee</td>
<td>2001–2003</td>
<td>Member</td>
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<td>Rapid Response Radiation Therapy Site Group</td>
<td>2003–2009</td>
<td>Member</td>
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<td>Bone Metastases Clinic Site Group</td>
<td>2003–Present</td>
<td>Member</td>
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<td>Hot Spot Newsletter</td>
<td>2003–Present</td>
<td>Member</td>
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<td>Communication Research Group</td>
<td>2005–Present</td>
<td>Member</td>
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<td>PPCIP Steering Committee</td>
<td>2007–Present</td>
<td>Member</td>
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<td>ISAAC Working Group</td>
<td>2007–2009</td>
<td>Member</td>
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<td>ISAAC Steering Committee</td>
<td>2006–2009</td>
<td>Member</td>
</tr>
<tr>
<td>Odette Integrated Palliative care/Supportive care/Psychosocial Oncology working group</td>
<td>2007–2010</td>
<td>Member</td>
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<tr>
<td>Provincial Cancer Symptom management Collaboration Phase 1 and Phase 2</td>
<td>2007–2014</td>
<td>Member</td>
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<tr>
<td>Clinical Research Group (CRAN)</td>
<td>2006–Present</td>
<td>Member</td>
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<td>ESAS Working Group</td>
<td>2006–2009</td>
<td>Member</td>
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<td>QA Clinic Research Group</td>
<td>2012–Present</td>
<td>Member</td>
</tr>
<tr>
<td>Certification Process Working Group</td>
<td>2012 - Present</td>
<td>Member</td>
</tr>
</tbody>
</table>

**MEMBERSHIP:**


**ACADEMIC APPOINTMENT:**

Appointed to the academic rank of Lecturer, at the University of Toronto, Department of Radiation Oncology.

Granted Status Appointment of Clinical Educator for the Michener Institute for applied health sciences.
AWARDS:

Awarded the T.S.R.C.C. Supporter pin for services beyond work to the hospital, peer selected.

Quality Award for the Rapid Response Radiotherapy Program (RRRP) at the Odette Cancer Centre.

Quality and Innovation Awards sponsored by the Cancer Quality Council of Ontario, Cancer Care Ontario and the Canadian Cancer Society.

Nominated for Human Touch Award

Inaugural Joint U of T and China Symposium, Toronto

“Minimally Invasive surgery for Palliative Bone Metastases” Best Clinical Poster Award

TRAINER : EDUCATOR

Instructor/Trainer for the Heart and Stroke Foundation of Ontario. Train all the cancer centre instructors. Organize and train all radiation therapist and nurses and physicians yearly, belonging to the Odette Cancer Centre, in CPR and defibrillation.

Train all students and radiation therapists yearly in the use of oxygen and suctioning equipment.

Train all students and radiation therapists on the use of the crash cart and response carts.

Train staff and students on the use of the defibrillator.

Teach DRO MHSce, MRS, Masters students on palliative radiation therapy (2 Hour session)

Teach Skin Cancer Course, Clinical Oncology, DRO (2 Hour session)

Facilitator for Interprofessional Education, 2012/2013 - U of T, Teamwork in health care

Facilitator for Interprofessional Conflict Resolution, 2015/2016, U of T Health Sciences Students

Conduct Clinical Simulation Sessions with students at the Michener Institute yearly

PEER-REVIEWED GRANTS

2006

Chow E (PI), Veith R, Danjoux C, Barnes E, Tsao M, Barbera L, Ko Y, Sinclair E.

GRANT REVIEWER

2006

Genesis Oncology Trust (New Zealand)

JOURNAL REVIEWER

Tohoku Journal of Experimental Medicine (Japan)

Hindawi Publishing Corp.

PORTFOLIO REVIEWER

Grading on a point system the portfolios of the applicants for the 2009/2010/2012/2013/2014 CSRT pilot project positions.

EDUCATION MATERIALS

Developed a short Palliative Care Self Study program for the CAMRT, published June 2010.

Co-Author book “Advanced Cancer. Pain and Quality of Life”

Co-Author book “Bone and Brain Metastases: Advances in Research and Treatment”

Co-Author book “Research for the Radiation Therapist: From Question to Culture”

RESEARCH INTERESTS:

Palliative radiotherapy and end-of-life care
Survivorship for Cancer Patients
Skin Cancer in a multi racial society
Communication in a busy clinic environment
PUBLICATIONS

PA = Primary Author; Co-PA = Co- Primary Author; C = Collaborator; SRA = Senior Responsible Author

PEER REVIEWED PUBLICATIONS


LETTERS TO EDITOR


BOOK CHAPTERS


**NON-REFEREED PUBLICATIONS**


**ABSTRACTS**


PEER REVIEWED PRESENTATIONS

Oct 2003:  **CARO, Montreal**
“Computed Tomography Evaluation of Breast Cancer Patients with Osteolytic Bone Metastases Undergoing Palliative Radiotherapy – A Feasibility Study”

Oct. 2003:  **ASTRO, Salt Lake City**
“Computed Tomography Evaluation of Breast Cancer Patients with Osteolytic Bone Metastasis Undergoing Palliative Radiotherapy – A Feasibility Study”

Nov. 2003:  **10th. Hong Kong International Cancer Congress**
“Accrual in Palliative Radiotherapy Studies”

Oct. 2004:  **ASTRO, Atlanta Georgia**
“Reasons for Poor Accrual in Palliative Radiotherapy Research Studies”

Nov. 2004:  **The Science and art of Pain and Symptom Management Conference, Toronto**
“Reasons for Poor Accrual in Palliative Radiotherapy Research Studies”

April 2005:  **Humber Annual Provincial Conference on Palliative and End of Life Care, Toronto**
“Determining the Accuracy of Radiation Therapists in Predicting the Survival of Patients with Advanced Metastatic Cancer”

April 2005:  **Humber Annual Provincial Conference on Palliative and End of Life Care, Toronto**
“Review of the Telephone Follow-up Experience In the Rapid Response Radiotherapy Program”

April 2006:  **Ontario Provincial Conference on Palliative and End of Life Care, Toronto**
“The Oncology Nurse and the Palliative Care Radiation Therapist: A powerful Force in a Palliative Outpatient Clinic?”

June 2006:  **The ISRRT 14th World Congress, Denver**
“Reasons for Poor Accrual in Palliative Research Studies in an Outpatient Clinic”

June 2006:  **The ISRRT 14th World Congress, Denver**
“Review of the Telephone Follow-up Experience at the RRRP

June 2006:  **The ISRRT 14th World Congress, Denver**
“Determining the Accuracy of Radiation Therapist in Predicting the Survival of Cancer Patients.”

March 2007:  **The UK Radiation Oncology Conference, Edinburgh**
“A Multidisciplinary Bone Metastases Clinic at Toronto Sunnybrook Regional Cancer Centre: A review of Experience from 1999-2005

March 2007:  The UK Radiation Oncology Conference, Edinburgh
“Review of the Rapid Response Radiotherapy Program at the Toronto Sunnybrook Regional Cancer Centre”

March 2007:  The UK Radiation Oncology Conference, Edinburgh
“Dexamethasone for the prophylaxis of radiation-induced pain flare following palliative radiotherapy for bone metastases: A pilot study”

Presented a workshop on CSRT

April 2009:  Humber Annual Provinicial Conference on Palliative and End of Life Care, Toronto
“Minimally invasive surgical procedures for palliative bone metastases”

February 2009:  Bonus 4 Conference, PMH, Toronto
“How to recommend which Minimally Invasive Surgical Procedures for bone metastases patients”

October 2009:  CARO, Quebec
“Orthovoltage x-ray beams: Bone’s friend? Should patterns of practice at the Odette Cancer Centre be revisited?”

October 2009:  University Health Network Conference, Toronto
“Kyphoplasty v’s Vertebroplasty for palliative bone metastases”

October 2010:  ASRT, San Diego
“Minimally invasive surgical options for palliative bone metastases patients”

February 2012 :  Pain Management Event, Toronto
“Case Studies in bone metastases pain management”

June 2012 :  ISRRT 17th World Congress, Toronto
“Workshop, Pathways to advanced Practice”

September 2012 :  CARO, Ottawa
“Experience of Advanced Practice from 2 urban Cancer Centres”

October 2012:  Inaugural Joint U of T and China Symposium, Toronto
“Minimally Invasive surgery for Palliative Bone Metastases”

October 2012:  ASRT, Boston
“What’s that on your nose Mr. Smith?”
October 2012: **ASRT, Boston**
   "Portfolios, Scrapbooking for the Professional"

February 2013: **Radiation Therapy Research Rounds, Odette Cancer Center, Toronto**
   "The multidisciplinary skin cancer Clinic, review of skin cancer"

March 2013: **RTi3, Toronto**
   "Skin Cancer, what do we really know about it?"

March 2013: **RTi3, Toronto**
   "Pathways to advanced practice in palliative radiation therapy"

March 2013: **RTi3, Toronto**
   "CSRT Symposium Workshop"

March 2013: **RTi3, Toronto**
   "Portfolios for today’s Radiation Therapist"

May 2013: **C.A.M.R.T. Conference, St.Johns, Newfoundland**
   "Portfolios for today’s Radiation Technologist"

May 2013: **CAMRT Conference, Newfoundland**
   "Establishing a place for advanced practice in palliative radiation therapy: Experience of two urban cancer centres"

September 2013: **DRO Rounds, Toronto**
   "Jumping Outside the Box -The Evolving Roles of Radiation Therapists-

September 2013: **2nd Annual Sunnybrook Education Conference** : Digital Learning, Toronto
   "Portfolios for all health care professionals"

March 2014: **RTi3, Toronto** : How do you see Advanced Practice Roles working in your Radiation Therapy Department?

March 2014: **RTi3, Toronto** : Do we still treat Benign conditions with radiation?

March 2014: **RTi3, Toronto** : Does age determine how you interact with your peers?

May 2014: **C.A.M.R.T. Conference, Edmonton, Alberta**: Keloids - To treat or not to treat with radiation

May 2014: **C.A.M.R.T. Conference, Edmonton, Alberta**: Times they are a changing
Sept. 2014: XV World Congress on Cancers of the Skin: Edinburgh, Scotland:
Establishing a place for advanced practice in skin cancer radiation therapy: experiences of two urban cancer centers

Sept. 2014: XV World Congress on Cancers of the Skin: Edinburgh, Scotland: Keliod treatment: surgery and radiation combination: are the risks associated with radiation worth taking?

Sept. 2014: XV World Congress on Cancers of the Skin: Edinburgh, Scotland: The process of introducing a new technique for treatment of superficial skin cancer into an established radiation therapy department

October 2014: IROR: Odette Cancer Centre, Toronto: “Shining a light on PDT”


March 2015: RTi3, Toronto: How soon does the pain in the treatment site disperse after photodynamic therapy treatment (PDT) for superficial skin disease?

March 2015: RTi3, Toronto: Shining a Light on Photodynamic Therapy (PDT) Educational Material: Reframing Patient Education Materials for a New, Non Radiation Treatment

March 2015: RTi3, Toronto: Establishing a place for advanced practice in skin cancer radiation therapy: experiences of 2 urban cancer centers


March 2016: RTi3, Toronto: Patient pre clinic expectations of a visit to Ontarios only multidisciplinary skin cancer clinic

March 2016: RTi3, Toronto: An orthovoltage planning clinic for skin cancer patients
TEACHING DOSSIER

(Clinical and Research Co-Supervisor with Dr. Edward Chow for the students)

2003 Sept- Dec  Nicole Bradley, 2nd year undergraduate student, University of Waterloo. Follow up on patients receiving palliative radiotherapy.

2004 Jan-Apr  Kathy Li, 2nd year undergraduate student, University of Waterloo. Brief Pain Inventory.

2003 - 2004  Maria-Theresa de Borja, 3rd year radiation therapy student, University of Toronto. Correlation among patients and health care professionals in assessing functional status using the Karnofsky and ECOG performance status scales.
   1) Ed Carpen Award for the most outstanding technical or scientific student exhibit at the Ontario Association of Medical Radiation Technologists’ Annual General Conference April 2004.
   3) Canadian Association of Medical Radiation Technologists’ Dr. Marshall Mallet Student Exhibit Award. 2004
   4) University of Toronto Radiation Sciences Program Research Project Award. 2003-2004

2003 - 2004  Michelle Greig, 3rd year radiation therapy student, University of Toronto. Level of concordance between proxy and patient's ratings in Brief Pain Inventory.

2003 - 2004  Leila Makhani, 3rd year undergraduate student, McMaster University. Correlation of pain relief from spinal bone metastases with palliative radiotherapy.


2005-2006  Nicole Bradley, final year undergraduate student, University of Waterloo. Symptom Distress in Patients Attending an Outpatient Palliative Radiotherapy Clinic
   The Best Oral Presentation Award. 15th Annual Ontario Provincial Conference on Palliative and End-of-Life Care. Toronto Ontario, April 2005
2005 Co-op Student of the Year for Faculty of Applied Health Sciences, University of Waterloo
2005 Marion J. Todd Memorial Award, Faculty of Applied Health Sciences, University of Waterloo
External thesis supervisor for the Undergraduate thesis titled: Has the pattern of practice in the prescription of palliative radiotherapy for the treatment of uncomplicated bone metastases changed between 1999 and 2005 at the Rapid Response Radiotherapy Program?
Ontario Graduate Scholarship for 2007

2005-2006
Hannah Chiu, first year undergraduate student, University of Waterloo.
Gender difference in bone metastases
Acceptance to Medical School

2005-2006
Kristin Harris, second year undergraduate student, University of Waterloo.
Gender difference in brain metastases and bone metastases module development
New Investigator Scholarship, 13th Annual Conference of the International Society for Quality of Life Research
Lisbon, Portugal, October 2006.
2006 Marion J Todd Memorial Award, University of Waterloo
2006 Co-op Student of the Year, University of Waterloo
50th Anniversary Co-op Student Award
2006 University Canadian Association for co-operative Education Co-op Student of the year
2006 Emery-Default Award
2006 Education at Work for Ontario Award
2006 RRRP Student of the Year Award

2006
Grace Fan, second year undergraduate student, University of Waterloo.
Update on meta-analysis of bone metastases

2006
Philiz Goh, fourth year undergraduate student, University of Waterloo.
Prostate Bone Metastases.

2006
Sukirtha Tharmalingam, fourth year undergraduate student, University of Waterloo.
Bone metastases module
Patients’ and health care professionals’ perspectives on the most important quality of life issues in bone metastases. Young investigator award.
MASCC/ISOO 18th International Symposium Supportive Care in Cancer, Toronto, Canada, June 2006.

2006
Gabriella Mallia, third year undergraduate student, University of Waterloo.
QOL in brain metastases.
2006    Julie Napolskikh, second year undergraduate student, University of Waterloo. Length of stay in hospice care
         Laura Talbot-Allan Award from the University of Waterloo.

2007    Andrea Kirou-Mauro, first year undergraduate student, McMaster University. Patient/Proxy correlation of ESAS

2008    Amanda Hird, second year undergraduate student, University of Waterloo. Are bone metastases from gastrointestinal cancers equally radiosensitive.

2007    Julie Napolskikh, second year undergraduate student, University of Waterloo.
         Demographic Profile and Utilization Statistics of an inpatient Palliative Care Unit within a Tertiary Setting.

2007    Candi J. Flynn, second year undergraduate student, University of Waterloo. Re- Irradiation Works.

2008    Amanda Hird, third year undergraduate student, University of Waterloo. Determining the incidence of pain flare following palliative radiotherapy, results from three centers.

2008    Philiz Goh, post BSc student, , University of Waterloo.

2008    Andrea Kirou-Mauro, second year undergraduate student, University of Waterloo. Is response to radiotherapy in patients related to the severity of pre treatment pain?

2008    Shaelyn Culleton, second year undergraduate student, University of Waterloo. Improvement in ESAS symptoms following palliative radiation for bone metastases.

2008    Nadia Salvo, third year undergraduate student, University of Waterloo. The role of plain radiographs in the management of bone metastases.


2008    Jennifer Wong, third year undergraduate student, University of Toronto, Symptoms and quality of life in cancer patients with brain metastases following palliative radiotherapy.

2008    Julie Napolskikh, third year undergraduate student, University of Waterloo.

2008    Harleen Bedi, post BSc Student, University of Toronto, Neurosurgical rescue of Bradycardia Induced by Intracerebral Hypertension.
2009 Alice Fitch, post BSc student, ESAS accrual.

2010 Laura D’Allimonte, Research Radiation Therapist, Mentoring, Orthovoltage in the 21st Century.


2012 Teach DRO MHSc, MRS, Masters students on palliative radiation therapy

Teach Skin Cancer Course, Clinical Oncology, DRO (2 Hour session)

Facilitator for Interprofessional Education, 2012 - U of T,

Teamwork in health care facilitator

Conduct Clinical Simulation Sessions with students at the Michener Institute

2013 Teach Skin Cancer Course, Clinical Oncology, DRO (2 Hour session)

Facilitator for Interprofessional Education, 2013 - U of T

2013 Facilitator for Interprofessional Conflict, 2013 – U of T

2014 Mentoring new CSRT for Skin in London Ontario: June Harriman

2014 Mentoring and teaching portfolio development to future CSRT candidates:

Amanda Marrone, Sheila Sze, Carrie Lavergne, etc.

2014 Teach Skin Cancer Course, Clinical Oncology, DRO (2 Hour session)

2014 Conduct Clinical Simulation Sessions with students at the Michener Institute

2014 ONRT410/MRS146H1, Clinical Oncology I, (2 Hour talk)

2015 Conduct Clinical Simulation Sessions with students at the Michener Institute

2015 Teach Skin Cancer Course, Clinical Oncology, DRO (2 Hour session)

2016 Facilitator for Interprofessional Conflict, U of T

STUDENT TRAINING:

Ongoing daily training as required with all Michener Institute and University of Toronto Radiation Therapy students during their clinic rotation.

Teach special situations for palliative surgery combined with radiation therapy.

Instruct students on skin cancer treatment, options, care. (2012 – Present)

Ongoing presentation and manuscript preparation training for all research students and for University of Waterloo co-op students. (2003 – Present)

EXTRAMURAL ACTIVITIES

2003 – present  Pain Preceptorship Program for Pharmaceutical Companies
Manager

2004  Pain Preceptorship Program for Pharmaceutical Companies
Invited Speaker

2004 -2005  The Science and Art of Pain and Symptom Management Conference
Moderator

2004  The Annual Provincial Conference on Palliative and End of life Care
Moderator

2005  Pain Preceptorship Program for Pharmaceutical Companies
Invited Speaker

2006  The Science and Art of Pain and Symptom Management Conference
Invited Speaker

2006  Ontario Palliative Care Association Conference
Facilitator of Complimentary Medicines Interest Group

2006  Pain Preceptorship Program for Pharmaceutical Companies
Invited Speaker

2007  UT/TMI Medical Radiation Science Program
Invited Speaker

2007  Radiation Therapy Research Rounds, TSRCC
Invited Speaker

2007  Pain Preceptorship Program for Pharmaceutical Companies
Invited Speaker

2008  New student in-service, Odette Cancer Centre
Invited Speaker
2008  Grand Rounds, Odette Cancer Centre  
*Invited Speaker*

2008  Pain Preceptorship Program for Pharmaceutical Companies  
*Invited speaker*

2009  Pain Preceptorship Program for Pharmaceutical Companies  
*Invited speaker*

2009  Research Rounds, Odette Cancer Centre  
*Invited speaker*

2009  6 Presentations to update Radiation therapists on the CSRT progress  
*Invited to talk OCC*

2009  CARO  
*Moderator*

2010  UT/TMI Medical Radiation Science Program  
*Invited lecturer*

2010  Radiation Therapy Research Rounds, Odette Cancer Centre  
*Invited speaker*

2011  New research student in-service  
*Invited Speaker*

2011  2 talks to visiting professors on Palliative Radiation Therapy  
*Invited Speaker*

2011  Pain Preceptorship Program (Amgen)  
*Invited Speaker*

2012  Partners in Pain (Purdue)  
*Invited Speaker*

2012  Clinical Rationale and Decision Making Course, Palliative Section, MSc  
*Invited Academic Teacher*

2012  Odette Cancer Center Research Rounds  
*Invited Speaker*

2013  Odette Cancer Center Research Rounds  
*Invited Speaker*
2013 RTi3, Toronto
  Moderator

2013 UT/TMI Medical Radiation Science Program
  Invited lecturer

2014 Interdisciplinary Radiation Oncology Rounds (I.R.O.R.)
  Invited lecturer

2014 Radiation Therapy Research Rounds: Shining a Light on Photodynamic Therapy
  Invited Speaker

2014 Skin cancer for teens- 20 co-op students- 2 hours
  Invited Speaker

2015 Skin cancer for teens- 20 co-op students- 2 hours
  Invited Speaker

2016 Skin cancer for teens- 20 co-op students- 2 hours
  Invited Speaker
Curriculum Vitae

Kieng Tan
MRT(T)

A. Date Curriculum Vitae is Prepared: 2016 February 26

Only includes Activities from July 2015 to July 2016

B. Biographical Information

1. EDUCATION

Degrees
2000 - 2003 MEd, Teaching and Learning, Education, University of Ottawa, Ottawa, Ontario, Canada
1996 - 1998 Diploma in Radiation Therapy, Radiation Therapy, Radiation Oncology, Ontario Schools of Radiation Therapy, Ottawa, Ontario, Canada
1993 - 1996 BSc, Biochemistry, Biochemistry, microbiology and immunology, University of Ottawa, Ottawa, Ontario, Canada

Postgraduate, Research and Specialty Training
2012 Oct 3 - 2012 Nov 29 Teaching 101, Part 1 and 2, Centre for Faculty Development, University of Toronto, Toronto, Ontario, Canada
2012 Oct 4 Role-Modeling: “Monkey See, Monkey Do!” Understanding the Importance of Intentional Role-Modeling, Centre for Faculty Development, University of Toronto, Toronto, Ontario, Canada
2011 Nov - 2011 Nov 5 Facilitating Groups in Interprofessional Education, Centre for Faculty Development, University of Toronto, Toronto, Ontario, Canada
2011 Oct 5 Effective Design and Implementation of Multiple Choice Tests, Centre for Teaching Support and Innovation, University of Toronto, Toronto, Ontario, Canada
2010 Oct Good Clinical Research Practice, Research, University Health Network, Toronto, Ontario, Canada
2009 Feb - 2009 Sep InterProfessional Collaboration Certificate, Continuing Education, The Michener Institute for Applied Health Sciences, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

1
2003 - present  
RT(T) (ARRT), Radiation Therapy, American Registry of Radiologic Technologists, United States

1999 - present  
R.T.T. Radiation Therapy, Canadian Association of Medical Radiation Technologists, Ottawa, Ontario, Canada

1999 - present  
M.R.T.(T). Radiation Therapy, College of Medical Radiation Technologists of Ontario, Ontario, Canada

2. EMPLOYMENT

Current Appointments

2013 May 1 - present  
Academic Coordinator, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

2013 May 1 - present  
Radiation Therapy Education Leader, Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada

2011 - present  
Lecturer, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2011 - present  
Associate Member, Canadian Association of Radiation Oncology

2003 - present  
Member, American Registry of Radiologic Technologists

1999 - present  
Member, Canadian Association of Medical Radiation Technologists

1999 - present  
Member, College of Medical Radiation Technologists of Ontario

1999 - present  
Member, Ontario Association of Medical Radiation Technologists

Administrative Activities

NATIONAL

Canadian Association of Medical Radiation Technologists

2011 - present  
Member, Dosimetry Specialty Certificate Committee, Ottawa, Ontario, Canada.

PROVINCIAL / REGIONAL

College of Medical Radiation Technologists of Ontario

2010 - present  
Peer Assessor, Quality Assurance Committee, Ontario, Canada.

LOCAL

Michener Institute for Applied Health Sciences

2013 May 1 - present  
Member, MRS Program Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.
2013 May 1 - present  
**Member**, MRS Joint Curriculum Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

2013 May 1 - present  
**Member**, MRS Planning Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

2013 May 1 - present  
**Member**, MRS Oversight Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

2013 May 1 - present  
**Member**, MRS Policy and Procedures Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

2013 May 1 - present  
**Member**, MRS Recruitment Strategies Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

2013 May 1 - present  
**Member**, MRS Operations Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

2009 - present  
**Member**, New Curriculum Competency Checklist Revision Committee, Toronto, Ontario, Canada.

2008 - present  
**Rater**, Multiple Mini Interview Process, Toronto, Ontario, Canada.

2005 - present  
**Member**, Faculty Liaison Committee, Toronto, Ontario, Canada.

**Princess Margaret Hospital**

2012 - present  
**Chair**, Radiation Therapy Education Committee, Toronto, Ontario, Canada.

2011 - present  
**Member**, Radiation Medicine Program Education Committee, Toronto, Ontario, Canada.

2010 - present  
**Member**, Radiation Therapy Education Newsletter, Rad-U-Cation, Toronto, Ontario, Canada.

**University of Toronto**

2012 - present  
**Member**, InterFaculty Curriculum Committee, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

**University of Toronto, Centre for Interprofessional Education**

2012 - present  
**Member**, Conflict in Interprofessional Life, Faculty of Medicine, Dept of Radiation Oncology, Undergraduate Education, Toronto, Ontario, Canada.

**Peer Review Activities**

**MANUSCRIPT REVIEWS**

**Reviewer**

2009 - present  
Canadian Association of Medical Radiation Technologists, CAMRT Quick Self Study, Number of Reviews: 4
PRESENTATION REVIEWS

Reviewer

2010 - present  
Canadian Association of Medical Radiation Technologists, CAMRT  
Annual General Conference, Number of Reviews: 6

2010 - present  
Department of Radiation Oncology, University of Toronto, Toronto  
Radiation Therapy Conference, RTi3, Number of Reviews: 6

Other Research and Professional Activities

RESEARCH PROJECT

2012 - present  
Co-Investigator. Developing effective preceptorship skills and support for radiation therapists. Princess Margaret Hospital and Sunnybrook, Odette Cancer Centre, Toronto, Ontario, Canada.  
Collaborator(s): Carina Feuz, Marnie Peacock, Karen Moline.  
REB#: 11-0725-AE.
Curriculum Vitae

(Angela Turner, BAHons. MHSc.)

Radiation Therapist

Date May 4th 2015

A. Biographical Information

Primary Office   Odette Cancer Centre
Rm. TG115.  
2075 Bayview Ave  
M4N 3M5 Toronto, Ontario  
Canada.

Centre/Hospital Odette cancer Centre.

Telephone   416 480 6100 x85225.

Business Fax   416 480 4672
Cell phone  416 560 2258

Email   Angela.turner@sunnybrook.ca

1. EDUCATION

Degrees

1974-1977  Bachelor of Arts Degree (Honours), Sociology. Leeds University, UK.
2011-2013  Masters in Health Sciences, Medical Radiation Sciences. University of Toronto

Qualifications, Certifications and Licenses

Postgraduate Education and Specialty Training.

1984  Certificate in Counseling and Listening Skills. Social Work Department, Leeds Polytechnic University, West Yorkshire, UK.
2012   IPODE (Inter Professional Oncology Distance Education) course Sexual Health in Cancer.
2013   IPODE (Inter Professional Oncology Distance Education) course Sexual Health Counseling in Cancer.
2011-2013 Masters in Health Sciences, Medical Radiation Sciences. University of Toronto
2014   Intensive Sex Therapy Program Guelph University, Ontario, Canada.
2015   Certificate in Motivational Interviewing Skills. OISE, University of Toronto, Ontario, Canada.

Qualifications, Certifications and Licenses
1980-1983 Diploma of the College of Radiographers (Therapeutic). School of Radiography, Cookridge Hospital, Leeds, West Yorkshire, UK.
1992   Licentiate, College of Medical Radiation Technologists of Ontario

2. EMPLOYMENT
Current posts/Appointment
2014-present. CSRT (Clinical Specialist Radiation Therapist) Odette Cancer Centre. Supportive Care and Sexual Health.

Previous posts/Appointment
1986-1990 Senior Radiographer. Riyadh Military Hospital, Saudi Arabia.
1983-1986 Senior Radiographer. Cookridge Hospital, Leeds, West Yorkshire, UK.
3. HONOURS AND CAREER AWARDS

1999  MEMORIAL CUP. CANADIAN ASSOCIATION OF MEDICAL RADIATION TECHNOLOGISTS. (CAMRT). PILOT STUDY TO INVESTIGATE THE TOXICITY OF ALOE VERA GEL IN THE MANAGEMENT OF RADIATION INDUCED SKIN REACTIONS FOR POST-OPERATIVE PRIMARY BREAST CANCER.

2010  Research Leadership Award. Department of Radiation Therapy, Odette Cancer Centre, Toronto, Canada.

2013  Canadian Association of Medical Radiation Technologists.

E.I. Hood Essay Award. “Creating Our Own Knowledge: The Development of Professional Knowledge in Radiation Therapy”

Distinctions and Research Awards

Local.

2009-2010. Angela Turner BAHons.MRT (T) Laura D’Alimonte BSc.MRT (T) Marg Fitch PhD. Identifying the challenges and opportunities faced by radiation therapists in initiating and developing research projects; The Odette Cancer centre experience. Practice Based Research Award, Sunnybrook Health Sciences Centre, Toronto, Ontario. Amount: $1000.


2013-2014. Angela Turner BAHons.MRT (T) MHSc. Sexual Health Issues in Cancer Patients Receiving


Student/Trainee Awards
N/A

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Memberships

1992-current College of Medical Radiation Technologists of Ontario
1992-current Ontario Association of Medical Radiation Technologists.
1992-current Canadian Association of Medical Radiation Technologists
2010-current Canadian Association of Radiation Oncology.

Professional Committee Participation

Local Committees

2015 Enhancing the Oncology Program at Sunnybrook Health Sciences Centre
Strategic Reflection and Adaptation: Core Committee. RT representative Odette Cancer Centre.

2013/14 Member of the Planning Committee IPE/IPC Showcase Sunnybrook Health Sciences Centre.
Toronto, Canada.

2013 –present Member of the Gynecological Site Group Odette Cancer Centre.

2009-present Member of the Policy and Procedures Review Committee. Odette Cancer Centre, Toronto, Ontario.

2009-present Member of the Supportive Care Group. Odette Cancer Centre, Toronto, Ontario.

2010 Member of the Research and Development Needs Group. Joint Initiative Odette Cancer Centre and Princess Margaret Hospital, Toronto, Ontario.

National and Provincial Committees

2015 Member of the Guideline Development Group (GDG) expert panel, The Interventions to Improve Sexual Function and Sexuality for People with Cancer guidelines, Cancer Care Ontario, Toronto, Ontario.

2014 Member of Organizing Committee CARO (Canadian Association of Radiation Oncology) Conference. Outcomes: Clinical and Professional – Success for our Patients and Ourselves.

2013 Member of the Organizing Committee Target Insights Conference. University of Toronto. "Rethinking Particle Therapies."

2004 Member of the organizing committee. WESCAN conference, Victoria, British Columbia.

2000 Member of the Tri-centre Palliative Radiation Oncology Group, Ontario.

1996 Member of the Risk Management committee. Ontario Association of Medical Radiation Technologists, Ontario.

International Committees

2009–present Member of the Breast Radiotherapy Interest Group (BRIG). An international network which shares and develops resources and expertise within a wider professional community for issues related to breast cancer.

Peer Review Activities

EDITORIAL BOARD ACTIVITIES

2014 Editorial Board Member Journal of Medical Imaging and Radiation Sciences, Canada.
MANUSCRIPT REVIEWS
2011-present  Manuscript Reviewer. Journal of Medical Imaging and Radiation Sciences, Canada.

PRESENTATION REVIEWS
Abstract reviewer
2010-present  Abstract Reviewer. Canadian Association of Medical Radiation Technology Annual General Meeting, Quebec City Canada.
2010-present  Abstract Reviewer. RTi3 Conference, Toronto Canada.

2011-present  Manuscript Reviewer. Journal of Medical Imaging and Radiation Sciences, Canada.
2013/2014  Abstract Reviewer IPE/IPC Showcase Sunnybrook Health Sciences Centre Toronto, Ontario.

OTHER
2011  Session Moderator. RTi3 Conference proffered paper session, Canada.
2011  Guest Facilitator. Radiation therapist e-Journal Club, Sheffield Hallam University, UK.

Consultation
N/A.

B. Academic History

1. RESEARCH STATEMENTS

2. RESEARCH AWARDS

Grants, Contracts and Clinical Trials
2009-2010.  Angela Turner BAHons.MRT  Laura D’Alimonte BSc.MRT (T) Marg Fitch PhD.
Identifying the challenges and opportunities faced by radiation therapists in initiating and developing research projects; The Odette Cancer centre experience. Practice Based Research Award, Sunnybrook Health Sciences Centre, Toronto, Ontario. Amount: $1000.
2010-2011  **Angela Turner BAHons.MRT (T) Kitty Kwok BSc MRT (T).** Assessing the impact of appointment delays on patients attending a radiation therapy appointment: Can we generate change to satisfy patients’ needs? Practice Based Research Award, Sunnybrook Health Sciences Centre, Toronto, Ontario. Amount: $1000.


**PATENTS**

N/A

**C. Publications**

1. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Manuscripts in Progress**


**Invited Editorials**

**Abstracts**

**Book Chapters**

N/A
2. NON-PEER-REVIEWED PUBLICATIONS

Abstracts


Other Abstracts

**Turner A,** Rosewall T. Using a journal club to review and discuss the research literature: A beginners' guide to implementation in the workplace. Proceedings of the Canadian Association of Medical Radiation Technologists AGM, Quebec City, Quebec. 2010.

Manuals and Reports

Multimedia

Other Publications

**Turner A.** Constipation; An update. A report from the 2006 Palliative Care Conference. “Source” Odette Cancer Centre Bi-Weekly Newsletter.


**Turner A.** Allied Health professional’s development Fund. “Source” Odette Cancer Centre Bi-Weekly Newsletter. Apr 2010.


**Turner A.** Identifying the challenges and opportunities faced by radiation therapists in initiating and developing research projects: The Odette cancer experience. “Source” Odette Cancer Centre Bi-Weekly Newsletter. Jul 2010.


D. Presentations and Special Lectures

Podium presentations


Translating Theory into Practice: The role of Inter-Professional research teams in Radiation Therapy Student Training. Interprofessional education / Interprofessional care Showcase. Sunnybrook Health Sciences Centre, 2011.

Revision of kV-CBCT scan protocols to reduce daily imaging dose for head and neck patients. RTi3 Conference Toronto, 2011.


Development of a Clinical Specialist Radiation Therapist (CSRT) Role in Supportive Care and Sexual Health: The Odette Cancer Center Experience Rti3 Conference, Toronto, Ontario Canada .March 2015.
### Workshops

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Venue</th>
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<tbody>
<tr>
<td>2010</td>
<td>Using a journal club to review and discuss the research literature:</td>
<td>Canadian Association of Medical Radiation Technologists annual</td>
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<td></td>
<td>A beginners’ guide to implementation in the workplace.</td>
<td>conference, Quebec City, Canada.</td>
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<td>2011</td>
<td>Boosting the tumor bed for breast Cancer; is it really this</td>
<td>RTi3 Conference, Toronto, Canada.</td>
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<td>complicated?</td>
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<td>2011</td>
<td>Conflict in inter-professional life.</td>
<td>University of Toronto Health Sciences Undergraduate programme.</td>
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<td>2012</td>
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<td>University of Toronto Health Sciences Undergraduate programme.</td>
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<td>therapy: what is the radiation therapists’ role?</td>
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<td>Radiotherapy. The radiation therapist role in Technical and Supportive</td>
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<td>of Radiation Therapists in Supportive and Technical Care.</td>
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### Poster Presentations

- The role of the radiation therapist in a palliative care programme. Canadian Association of Radiation Oncology Annual scientific meeting, Quebec City, Canada, 2000.
Identifying the Challenges and Opportunities faced by radiation therapists in initiating and developing research projects. The Odette Cancer Experience. RTi3 Conference, Toronto, Ontario, 2011.

CT Simulation of Patients receiving Radiation Therapy for breast cancer: A Comparison of physician and therapists perceptions of their role in the procedure. RTi3 Conference, Toronto, Ontario, 2011.


Geometric Assessments as an Indicator for Adaptive Planning in Head and Neck Radiotherapy: A Retrospective Study. Canadian Association of Radiation Oncology Annual scientific meeting, Winnipeg, Canada, 2011.

CT Simulation of Patients receiving Radiation Therapy for breast cancer: A Comparison of physician and therapists perceptions of their role in the procedure. Canadian Association of Radiation Oncology annual scientific meeting, Winnipeg, Canada, 2011.


Development of a Clinical Specialist Radiation Therapist (CSRT) Role in Supportive Care and Sexual Health The Odette Cancer Experience Canadian association of Psychosocial Oncology Conference, Montreal, Quebec, Canada. April 2015.

Development of Novel Patient Education Pamphlets: Lessons Learned from a Collaborative Team Based Approach at the Odette Cancer Centre Angela Turner MRT (T) MHSc Lisa Di Prospero MRT (T) MSc, Angela Leahey RN MN, Lisa Barbera MD, Danny Vesprini MD and Janet Ellis MD IPE/IPC Showcase Sunnybrook health Sciences Centre, Toronto, Ontario, Canada. June 2015.
Invited Lectures and Presentations


E. Teaching and Design

Teaching 2009-2015

Journal Club Organizer, presenter & facilitator. Odette Cancer Centre. (1 hour each session)

Validity of skin care protocols followed by women with breast cancer receiving External Radiation.

Environmental Links to Breast Cancer.

Advanced Practice Roles: Therapist Perceptions.

Vaginal Dryness and Beyond: The Sexual Health Needs of Women Diagnosed with Metastatic Breast Cancer

2013-2014. Peer Review Quality Assurance Radiation Therapy Continuing Education Sessions. Radiation Therapy Department, Odette Cancer Centre. (1.5 hours per session).

1. Gynecological Cancer Site.

2. Head and Neck Cancer Site.

Course Design

2003 Author: CAMRT Self study course “Palliative Care in Radiation Therapy. An overview”.

2010 Co-Author: CAMRT Self study course “Palliative Care in Radiation Therapy. An overview” Revised edition.

F. Research Supervision

1. Undergraduate Student


Curriculum Vitae

Douglass C. Vines

A. Date Curriculum Vitae is Prepared: 2016 August 9

B. Biographical Information

Primary Office
Princess Margaret Cancer Centre
Radiation Physics Division, Radiation Medicine Program
610 University Avenue, Room 5-612
Toronto, Ontario, Canada
MSG 2M9
Telephone 416-946-4501 ext.4201
Fax 416-946-6566
Email doug.vines@rmp.uhn.on.ca

1. EDUCATION

Degrees
1978  BSc, University of Toronto, Toronto, Ontario

Qualifications, Certifications and Licenses
2008  C.T.I.C. Computed Tomography Imaging Certificate, Canadian Association of Medical
Radiation Technologists, License / Membership #: 016917
2004  P.E.T. Certified Positron Emission Tomography Technologist, Nuclear Medicine Technologist
Certification Board, United States, License / Membership #: S-80557
1997  C.N.M.T. Certified Nuclear Medicine Technologist, Nuclear Medicine Technologist
Certification Board, United States, License / Membership #: 020467
1981  Nuclear Medicine Technology Diploma, Toronto Institute of Medical Technology (T.I.M.T.),
Toronto, Ontario
1981  M.R.T. (N), Medical Radiation Technologist (Nuclear Medicine), The College of Medical
Radiation Technologists of Ontario, License / Membership #: 05493
1981  R.T.N.M. Registered Technologist in Nuclear Medicine, Canadian Association of Medical
Radiation Technologists, License / Membership #: 016917

2. EMPLOYMENT

Current Appointments
2006 - present  Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario
2004 - present  Research Nuclear Medicine/PET Technologist, Radiation Medicine Program, Princess
Margaret Hospital and University Health Network, Toronto, Ontario
PET-CT and SPECT-CT in Radiation Physics

Previous Appointments

HOSPITAL
1984 - 1985  Registered Technologist in Nuclear Medicine, Hadassah Medical Center, Jerusalem, Israel
    On educational leave of absence (8 months) from Mount Sinai Hospital - Toronto
1983 - 2001  Clinical Coordinator/Instructor and Research Technologist, Mount Sinai Hospital, Toronto, Ontario
    Affiliated with The Michener Institute for Applied Health Sciences
1981 - 1983  Registered Technologist in Nuclear Medicine, Division of Nuclear Medicine, Mount Sinai Hospital, Toronto, Ontario

RESEARCH
2003 - 2004  Research Nuclear Medicine Technologist (PET/SPECT) and Investigator, Kelly Services, Molecular Imaging Branch, National Institute of Mental Health, NIH, Bethesda, MD. Bethesda, Maryland
2001 - 2003  Research Nuclear Medicine Technologist (PET/SPECT) and Investigator, Henry M. Jackson Foundation for the Advancement of Military Medicine at the Molecular Imaging Branch, NIMH, NIH, Bethesda, MD.

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2016  Travel Award, Principal Author, Society of Nuclear Medicine and Molecular Imaging Technologist Section, United States. (Distinction)
    To present an abstract at the Annual Meeting in San Diego, California. Total Amount: 1,000 USD

2013  Best Technologist PET Abstract, Society of Nuclear Medicine and Molecular Imaging. (Research Award)
    Awarded by the Technologist Section of the Society of Nuclear Medicine and Molecular Imaging at the 60th Annual Meeting in Vancouver, BC.

2013  Second Place Prize for a Technologist Oral Paper, Society of Nuclear Medicine and Molecular Imaging. (Research Award)
    Awarded by the Technologist Section of the Society of Nuclear Medicine and Molecular Imaging at the 60th Annual Meeting in Vancouver, BC.

2012  First Place for the Journal of Nuclear Medicine Technology “Best Paper Award for 2011”, Society of Nuclear Medicine and Molecular Imaging. (Research Award)
    Awarded by the Technologist Section of the Society of Nuclear Medicine and Molecular Imaging at the 59th Annual Meeting in Miami, Florida.

2011  Second Place Prize for a Technologist Oral Paper, Society of Nuclear Medicine. (Research Award)
    Awarded by the Technologist Section of the Society of Nuclear Medicine, at the 58th Annual Meeting in San Antonio, Texas.

2010  Nuclear Oncology Council Best Technologist Abstract Award, Society of Nuclear Medicine. (Research Award)
    Awarded at the 57th Annual Meeting in Salt Lake City, Utah.

2010  Second Place Prize for a Technologist Oral Paper, Society of Nuclear Medicine.
(Research Award)
Awarded by the Technologist Section of the Society of Nuclear Medicine, at the 57th Annual Meeting in Salt Lake City, Utah.

2010
**Travel Award**, Society of Nuclear Medicine Technologist Section, United States. (Distinction)
To present an abstract at the 57th Annual Meeting in Salt Lake City, Utah. Total Amount: 1,000 USD

2009
**Third Place Prize for a Technologist Oral paper**, Society of Nuclear Medicine. (Research Award)
Awarded by the Technologist Section of the Society of Nuclear Medicine, at the 56th Annual Meeting in Toronto, Ontario.

2008
**First Place for the Journal of Nuclear Medicine Technology “Best Paper Award for 2007”**, Society of Nuclear Medicine. (Research Award)
Awarded by the Technologist Section of the Society of Nuclear Medicine at the 55th Annual Meeting in New Orleans, Louisiana.

2008
**Third Place Prize for a Technologist Poster**, Society of Nuclear Medicine. (Research Award)
Awarded by the Technologist Section of the Society of Nuclear Medicine, at the 55th Annual Meeting in New Orleans, Louisiana.

2004
**First Place for the Journal of Nuclear Medicine Technology “Outstanding Paper Award for 2003”**, Society of Nuclear Medicine. (Research Award)
Awarded by the Technologist Section of the Society of Nuclear Medicine at the 51st Annual Meeting in Philadelphia, Pennsylvania.

2002
**Second Place Prize for a Technologist Paper on Brain Imaging**, Society of Nuclear Medicine. (Research Award)
Awarded by the Brain Imaging Council of the Society of Nuclear Medicine, at the 49th Annual Meeting in Los Angeles, California.

2000
**First Place Prize for a Technologist Paper on Brain Imaging**, Society of Nuclear Medicine. (Research Award)
Awarded by the Brain Imaging Council of the Society of Nuclear Medicine, at the 47th Annual Meeting in St. Louis, Missouri.

2000
**Second Place for the Journal of Nuclear Medicine Technology “Outstanding Paper Award for 1999”**, Society of Nuclear Medicine. (Research Award)
Awarded by the Technologist Section of the Society of Nuclear Medicine at the 47th Annual Meeting in St. Louis, Missouri.

1999
**First Place Prize for a Technologist Paper on Brain Imaging**, Society of Nuclear Medicine. (Research Award)
Awarded by the Brain Imaging Council of the Society of Nuclear Medicine, at the 46th Annual Meeting in Los Angeles, California.

1998
**Second Place Prize for a Technologist Paper on Brain Imaging**, Society of Nuclear Medicine. (Research Award)
Awarded by the Brain Imaging Council of the Society of Nuclear Medicine, at the 45th Annual Meeting in Toronto, Ontario.

1996
**First Place Prize for a Technologist Paper on Brain Imaging**, Society of Nuclear Medicine. (Research Award)
Awarded by the Brain Imaging Council of the Society of Nuclear Medicine, at the 43rd Annual Meeting in Denver, Colorado.

**LOCAL**

Received

2015
**Exceptional Research Support Award for 2014/15**, Princess Margaret Cancer Centre, Radiation Medicine Program. (Research Award)

2008
**Exceptional Research Support Award**, Princess Margaret Hospital, Toronto, Ontario.
(Research Award)
2000 Outstanding Mentor and Role Model Award, The Joint Department of Medical Imaging; Mount Sinai Hospital and University Health Network, Toronto, Ontario. (Distinction)
1981 Silver Medal Award, Toronto Institute of Medical Technology. (Distinction)
1980 In Vitro Methodology Award, Toronto Institute of Medical Technology. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
2001 - 2003 Elected Council Member, Brain Imaging Council, Society of Nuclear Medicine

Administrative Activities

INTERNATIONAL
Society of Nuclear Medicine and Molecular Imaging, Technologist Section
2012 - 2014 Member, Strategic Planning Committee, United States.
2012 - 2013 Member, PET PROS Technologist Working Group Committee, United States.

PROVINCIAL / REGIONAL
College of Physicians and Surgeons of Ontario
2010 - present Member, Independent Health Facilities, PET Task Force Committee
Technologist representative from the College of Medical Radiation Technologists of Ontario.

Ontario Association of Medical Radiation Technologists
1987 - 1989 Member, Nuclear Medicine Quality Control Subcommittee

LOCAL
Michener Institute for Applied Health Sciences
2000 Member, Nuclear Medicine Executive Advisory Committee
1995 Chair, Nuclear Medicine Executive Advisory Committee
1994 Vice Chair, Nuclear Medicine Executive Advisory Committee
1993 Member, Nuclear Medicine Executive Advisory Committee

C. Academic Profile

1. RESEARCH STATEMENTS

STATEMENT OF SCHOLARLY AND PROFESSIONAL ACTIVITY.
My scholarly and professional activity is in two areas: (1) clinical imaging using PET-CT for radiotherapy planning and response monitoring and (2) pre-clinical small animal imaging using PET and SPECT-CT at the STTARR Innovation Centre.
In the area of clinical imaging my research has been on the technical aspects of respiratory gated FDG-PET in lung cancer. In the pre-clinical area my research has been on the technical aspects of performing small animal PET and SPECT imaging.

**D. Research Funding**

**1. GRANTS, CONTRACTS AND CLINICAL TRIALS**

**PEER-REVIEWED GRANTS**

**FUNDED**

2009 - 2011  

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2007 - 2008  

2005 - 2007  

**E. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Book Chapters

F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2013  Invited Lecturer. Small Animal Imaging. Society of Nuclear Medicine and Molecular Imaging, Annual Meeting (Technologist Section), Vancouver, Canada.

2012  Invited Lecturer. PET-CT: A 2-day workshop including 7 lectures. Princess Margaret Hospital-University Health Network and Kuwait Cancer Centre. Kuwait City, Kuwait.

2012  Invited Lecturer. PET-CT in Oncology: Man to Mouse, there and back again. World Congress of the ISSR and CAMRT Annual General Conference, Toronto, Canada.

2010  Invited Lecturer. PET/CT in Oncology: from man to mouse, there and back again. Society of Nuclear Medicine, Annual Meeting(Technologist Section), Salt Lake City, USA.

2009  Invited Lecturer. Technical Aspects of Quantification in Brain PET. Society of Nuclear Medicine, Annual Meeting (Technologist Section), Toronto, Canada.

2008  Invited Lecturer. Brain Imaging SPECT and PET: Technical Factors. Society of Nuclear Medicine, Annual Meeting (Technologist Section), New Orleans, USA.

2006  Invited Lecturer. Technical Aspects of Quantification in Brain PET. Society of Nuclear Medicine, Annual Meeting (Technologist Section), San Diego, USA.

2004  Invited Lecturer. Neuro PET Imaging. Society of Nuclear Medicine Annual Meeting (Technologist Section), Philadelphia, USA.

2003  Invited Lecturer. Applications in PET Brain Imaging. Society of Nuclear Medicine, Annual Meeting (Technologist Section), New Orleans, USA.


Presented Abstracts


2015  Development of a Quantitative PET QA Procedure for Multi-Center Clinical Trials. World Congress on Medical Physics & Biomedical Engineering, Toronto, Canada. Driscoll B, Yeung I, Vines D, Keller H.

2015  Serial 4DCT’s and 4DPET imaging to monitor response for locally-advanced non-small cell lung cancer...


Presented and Published Abstracts

2016 **Presenter.** Respiratory gated hypoxia imaging using 18F-FAZA PET-CT. Society of Nuclear Medicine and Molecular Imaging, Annual Meeting, San Diego, USA.

*Publication Details:*

2016 **Presenter.** Serial 4DCT/4DPET Imaging to Predict and Monitor Response for Locally-Advanced Non-small Cell Lung Cancer Radiotherapy. American Society for Radiation Oncology, Annual Meeting, Boston, USA.

*Publication Details:*

2016 **Presenter.** Respiratory gated FLT and FAZA PET-CT imaging in patients with tumour motion. European Association of Nuclear Medicine, Annual Congress, Barcelona, Spain.

*Publication Details:*

2015 **Presenter.** Effects of respiratory-gated 18F-FAZA PET-CT on hypoxic fraction in patient and phantom. World Molecular Imaging Congress, Annual Meeting, Honolulu, USA.

*Publication Details:*


*Publication Details:*

**2014**

Phase-matched 4DCT for AC in 4D gated PET. Society of Nuclear Medicine and Molecular Imaging, Annual Meeting, St. Louis, USA.

**Publication Details:**

**2014**

**Presenter.** Respiratory gated PET-CT in patients: Is phase-matched attenuation correction more personalized? European Association of Nuclear Medicine, Annual Congress, Gothenburg, Sweden.

**Publication Details:**

**2013**

**Presenter.** Reproducibility of 18F-FAZA PET-CT mouse imaging. Society of Nuclear Medicine and Molecular Imaging, Annual Meeting, Vancouver, Canada.

**Publication Details:**

**2013**

Clinical characterization of hypoxia in pancreatic ductal adenocarcinoma (PDAC) by 18F-FAZA PET and pimonidazole. American Society of Clinical Oncology Annual Meeting, Chicago, USA.

**Publication Details:**

**2013**


**Publication Details:**

**2013**


**Publication Details:**

**2012**


**Publication Details:**
Coauthor or Collaborator.


2012 Presenter. 18F-FAZA PET-CT Mouse Imaging Reproducibility in Primary Orthotopic Cervix Tumours. World Molecular Imaging Congress, Annual Meeting, Dublin, Ireland.


2010 Presenter. Mouse PET Imaging: Quantitative or Qualitative Evaluation of Tail Vein Injections. European Association of Nuclear Medicine, Annual Congress, Vienna, Austria.


2010 Presenter. Serial FDG PET-CT scans in oncology: A quality assurance study of repeatability of uptake times and blood glucose values. Society of Nuclear Medicine (SNM), Annual Meeting, Salt Lake City, USA.

Characterization of FLT-PET response to high- and low-dose radiation of a lung cancer xenograft in mice. Molecular Imaging in Radiation Oncology, Brussels, Belgium.

Publication Details:

Functional Relationships between Imaging and Biological Markers for the Purpose of Dose Painting Using the Example of FLT-PET and the Ki-67 Labeling Index. American Association of Physicists in Medicine, Annual Scientific Meeting, Philadelphia, USA.

Publication Details:

Dynamic Tumour Hypoxia Imaging in Mice with 18F-FAZA PET-CT. World Molecular Imaging Congress, Annual Meeting, Kyoto, Japan.

Publication Details:

Identification of Residual Metabolic-active Areas within Lung Tumors using a Pre-radiotherapy FDG-PET-CT Scan. American Society of Therapeutic Radiology and Oncology, Annual Meeting, San Diego, USA.

Publication Details:


Publication Details:

18F-FDG microPET/CT differentiates trastuzumab (herceptin)-responsive from unresponsive human breast cancer xenografts in athymic mice. World Molecular Imaging Congress, Annual Meeting 2009, Montreal, Canada.

Publication Details:

Liposome contrast agent for CT-based detection and localization of neoplastic and inflammatory lesions in rabbits: validation with FDG-PET and histology. World Molecular Imaging Congress, Annual Meeting 2009, Montreal, Canada.

Publication Details:
World Molecular Imaging Congress, Annual Meeting, Montreal, Canada.

Publication Details:

2009 Presenter. A constancy test to monitor cross-calibration factors for a small animal SPECT-CT scanner. Society of Nuclear Medicine (SNM), Annual Meeting, Toronto, Canada.

Publication Details:

2008 Presenter. Lung FDG-PET dual time point SUVs: effects of radiation treatment and uptake time. Society of Nuclear Medicine (SNM), Annual Meeting, New Orleans, USA.

Publication Details:

2008 Quantification of early, intermediate and late volumetric and metabolic response during fractionated radiation therapy for non-hodgkin’s lymphoma. American Society of Therapeutic Radiology and Oncology, Annual Meeting, Boston, USA.

Publication Details:

2008 A pilot prospective study of metabolic and anatomic response using FDG PET CT before, during, and after radiotherapy in lung cancer. American Society of Therapeutic Radiology and Oncology, Annual Meeting, Boston, USA.

Publication Details:

2007 Quantification of uptake volumes in PET images for treatment response monitoring: challenges and solutions. American Association of Physicists in Medicine, Annual Scientific Meeting, Houston, USA.

Publication Details:

2007 Quantification of local tumor response to fractionated radiation therapy for non-hodgkin’s lymphoma using weekly 18F-FDG PET imaging. American Society of Therapeutic Radiology and Oncology, Annual Meeting, Los Angeles, USA.

Publication Details:

2007 Presenter. Absolute quantification using two PET-CT scanners and a NEMA phantom. Society of Nuclear Medicine (SNM), Annual Meeting, Washington DC, USA.

Publication Details:
Vines DC, Keller H, Wilson DM, Tampinco DL, Breen SL. Absolute quantification using two PET-CT
scanners and a NEMA phantom. J Nucl Med. 2007;48:450P. **Principal Author.**

2006 **Presenter.** Absolute quantification of PET radioactivity using motion-gated and non-gated acquisitions of a moving NEMA phantom. Society of Nuclear Medicine (SNM), Annual Meeting, San Diego, USA.

**Publication Details:**

2006

Thresholding of PET target volumes for treatment planning and response monitoring: measurement and modeling approaches. American Association of Physicists in Medicine, Annual Meeting, Orlando, USA.

**Publication Details:**

2005

Decrease of nicotinic acetylcholine receptors in Parkinson’s disease. Society of Nuclear Medicine (SNM), Annual Meeting, Toronto, Canada.

**Publication Details:**

2005 **Presenter.** A reproducibility study of the PET NEMA NU2-2001 image quality analysis. Society of Nuclear Medicine (SNM), Annual Meeting, Toronto, Canada.

**Publication Details:**

2004

[123I]5-I-A SPECT imaging of nicotinic acetylcholine receptors: parametric images of distribution volume and tracer delivery with a noise-resistant linearized kinetic model. Society of Nuclear Medicine (SNM), Annual Meeting, Philadelphia, USA.

**Publication Details:**

2004


**Publication Details:**

2004

Kinetic modeling strategies for PET quantification of central dopamine transporter binding with [18F]FECNT in rhesus monkey. Society of Nuclear Medicine (SNM), Annual Meeting, Philadelphia, USA.

**Publication Details:**
2004 New candidate PET radioligands for brain 5-HT1A receptors based on 2,3,4,5,6,7-hexahydro-1-[4-[1-[4-(2-methoxyphenyl)-piperazinyl]-2-phenylbutyryl]-1H-azepine (RWAY). NeuroReceptor Mapping 2004: International Symposium on Functional Neuroreceptor Mapping of the Living Brain, Vancouver, Canada.

**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**


**Publication Details:**

2002 **Presenter.** Evaluation of scatter correction using a striatal phantom for quantitative brain SPECT imaging. Society of Nuclear Medicine (SNM), Annual Meeting, Los Angeles, USA.

**Publication Details:**
2000 Presenter. Semi-automated uniform attenuation correction for 99mTc-ECD brain SPECT: comparison between iterative reconstruction and filtered backprojection. Society of Nuclear Medicine Annual Meeting, St. Louis, USA.

Publication Details:

1999 Differentiation between Parkinson’s disease and multiple system atrophy using dopamine transporter/D2 receptor SPECT. American Academy of Neurology, Annual meeting. Toronto, Canada.

Publication Details:


Publication Details:

1999 Normal 99m-Tc-ECD SPECT patterns in adults. Society of Nuclear Medicine (SNM), Annual Meeting, Los Angeles, USA.

Publication Details:

1999 Differential diagnosis of Parkinsonism using dopamine transporter and D2 receptor SPECT. Society of Nuclear Medicine (SNM), Annual Meeting, Los Angeles, USA.

Publication Details:

1999 Presenter. Reproducibility of relative CBF measurements on Tc-99m-ECD brain SPECT based on stereotaxic placement of ROI’s. Society of Nuclear Medicine (SNM), Annual Meeting, Los Angeles, USA.

Publication Details:

1999 Optimization of an attenuation coefficient for Gallium-67 SPECT. Society of Nuclear Medicine (SNM), Annual Meeting, Los Angeles, USA.

Publication Details:


Publication Details:


**Publication Details:**


**Publication Details:**

1997 Fully automated stereotaxic proportional coordinate system for brain SPECT. Society of Nuclear Medicine (SNM), Annual Meeting, San Antonio, USA.

**Publication Details:**
**Vines D**, Tsao J, Ichise M. Fully automated stereotaxic proportional coordinate system for brain SPECT. J Nucl Med. 1997;38:212-213P. **Co-Principal Author.**

1997 **Presenter.** Off-site determinations of ERPF using technetium-99m MAG3 and a single blood sample method. Society of Nuclear Medicine (SNM), Annual Meeting, San Antonio, USA.

**Publication Details:**

1996 Simplified quantification and reproducibility studies of dopamine D2 receptor binding with iodine-123-IBF SPECT in healthy subjects. Society of Nuclear Medicine (SNM), Annual Meeting, Denver, USA.

**Publication Details:**

1996 **Presenter.** An evaluation of differential magnification during acquisition for brain SPECT. Society of Nuclear Medicine (SNM), Annual Meeting, Denver, USA.

**Publication Details:**

1996 Simplified quantification of dopamine D2 receptor binding with iodine-123-IBF SPECT. Japanese Society of Nuclear Medicine, Annual Meeting, Tokyo, Japan.

**Publication Details:**
Ichise M, Ballinger JR, **Vines D**, Tsai S. Simplified quantification of dopamine D2 receptor binding with iodine-123-IBF SPECT. Ann Nucl Med. 1996;10:S67. **Coauthor or Collaborator.**

1995 SPECT imaging of dopamine D2 receptors in humans with iodine-123-IBF: a practical approach to quantification not requiring blood sampling. Society of Nuclear Medicine (SNM), Annual Meeting, Minneapolis, USA.

**Publication Details:**

1994 **Presenter.** Technetium-99m MAG3 ERPF calculations: a comparison of three camera methods with the single blood sample method in 90 patient studies. Society of Nuclear Medicine (SNM), Annual Meeting, Orlando, USA.

**Publication Details:**


**Publication Details:**

2. NATIONAL

**Invited Lectures and Presentations**


**Presented and Published Abstracts**

2016 Measurement of tumour hypoxia in patients with locally advanced non-small cell lung cancer (NSCLC) using positron emission tomography (PET) with 18F-Fluoroazomycin Arabinoside (18F-FAZA). Canadian Association of Radiation Oncology, Annual Meeting, Banff, Canada.

**Publication Details:**


**Publication Details:**
2015 Measurement of tumour hypoxia in patients with locally advanced cervical cancer using positron emission tomography (PET) with 18F-fluoroazomycin arabinoside (18F-FAZA). Canadian Association of Radiation Oncology, Annual Meeting, Kelowna, Canada.

*Publication Details:* Han K, Metser U, Yeung I, Shek T, Detsky J, Levin W, Manchul L, **Vines D**, Fyles A, Milosevic M. Measurement of tumour hypoxia in patients with locally advanced cervical cancer using positron emission tomography (PET) with 18F-fluoroazomycin arabinoside (18F-FAZA). Radiother. Oncol. 2015;Sep 1(116(1)):S67. **Coauthor or Collaborator.**

2014 Adaptive dose-escalation using serial 4D-PET/CT scans during radiotherapy for locally advanced non-small cell lung cancer. Canadian Association of Radiation Oncology, Annual Meeting, St. John’s, Canada.


2013 Phase I/II study of palliative radiation and Sorafenib for patients with metastatic renal cell carcinoma and painful bone metastases. Canadian Association of Radiation Oncology, Annual Meeting, Montreal, Canada.


2013 Molecular alterations in hippocampus underlying the loss of LTP after subarachnoid hemorrhage. Canadian Neurological Sciences Federation, Annual Congress, Montreal, Canada.


2010 Investigating the Effects of Motion on Texture within the Lung. Canadian Organization of Medical Physicists and the Canadian College of Physicists in Medicine, Annual Meeting, Ottawa, Canada.

*Publication Details:* Markel D, Caldwell C, Sun A, Hamideh A, **Vines D**. Investigating the Effects of Motion on Texture within the Lung. Med Phys. 2010;37(7):3896. **Coauthor or Collaborator.**

2009 Pre-radiation treatment PET/CT scan can predict the localization of residual disease post-treatment in lung cancer. Canadian Association of Radiation Oncology, Annual Scientific Meeting, Quebec City, Canada.


2008 A pilot prospective study using FDG PET CT in the assessment of metabolic and anatomic response before, during, and after radiotherapy in Lung cancer. Canadian Association of Radiation Oncology, Annual Scientific Meeting, Montreal, Canada.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2006  Invited Lecturer. Technical Aspects of Quantification in PET. Nuclear Medicine Grand Rounds at the University of Western Ontario (via videoconference). London, Canada.

2005  Invited Speaker. PET Brain Imaging Applications & Research at NIH. Ontario Association of Medical Radiation Technologists, Central Section Education Day. Toronto, Ontario.


Presented Abstracts


2014  18F-FAZA-PET imaging in colon, rectal and pancreatic patient-derived xenografts recapitulates the hypoxic microenvironment: Validation with autoradiography and immunofluorescence. Imaging Network


### 4. LOCAL

**Invited Lectures and Presentations**

2013  **Invited Lecturer.** Small Animal Imaging. The Michener Institute for Applied Health Sciences, Nuclear Medicine Program Year 2. Toronto, Ontario.


### 5. OTHER

**Presented and Published Abstracts**

Publication Details:

2003
Comparison of regional cerebral glucose utilization in awake and anesthetized mice determined by [18F]FDG small animal PET imaging and [14C]2DG autoradiography.

Publication Details:

2002
Mouse brain imaging with small animal PET: “Control” states for FDG uptake quantification.

Publication Details:

2002
Evaluation of control states for mouse FDG brain imaging with small animal PET.

Publication Details:
## APPENDIX 9.1c – CVs: UTDRO Physicists

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# APPENDIX 9.1c – CVs: UTDRO Physicists

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</table>
Curriculum Vitae

Hamideh Alasti

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office Department of Radiation Physics
Princess Margaret Hospital (PMH)
University Health Network
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone 416 946-4501 Ext. 5262

Email Hamideh.Alasti@rmp.uhn.on.ca

1. EDUCATION

Degrees
1977 - 1979 MSc, Physics, Specialty in Condensed Matter Physics, Massachusetts Institute of Technology, Boston, United States

Postgraduate, Research and Specialty Training
1977 - 1979 Graduate Student, Research on the electronic structure of amorphous chalcogenide glasses by photoluminescence measurement at low temperatures (4.4 K). Research on impurity concentrations in amorphous glasses by infrared absorption spectroscopy. Massachusetts Institute of Technology, United States

Qualifications, Certifications and Licenses
2004 Jul UHN – Rotman School Leadership Development Program, University of Toronto, Toronto, Ontario, Canada
1993 Member, Canadian College of Physicists in Medicine
1991 Member, Diagnostic imaging, American Association of Physicists in Medicine

2. EMPLOYMENT

Current Appointments
2007 - present Safety and Regulatory Officer, Radiation Medicine Program, Princess Margaret Hospital
2003 - present Radiation Protection Officer in Radiation Medicine Program, Princess Margaret Hospital
2000 - present Assistant professor, Radiation Oncology, University of Toronto
1998 - present Senior Physicist, Radiation Medicine Program, Princess Margaret Hospital
Previous Appointments

HOSPITAL
2002 - 2007  Group Leader for Imaging, Radiation Medicine Program, Princess Margaret Hospital
2000 - 2004  Group leader for treatment planning, Radiation Medicine Program, Princess Margaret Hospital
1984 - 1998  Medical Physicist, Radiation Medicine Program, Princess Margaret Hospital

RESEARCH
1975 - 1977  Research Assistant, Material and Energy Research Centre, Tehran, Iran, Islamic Republic Of
Major projects were a) on solar cells, by measuring the electrical conductivity of different compounds at high and low temperatures and b) on ceramics, study of formation kinetics of portland cement by X-ray analysis

UNIVERSITY
1972 - 1973  Teaching Assistant, Physics, University of Houston, Houston, Texas, United States
1969 - 1971  Lecturer in Optics and Thermodynamics, University of Tabriz, Iran, Islamic Republic Of

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
1991  Tuition scholarship, American Association of Physicists in Medicine. (Distinction)
To attend the AAPM summer school in diagnostic imaging Santa Cruze, California, USA.

NATIONAL
Received
1977  Full scholarship, Ministry of Science and Higher Education of IRAN. (Distinction)
For the graduate studies at MIT, Cambridge, USA.

Teaching and Education Awards

LOCAL
Received
2002  Best “Radiation Medicine Program Rounds”, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto, Ontario

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

1993 - present  Member, Canadian College of Physicists in Medicine (CCPM)
1986 - present  Full member, American Association of Physicists in Medicine (AAPM)
1986 - present  Full member, Canadian Organization of Medical Physicists (COMP)

Administrative Activities

INTERNATIONAL
International Society of Magnetic Resonance (ISMRM)
2003 - present  Member

NATIONAL
CARO
2008 - present  Member, Education Committee

LOCAL
Princess Margaret Hospital
2007 - present  Member, Radiation Safety Committee, RMP, Toronto, Ontario, Canada.
2002 - present  Member, Operations Committee, RMP, Toronto, Ontario, Canada.
2000 - present  Member, Radiation Physics Operations Committee, RMP, Toronto, Ontario, Canada.
2006 - 2007  Member, Sherpa II: Image Guidance Group, RMP, Toronto, Ontario, Canada.
2003 - 2006  Member, External Beam Process Committee, RMP, Toronto, Ontario, Canada.
2003 - 2006  Member, Sherpa I, RMP, Toronto, Ontario, Canada.
2002 - 2007  Member, Radiation Physics Steering Committee, RMP, Toronto, Ontario, Canada.
2002 - 2003  Member, Strategic Committee, Toronto, Ontario, Canada.
2000 - 2003  Member, Continuing Education (CE) Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
1996 - 1998  Member, Senior Advisory Committee

University of Toronto
2000 - 2006  Member, Education Committee, Faculty of Medicine, Dept of Radiation Oncology

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
International Journal of Radiation Oncology, Biology, Physics
Medical Physics Journal
Physics in Medicine and Biology
Radiotherapy and Oncology
C. Academic Profile

1. RESEARCH STATEMENTS

2013 - 2015

High Quality Volume Computerized Tomography.
- this clinical study will determine the inter-observer variability associated with prostate delineation on high quality volume CT images and determine the clinically significant advantage in PTV margin reduction compared to conventional planning CT and MRI planning for patients undergoing radiotherapy for localized prostate cancer. 2013-2015. Principal Investigator.

2013 - 2014

MR Guided Radiotherapy (MRgRT).
- I have led the shielding design calculation for MR Guided Radiotherapy (MRgRT) for both High Dose Rate (HDR) brachytherapy and Linac and have substantial role on integration of MR with HDR and Linac. 2013-2014.

Safety and regularity officer.
I have to assure safe and appropriate practice with respect to the infrastructure, by independent examination and review of practices at RMP and verify conformance to regulatory requirements. My main specific responsibility is to reference and coordinate all interactions between the program and the regulatory bodies such as CNSC, MOL, and MOH.

Imaging.
I have led the following:
- The acceptance, commissioning, education, training and clinical implementation of four CT- Simulators
- The establishment of 4 Dimensional CT imaging (4D-CT)
- The development of Enhanced CT- Simulator imaging protocols for Kidney and Prostate
- The acceptance and clinical implementation of Computerized Radiography imaging system(Lumysis) for use in the simulation and treatment delivery
- The acceptance, commissioning, education, training and clinical implementation of four Simulators
- Pioneered the Enhanced Portal imaging using EPID’s
- The development of MR-Simulator in RT.

Treatment Planning.
I have led:
- The development of treatment planning protocols based on 4D-CT
- The migration from conventional Simulator based planning to CT-Simulator based planning for all treatment sites
- The development and clinical implementation of CADPLAN planning system to migrate from 2D to 3D treatment Planning
- The first Conformal RT at RMP by development and clinical implementation of Escalated Dose Conformal for Carcinoma of Prostate
- The development of dosimetry for Internal gold eye shield in Orthovoltage machine.

Commissioning and Quality Assurance.
a) I have led the development of
- The QA for Imagining systems; Simulators, CT-Simulators, EPID systems, and Orthovoltage machine
- The adjustable collimator system for the Orthovoltage machine
- The dosimetry data book for Orthovoltage
b) I have been actively involved in
- The acceptance and commissioning of Linacs and other treatment machines.

## D. Research Funding

### 1. GRANTS, CONTRACTS AND CLINICAL TRIALS

#### NON-PEER-REVIEWED GRANTS

**FUNDED**

- **2005 Jul - 2006 Jun**

- **2004 Jul - 2006 Jun**

- **2002 Jul - 2007 Jun**

- **2002**
  - **Principal Investigator.** CT image quality evaluation. General Electric Canada. 50,000 CAD. [Grants]

- **2002**
  - **Principal Investigator.** 4D CT imaging. (instrumentation). General Electric Canada. 200,000 CAD. [Grants]

### E. Publications

#### 1. PEER-REVIEWED PUBLICATIONS

**Journal Articles**

1. Rosewall, Tara; Yan, Jing; **Alasti, Hamideh**; Cerase, Carla; Bayley, Andrew. Compromise Position’ Image Alignment to Accommodate Independent Motion of Multiple Clinical Target Volumes During Radiotherapy: A High Risk Prostate Cancer Example. Journal of Medical Imaging and Radiation Oncology. 2016 Jan. In Press. **Coauthor or Collaborator.**


Hamideh ALASTI


F. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


2000 Use of digitally composited radiographs (DCR) as a reference image during conformal; prostate treatment at Princess Margaret Hospital. Picker Symposium. Boston, United States. Authors: Haycocks T, Alasti H.

2000 A multi-level approach to image fusion through out the treatment volume for naso pharyngeal carcinoma (NPC) patients using ACQSIM. Picker Symposium. Boston, United States. Authors: Haycocks T, Kelly V, Alasti H.

1986 Broad beam attenuation coefficient. American Association of Physicist in Medicine, 28th annual Meeting. Lexington, United States. 
Authors: Alasti H, Cunningham JR.

Presented and Published Abstracts


*Publication Details:*
**Coauthor or Collaborator.**


*Publication Details:*
**Coauthor or Collaborator.**

2009 Free-form deformation algorithm; validation and dosimetric corrections on breathing motion using 4D-CT. American Association of Physicists in Medicine, 51st Annual Meeting. Anaheim, United States.

*Publication Details:*
**Principal Author.**


*Publication Details:*
**Senior Responsible Author.**


*Publication Details:*
**Principal Author.**

2007 Evaluation of Lung IMRT plan using NTCP and gEUD based on internal target volume delineated from four-dimensional computed tomography. American Society of Therapeutic Radiology and Oncology, 49th Annual Meeting. Los Angeles, United States.

*Publication Details:*
**Coauthor or Collaborator.**

**Publication Details:**

2005 Free breathing synchronized 4D radiotherapy: Imaging, treatment planning, and delivery. American Association of Physicists in Medicine, 47th Annual Meeting. Seattle, United States.

**Publication Details:**


**Publication Details:**


**Publication Details:**

2004 Integration of free breathing 4DCT in treatment planning process. American Association of Physicists in Medicine, 46th Annual Meeting. Pittsburgh, United States.

**Publication Details:**

2004 Development and implementation of 1.5T MR as a simulator in radiation therapy. American Association of Physicists in Medicine, 46th Annual Meeting. Pittsburgh, United States.

**Publication Details:**


**Publication Details:**


**Publication Details:**
Hamideh ALASTI

Principal Author.

2004 Magnetic resonance imaging of the pelvic organs for planning of prostate radiotherapy. American Society of Therapeutic Radiology and Oncology, 46th Annual Meeting. Atlanta, United States.

Publication Details:


Publication Details:

2003 Skin Dosimetry in soft tissue sarcoma. American Association of Physicists in Medicine, 45th Annual Meeting. San Diego, United States.

Publication Details:

2003 Comparative evaluation of image quality from 3 CT Simulation scanners. American Association of Physicists in Medicine, 45th Annual Meeting. San Diego, United States.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2001 Clinical implementation of a commercial IMRT system. American Association of Physicist in Medicine, 43rd annual Meeting. Salt Lake City, United States.
Publication Details:

2001
Initial experience with the lumisys ACR-2000 computed radiotherapy system for digital simulation imaging, portal imaging, and verification IMRT treatments. American Association of Physicist in Medicine, 43rd annual meeting. Salt Lake City, United States.

Publication Details:

2001

Publication Details:

1998

Publication Details:

1991
Surface dose improvement of low energy electron beams. American Association of Physicist in Medicine, 33rd annual Meeting. San Francisco, United States.

Publication Details:

2. NATIONAL

Presented Abstracts

2012 Aug

2007
A phantom based framework for MR distortion detection and correction in 3D. CARO-COMP Joint Annual Scientific Meeting. Toronto, Canada. Authors: Alasti H, Qiu J, Near J, Kirilova A, Jaffray D.

2004

2001
Effect of slice thickness and pixel size on anatomical volumes. Target Insight meeting. Toronto, Canada. Authors: Ramaseshan R, Gutierrez E, Heaton R, Alasti H, Norrlinger B, Islam M.
2001 Introduction of a commercial IMRT system at Princess Margaret Hospital. Target Insight meeting. Toronto, Canada. Authors: Islam M, Ramaseshan R, Norrlinger B, Gutierrez E, Alasti H, Heaton R.


1998 Escalated dose conformal radiotherapy for carcinoma of prostate. Canadian Organization of Medical Physicists (COMP), 14th annual meeting. Toronto, Canada. Authors: Alasti H, Catton C, Warde P.


Presented and Published Abstracts


Publication Details:

2010 Investigating the effects of motion on texture within the lung. COMP Annual Scientific Meeting and CCPM Symposium. Ottawa, Canada.

Publication Details:

2006 What is the impact of 4D-CT on the planning of esophageal cancer? Canadian Association of Radiation Oncology, 20th Annual Scientific Meeting. Calgary, Canada.

Publication Details:


Publication Details:

Publication Details:


Publication Details:


Publication Details:

2003 Clinical implementation of body fix immobilization for high precision radiotherapy treatments. Canadian Organization of Medical Physicists (COMP), 49th annual meeting. Edmonton, Canada.

Publication Details:
Beiki-Ardani A, Ramaseshan R, **Alasti H**, Lam T. Clinical implementation of body fix immobilization for high precision radiotherapy treatments. Med Phys. 2003;30(7):1940. **Coauthor or Collaborator.**


Publication Details:
Heydarian M, Tsang R, Tran T, Japp B, Osei E, **Alasti H**. CT-based volumetric planning of the Mantle Techniques. Radiother Oncol. 2003;69(Suppl 1):S35. **Coauthor or Collaborator.**


Publication Details:
Van Prooijen M, Japp B, Ringash J, **Alasti H**. Examination of the effect of abutting MLC leaves in cord shielding for the treatment of esophagus using an aperture-based technique. Radiother Oncol. 2003;69(Suppl 1):S27. **Coauthor or Collaborator.**

2002 Using digitally composited radiographs as reference images during conformal prostate treatment at Princess Margaret Hospital. Canadian Association of Radiation Oncologists, 18th Annual Meeting. Toronto, Canada.

Publication Details:


Publication Details:
1994 Depth dose flattening of electron beams using a wire mesh bolus. CARO-COMP/CCPM Joint Meeting, Toronto, Canada.


3. LOCAL

Invited Lectures and Presentations


2007 Invited Speaker. Feasibility of 4-Dimensional Radiotherapy as a Safe Solution for Lung Cancer. DRO rounds, Radiation Medicine Program, Princess Margaret Hospital. Toronto.


2004 Invited Lecturer. Simulation technologies. IGRT (Image Guided Radiation Therapy) Educational Program in RMP, Princess Margaret Hospital. Toronto, Canada. (Continuing Education).

2004 Invited Speaker. 4D CT Imaging. Physics Seminar, Radiation Medicine Program, Princess Margaret Hospital. Toronto.

2004 Invited Speaker. 4D CT imaging in Thorax. RMP Motion Symposium, Princess Margaret Hospital. Toronto.


2004 Invited Speaker. 4DCT Imaging to Track Thoracic Motion due to Breathing. Radiation Therapy, Radiation Medicine Program, Princess Margaret Hospital. Toronto.

2003 Invited Speaker. Spatial distortions on MR. MR Symposium, Princess Margaret Hospital. Toronto.


2002 Invited Speaker. A tale of 3 markers or, how $7.50 worth of gold helped to change the way we do just about everything. RMP Rounds, Radiation Medicine Program, Princess Margaret Hospital. Toronto.

2002 Invited Speaker. Philips MR-Sim current status and suitability at Princess Margaret Hospital. Princess Margaret Hospital. Toronto.

Hamideh ALASTI

Margaret Hospital. Toronto.

2001  **Invited Speaker.** Evaluation and acceptance testing of Lumysis System. Radiation Medicine Program, Princess Margaret Hospital. Toronto.

2001  **Visiting Professor.** High precision 3D conformal radiotherapy. Michener Institute. Toronto, Canada. (Continuing Education).

1999  **Invited Speaker.** Portal imaging for verification during conformal Radiation Therapy of the prostate. RMP Rounds, Radiation Medicine Program, Princess Margaret Hospital. Toronto.

1997  **Invited Speaker.** Escalated Dose Conformal Prostate. RMP Rounds, Radiation Medicine Program, Princess Margaret Hospital. Toronto.

1994  **Invited Speaker.** Wire mesh method on the clinical utilization of low energy electron beams. Sunnybrook Cancer Centre. Toronto, Canada. (Continuing Education).

4. OTHER

**Presented and Published Abstracts**

2015  Potential Role of High-Dose Volumetric CT in Enabling MRI-CT Registration Based on Common Anatomical Landmarks. ASTRO. Toronto, Ontario, Canada.

*Publication Details:*  

2013 Oct 1  Development of a Novel Platform for MR-guided Radiation Therapy. ASTRO.

*Publication Details:*  

2013  Shielding Design for an MR guided radiotherapy (MRgRT) suite.

*Publication Details:*  

2002  Med-Tek type-S immobilization system: calculating the set-up margin for radiotherapy of head and neck cancer patients.

*Publication Details:*  

2002  Hypofractionated intensity modulated radiation therapy for prostate cancer.

*Publication Details:*  
1998 Portal film analysis of an escalated dose conformal prostatic irradiation protocol using fiducial markers and portal images to confirm target organ and isocentre position.


**G. Teaching and Design**

1. **INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION**

2003 “Physics of Treatment Planning to Planners”. Continuing Education, Faculty of Medicine, Dept of Radiation Oncology  
*Designed CE Post undergraduate course.*

2002 “Clinical Rotation for Physics Residents”, Postgraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Hospital  
*Developed for Postgraduates, Radiation Medicine Program.*

1995 - 1998 “Physics of Treatment Planning to Planners”. Continuing Education, Faculty of Medicine, Dept of Radiation Oncology  

**H. Research Supervision**

1. **PRIMARY OR CO-SUPERVISION**

**Undergraduate Education**

2008 **Primary Supervisor.** Daniel Markel, Physics at University of Waterloo. *Verification of the in-house developed image deformation algorithm for evaluation of 4D-CT IMRT/conformal plans for lung.*

2007 **Primary Supervisor.** Jimmy Qiu. *A phantom based framework for MR distortion detection and correction in 3D.*

2007 **Primary Supervisor.** Daniel Markel, Physics at University of Waterloo. *4D-CT image registration using a modified free form.*

2006 **Primary Supervisor.** Jimmy Qiu. *Geometric distortion correction of MR images using point based phantoms.*

2006 **Primary Supervisor.** Conrad Lochovsky. *Evaluation of an IMRT plan for lung tumours based on four-dimensional computed tomography.*

2005 **Primary Supervisor.** Alyaa Elzibak, Physics at McMaster University. *MR imaging for IMRT treatment planning of prostate cancer.*

2004 **Primary Supervisor.** Jamie Near, Physics at Queen’s University. *Distortions in magnetic resonance imaging a phantom study.*

2004 **Primary Supervisor.** Jimmy Qiu. *Visual Feedback for Respiratory Motion in 4D-CT imaging.*

2003 **Primary Supervisor.** Jamie Near, Physics at Queen’s University. *Distortions in magnetic*
resonance imaging a phantom study.


Graduate Education


Postgraduate MD


Postdoctoral Research Fellow (PhD)

Curriculum Vitae

Steven Babic
B.Sc., M.Sc., Ph.D., MCCPM

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Odette Cancer Centre – Sunnybrook Health Sciences Centre
Department of Medical Physics
2075 Bayview Avenue
T Wing, Rm. TG217
Toronto, Ontario, Canada
M4N 3M5

Telephone 416.480.6100 ext. 1095
Cellphone 647.531.7742
Fax 416.480.6801
Email steven.babic@sunnybrook.ca

1. EDUCATION

Degrees

2004 Sep - 2009 Apr PhD, Medical Biophysics, Western University, London, Ontario, Canada, Supervisor(s): Kevin Jordan, Ph.D. and Jerry Battista, Ph.D.

2001 Sep - 2004 Aug MSc, Medical Physics option, Physics, Queen’s University at Kingston, Kingston, Ontario, Canada, Supervisor(s): L. John Schreiner, Ph.D.

1994 Sep - 1998 Apr BSc, Medical and Health Physics, Physics and Astronomy, McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training

2009 May - 2010 Dec Medical Physics Resident, Radiation Oncology, Clinical Physics Residency (CAMPEP-accredited), Department of Medical Physics and Engineering, London Regional Cancer Program, London Health Sciences Centre, London, Ontario, Canada

Qualifications, Certifications and Licenses

2016 July Member of the Canadian College of Physicists in Medicine (MCCPM)

2010 Dec Ontario Peer Review A, Clinical Physics, Cancer Care Ontario and the Ontario Ministry of Health
2. EMPLOYMENT

Current Appointments
2014 Jul - present  Deputy Head and Medical Physicist, Department of Medical Physics, Odette Cancer Centre – Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
Responsibilities: Assist the Head of Physics with all of the technical, professional and administrative aspects of the external beam radiotherapy component of the medical physics program. Clinical Duties: physics support for external beam procedures, consultation with dosimetrists and physicians, linear accelerator quality assurance and chart checking

Previous Appointments
HOSPITAL
2011 Feb - 2014 Jun  Medical Physicist, Department of Medical Physics, Odette Cancer Centre – Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
Clinical duties: physics support for external beam and HDR gynae brachytherapy procedures, Stereotactic Radiosurgery (SRS) treatment planning, consultation with dosimetrists and physicians, linear accelerator quality assurance and chart checking, implementation of non-invasive frameless immobilization systems for SRS

1999 Mar - 2003 Jun  Physics Technician, Department of Medical Physics, Cancer Centre of Southeastern Ontario (formally known as the Kingston Regional Cancer Centre) – Kingston General Hospital, Kingston, Ontario, Canada
Clinical duties: coordinated the physics quality assurance program, linear accelerator quality assurance, assisted medical physicists with clinical duties and research

Academic Appointment
June 2015 – present  Assistant Professor, Department of Radiation Oncology, The University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards
NATIONAL
Received
2007 Sep - 2008 Aug  Strategic Training Program (London Regional Cancer Program and Western University), Canadian Institutes of Health Research, London, Ontario, Canada. (Distinction) Total Amount: 26,500 CAD
2006 Sep - 2007 Aug  Strategic Training Program (London Regional Cancer Program and Western University), Canadian Institutes of Health Research, London, Ontario, Canada. (Distinction) Total Amount: 23,600 CAD
PROVINCIAL / REGIONAL

Received

2007 May - 2008 Apr  Ontario Graduate Scholarship, Government of Ontario, Western University, London, Ontario, Canada. (Distinction)
Total Amount: 15,000 CAD

2006 May - 2007 Apr  Ontario Graduate Scholarship in Science and Technology, Government of Ontario, Western University, London, Ontario, Canada. (Distinction)
Total Amount: 15,000 CAD

LOCAL

Received

2010 Jun  Clinical Education Bursary, London Regional Cancer Program, London, Ontario, Canada. (Distinction)
Total Amount: 1,047.86 CAD

2008 Jan  Graduate Thesis Research Award, Western University, London, Ontario, Canada. (Research Award)
Total Amount: 1,500 CAD

2007 May  First Place Oral Presentation – Western Graduate Research Forum, Western University and the Society of Graduate Students, London, Ontario, Canada. (Distinction)
Total Amount: 150 CAD

2006 May - 2007 Apr  Western Graduate Research Scholarship, Western University, London, Ontario, Canada. (Research Award)
Total Amount: 5,556.53 CAD

2006 Mar  First Place Poster Presentation – Victoria Research Laboratories Research Day, Western University and Lawson Health Research Institute, London, Ontario, Canada. (Distinction)
Total Amount: 400 CAD

2005 Sep - 2006 Apr  Western Graduate Research Scholarship, Western University, London, Ontario, Canada. (Research Award)
Total Amount: 4,094 CAD

2004 Sep - 2005 Aug  Special University Scholarship, Western University, London, Ontario, Canada. (Distinction)
Total Amount: 6,105 CAD

2004 Jun  Student Conference Travel Award, Queen’s University at Kingston, Kingston, Ontario, Canada. (Distinction)
Total Amount: 400 CAD

2003 Sep - 2004 Aug  Carl Reinhardt Fellowship, Queen’s University at Kingston, Kingston, Ontario, Canada. (Distinction)
Total Amount: 5,410 CAD

2003 May - 2003 Aug  Carl Reinhardt Fellowship, Queen’s University at Kingston, Kingston, Ontario, Canada. (Distinction)
Total Amount: 3,334 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2012 Sep - present  Associate Member, American Society for Radiation Oncology
2011 Jan - present  Full Member, American Association of Physicists in Medicine
2011 Jan - present  Full Member, Canadian Organization of Medical Physicists
Administrative Activities

Cancer Centre of Southeastern Ontario – Kingston General Hospital
Formally known as the Kingston Regional Cancer Centre.

London Regional Cancer Program and Western University

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2009 Jan - present  Medical Physics
2009 Jan - present  Physics in Medicine and Biology

C. Academic Profile

1. RESEARCH STATEMENTS

My current projects include 1) accurate volumetric measurements of radiation doses using radiochromic gel dosimeters and optical CT scanners, 2) evaluating a non-invasive immobilization technique for stereotactic radiosurgery (SRS) and 3) implementing a photodynamic therapy (PDT) clinical program for treating superficial skin cancer. 1) To assure the quality of advanced 3D radiation cancer treatment planning software and dose delivery hardware, it is important that the spatial distribution of ionizing radiation deposited within the exposed tissues be accurately and precisely mapped out. I am interested in investigating the optimal optical CT scanner light source and geometry for quantitatively reading the dose in 3D that is “written” into a radiochromic gel during a setup that emulates patient treatment conditions. 2) The reliable immobilization and target localization accuracy of frame-based SRS have established the technique as a gold standard, but it is associated with significant disadvantages including stress on the patient, and the need to simulate, plan and treat patients all in the same day. My interest lies in evaluating commercially available non-invasive immobilization systems that overcome frame-based limitations. By doing an inter-comparison of their respective positional accuracies, my research goal is to determine which system offers the highest degree of immobilization and ease of use for SRS patients. 3) One type of PDT is used to destroy non-melanoma superficial skin cancers. Some patients receiving this therapy are ones who have already received conventional treatments and have not had much success. Photosensitive compounds in the form of a topical cream are applied and selectively up taken by the cancerous cells. Subsequent illumination with red light results in lethal cell damage. My research interest lies in better understanding what physical measurements are needed to predict the response of individual patients to PDT and to optimize their treatment. Ultimately the goal will be to increase the clinical utilization of this mode of skin cancer therapy.
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapter (Invited)

E. Presentations and Special Lectures

1. INTERNATIONAL

Presented and Published Abstracts


Publication Details:


Publication Details:

2008 Sep Micelle hydrogels for three-dimensional dose verification. 5th International Conference on Radiotherapy Gel Dosimetry. Hersonissos, Crete, Greece. Presenter(s): Steven Babic. Oral.

Publication Details:


Publication Details:


Publication Details:

2007 Jul Characterization of small megavoltage radiation fields using an optical CT scanner with ferrous xylenol orange gels. AAPM Meeting.

Publication Details:
2. NATIONAL

Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

_Publication Details:_

### 3. PROVINCIAL / REGIONAL

**Presented and Published Abstracts**


_Publication Details:_


### 4. LOCAL

**Invited Lectures and Presentations**


### F. Research Supervision

**1. PRIMARY OR CO-SUPERVISION**

**Graduate Education**

2014 Jan – 2015 Jan  **Co-Supervisor.** MSc. Fiona Lochray. Supervisee Position: Radiation Therapist working towards her M.Sc. (Radiation Oncology), Supervisee Institution: Sheffield Hallam University. Akitna PinPoint Service Evaluation. Collaborator(s): Dr. Steven Babic, PhD and Dr. Arjun Sahgal, MD.
Curriculum Vitae

David J. Beachey
Medical Physicist

A. Date Curriculum Vitae is Prepared: 2016 September 22

B. Biographical Information

Primary Office Odette Cancer Clinic
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-6100 ext 1093
Fax 416-480-6801
Email david.beachey@sunnybrook.ca

1. EDUCATION

Degrees
1994 PhD, Physics, McMaster University, Hamilton, Ontario, Canada
1984 BSc, Honors Bachelor of Applied Science (Co-op), University of Waterloo, Waterloo, Ontario, Canada
1979 Graduation Diploma, St. Patrick’s High School, Sarnia, Ontario, Canada

Postgraduate, Research and Specialty Training
1999 Jan 1 - 2000 Dec 15 Residency, Clinical Radiation Therapy Medical Physics, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada, Supervisor(s): Peter O’Brien
1998 Aug - 1998 Dec Medical Physics Post-doctoral fellow, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

dABR, Radiation Therapy Physics, American Board of Radiology, United States

2. EMPLOYMENT

Current Appointments
2001 - present Medical Physicist, Medical Physics, Radiation Program, Odette Cancer Clinic, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
Previous Appointments

HOSPITAL
1982 - 1984 Nuclear Medicine Physics Research Technician, Department of Nuclear Medicine, McMaster University Medical Centre, Hamilton, Ontario, Canada

RESEARCH
1981 - 1982 Student Engineer, Chalk River Nuclear Laboratories, Atomic Energy of Canada Ltd., Chalk River, Ontario, Canada
1980 - 1981 Research Laboratory Technician, Dow Chemical of Canada Ltd., Sarnia, Ontario, Canada

UNIVERSITY
1997 - 1998 Assistant Professor (Joshu) of Physics, Tokyo Rika Daigaku (Tokyo University of Science), Shinjuku, Tokyo, Japan
1994 - 1997 Research Associate, Department of Applied Mathematics and Theoretical Physics, University of Liverpool, England, Liverpool, United Kingdom
1984 - 1989 Teaching Assistant, McMaster University, Hamilton, Ontario, Canada

3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Full Member, American Association of Physicists in Medicine (AAPM)
Full Member, Canadian Organization of Medical Physicists (COMP)

C. Academic Profile

1. RESEARCH STATEMENTS

Radiobiology.
Halogenated pyrimidine compounds such as Iodeoxyuridine (IdU) and Bromo-deoxy-uridine (BrdU) can contribute to radiosensitization through their uptake as base substitutions in DNA. The mechanism of this physical process has been examined with regard to both the local Auger electron ejection and photon fluorescence de-excitation modes of the halogens and with regard to two mechanisms of initial excitation: photo-electric effect and Möller scattering. A richer picture of radio-sensitivity is arising in vitro and in vivo as a function of primary radiation and secondary photon and electron spectra at depth in tissue.

Linear Accelerator Modelling.
With the onset of practical tomographic accelerator based conformal treatments, the premium on having available high energy photons for their skin-sparing and penetrability properties is somewhat reduced. For specific treatment scenarios, the beam penumbra can be a more prominent contribution to a treatment plan’s “cost function”. The viability of a supra-orthovoltage/sub-megavoltage – Intermediate Energy Photon Treatment unit (IPET) is being investigated. In addition to a sub-millimeter sharp beam penumbra for small stereotactic like fields, there is a suggestion that spectral properties of such a unit could be well tuned for optimal radiosensitizing potency of certain compounds.

Sub-millimeter Isocentric Characterization of an External Beam RT Unit.
In parallel with the direct investigations above with IPET development, I, along with Dr. Pedro Goldman and an M.Sc. candidate student at Ryerson (Robert Tkaczyk), Drs. Gunther Hartmann and Guernot Echner at Heidelberg, am developing a film-mount phantom in order to map out the isocentric behavior of a general external beam RT unit. This is motivated by IPET development in that sharp beam penumbras offer little added benefit unless supported by similarly precise registration between a planning image set –either to direct imaging at treatment or to a rigid stereotactic co-ordinate system. Similar precision is required in the treatment beams as functions of all collimator, couch, and gantry motions.

Tissue/media inhomogeneity in subsequent stereotactic treatment of surgically embolized arterial-venous malformations.

In a multi-disciplinary team (along with Neurosurgery, Radiation oncology), we are continuing to investigate the effect of tissue embolization media inhomogeneities on the dosimetry of AVM stereotactic radiosurguries. In the context of cranial radiosurgery, the issue of loss of electron equilibrium and its clinical consequence: dose build-up and build-down are usually not considered. We identify an overlooked exception where the non-tissue equivalent surgical embolization media are intimately interlaced with the subsequent radiosurgery target—the AVM nidus.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


5. Keller BM, Beachey DJ, Pignol JP. Experimental measurement of radiological penumbra associated with intermediate energy x-rays (1 MV) and small radiosurgery field size. Medical Physics. 34: 3996-4002, 2007. Coauthor or Collaborator.


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles

F. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


2. NATIONAL

Presented Abstracts


1999 Jun 5 Low Z and thin target portal imaging on a Siemens MDX linac. 45th Annual Scientific Meeting of Canadian College of Physicists in Medicine (CCPM), Sherbrooke, Quebec, Canada. Beachey DJ, Ostapiak OZ, O’Brien PF, Faddegon BA. Poster P-23, June 5-8, 1999.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2011 - 2012 Primary Supervisor. B. Sc. Jihae Baek, B.Sc. candidate in Medical Physics, Ryerson University.


Graduate Education

2008 - 2010 Co-Supervisor. MSc. Robert Tkaczyk: M.Sc. recipient in Medical Physics, Ryerson University.
2. OTHER SUPERVISION

Graduate Education

Supervisory Committee Member


2003 - 2005  MSc. Lauren O’Malley: M.Sc. recipient in Dept. of Medical Biophysics. Supervisee Institution: University of Toronto.

Curriculum Vitae

Jean-Pierre Bissonnette
Senior Physicist

A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

1. EDUCATION

Degrees
1991 - 1996 PhD, Medical Biophysics, Western University, London, Ontario, Canada, Supervisor(s): Dr. Peter Munro
1988 - 1991 MSc, Medical Radiation Physics, McGill University, Montreal, Quebec, Canada, Supervisor(s): Dr. L. John Schreiner
1985 Sep - 1988 Jun BSc, Physics, McGill University, Montreal, Quebec, Canada

Postgraduate, Research and Specialty Training
2008 - 2010 Education Scholars Program, Centre for Faculty Development, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Heather Carnahan
2003 - 2004 Leadership Development Program, Rotman School of Management, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Robert Bell

Qualifications, Certifications and Licenses
2000 - present Member, Radiation Oncology Physics, Canadian College of Physicists in Medicine, Canada

2. EMPLOYMENT

Current Appointments
2012 Jul 1 - present Associate Professor, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2004 - present Senior Physicist, Department of Radiation Physics, University Health Network/ Princess Margaret Hospital, Toronto, Ontario, Canada
2004 - present Lung Site Group Leader, Department of Radiation Physics, Princess Margaret Hospital, Toronto, Ontario, Canada

I am the physicist in charge of identifying and resolving problems affecting the radiation therapy of lung cancer patients. This includes drafting and supervising routine treatment protocols, and attend research and site rounds.

2008 - 2016 Program Director, Physics Residency Program, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2007 - 2016 Director of Physics Education, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
Previous Appointments

**CONSULTING**

- 2003 - 2012 Aug: Chief Physicist, Centre Intégré de Lutte contre le Cancer, Hôpital Charles-Lemoyne, Greenfield Park, Quebec, Canada

**HOSPITAL**

- 2001 - 2003: Acting Head, Centre Hospitalier de l’Université de Montréal, Montreal, Quebec, Canada
- 1995 - 2003: Physicist, Dept. of Physics and Biomedical Engineering, Centre Hospitalier de l’Université de Montréal, Montreal, Quebec, Canada

**UNIVERSITY**

- 1997 - 2003: Chargé d’enseignement de clinique, Université de Montréal, Montreal, Quebec, Canada

**UNIVERSITY - RANK**

- 2003 Jul - 2012 Jun 30: Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

**Teaching and Education Awards**

**NATIONAL**

Received

- 2014 Jul - 2015 Jun: E.I. Hood Award, Dept of Radiation Oncology, Faculty of Medicine, Canadian Association of Medical Radiation Technologists, Canada. (Continuing Education, 2014)

**LOCAL**

Received

- 2015 Apr - 2016 Mar: Anderson Award - John W. Bradley Educational Administration, Faculty of Medicine, The Wightman-Berris Academy, Ontario, Canada. (Multilevel Education)
- 2014 Jul - 2015 Jun: Residents Award for Excellence in Physics Teaching, Dept of Radiation Oncology, Faculty of Medicine, Toronto, Ontario, Canada. (Postdoctoral Research Fellow (PhD))
- 2009 Best Clinical Teacher, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto, Ontario, Canada

Nominated

- 2004 Research Project Supervisor, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital, Toronto, Ontario, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

**Professional Associations**

- 2002 - present: Member, Canadian Association of Radiation Oncology
- 1989 - present: Member, American Association of Physicists in Medicine, 1174
- 1989 - present: Member, Canadian Organization of Medical Physicists
- 2011: Member, American Society for Quality, 64155249
Administrative Activities

INTERNATIONAL

American Association of Physicists in Medicine

2010 - present  **Member**, Imaging for Treatment Verification Work Group
2009 - present  **Chair**, AAPM Task Group 179 on Quality Assurance for Image-Guided Radiation Therapy Utilizing CT-Based Technologies

NATIONAL

Canadian Association of Radiation Oncology

2010  **Member**, Scientific Committee

Canadian Organization of Medical Physicists

2009 - present  **Chair**, Quality Assurance and Radiation Safety Advisory Committee, Kanata, Ontario, Canada.

*Advise the board on matters pertaining to radiation safety and quality assurance of radiation therapy equipments. Draft and supervise national guidelines for quality control testing of radiotherapy equipment and processes (enclosed in appendix).*

2004 - 2010  **Member**, Awards Committee

Canadian Partnership for Quality in Radiotherapy

2010 - present  **Member**, Steering Committee, Toronto, Ontario, Canada.

*As COMP representative, I ensure that the physics initiatives are in accord with those of other disciplines, and I participate in drafting national initiatives to define and improve quality and safety in radiation therapy.*

PROVINCIAL / REGIONAL

Association Québécoise des Physiciens Médicaux Cliniques

1998 - 2002  **Founding President**, Quebec, Canada.

LOCAL

Princess Margaret Hospital

2006 - present  **Member**, Quality Assurance Monitoring Committee, Radiation Medicine Program
2009 - 2010  **Interim Chair**, Quality Assurance Monitoring Committee, Radiation Medicine Program

University Health Network/Princess Margaret Hospital

2008 - present  **Member**, Physics Operations Committee, Department of Radiation Physics
2003 - present  **Quality Officer**, Department of Radiation Physics
2003 - present  **Member**, External Beam Process Committee, Radiation Medicine Program

University of Toronto

2010 - present  **Member**, Executive Committee, Department of Radiation Oncology
* (Member since 2008).

2009 - present  **Member**, Research Day Organizing Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology

2009 - present  **Chair**, Teaching Effectiveness Committee, Department of Radiation Oncology, Faculty of
Jean-Pierre BISSONNETTE

Medicine, Dept of Radiation Oncology
(Member since 2008).

2007 - present  **Member**, Post-graduate Medical Education Committee, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

2006 - present  **Local Coordinator**, Physics Residency Program, Department of Radiation Oncology, Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD

**Peer Review Activities**

**ASSOCIATE OR SECTION EDITING**

**Editor**

1996 - 2010 American Association of Physicists in Medicine, Medical Physics, Number of Reviews: 2

**GRANT REVIEWS**

**Reviewer**

2011 - present Canadian Institutes of Health Research, Number of Reviews: 8

2010 - present Natural Sciences and Engineering Research Council of Canada (NSERC), Number of Reviews: 1

**MANUSCRIPT REVIEWS**

**Reviewer**

2004 - present American Association for Radiation Oncology, International Journal of Radiation Oncology, Biology, Physics, Number of Reviews: 10

2004 - present American College of Medical Physics, Journal of Applied Clinical Medical Physics, Number of Reviews: 2

1996 - present American Association of Physicists in Medicine, Medical Physics, Number of Reviews: 20

**C. Academic Profile**

**1. RESEARCH STATEMENTS**

2008 - present Advanced imaging applications for lung cancer therapy. Lung cancer continues to be the leading cause of cancer-related deaths in Canada and worldwide. The current standard of care for locally advanced cancer involves a course of radiation therapy, typically combined with chemotherapy, delivered daily over the course of five to seven weeks. Unfortunately, disease control and survival remain low for these patients. Delivery of higher doses of radiation to lung tumors might improve cure rates; unfortunately, proximity of several organs at risk, such as the spinal cord, the heart, and uninvolved lung tissue, limits the deliverable radiation dose. Fortunately, with recent advances in radiotherapy technology, more precise targeting and monitoring have become available recently and, with them, the anticipation of improved treatment outcomes. One such advance is image-guided radiation therapy (IGRT) using cone-beam CT techniques. IGRT not only has allowed the daily localization of the tumor immediately prior to treatment, it also has quantified tumor motion induced by breathing and determined changes in tumor size, shape, and location (see most significant papers #1 and #4). The detection and elimination of large and frequent tumor localization errors ensures that the tumor receives the prescribed dose of radiation, on a daily basis. Since localization errors can be eliminated, clinicians can consider reducing radiation treatment fields, leading to a reduction of the volume of irradiated organs at risk and thus of toxicity. This provides an opportunity to
increase the radiation dose and hopefully improve control and survival rates without incurring higher rates of toxicity.

Our work with IGRT has demonstrated that, during a course of radiotherapy, not only can localization errors be minimized, tumor volume and location can be monitored. We have demonstrated that a majority of lung cancer patients encounter significant reductions in tumor volume and location. This work has raised questions regarding biological activity and tumor oxygenation. My research group is currently pursuing frequent biological imaging during therapy, using positron emission tomography (PET). PET is a non-invasive volumetric imaging method utilizing radioactive decay physics of positron-emitting radioisotopes. Radioisotopes, such as 18F, are combined with various biologic compounds or molecules (e.g. deoxyglucose) to create a radiotracer that is injected intravenously and is taken up preferentially by tumor cells, where the radioisotope decays. High intensity areas in PET images may indicate areas of high tumor metabolism or of potential hypoxia; both may indicate areas of radioresistance. The combination of PET images with CT images provides a non-invasive and quantitative assessment of the tumor during treatment, and opens the door for adapting therapy to the responsiveness of the tumor. One approach currently under study is a sharp increase of the dose delivered to potentially radioresistant areas of the tumor without introducing additional toxicity.

This research has lead to the publication of fifteen peer-reviewed articles, and the revision of several routine planning and imaging protocols for radiotherapy of lung cancer at the Princess Margaret Hospital. I was invited to present this work both nationally and internationally, either as a visiting professor or as invited faculty for refresher courses. This research has lead also to the development of the IGRT course offered jointly by the Princess Margaret Hospital and the Department of radiation Oncology at the University of Toronto.

2004 - present

Quality and safety in Radiation Therapy.
Radiotherapy is a very powerful and effective approach to cure cancer, but has devastating implication when misused. In recent years, the media has reported radiation therapy incidents with severe detrimental effects on several hundreds of patients, including death, in France, Canada, the United Kingdom, and the United States. Even though incident rates in radiotherapy are low, the public and the World Health Organization has deemed that it was not low enough, and that there is clearly a need to perform radiotherapy in a safer and more efficient way.

Using a comprehensive, process-based approach to radiation oncology, I have performed a one-year audit of quality in the Radiation Medicine Program at the Princess Margaret Hospital. The report that resulted from this audit, shown in my CPA dossier, was used to developed several initiatives to enhance quality and improve safety in radiation therapy. These initiatives have had profound impact in the Radiation Medicine Program. By applying standardization, clinical objectives can be clarified, facilitating data acquisition and analysis that can lead to improvements in terms of safety, efficacy, and efficiency. Such principles have been applied and reported for devices (i.e., IGRT quality control; Most significant publications 2, 3, and 5) as well as processes. I have been invited to several national and international forums, either as invited faculty at international meetings or as a visiting professor, to present many aspects of this work, ranging from quality control programs for radiotherapy devices to error elimination methods. Papers have been also published to describe error understanding and elimination initiatives.

In 2010, I have completed the Faculty of Medicine’s Education Scholars Program; this program allowed me to develop my teaching skills and has prepared me to build curriculum, organize courses, and integrate interactive teaching and simulation as teaching tools. I have since prepared a Quality and Safety Course based on my learnings and expertise. While the outline has been approved, the first course, intended for a multidisciplinary audience, is expected to build an international audience for which there is demand.
2. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

Radiation therapy cure rates for inoperable or locally-advanced lung cancer have been disappointingly low, either in combination with chemotherapy or on its own. One of the reasons is that radiation dose delivery is hampered by the proximity of lung tumours to several organs at risk, such as uninvolved lung tissue, the spinal cord, and the esophagus; these organs all have limited tolerance to radiation. Fortunately, recent technological advances have allowed the guidance of radiotherapy using on-line CT imaging (IGRT). IGRT allows measuring and reducing geometric uncertainties in the delivery of radiotherapy (i.e., unintentionally missing the tumor during therapy); such uncertainties are commonly handled by treating the tumor with large radiation fields that produce toxicity. By analyzing IGRT data, we were able to demonstrate that geometric inaccuracies are common and can be quite significant; despite the large radiation fields used, the potential for under dosing the tumor is considerable. By ensuring that the tumor is positioned accurately and consistently prior to radiotherapy, IGRT has provided an opportunity to reduce treatment to eventually lead to less toxicity and perhaps improved treatment outcomes. The high precision attained with IGRT gave our team confidence to deliver ablative doses of radiations to small tumors, vastly improving the outcome of inoperable patients that present such tumors. My professional innovations have been instrumental in developing and documenting treatment planning and delivery policies at Princess Margaret Hospital (PMH). Fourteen peer-reviewed papers have been published on the topic, and I am participating in an international consortium that is actively studying the application of ablative doses for early stage lung cancer. Findings from our clinical experience have been integrated into the IGRT course offered by the Accelerated Educational Program developed by the Radiation Medicine Program (RMP) at PMH and the Department of Radiation Oncology Department at the University of Toronto (UT-DRO). My contributions to the development of professional practices include numerous invited presentations, and exemplary professional practice was demonstrated by hosting several visitors to learn from our experience, the direct research supervision of three physics residents, and the integrated teaching of high-precision radiotherapy of the lung into the physics residency program that I direct.

Identifying geometric errors and resolving them is but one aspect of the second theme of the present CPA dossier, which is quality assurance and error elimination in radiation therapy. In recent years, errors in radiation therapy have received a lot of attention, and our field has been actively seeking to implement quality tools and learning systems that have been in use in fields of activity other than medicine for decades. Quality improvement relies on a foundation based on standardization of practice, documentation of procedures, transparency, and the establishment of a just culture. My first year as Physics Quality Assurance Officer was spent auditing the PMH Radiation Medicine Program which led to the production of a report, enclosed in Appendix B, describing recommendations that have profoundly changed the way the RMP operates; this report is frequently highlighted during accreditation and other quality audits. I have been coordinating the production and auditing newly-drafted procedures to describe routine clinical practice; each procedure contains explicit acceptability criteria that help define quality expectations and clearly defines what goals are to be attained by the clinical staff. Another recommended initiative from the report is the monitoring of quality metrics and of incident reports to identify and eliminate potential hazards and improve efficiency of treatment delivery. Two peer-reviewed articles have been published to disseminate the learnings we gleaned from our mistakes. Quality assurance principles have also been applied to the technology employed in radiation therapy, specifically to IGRT technologies. The work towards the resolution of quality and safety problems in radiation therapy has lead to the publication of six peer-reviewed journal articles and two book chapters. Contributions to the development of professional practices include the drafting and revision of national standards for radiotherapy equipment quality control endorsed by the Canadian Association of Provincial Cancer Agencies; these standards are being revised, under my supervision, under the auspices of the Canadian Partnership for Quality Radiotherapy, a joint effort by the Canadian Organization of Medical Physics, the Canadian Association of Radiation Oncology, the Canadian Association of Medical Radiation Technologists, and the Canadian Partnership Against Cancer. I also have chaired the Task group #179 of the American Association of Medical Physicists; an international guideline for quality control for several IGRT devices has been tentatively approved for publication. Exemplary professional practice has been demonstrated by participation in several workshops and several invited talks in international meetings. Again, my expertise with quality improvement and error elimination in radiotherapy has been integrated in both the Radiation Oncology and Radiotherapy Physics Residency Programs at UT-DRO.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


Radiotherapy is a safe medical procedure practiced in an interprofessional environment that relies heavily on teamwork and rigorous quality control procedures. Analysis of incident reports from our clinics have shown an incident and near miss rate of 1.4% per course of treatment. While this rate appears low, it remains a far cry from the incident rate observed in the airline industry (0.00002% per flight). Unfortunately, radiation misadministration still occurs, and the potential for devastating outcomes from misadministration persists. High-fidelity simulators have proven essential to reduce the number and severity of incidents in the airline industry. We therefore propose the simulation of radiotherapy errors to enhance error recognition and elimination, and provide multidisciplinary learning for radiotherapy staff and trainees. A number of simulation scenarios, some reproducing incidents and others not, would be created for participants to determine how good humans are at detecting potential hazards and prevent incidents in the clinical environment.

2013 Jul - 2016 Jun  Co-Investigator. Improving quality and patient safety in radiation therapy by integrating multi-disciplinary criteria into an artificial intelligence system. Canadian Institutes of Health Research (CIHR), Collaborative Health Research Projects (NSERC Partnered). 290277. PI: Puride, Thomas G. Collaborator(s): Jurisca, Igor; Aleman, Dionne M; Bissonnette, Jean-Pierre; Breen, Stephen L; Létourneau, Daniel; McIntosh, Christopher J; Milosevic, Michael; Sharpe, Michael B. 651,061 CAD. [Grants]

2013 Apr - 2015 Apr  Principal Investigator. Radiation Medicine Simulation in Learning Interprofessional Collaborative Experience. SIM-one Ontario Simulation Network. SIM-one Simulation Research and Innovation Grant. Collaborator(s): Giuliani, Meredith; Harnett, Nicole; Gillan,
Caitlin; Moseley, Doug; Catton, Pamela. 24,594 CAD. [Grants]

Radiation Medicine (RM) is inherently interprofessional, but the nature of the interprofessional collaboration (IPC) is unique. It is often disparate in time and location, with decisions and handoffs of patient care occurring virtually through asynchronous electronic communications and independent but interdependent tasks.

IPC is increasingly being touted in RM trainee competency profiles, yet it is difficult to teach in the clinical environment. We propose to develop and pilot a high-fidelity simulation experience for RM trainees in radiation oncology, medical physics, and radiation therapy, allowing them to explore professional roles and identities within the team. Through the “Radiation Medicine Simulation in Learning Interprofessional Collaborative Experience (RM SLICE)”, learners will navigate the interprofessional interactions, tasks, and decisions necessary to deliver quality RM care through exploration of a single, complex patient case. Evaluation of learner outcomes can inform future evolution of this simulation initiative.

2012 Mar - 2017 Apr  
This grant will support the universal availability of high quality and safe radiotherapy across Canada through sustainable system performance improvement and the development of consensus-based guidelines and indicators to aid in radiation treatment program development and evaluation.

2011 Jul - 2014 Jul  
The overall goal of this project is to significantly improve the therapeutic efficacy of existing radiation therapy techniques by developing a novel treatment planning paradigm that combines state-of-the-art engineering optimization methods with radiographic and functional imaging data, and that operates within current clinical constraints. Our specific objectives are:

1. To develop an optimization methodology that computationally derives adaptive and robust radiation therapy treatments that are de-sensitized to uncertainties in tumour motion, size and functional activity over the course of treatment.

2. To apply the optimization methodology to clinical patient datasets of respiratory-correlated computed tomography (4DCT), positron-emission tomography (4DPET) and cone beam CT (4DCBCT) images to measure dose escalation potential and develop protocols for efficient clinical application of the methodology.

2009 Jul - 2013 Jun  
Radiation therapy is commonly used, over several daily sessions spanning 6-7 weeks, to treat lung cancer. Radiation can cure cancer, but dose is limited due to potentially life-threatening injury to lung and other normal tissues; because radiation dose is limited, the odds of local recurrence remain high and survival is low. Our team aims at monitoring, using medical imaging, the response of patients undergoing radiation therapy, and to adjust therapy according to the observed changes; this will help doctors treat cancer more effectively while avoiding injury to normal tissues.
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


Précis: This paper proves, with large statistical power, that geometric misses are frequent in conventional and stereotactic radiotherapy for treatment of lung cancer. Fortunately, volumetric image-guidance is proven to be effective in reducing significantly geometric misses and may lead to reductions in setup margins that, in turn, may facilitate dose escalation for lung cancer. This paper has initiated a major research thrust in our research group, initiating the analysis of serial images to monitor response to radiation therapy with respiratory-correlated CT and PET imaging. This paper has been cited 20 times, according to Scopus.


Précis: This paper presents the first long-term review (over 3 years of data) of the image quality obtained with commercial, kilovoltage cone-beam CT systems for radiation therapy image guidance. While high geometric accuracy is demonstrated, the practical limitations of the image quality, which is lower for cone-beam CT than for conventional CT, are demonstrated and advice is given for users to improve image quality using existing features of such systems.


Précis: This paper presents the first long-term review (over 3 years of data) of the mechanical accuracy of image-guidance technology performance for commercial, kilovoltage cone-beam CT systems. The remarkably high mechanical stability ensures that high geometric accuracy is maintained in the long term, providing confidence that linear medical accelerators can deliver radiotherapy with consistently high precision and accuracy.


Précis: This is the first comprehensive review paper of Quality Assurance tailored for all of the commercially-available image-guidance technologies for radiotherapy at that time. It stressed the importance of excellent geometric precision for successful image guidance, described how to assess image quality, and outlined an approach for starting up an image-guided program. According to Scopus, the paper has been cited 13 times.

_Précis: This paper is one of the first that demonstrated the power of image guidance for high dose, hypofractionated radiotherapy of early stage lung cancers. Selected for Editor’s Choice by Cogent Medicine, it is cited 63 times to support the high geometric accuracy achievable for high precision radiation therapy, and the need for frequent imaging to maintain high accuracy._

2. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Jean-Pierre BISSONNETTE


Jean-Pierre BISSONNETTE


29. **Bissonnette J-P,** Medlam G. Trend Analysis of Radiation Therapy Incidents over Seven Years. Radiother Oncol. 2010 Jul;96(1):139-144. Impact Factor 4.337. **Principal Author.**


Jean-Pierre BISSONNETTE


**Books Edited**


**Book Chapters**


**Letters to Editor**

1. Bissonnette, J.-P., Milosevic, M., Carlone, M., Malkoske, K. Canadian Partnership for Quality Radiotherapy (CPQR) and the Canadian Organization of Medical Physicists (COMP) — Driving safety and quality assurance practice in Canada through the development of technical quality control guidelines. Journal of Applied Clinical Medical Physics. 2016 Jun 6;17(5). In Press. **Principal Author.**
Jean-Pierre BISSONNETTE

Report


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


F. Intellectual Property

1. PATENTS

UHN license agreement with Modus Medical Devices Inc. for MR spatial distortion phantom.

UHN license agreement with Modus Medical Devices Inc. for “Penta-Guide” Phantom.

2. LICENSES

2010 QUASAR™ GRID 3D phantom. Licenses #: UHN license #: 2010-0004, Canada. Joint Holder Name(s): Andrei Damyanovich, Matthew Filetti. 
The QUASAR™ GRID 3D Image Distortion Analysis System is designed to evaluate image distortion in 3D magnetic resonance images for stereotactic radiosurgery (SRS). The System is comprised of a phantom and analysis software which work together to produce a 3D map of spatial distortion with submillimeter accuracy throughout a volume of interest. The GRID3D System ensures that MR imaging can support the outstanding geometric precision and dosimetric accuracy of the Leksell Gamma Knife®, including PERFEXION™.

The phantom is an acrylic cube containing a 1 cm 3D grid of channels filled with copper sulfate solution. The region of interest measures 14 x 13 x 11 cm3 in which there are 2002 vertex locations. The vertex
locations are known to within 0.1 mm. The phantom accurately and reproducibly mounts securely to the Leksell® Coordinate Frame G at a known position. It fits within both the Leksell® MR Indicator and Leksell® CT Indicator. http://modusmed.com/quasar_grid3d.php.


*The Penta-Guide phantom is used for the commissioning and daily testing of Image-Guided Radiotherapy (IGRT) systems. The Penta-Guide ensures the accuracy of linac-mounted image guidance systems, including cone beam CT (CBCT), x-ray volumetric imaging (XVI) and on-board imaging (OBI). Using low-density objects to minimize imaging artifacts, the Penta-Guide allows rapid and easy daily testing for 3D cone beam registration, kV and MV system coincidence, kV and MV projection images, Laser and light field coincidence, remote table adjustments. Used by a therapist every morning, testing takes little or no extra time and can be completed during normal daily equipment warm-up procedures. Ideally, one Penta-Guide phantom should be used per linac allowing simultaneous system testing and preventing unnecessary start-up delays.* http://modusmed.com/quasar_pentaguide.php 1100 units sold.

G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2011 Dec 16 **Visiting Professor.** Imaging Applications for Lung Cancer Radiation Therapy. Johns Hopkins University, Baltimore, Maryland, United States.


2011 Oct 25 **Visiting Professor.** State of the art lung cancer radiation therapy, and quality assurance and error elimination in radiation therapy. Kuwait Regional Cancer Centre, Kuwait City, Kuwait. (Continuing Education).

2011 Jul 31 **Invited faculty.** Quality Assurance for kilovoltage Cone-beam CT Image-Guidance. Southeast Chapter of the American Association of Physicists in Medicine (AAPM). Myrtle Beach, South Carolina, United States. Presenter(s): Jean-Pierre Bissonnette. (Continuing Education).

2010 Oct 31 **Invited faculty.** Quality Assurance for Image-Guided Radiation Therapy. American Society for
Jean-Pierre BISSONNETTE

Therapeutic Radiology and Oncology (ASTRO). San Diego, California, United States. Presenter(s): Jean-Pierre Bissoneatte. (Continuing Education).


Presented and Published Abstracts


Publication Details:  
J-P BISSONNETTE, A BEZJAK, N BECKER, C LEAVENS, D VINES, TG PURDIE, DA JAFFRAY, A SUN. Serial 4DCT sand 4DPET imaging to monitor response for locally-advanced non-small cell lung cancer patients undergoing combined. Principal Author.


Publication Details:  

2. NATIONAL

Invited Lectures and Presentations


2012 Mar 23 Visiting Professor. Imaging Applications for Lung Cancer Radiation Therapy. Dept. of Medical Physics, McGill University. Montréal, Quebec, Canada.


Jean-Pierre BISSONNETTE


2007 Visiting Professor. Avancées Techniques pour la Radiothérapie du Poumon. Mercredi d’Oncologie series, Centre Hospitalier Universitaire de Québec. Quebec City, Quebec, Canada.

2006 Visiting Professor. Extra-Cranial Radiosurgery: the PMH Experience. Medical Physics Department, McGill University. Montreal, Quebec, Canada.


Presented Abstracts


Presented and Published Abstracts

2014 Aug Predicting esophagitis during radical lung radiotherapy using 18-FDG PET.

Publication Details:


Publication Details:


Publication Details:
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations

2012 May 3  **Invited Lecturer.** Technologic Advances in Lung SBRT. Target Insight. Toronto, Ontario, Canada.


Other Lectures and Presentations

2011 Nov 7  Longitudinal PET imaging in lung during radiotherapy. Princess Margaret Hospital, OCAIRO Rounds. Toronto, Ontario, Canada.

2011 Jun 7  Imaging Applications for Lung Cancer Radiation Therapy. Princess Margaret Hospital, Physics Rounds. Toronto, Ontario, Canada.

2010 Aug 26  Life at the Bleeding Edge: Can We Build a System to Innovate with Confidence? Princess Margaret Hospital. Radiation Medicine Program Summer Rounds. Toronto, Ontario, Canada. Presenter(s): Jean-Pierre Bissonnette and David Jaffray.


2008 Feb  Every Breath You Take, Every Move You Make. Princess Margaret Hospital, Radiation Medicine Program Grand Rounds. Toronto, Ontario, Canada. (Continuing Education).


Jean-Pierre BISSONNETTE

2005 Nov  First and Foremost: Let’s Protect Normal Structures. Princess Margaret Hospital Innovation Rounds.
Toronto, Ontario, Canada.


2004 May  RMP QA Review: a Reflection (another proof that hindsight is always 20/20). Princess Margaret Hospital, Radiation Medicine Program Grand Rounds. Toronto, Ontario, Canada. Presenter(s): Jean-Pierre Bissonnette and David Hodgson. (Continuing Education).


5. OTHER

Invited Lectures and Presentations


Presented and Published Abstracts


Publication Details:

2014 Aug  Team-based clinical simulation in radiation medicine: value to attitudes and perceptions of interprofessional collaboration.

Publication Details:


Publication Details:
Other Presentations


H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Graduate Education

2011 - present **Primary Supervisor.** Nathan Becker. Supervisee Position: Physics Resident, Supervisee Institution: University of Toronto, Toronto, ON. *Prospective Study of 4DCT and 4DPET Imaging during a course of Radical Radiotherapy to Monitor Tumor Response and Predict Treatment Outcome for Non-Small Cell Lung Cancer.* Collaborator(s): Alex Sun, Andrea Bezjak, David Jaffray.


Undergraduate MD

2004 Apr - 2004 May **Co-Supervisor.** Andrew Pierce. *Improving Patient Positioning during Radiotherapy of Liver Tumours / Metastasis.* Collaborator(s): Gaylene Medlam.

Jean-Pierre BISSONNETTE

2004 Jan - 2004 Feb  **Co-Supervisor.** Hin Hin Ko. *Improving the Effectiveness of Radiotherapy For Rectal Carcinoma By Improving Treatment Setup.* Collaborator(s): Gaylene Medlam.


**Postgraduate MD**

2010 - present  **Co-Supervisor.** Paula McCloskey. Supervisee Position: Fellow, Supervisee Institution: University of Toronto, Toronto, ON. *Adaptive Radiotherapy for Locally-advanced Lung Cancer.* Collaborator(s): Alex Sun, Andrea Bezjak, David Jaffray, Katy Clarke, Victoria Ford, Jane Higgins.

2010 - present  **Co-Supervisor.** Victoria Ford. Supervisee Position: Fellow, Supervisee Institution: University of Toronto, Toronto, ON. *Adaptive Radiotherapy for Locally-Advanced Lung Cancer.* Collaborator(s): Alex Sun, Andrea Bezjak, David Jaffray, Katy Clarke, Paula McCloskey, Jane Higgins.

2009 - 2010  **Co-Supervisor.** Katy Clarke. Supervisee Position: Radiation Oncologist, Supervisee Institution: St James’s Institute of Oncology, Leeds Teaching Hospitals, Leeds, UK. *Prospective Study of 4DCT and 4DPET Imaging during a course of Radical Radiotherapy to Monitor Tumor Response and Predict Treatment Outcome for Non-Small Cell Lung Cancer.* Collaborator(s): Alex Sun, Andrea Bezjak, David Jaffray, Jane Higgins.


**Continuing Education**


2010 - 2011  **Primary Supervisor.** Lauren Silver. *Comparing VMAT and Static Beam Techniques for Lung SBRT.*

2009 - 2010  **Primary Supervisor.** Winnie Li. Collaborator(s): Andrea Bezjak.
2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member


I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2004 - present

High-precision radiation therapy for lung cancer. Cure rates for inoperable or locally-advanced lung cancer with radiation therapy have been disappointingly low. One of the reasons is that radiation dose delivery is hampered by the proximity of lung tumors to several organs at risk, such as uninvolved lung tissue, the spinal cord, and the esophagus; these organs all have limited tolerance to radiation. Fortunately, recent technological advances have allowed the guidance of radiotherapy using on-line CT imaging (IGRT). IGRT allows measurement and reduction of geometric uncertainties in the delivery of radiotherapy (i.e., unintentionally missing the tumor during therapy); such uncertainties are commonly handled by treating the tumor with large radiation fields that inevitably irradiate organs at risk and increase the likelihood of toxicity. We have demonstrated that large geometric errors occur frequently, but can be corrected accurately and reproducibly with IGRT, thereby providing opportunity to reduce treatment fields and toxicity. Without IGRT, geometric misses go undetected, leading to tumors receiving less radiation dose than intended. Improving the geometric accuracy of radiotherapy using daily IGRT can thus lead to the reduction of treatment field size that, in turn, may reduce toxicity or provide an opportunity to increase tumour dose, without encountering more toxicity than is clinically observed, and perhaps improve cure rates.

Imaging patients prior to every treatment, over the course of five to seven weeks of therapy, allows the detection of changes in the tumour size and location; hopefully, tumours shrink during therapy. Our team has indeed observed that this happens in most patients. Unfortunately, IGRT image quality is insufficient to clearly visualize tumour borders or nodal structures in a large proportion of patients, hindering quantitative monitoring of tumour response to therapy throughout treatment. IGRT can indicate that significant changes do occur, but not precisely or quantitatively in many patients. Such information is crucial in patient management. Imaging may provide early indication of toxicity and provide clinicians opportunities to mitigate these. Images can also indicate whether a patient responds well to treatment or not and provide an opportunity to revise the clinical goal. While IGRT images are of insufficient quality to perform these tasks, diagnostic imaging modalities may.

Our experience with high precision radiotherapy of the lung has stemmed a major research orientation in lung radiotherapy. First, a grant was obtained to acquire and analyse diagnostic quality images of the patient, combining respiratory-correlated CT and PET images, to monitor tumour response during concurrent chemotherapy and radiotherapy for locally-advanced lung cancer patients, and identify image-based metrics to predict response or to identify patients needing adaptation. Planning studies are being performed to identify strategies that might improve the therapeutic ratio for these patients. Another grant was obtained to optimise treatment parameters and identify therapeutic strategies that are robust not only to variations in the breathing patterns of patients, but also to patient-to-patient variability in tumour response.

Fourteen publications and two major grants have been obtained on high precision radiation therapy for lung cancer. Two graduate and nine postgraduate students have been involved in these projects. Twelve invited presentations have been done, on international, national,
Jean-Pierre BISSONNETTE

and local settings. In turn, the clinical practice of image-guided radiotherapy has been radically transformed at Princess Margaret Hospital and elsewhere. Routine treatment protocols have been drafted and are now standard of care, based on the research work (Appendix A). Records of several visitors wishing to learn of our team efforts are also included in Appendix A. The learnings from this work has been instrumental in developing and organizing the long-standing IGRT course, for which there is international demand, to the point that lung-specific courses have been offered.

2003 - present

Quality assurance and error elimination in radiation therapy.

Radiation therapy is a powerful and effective way to cure cancer, but has devastating implications when misused. Under dosing the tumour may lead to recurrence and overdosing normal structures may induce toxicity. In recent years, errors in radiation therapy have received a lot of worldwide media attention. The public’s confidence in this effective modality has been undermined by reported misuses of radiation in Canada, France, the UK, and the USA. Public enquiry into our field has deemed that, while radiotherapy can be considered effective and safe, it is not safe enough. Our field has been actively seeking methods to improve continually not only the safety of radiotherapy, but also the efficacy of delivery. Quality tools and learning systems that have been in use in fields of activity other than medicine are being examined, and the value of application of these tools to our field, ascertained. Quality improvement relies on a foundation based on standardization of practice, documentation of procedures, transparency, and the establishment of a “blame-free” culture. My first year as Physics Quality Assurance Officer was spent auditing the PMH Radiation Medicine Program, in terms of the quality of all acts conducted in the Radiation Medicine Program at Princess Margaret Hospital between decision to treat to the last treatment. This audit has lead to the production of a report, enclosed in Appendix B, describing recommendations that have profoundly changed the way the RMP operates and is frequently highlighted during accreditation and other quality audits. Changes have been made to the infrastructure of the RMP to formally recognize and devote resources to quality and error elimination initiatives. I have been coordinating the production and auditing of all drafted procedures to describe routine clinical practice; each procedure contains explicit acceptability criteria that help define quality expectations and clearly defines what goals are to be attained by the clinical staff. Another recommended initiative from the report is the monitoring of quality metrics and of incident reports to identify and eliminate potential hazards and improve efficiency of treatment delivery.

The same principles have been applied to ensure the safe and efficient implementation of novel practices and technologies at the RMP. Committees, such as the External Beam Process Committee, the Quality Assurance Monitoring Committee, and the SHERPA group have been set to revise and coordinate the necessary verifications and the drafting of protocols when major changes in practice were performed in a safe, transparent, and effective way. Personally, I have applied these principles for drafting the quality control protocols for image-guided radiation therapy (IGRT) devices. This approach, novel in our field, has resulted in my being invited to present this work at several national and international forums, drafting one review article, and chairing a task group for the American Association of Medical Physicists that has recently submitted a report to define standard guidelines for quality control of IGRT equipment; in addition, I have contributed to the design and commercialization of a phantom that has been designed to perform many of these quality control checks efficiently. At the national level, I have been a member of the Steering Committee of the Canadian Partnership for Quality Radiotherapy (C-PQR), a national initiative regrouping all disciplines involved in radiation oncology (i.e., the Canadian Association of Radiation Oncology, the Canadian Organization of Medical Physicists, and Canadian Association of Medical Radiation Technologists, and the Canadian Partnership Against Cancer). Funded by the federal government, the C-PQR is mandated to define, document, and audit quality across Canadian radiation therapy clinics. While I participate in all aspects of the C-PQR Steering Committee, my particular contribution has been to lead the drafting and revision of outdated quality control guidelines for radiotherapy equipment used in Canada. Using a consensual approach, I have implemented a novel method to keep all
quality control documents covering these equipments current and relevant to the practice of all Canadian clinics by initiating a two year review and approval process for each set of guidelines to account for changes in practice and technology. Furthermore, documents are field-tested prior to final endorsement. At this stage, two documents are ready for field-testing, and eight will be posted for external review in January 2012.

A key factor for sustaining successful quality initiatives is education and communication. To this end, I have enrolled in the University of Toronto – Faculty of Medicine Education Scholars Program, where I honed and acquired such as interactive teaching, andragogy, curriculum and course design, evaluation and feedback, qualitative research methods, and educational research based on simulation techniques. These skills have been put to recent use by designing a course on Quality and Safety that will begin in February 2012; the course description and objectives have been approved by the RMP.

Besides the aforementioned report, two peer-reviewed articles have been published to disseminate the knowledge we learned from our mistakes. Quality assurance principles have also been applied to the technology employed in radiation therapy, specifically to IGRT technologies. The work towards the resolution of quality and safety problems in radiation therapy has lead to the publication of six peer-reviewed journal articles and two book chapters. Contributions to the development of professional practices include the drafting and revision of national standards for radiotherapy equipment quality control endorsed by the Canadian Association of Provincial Cancer Agencies (a sample is provided in Appendix B); these standards are being revised, under my supervision, under the auspices of the Canadian Partnership for Quality Radiotherapy, a joint effort by the Canadian Organization of Medical Physics, the Canadian Association of Radiation Oncology, the Canadian Association of Medical Radiation Technologists, and the Canadian Partnership Against Cancer; one new guideline is included in Appendix B. I also have chaired the Task group #179 of the American Association of Medical Physicists; an international guideline for quality control for several IGRT devices has been tentatively approved for publication. Exemplary professional practice has been demonstrated by participation in several workshops and several invited talks in international meetings; recently, I have been visiting and supporting the Kuwait Regional Cancer Centre on a two week visit, mentoring the local staff on quality assurance and error elimination initiatives. Again, my expertise with quality improvement and error elimination in radiotherapy has been integrated in both the Radiation Oncology and Radiotherapy Physics Residency Programs at UT-DRO.

2003 - 2011 Supplementary Documentation (Quality assurance and error elimination in radiation therapy). Six peer-reviewed articles and three book chapters on QA.


2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

High-precision radiation therapy for lung cancer (Contributions to the Development of Professional Practice).

Quality Assurance and error elimination in radiation therapy (contributions to the development of professional practice).

3. EXEMPLARY PROFESSIONAL PRACTICE

2012 Jul 1 - 2013 Jun 30 Accelerator-integrated Cone-Beam Systems for Verification Imaging. The Canadian Partnership for Quality Radiotherapy (CPQR) is an alliance among the
national professional organizations involved in the delivery of radiation treatment in Canada: the Canadian Association of Radiation Oncology (CARO), the Canadian Organization of Medical Physicists (COMP), and the Canadian Association of Medical Radiation Technologists (CAMRT), together with the Canadian Partnership Against Cancer (CPAC). The mandate of the CPQR is to support the universal availability of high quality and safe radiotherapy for all Canadians through system performance improvement and the development of consensus-based guidelines and indicators to aid in radiation treatment program development and evaluation.

This document is intended to provide a unified, national quality assurance framework for radiation treatment programs across Canada, and a set of quality indicators for monitoring programmatic performance. It is based on the premise that quality assurance is an essential element of good clinical care, and is intended to foster a culture of continuous quality improvement in radiation treatment programs across Canada. The guidelines and indicators are consistent with government of Canada and CNSC regulatory requirements and the recommendations of the World Health Organization, the American Association of Physicists in Medicine, other international professional organizations, and the Accreditation Canada Qmentum Program for Cancer Care and Oncology Services.

These “Technical Quality Control Guidance for Canadian Radiation Treatment Programs” documents highlight important elements of radiation quality assurance that should be common to all radiation treatment programs in Canada. They are not intended to replace detailed specifications, standard operating procedures or centre-based policies, but rather to support the development and maintenance of a national strategy for radiation treatment quality assurance. The ultimate objective is to assure the highest quality radiation treatment for all Canadians as an integrated element of overall cancer care, and minimize the risk of medical errors and untoward clinical outcomes. Responsibility for implementation of quality assurance programs and monitoring of quality indicators should be taken at the highest operational levels of all cancer treatment organizations and provincial cancer agencies.

These documents are extensively reviewed with the process described below.

Phase I: Planning and Evaluation
This phase includes the identification by QARSAC of documents requiring revision and/or updating based on feedback from the radiation treatment community and/or technical advances. It also includes the recruitment of expert reviewers and the scheduling of review timelines.

Phase II: Environmental Review and Document Revision
This phase consists of a review of existing guidelines, of literature and other evidence available to the reviewer. The reviewer will weigh all new material, consider the appropriateness of its incorporation into the guideline, and make modifications to the guideline as appropriate. Other necessary revisions and updates will also be made by the reviewer at this time.

Phase III: Community Review
This phase consists of a request for feedback on proposed revisions to the existing document by the medical physicist community and the broader radiation treatment community through CPQR and its partner organizations. Comments during this external review process will be solicited for a period of 30 days.

Phase IV: Refinement of TQC Guideline
This phase will be undertaken by QARSAC and the reviewer. It consists of considering feedback provided during the external review period and, if appropriate, integrating the comments into the existing document.

Phase V: External Validation (to be conducted in parallel with Phase VII)
If major changes were made to the existing guideline (e.g.: inclusion of a significant new test or prior deficiency to an existing test was corrected), then volunteer centres will be solicited to validate the new test criteria. The validation process will be circulated to identified Radiation Treatment Centres and will be conducted over a period not to extend beyond 3 months. Criteria for validation will include a combination of standardized questions as well as questions developed by the expert reviewer if needed.

Phase VI: Finalization of the TQC Guideline
This phase consists of considering the validation report prepared by individual centres during the previous phase and integrating changes where appropriate.

Phase VII Internal Review and Approval(to be conducted in parallel with Phase V)
The TQC Guideline under revision will be presented to QARSAC for review and approval. This phase will be repeated following the results of the External Validation review.
Adoption by all cancer programs in Canada is anticipated.

High-precision radiation therapy for lung cancer (exemplary professional practice).

quality assurance and error elimination in radiation therapy (exemplary professional practice).
A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

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Department of Radiation Physics
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Toronto, Ontario, Canada
M5G 2M9

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Fax 416-946-6566
Email Stephen.Breen@rmp.uhn.on.ca

1. EDUCATION

Degrees
1998 PhD, Medical Biophysics, Western University
1991 MSc, Medical Biophysics, Western University
1989 BEng, Engineering Physics, Technical University of Nova Scotia, in association with Dalhousie University
1986 BSc, General Science, St. Mary’s University
1986 Dip Eng, Engineering, St. Mary’s University

Postgraduate, Research and Specialty Training
1999 - 2001 Post-doctoral Fellow, Joint Department of Physics, Royal Marsden Hospital and the Institute of Cancer Research, Sutton, United Kingdom

Qualifications, Certifications and Licenses
2006 - present Member, Radiation Oncology Physics, Canadian College of Physicists in Medicine

2. EMPLOYMENT

Current Appointments
2009 - present Senior Medical Physicist, Dept of Radiation Physics, Princess Margaret Hospital
2005 Jun - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
Previous Appointments

HOSPITAL
2003 - 2009 Medical Physicist, Dept of Radiation Physics, Princess Margaret Hospital
2001 - 2003 Clinical Scientist, Bart’s and the London NHS Trust, London, United Kingdom

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received
1991 - 1994 Medical Research Council of Canada Graduate Studentship, Western University. (Distinction)

LOCAL
Received
1989 Walter Gardiner Stanfield entrance scholarship, Technical University of Nova Scotia. (Distinction)
1983 - 1986 Entrance and achievement scholarships, St. Mary’s University. (Distinction)

Teaching and Education Awards

LOCAL
Received
2011 Postgraduate Classroom Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD, Core Program)
2010 Mentorship Award, Radiation Medicine Program, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Hospital. (Continuing Education)
2009 Postgraduate Classroom Teaching Award, Dept of Radiation Oncology, Faculty of Medicine, University of Toronto. (Postgraduate MD, Core Program)
2005 Continuing Professional Development Award, Radiation Medicine Program, Princess Margaret Hospital. (Continuing Education)

Nominated
2007 Research Project Supervisor Award, Radiation Medicine Program, Princess Margaret Hospital

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
2009 - present Full member, American Society for Quality
1997 - present  Full member, American Association of Physicists in Medicine
1997 - present  Full member, Canadian Organization of Medical Physicists
1993 - 1999  Member, Therapy Council, Society of Nuclear Medicine
1992 - 1999  Associate member, Society of Nuclear Medicine
1992 - 1995  Student member, American Association of Physicists in Medicine
1990 - 1997  Student member, Canadian Organization of Medical Physicists

**Administrative Activities**

**NATIONAL**

**Other Organizations**

2012 - present  Board Member, Director-at-Large, Canadian Organization of Medical Physicists

**Canadian Organization of Medical Physicists (COMP)**

2012 - present  Chair, Science and Education Committee
2010 - present  Member, Science and Education Committee
2010 - 2012  Course Director, Winter School on Quality and Safety in Radiation Oncology
2009 - 2010  Member, Winter School on Quality and Safety in Radiation Oncology

**PROVINCIAL / REGIONAL**

**Cancer Care Ontario**

2010 - present  Physics Lead, Cancer Care Ontario Head and Neck Community of Practice

**Ontario Cancer Treatment and Research Foundation**

1994 - 1995  Member, Unsealed Source Working Group

**LOCAL**

**Princess Margaret Hospital**

2014 - present  Co-Chair, Quality Control, Radiation Medicine Program
2010 - present  Co-Chair, Imaging Committee, Radiation Medicine Program
2010 - present  Member, Quality Committee, Radiation Medicine Program
2006 - 2009  Co-Chair, Molecular Imaging Research Group, Radiation Medicine Program

**University of Toronto**

2009 - 2010  Member, Strategic Planning Committee, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development

**Western University**

1994 - 1995  Student Representative, Promotions and Tenure Committee, Department of Medical Biophysics
1992 - 1995  Student Representative, Graduate Affairs Committee, Faculty of Medicine, Dept of Medical Biophysics, Graduate Education
C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly and Professional Activity. My scholarly and professional activities fall into three principle areas: (1) the application of quality tools, particularly statistical process control, in radiotherapy; (2) imaging for radiotherapy; and, (3) advanced medical physics practice in head and neck radiotherapy.

A fundamental component of the radiation medicine program is continuous quality improvement. This requires monitoring of the performance of our equipment and systems with statistical process control (SPC) to ensure that performance is within specification with minimal variation. I have applied SPC to the performance of our CT scanners as part of regular quality assurance, and have published on the application of SPC to IMRT dosimetry. As course director of the COMP Winter School of Quality and Safety in Radiation Oncology, I emphasize the application of quality principles in contemporary radiotherapy.

As the physics leader of the Advanced Simulation Program in the Radiation Medicine Program at Princess Margaret Hospital, I have overseen the commissioning of four CT scanners (including a PET-CT and combined SPECT-CT) and an MR-Simulator. My research in this area has been on the use of FDG-PET in head and neck radiotherapy, and serial imaging of lung cancers with FDG-PET.

In the head and neck site group, I have developed a process orientation to treatment planning and delivery that has increased the number of patients receiving IMRT from 10 per year to over 500 per year. Most of my continuing education activities are based on my...
experience in head and neck image-guided IMRT, and this practice extends to being physics
co-chair in national and international clinical trials, and leading the Cancer Care Ontario
Community of Practice for head and neck radiotherapy.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2009 Jul - present  Co-Investigator. RTOG 0920: A phase III study of postoperative radiation therapy (imrt) +/- cetuximab for locally-advanced resected head and neck cancer. National Cancer Institute (USA). Radiation Therapy Oncology Group (RTOG). PI: Machtay, Mitchell. Collaborator(s): Thorstad W (Co-Chair), Quon H (Co-Chair), Siu L (Co-Chair), Holsinger CF (Co-Chair), Gwede CK (Co-Chair), Pajak TF (Co-Chair), Bednarz G (Co-Chair), Breen S (Co-Chair), Dicker A (Co-Chair), Chung C. (Co-Chair), El-Naggar A (Co-Chair). [Clinical Trials]


2010 Jul - 2012 Jun  Co-Principal Investigator. The use of SPECT/CT and CT lymphography to delineate spatial and functional relationships between the lymphatics of the breast and upper extremity. Canadian Breast Cancer Research Alliance. PI: Dinniwell, RE and Breen, SL. 56,213.5. [Grants]


NON-PEER-REVIEWED GRANTS

FUNDED

2012 Sep - 2014 Aug  Co-Principal Investigator. A Pilot Study of 18FDG PET-CT Kinetics Analysis in Head and
Neck Squamous Cell Carcinoma (HNSCC) with Potential Implications for Target Volume Delineation and Adaptive Radiotherapy. Radiation Medicine Program, Princess Margaret Hospital. PI: Breen, SL and Kim, JJ. 40,000 CAD. [Grants]

2007 Jul - 2009 Jun Co-Principal Investigator. A Pilot Prospective Study of FDG-PET-CT Imaging Utility in Radiotherapy Planning and Assessment in All Stages and Histological Types of Lung Cancer. Phillips Medical Systems. PI: Sun, A and Breen, SL. 124,000 CAD. [Grants]


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Conference Publications


**Conference Publications**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**


**F. Presentations and Special Lectures**

**1. INTERNATIONAL**

**Invited Lectures and Presentations**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event/Location</th>
</tr>
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<tbody>
<tr>
<td>2011 Feb 3</td>
<td>COMP Winter School on Quality and Safety in Radiation Oncology. Mont Tremblant, Quebec, Canada. Applying Quality Tools in Radiation Medicine.</td>
</tr>
</tbody>
</table>
Stephen Leonard BREEN

London, City of, United Kingdom.


2001 Registration of medical images. Joint Department of Physics, Royal Marsden Hospital. London, City of, United Kingdom.


1999 Internal dosimetry for therapeutic bone-seeking radionuclides. Joint Department of Physics, Royal Marsden Hospital. London, City of, United Kingdom.

Presented Abstracts


Breen SL. October 31 - November 5, 2009.


Stephen Leonard BREEN


2007 Jun 4  Analysis of Spatial Variability in a Multi-Observer FDG-PET-CT Study of Primary Head-and-Neck GTVs. International Conference on the use of Computer in Radiation Therapy (ICCR). Toronto, Canada. Authors:


2005 Oct 16  Analysis of gross target volume observer variability with FDG-PET and contrast enhanced CT (CECT) in...


1992 Jan Acceptance testing and quality control for an on-line scatter correction system. Internat. symposion, Radioaktive isotope in klinik u. forshung. Badgastein, Austria. Authors: Breen SL, Cradduck TD.

1992 Acceptance testing and quality assurance for the WAM. 39th annual meeting of the Society of Nuclear Medicine. Los Angeles, California. Authors: Breen SL, Cradduck TD.


1990 Apr Count rate losses under energy-weighted acquisition. Fifth World Congress of Nuclear Medicine and Biology. Montreal, Canada. Authors: Breen SL, Blais M, Cradduck TD.


1990 Apr Spectral changes affect count-rate loss tests. Eastern Great Lakes Chapter of the Society of Nuclear Medicine, Eleventh annual meeting. St. Catherine’s, Ontario. Authors: Breen SL, Cradduck TD.

2. NATIONAL

Invited Lectures and Presentations

2011 Feb 3 Applying Quality Tools in Radiation Medicine. COMP Winter School on Quality and Safety in Radiation Oncology. Mont Tremblant, Quebec.

Presented Abstracts


2007 Oct 9  Determination of PTV margins for enlarged cervical lymph nodes based on changes observed in volume and location with daily on-line cone-beam CT during a course of radiation therapy. CARO-COMP Joint


2005 Shielding design for a PET-CT simulator in a radiotherapy department. 51st Annual Scientific Meeting, Canadian Organisation of Medical Physicists. Hamilton, Canada. Authors: Breen SL, Tourneur F.

2003 Mar IMRT field validation using the gamma index: providing context by evaluating standard radiotherapy fields.
Stephen Leonard BREEN


2003 Jan Verification of monitor unit calculations from CadPlan for uniform fields produced using the dynamic MLC. Validation of Dosimetry for Treatment Planning Systems (Institute of Physicists and Engineers in Medicine). London, United Kingdom. Authors: Usher C, Breen SL.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


2012 May 16 MRgRT Safe Operations. RMP Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada.


2011 Dec 8 PET in the RMP. RMP Rounds, Princess Margaret Hospital.


2009 Apr 16 Statistical approaches to quality in radiotherapy physics. RMP Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada.


2007 STTARR Molecular imaging facilities. RMP Molecular Imaging Group, Princess Margaret Hospital. Toronto, Ontario, Canada.
2007  Margins and Motion in Head and Neck IMRT. Radiation Physics Seminar, Princess Margaret Hospital. Toronto, Ontario, Canada.


2007  Process Change in Head and Neck IMRT. RMP Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada.


2006  Head and Neck IMRT QA: From exception control to process control. Radiation Physics Seminar, Princess Margaret Hospital. Toronto, Ontario, Canada.


2005  PET in the RMP. RMP Moelecular Imaging Research Group, Radiation Medicine Program, Princess Margaret Hospital. Toronto, Ontario, Canada.

2005  Head and Neck IMRT Developments. Radiation Medicine Program, Princess Margaret Hospital. Toronto, Ontario, Canada.

2005  Head and Neck IMRT Case presentation. Radiation Medicine Program, Princess Margaret Hospital. Toronto, Ontario, Canada.

2004  Quality control for head and neck contours in the IMRT era. Head and Neck Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada.

2004  Physics Issues in Head and Neck IMRT. Radiation Physics Seminar, Princess Margaret Hospital. Toronto, Ontario, Canada.


2003  Implementing a QA program for dynamic IMRT. Princess Margaret Hospital. Toronto, Ontario, Canada.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


2008  Primary Supervisor. Abdikarim Dahir. Analysis of daily spinal cord motion on daily cone beam CT.

2007  Primary Supervisor. B. Sc. Yifei Wang. Software tools for probability density functions of spinal cord motion during head and neck IG-IMRT.


1993  **Primary Supervisor.** L Giroux, University of Ottawa. *Novel Radiation Dosimetry in LiF.*

**Graduate Education**

2012 May - present  **Primary Supervisor.** Greg Jackson, Clinical Internship, Princess Margaret Hospital. *Commissioning of a CT and SPECT System.*

2008  **Primary Supervisor.** Alexandra Rink, Princess Margaret Hospital. *In vivo measurements of mucosal doses during head and neck radiotherapy.*

2006  **Primary Supervisor.** Christopher Thomas, Princess Margaret Hospital. *Spatial descriptors of observer variability in target volume delineation with PET-CT.*

**Undergraduate MD**

2002  **Primary Supervisor.** P Kehagioglou, Cardiff University Medical School. *Advanced Radiotherapy Planning.*

**Postgraduate MD**

2008  **Co-Supervisor.** Clinical Fellow. I Mallick. *Margins for glottic larynx based on CBCT.*

2007  **Co-Supervisor.** Clinical Fellow. G. Lim. *Serial FDG-PET-CT scanning during radiotherapy.*

2005  **Co-Supervisor.** Clinical Fellow. D Hwang. *Tracking soft tissue changes in head and neck radiotherapy with cone beam CT.*


2. **OTHER SUPERVISION**

**Undergraduate Education**

**Thesis Examiner**

2009  B. Sc. Dame Jankuloski. *Localised margins for head and neck radiotherapy based on cone beam CT.*

**Graduate Education**

**Secondary Supervisor**

2005  G. Zeng, Princess Margaret Hospital. *Positioning uncertainties in head and neck radiotherapy evaluated with cone beam CT.*
CURRICULUM VITAE

Name  Kristy Kay Brock

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Radiation Physics Department
610 University Avenue, 7-502C
Toronto, Ontario  M5G 2M9

Business Telephone  (416) 946-4501 x6565
Business  Fax  (416) 946-6566
E-mail Address  Kristy.Brock@rmp.uhn.on.ca
Last Updated  April 2010

EDUCATION

University Education

1995-1999  University of Michigan, Ann Arbor, MI, B.S. Nuclear Engineering and Radiological Sciences
1999-2000  University of Michigan, Ann Arbor, MI, M.S. Nuclear Engineering and Radiological Sciences
2000-2003  University of Michigan, Ann Arbor, MI, Ph.D. Nuclear Engineering and Radiological Sciences

Scholarships and Awards

1995  Regents Scholarship, University of Michigan, Ann Arbor, MI
1998  Most Outstanding Undergraduate Leadership Award, University of Michigan, Ann Arbor, MI
1998  General Electric Faculty for the Future Research Fellowship
1999  Most Outstanding Undergraduate Leadership Award, University of Michigan, Ann Arbor, MI
2000  Student Paper Competition Finalist, Chicago 2000 World Congress on Medical Physics and Biomedical Engineering
2001  Rackham Travel Grant
2002  Rackham Travel Grant and Rackham/International Institute Travel Grant
2003  Young Investigator Competition Finalist, 45th American Association of Physicists in Medicine Annual Meeting
2005  Basic Science Travel Grant, American Society of Therapeutic Radiology and Oncology
2006 Accuray Award for outstanding research in the field of “High Precision Radiotherapy” – European Society for Therapeutic Radiology and Oncology 25 Meeting, Leipzig, Germany
2006 Most Influential Research Publication, Radiation Medicine Program, Princess Margaret Hospital
2008 Outstanding Research Potential, Department of Radiation Oncology, University of Toronto
2008 Research Leadership Award, Radiation Medicine Program, Princess Margaret Hospital
2009 Radiation Physics Research Productivity Award, Radiation Medicine Program, Princess Margaret Hospital

BIOGRAPHICAL INFORMATION

Degrees
1999 BSE, Nuclear Engineering and Radiological Sciences, University of Michigan, Ann Arbor, MI, USA
2000 MS, Nuclear Engineering and Radiological Sciences, University of Michigan, Ann Arbor, MI, USA
2003 PhD, Nuclear Engineering and Radiological Sciences, University of Michigan, Ann Arbor, MI, USA

Hospital/Staff Appointments
2003-present Physicist, Radiation Medicine Program, Princess Margaret Hospital

Academic Appointments
2004-2010 Assistant Professor, Department of Radiation Oncology, University of Toronto
2008-present Assistant Professor, Department of Medical Biophysics, University of Toronto
2008-present Scientist, Ontario Cancer Institute
2009-present Assistant Professor, Institute for Medical Sciences, University of Toronto
2009-present Assistant Professor, The Institute of Biomaterials and Biomedical Engineering, University of Toronto
2010-present Associate Professor, Department of Radiation Oncology, University of Toronto

Professional Activities

Manuscript Reviewer
2002-present Medical Physics
2002-2004 Journal of Applied Clinical Medical Physics
2003-present The International Journal of Radiation Oncology, Biology, Physics
2004-2005 Medical Dosimetry
2006-present Physics in Medicine and Biology
2008-present Journal of Biomechanics

Editorial Board - Member
2009-present Medical Physics

Guest Grant Reviewer
2008-present National Science and Engineering Council

Certification and Licensures
2008 American Board of Radiology

Administration and Committee Appointments

Memberships and Offices in Professional Societies
2003-present American Association of Physicists in Medicine, Full Member
2003-present American Society for Therapeutic Radiology and Oncology, Associate Member
2004-present European Society for Therapeutic Radiology and Oncology, Member
2004-present Canadian Association of Radiation Oncology, Associate Member

Local Committees
2005-present University of Toronto, Department of Radiation Oncology - Academic Communications Committee
2009-present Ontario Cancer Institute, Animal Care Committee

National and Provincial Committees
2003 - 2009 American Association of Physicists in Medicine (AAPM), Annual Meeting, Abstract Reviewer, Session Moderator, Symposium Organizer
2005-present National Cancer Institute of Canada – Radiation Oncology Quality Assurance
2005-present National Cancer Institute of Canada – Medical Physics Working Group
2007-2009 Canadian Association of Radiation Oncology, Annual Meeting, Workshop Chair
2008-2009 American Association for Radiation Oncology (ASTRO), Annual Meeting, Abstract Reviewer and Session Moderator
2008 National Science and Engineering Council, Guest Grant Reviewer

International Committees
2002-present Medical Physics, Manuscript Peer Reviewer
2003-present The International Journal of Radiation Oncology, Biology, Physics, Manuscript Peer Reviewer
2004-present American Association of Physicists in Medicine – Imaging for Treatment Planning Working Group
2006-present Physics in Medicine and Biology, Manuscript Peer Reviewer
2007-present American Association of Physicists in Medicine – Task Group #132: Use of Image Registration and Data Fusion Algorithms and Techniques in Radiotherapy Treatment Planning
2008-present  American Association of Physicians in Medicine – Federal Funding Working Group
2008-present  Journal of Biomechanics, Manuscript Peer Reviewer
2008-present  IMPAC, Physics Advisory Board
2009   National Cancer Institute (US), NCI Translates Program Committee
2009-present  Medical Physics, Editorial Board

STATEMENT OF SCHOLARLY ACHIEVEMENT

The focus of my scholarly and professional activity has been on deformable image registration including methods to integrate their use into dose calculations, image guidance, response assessment and developing quality assurance and validation methods. The demands of image registration began in the late 1990’s as multi-modality imaging for radiation treatment planning and image guidance at treatment delivery became increasingly available. Integration of these additional images into the treatment processes requires robust, accurate, and efficient image registration tools. As these imaging modalities developed, the information provided in them lead to the realization that rigid registration was often not sufficient to resolve the complex changes that the soft tissue was undergoing between imaging and treatment sessions.

In 2003, I developed a research program focused on the development of a novel deformable modeling technique using biomechanical models and finite element analysis. The technique, which is substantially different than the widely available deformable image registration algorithms that rely on image intensity, incorporates the biomechanical properties of tissues to model the complex interaction of neighboring tissues and tumors. The application has been tested and validated on a number of anatomical sites including head and neck, lung, breast, esophagus, liver, pancreas, stomach, cervix, prostate, and rectum. The development of this technique has lead to the need to perform validation on its accuracy prior to its integration into clinical practice. In addition to developing validation techniques, I created a deformable registration accuracy consortium, which consists of 23 academic institutions and industry partners throughout the global radiation oncology community. I also serve as a member of the international task group to develop a report on the acceptance of registration algorithms. The success of my biomechanical model-based algorithm has generated interest for collaborations with international academic partners as well as cooperative groups such as the Radiation Therapy Oncology Group (RTOG).

The application of my algorithm has been pursued in therapy applications, specifically focused on radiation therapy. These have included incorporating breathing motion into dose calculations, integrating multi-modality imaging for treatment planning, deformable registration for image guidance, and quantifying treatment response. My research pioneered the investigation of breathing motion and deformation into radiation therapy dose calculations, indicating the necessity for including deformation to achieve the level of accuracy expected for these applications. These discoveries have also raised many questions, such as: which imaging modality, or combination, correctly identifies the tumour boundary? I have developed a research program in correlative pathology (deformable registration between histology and in vivo images) to investigate this issue. To understand the changes in the material properties during fixation, I have also begun to research the application of magnetic resonance elastography (MRE). The MRE research has also enabled an additional research focus on small animal imaging and intervention to evaluate radiation and drug
response, which will improve our understanding of these complex changes for applications in human clinical studies.

As an educator, I have had the opportunity to supervise and mentor several students and post-doctoral fellows, as well as teaching formal classes and continuing education lectures. My current research group consists of 3 graduate students, 3 research assistants, and 2 post-doctoral fellows, which enables a dynamic and interactive learning environment. I have been inspired by my supervisors at the University of Michigan and my mentors here at Princess Margaret Hospital to develop an environment that promotes scholarly achievement, clear presentation of research, and development as an independent researcher. The role of physicists in medicine is expansive, including teaching, research, clinical contribution, and innovation in technology. As a board certified physicist in medicine, I have focused on maintaining close integration with the clinic to enable translation of my research into the clinic. This has lead to several successful translations of my research into the clinic, specifically in prostate and liver, where deformable image registration is currently ensuring that patients are receiving their intended precise treatment.

RESEARCH GRANTS

Currently Funded as Principal Investigator

Brock KK. Investigation of the inclusion of motion and deformation in dose calculations for external beam radiotherapy. Dean’s Fund, University of Toronto. $9,801.40, 2005-2010.


Brock KK. Cancer Care Ontario Research Chair. Cancer Care Ontario. $500,000, 2008-2013.

Brock KK. Cancer Care Ontario Infrastructure Funding. Cancer Care Ontario. $47,000, 2009-2010.


Currently Funded as Co-Principal Investigator


**Pending Grants**


**Previously Funded as Principal Investigator**

**Brock KK.** Biomechanical modeling for high precision radiotherapy design, adaptation, and assessment, equipment grant. National Cancer Institute Of Canada (NCIC), Terry Fox. $73,187, 2006.


**Brock KK.** Validation and comparison of deformable image registration algorithms. University of Toronto, Connaught New Staff Matching Grant. $40,000, 2006-2009.

**Previously Funded as Co-Investigator**


Ménard C, **Brock KK**. Development of a prostate deformation model to enable accurate registration of endorectal coil magnetic resonance images (ERC-MRI) to reference treatment planning CT images. Abbott – CARO Uro-Oncologic Radiation Award (ACURA). $27,100, 2005.

Menard C, Brock KK. Integration of diagnostic and interventional MRI for the study of persistent prostate cancer after external beam radiotherapy. Department of Defense Prostate Cancer Research Program CDMRP FY05. $300,000, 2005-2008.


PUBLICATIONS

Refereed Publications


**Peer Reviewed Conference Proceedings**


Book Chapters


Book Edited


Abstracts


INVITED PRESENTATIONS

Inclusion of Liver Deformation in Dose Calculations. Massachusetts General Hospital, Department of Radiation Oncology, Cambridge, USA. 2002

Inclusion of Organ Deformation in Dose Calculations for Radiotherapy. University of Michigan, Department of Nuclear Engineering and Radiological Sciences, Ann Arbor, USA. 2002

Effect of Liver Deformation on Dose Calculations. University of Chicago, Department of Radiation and Cellular Oncology, Chicago, USA. 2003
Inclusion of Organ Motion and Deformation in Dose Calculations. American Association of Physicists in Medicine, 46th Annual Meeting, Pittsburgh, USA. 2004

The Role of Deformable Image Registration. IGTX @ Sea Workshop, Alaska, USA. 2005

MR-based simulation in radiotherapy: improving tumor definition, characterizing motion, and monitoring response. ESTRO WORKSHOP ON IMAGE-GUIDED RADIOTHERAPY, Lisbon, Portugal. 2005

Modeling organ deformations (with finite-element methods). Workshop on IMRT Radiation Therapy Treatment Planning: Target Uncertainties, Computational Challenges and Beyond, The Field's Institute for Research in Mathematical Sciences, Toronto. 2006

From Planning through Follow-up: Improved targeting and assessment through deformable modeling. McGill University, Montreal. 2006

Image Registration for IGRT. ASTRO 2006 IGRT Symposium, Las Vegas, USA. 2006

Tools for Quantitative Response Monitoring. Target Insight II - Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio, Toronto. 2006

Realization of Volumetric Image Guidance for Radiation Therapy. MICCAI Tutorial, Copenhagen, Denmark. 2006

Image Processing and Analysis in Radiotherapy Planning: Image Registration. MICCAI Tutorial, Copenhagen, Denmark. 2006


Deformable Modeling for Image Guided Planning, Delivery, and Assessment. McGill Monte Carlo Workshop, Montreal. 2007

The Great Debate: The Future of IGRT is…American Association of Physicists in Medicine Annual Meeting, Minneapolis, USA. 2007

Imaging for Treatment Planning,” American Association of Physicists in Medicine Annual Meeting, Minneapolis, USA. 2007

Image Registration of Image Guided and Adaptive Radiotherapy. CARO-COMP, Toronto. 2007


A Biomechanical Model-Based Approach to Deformable Registration: Technical Developments and Applications. MIce, Toronto. 2008
Integration through registration: Deformable registration for IGRT. Acta Oncologica IGRT 2008 Symposium, Aarhus, Denmark. 2008

Improved Precision in Liver SBRT through Deformable Registration. Scientific Conference on Stereotactic Body Radiation Therapy: Innovations and Directions for Clinical Applications, Rochester, USA. 2008


Image Processing and Analysis for Personalized and Evidence-Based Medicine. American Association of Physicists in Medicine Annual Meeting, Houston, USA. 2008

Deformable Modeling Techniques to Facilitate Classification, Targeting, and Response Assessment. Field's Institute, Toronto. 2008

Image Registration of Image Guided and Adaptive Radiotherapy. CARO-COMP, Montreal. 2008

Challenges in Online Image Guided Radiotherapy Management for Liver Tumors. European Society for Therapeutic Radiation Oncology, Goteburg, Sweden. 2008


Respiratory Management: The Princess Margaret Hospital Experience, Washington University, St. Louis, Respiration Motion Management Workshop, St. Louis, USA. 2009

Image Registration in IGRT”, American Society for Radiation Oncology IGRT Symposium, Miami, USA. 2009


Auto-segmentation using Biomechanical Models. AAPM Annual Meeting, Anaheim, USA. 2009

Deformable Registration for Adaptive Head and Neck Radiotherapy. AAPM Annual Meeting, Anaheim, USA. 2009

Integration of MRI in Radiation Therapy through Deformable Modeling. ESTRO Pre-Conference Teaching Course, Maastricht, The Netherlands. 2009

A biomechanical model-based approach to deformable image registration, Real-Time Motion Adaptive Radiation Therapy Workshop, Lubeck, Germany. 2009

Image Registration of Image Guided and Adaptive Radiotherapy. CARO Annual Meeting, Quebec City, Quebec. 2009

Imaging Challenges for Radiation Oncology: Imaging for Adaptive Planning - What if the Target Changes? Deformable Registration. RSNA Annual Meeting, Chicago, IL, USA. 2009

Towards a More Accurate Understanding of Delivered Dose and Therapeutic Response through Deformable Modeling. MD Anderson Cancer Center, Grand Rounds, Houston, TX. 2009

VISITING PROFESSORSHIPS

Deformable Registration using a Biomechanical Model-Based Technique. MAASTRO Clinic, Maastricht, The Netherlands. 2009

A Biomechanical Model-Based Approach to Deformable Image Registration and Dose Accumulation. MD Anderson Cancer Center, Houston, TX. 2009

RESEARCH SUPERVISION

Undergraduate

2004 Supervised undergraduate summer research student (P. Wong, creation of deformed image sets from finite element model-based image registration) Awarded the H.E. Johns Studentships in Medical Physics

2005 Supervise undergraduate summer research student (L. Harild, sensitivity of finite element model parameters on deformable image registration) Awarded the H.E. Johns Studentships in Medical Physics

2006 Supervised undergraduate summer student (T. Nguyen, population models of organ deformation and deformation models using limited information)

2008 Supervision of undergraduate summer student (A. Zasowski, validation of deformable registration performance on small animal imaging) Awarded the H.E. Johns Studentships in Medical Physics Submitted abstract to International Conference on Translational Research 2009

Graduate Students

2005 – 2006 Co-supervise medical school summer student (J. Hensel, prostate deformation using finite element modeling) Published manuscript in 2007
Supervision of Masters student (T. Nguyen, population models of organ deformation and deformation models using limited information)
Published conference proceeding in 2008, manuscript in 2009, 2 oral presentations at international meetings

2006 - 2009

Supervision of Masters student (J. Niu, experimental validation of mathematical models to include deformation into dose accumulation in radiotherapy)

2006 - 2009

Supervision of Masters student (M. Velec, deformable dose accumulation of liver cancer patients treated with SBRT)

2009 --

Supervision of Masters student (M. Velec, deformable dose accumulation of liver cancer patients treated with SBRT)

2009 --

Supervision of Doctoral student (T. Nguyen, online modeling of organ motion using limited information)

2010 --

Supervision of Doctoral student (N. Samavati, deformable registration of histology to in vivo imaging)

Post-doctoral Fellows

2003 – 2006

Supervised post-doctoral fellow (SM Kim, deformable image registration using finite element modeling)
Presentation at international meeting in 2005

2008 --

Supervised post-doctoral fellow (R Vlad, correlative pathology for in vivo imaging validation)
Awarded the Campbell Family Research Institute Award in Prostate Cancer

2008 --

Supervised post-doctoral fellow (D McGrath, Magnetic resonance based elastography for evaluating tissue material properties)

Thesis Committees

2008 - 2009

Mark Lee, Masters Candidate
Institute for Medical Sciences

2008 --

Sajendra Nithiananthan, PhD Candidate
Department of Medical Biophysics

2008 --

Karen Lim, Masters Candidate
Institute for Medical Sciences

2008 --

Supriya Chopra, Masters Candidate
Institute for Medical Sciences

2008 --

Seyed-Parsa Jojjat, PhD Candidate

1/4/2017
Institute of Biomaterials and Biomedical Engineering

2009 -- Grace Gang, Masters Candidate
Institute of Biomaterials and Biomedical Engineering

2009 -- Anthony Lausch, Masters Candidate
Department of Medical Biophysics

2009 -- Michael Hamilton, Masters Candidate
Institute of Biomaterials and Biomedical Engineering

TEACHING AND DESIGN

University of Michigan

2000 “The use of Computers in Radiation Oncology”, an informal hands-on discussion with high school students participating in the Grace Hopper Project, a summer elective course on computers in medicine

University of Toronto

2004 Delivery of High Precision Radiotherapy to a Moving Target - Technical and Clinical Considerations. University of Toronto Department of Radiation Oncology Biannual Saturday Seminar

2005 – 2009 Image Guided Radiation Therapy Course, University of Toronto

2009 Medical Biophysics 1028H: Radiation Physics

External


2007 – 2008 Imaging for Treatment Planning, AAPM Annual Meeting, Refresher Course,

2007 – 2008 Image Registration in Image Guided Therapy, CARO Annual Meeting, Refresher Course, teaching and course design

2009 – 2011 Imaging Challenges for Radiation Oncology, RSNA Annual Meeting, Refresher Course, Director

2009 Respiratory Management: The Princess Margaret Hospital Experience, Washington University, St. Louis, Respiration Motion Management Workshop, Guest Lecturer
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<tr>
<td>2009</td>
<td>Imaging and Treatment Planning for Adaptive Radiotherapy in the Head and Neck, AAPM Annual Meeting, Symposium Director</td>
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<tr>
<td>2009</td>
<td>Image Registration of Image Guided and Adaptive Radiotherapy. CARO Annual Meeting, Quebec City, Quebec, Workshop Director</td>
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<tr>
<td>2009</td>
<td>Imaging Challenges for Radiation Oncology: Imaging for Adaptive Planning - What if the Target Changes? Deformable Registration. RSNA Annual Meeting, Chicago, IL, USA, Course Director</td>
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Curriculum Vitae

Marco C. Carlone

A. Date Curriculum Vitae is Prepared: 2016 July 28

B. Biographical Information

Primary Office
University Health Network
610 University Avenue, Suite 5-605
Toronto, Ontario, Canada
M5G 2M9
Telephone 416-946-4501
Email marco.carlone@rmp.uhn.on.ca

1. EDUCATION

Degrees
2004 PhD, Medical Physics, Physics, Carleton University, Ottawa, Ontario, Canada
1991 MSc, Medical Physics, Physics, Queen’s University at Kingston, Kingston, Ontario, Canada
1988 BSc, Engineering, Dept of Engineering Physics, Queen’s University at Kingston, Kingston, Ontario, Canada

Postgraduate, Research and Specialty Training
2005 Medical Physics Resident, The Ottawa Hospital Regional Cancer Center, Ottawa, Canada

Qualifications, Certifications and Licenses
2006 - present Canadian College of Physicists in Medicine, Canada

2. EMPLOYMENT

Current Appointments
2009 Feb - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2008 - present Medical Physicist, Department of Medical Physics, Carlo Fidani Peel Regional Cancer Centre, Credit Valley Hospital, Mississauga, Ontario, Canada
2008 - present Radiation Physicist, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada
Previous Appointments

HOSPITAL
2008 - 2013  Medical Physicist, Carlo Fidani Peel Regional Cancer Centre, Credit Valley Hospital, Mississauga, Ontario, Canada
2005 - 2008  Medical Physicist, Cross Cancer Institute, Edmonton, Alberta, Canada
1999 - 2000  Medical Physicist, Centre hospitalier des vallées de l’outaouais, Gatineau, Quebec, Canada

RESEARCH
1991 - 1994  Research Assistant, Dept of Metallurgy and Materials Science, Queen’s University at Kingston, Kingston, Ontario, Canada

UNIVERSITY
2006 Sep - 2008  Assistant Professor, Oncology, University of Alberta, Edmonton, Alberta, Canada

INDUSTRY
1994 - 1999  Linear Accelerator Engineer, Mevex Corporation, Ottawa, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL
Received
2003  Professional Scholarship, Canadian Council of Professional Engineers, Ontario, Canada. (Scholarship)
  Total Amount: 7,500 CAD

Teaching and Education Awards

LOCAL
Received
2015  Innovation in Cancer Education, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret Cancer Centre, Toronto, Ontario, Canada. (Continuing Education)
2015  Professional Development and Continuing Medical Education, Dept of Radiation Oncology, Faculty of Medicine, Department of Radiation Oncology University of Toronto. (Continuing Education)
2014 May  Exceptional Contribution to the Accelerated Education Program, Princess Margaret Hospital, Toronto, Ontario, Canada. (Continuing Education)
2012 Jun  Educational Leadership, Princess Margaret Hospital, Toronto, Ontario, Canada. (Continuing Education)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2003 - present  Canadian Association of Radiation Oncology (CARO)
2001 - present  American Association of Physicists in Medicine (AAPM)
1999 - present  Canadian Organization of Medical Physicists (COMP)
1995 - present  Professional Engineers Ontario (PEO)
2010 - 2013  American Society for Quality (ASQ)
2005 - 2009  Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)
2001 - 2004  Radiation Research Society

Administrative Activities

INTERNATIONAL

2015 World Congress of Medical Physics and Biomedical Engineering
2012 - 2015  Co-Chair, Conference Organising Committee
Promotions Committee Co-Chair.

Princess Margaret Hospital
2011 - present  Accelerator Technology Course, Toronto, Ontario, Canada.

University of Alberta
2008 May 28 - 2008 May 31  Co-Scientific Chair, Workshop on TCP Modelling, Alberta, Canada.
Audience: International radiobiology researchers = 30.

NATIONAL

Canadian Organization of Medical Physicists (COMP)
2014 - present  President, Canadian Organization of Medical Physicists (COMP), Canada.
2012 - 2014  President Elect, Canadian Organization of Medical Physicists (COMP)
2011  Program Director and Chair, COMP Winter School, Quality and Safety in Radiation Oncology, Mt. Tremblant, Quebec, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
Audience: Radiation Oncology professionals from Canada and the United States = 100.

2010  Program Director and Chair, COMP Winter School, Quality and Safety in Radiation Oncology, Banff, Alberta, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
Audience: Radiation Oncology professionals from Canada and the United States = 70.

2009 - 2012  Chair, COMP Science and Education Committee
2008  Reviewer, COMP Sylvia Fedoruk Award
2007 - 2008  Reviewer, COMP Young Investigator Competition

COMP Annual Scientific Meeting
2012  Conference Organizing Committee, Canada.
Marco C. CARLONE

Fedoruk Centre Foundation
2014 Mar Reviewer, Saskatoon, Saskatchewan, Canada.

WESCAN

LOCAL
Princess Margaret Hospital
2011 - present Course Director, Accelerated Education Program, Toronto, Ontario, Canada.

Peer Review Activities

ASSOCIATE OR SECTION EDITING
Associate Editor
2007 - present Journal of Applied Clinical Medical Physics

Guest Associate Editor
2005 - present Medical Physics Journal, Number of Reviews: 4

GRANT REVIEWS
Reviewer
2013 - 2014 COMP, Fedoruk Award
2013 Natural Sciences and Engineering Research Council of Canada (NSERC)

MANUSCRIPT REVIEWS
Reviewer
2013 - present Medical Dosimetry, Number of Reviews: 1
2012 - present International Journal of Radiation Biology, Number of Reviews: 2
2004 - present International Journal of Radiation Oncology Biology Physics, Number of Reviews: 12
2004 - present Medical Physics Journal, Number of Reviews: 17
2004 - present Physics in Medicine and Biology, Number of Reviews: 10

PRESENTATION REVIEWS
Reviewer
2007 - 2009 COMP (Canadian Organisation of Medical Physicists)
2007 - 2008 COMP Young Investigator competition

AWARDS
Reviewer
2008 COMP, Sylvia Fedoruk Award
Other Research and Professional Activities

RESEARCH PROJECT

Radiobiology.
TCP modelling, Cell survival modelling, modelling of hypofractionation.

Linear Accelerator.
MRI integration, Engineering of magnets suitable for MRI imaging but that can also support the operation of a linear accelerator within its magnetic field. Dose deposition in the presence of a magnetic field.

Quality for Radiation Oncology.
Using Quality Industry methods to improve quality and system performance in Radiation Oncology.

INDUSTRY COLLABORATION

2010 - present Sun Nuclear Corporation.
Development of the MRgRT (MR guided Radiotherapy) project with IMRIS (Winnipeg, MB) and Varian (Paolo Alto, CA). Co-development of a safety system for an integrated MRI and radiotherapy environment. Co-development of image guidance and registration system for MR guided radiotherapy. This work included two visits to IMRIS (November, 2010 - to discuss the contractual agreement between IMRIS and UHN) and September, 2011 – to discuss the clinical workflow for the MRgRT system). As well, I participated in weekly meetings and teleconferences with IMRIS and Varian personnel to discuss the overall project development.

2012 Sun Nuclear Corporation, Melbourne, Florida, United States.

2010 Sun Nuclear Corporation, Melbourne, Florida, United States.
Invited by Sun Nuclear Corporation for a visit to discuss improvements to Daily QA3 radiation detector. February 2010.

2010 Sun Nuclear Corporation, Melbourne, Florida, United States.
Invited by Sun Nuclear Corporation for a visit to advise the company on product direction of their product “ATLAS”. March 2010.

C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly and Professional Activity.
The field of medical physics is currently a crossroad, where education requirements for medical physics graduate students and residents are transitioning from a less formal approach to one where entry into the medical physics field will be controlled by accredited education programs. At the same time, our health care system is being driven to higher efficiencies due to limited financial resources in the health care sector. This presents a unique opportunity for Medical Physicists to contribute more meaningfully in the delivery of health care. I have used my work with the Canadian Organisation of Medical Physicists (COMP) to improve professional practice in medical physics and radiation oncology at the national level through the COMP Winter School. This is a multi-professional conference focussed on safety and quality in radiation oncology. I intend on continuing to work in medical physics professional development at the national level with my continued involvement with COMP (as
president-elect), where I will advocate for better leadership training within the medical physics profession by introducing yet more professionally oriented continuing education courses. Lastly, I also hope to increase the profile of Canadian medical physics on the world stage through the World Congress of Biomedical Engineering and Medical Physics, which will be held in Toronto in 2015 and co-hosted by COMP.

X-ray based imaging, while it has been very useful at advancing the science of radiation oncology, is fundamentally limited due to its poor soft tissue contrast. I have now been involved with two groups that are developing MRI guided radiotherapy, and have worked on both the fundamental problems of technology integration as well as the clinical workflow and clinical integration issues involved in integrating radiotherapy and MRI. My interests in this area have been in radiofrequency interference between the two devices, and magnetic de-coupling of the MRI from linac. My current interests include the surface dose from the in-line systems and the overall safety issues of clinical systems. Introduction of exquisite soft-tissue image guidance in radiotherapy has the potential to fundamentally change fractionation in radiotherapy, where the ability to guide on soft tissues will further reduce volumes irradiated and make way for reduced fractionation schemes and hypofractionation. I am also interested in using my radiobiological modelling experience to further optimise hypofractionation in the MRI-linac systems.

Use of MRI in Radiotherapy.

X-ray based imaging, while it has been very useful at advancing the science of radiation oncology, is fundamentally limited due to its poor soft tissue contrast. I have now been involved with two groups that are developing MRI guided radiotherapy, and have worked on both the fundamental problems of technology integration as well as the clinical workflow and clinical integration issues involved in integrating radiotherapy and MRI. My current interest is to develop optimization tools to improve workflow and procedure accuracy in pelvic brachytherapy (prostate HDR and GYNE HDR). With MRI, the improved imaging leads to an improved ability to discriminate target and at risk tissues, however the penalty is that the current methodology is very inefficient at catheter localization, which leads to inefficient workflows and longer procedure times. The goals of this research are to build implant techniques that will continually optimize the implant despite catheter deflections, which are common in MR guided insertions. As well, we hope to include the pre-existing external beam planning in the overall optimization problem.

Improved use of magnetics in radiotherapy.

I have built a laboratory where we have shown that relatively low magnetic fields (0.25T), which can be produced using resistive magnets, can increase the surface dose of a 60Co beam by a factor of 2.8. Our group believes this effect is due to the focusing effect of the magnetic lens on scattered electrons that are airborne, however we have not yet been able to identify the source of scattered electrons. The purpose of this research is to understand how focusing or de-focusing magnetic fields can be used to either increase surface dose, which could be used as a means to replace bolus, or to reduce surface dose, which would have significant impact on many radiotherapy siting where surface dose still can cause important skin complications after radiotherapy treatment.

Radiosensitivity in a Magnetic Field.

MRI-linac systems are now available for purchase from both Elekta and Viewray. One of the many questions not yet known about these systems is if cell radiosensitivity is affected by a magnetic field. There are several potential mechanisms where a magnetic field may affect cell radiosensitivity, including: i) increased DNA fragment generation in a magnetic field and ii) altered DNA covalent bond structure because of energy level changes due to the magnetic field. Along with colleagues at Princess Margaret, we have built an experiment designed to irradiate V79 Chinese Hamster lung fibroblast cells with a 7T small bore MRI using low dose rate 192Ir seeds. The first experiments are scheduled to start in early June 2016.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2007 Principal Investigator. Study of RF interference for real time image guided adaptive radiotherapy. American Association of Physicists in Medicine (AAPM). Research Seed Grant. 25,000 USD. [Grants]

NON-PEER-REVIEWED GRANTS

Funded

2016 Co-Principal Investigator. SIMAC Assessment. University of Toronto. Department of Oncology Seed Grant. 45,850 CAD. [Grants]

2006 Principal Investigator. Development of a research medical linear accelerator for real-time IGAR. University of Alberta. Department of Oncology. 25,000 CAD. [Grants]

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. Marco Carlone
   Mike Lamey
   Miller MacPherson
   Rhys Anderson. Simulation of a Medical Linear Accelerator for teaching purposes. Journal of Applied Clinical Medical Physics. 2015;16(Number 3). Co-Principal Author.


### Editorials

1. **Carlone M**, Nahum A, Stavrev P. TCP modelling – why is it important? Acta Oncol. 2010 Nov;49(8):1205. **Principal Author**.

### Letters to Editor


### 2. NON-PEER-REVIEWED PUBLICATIONS

#### Journal Articles


#### Book Chapters


#### Commentaries

1. **Carlone MC**, Hayward JE, McGhee PL. Point/Counterpoint: COMP has a responsibility to participate in the Joint Engineering and Natural Science Task Force and the development of a recommended process for arbitration of disagreements that may arise as a result of the removal of the natural sciences exemption clause in the Ontario Professional Engineers Act. InterACTIONS. 2012;58(1).

2. **Carlone MC**. Message from the Councillor for Science and Education. InterACTIONS. 2011;57.

3. **Carlone MC**. Introducing the science and education committee. InterACTIONS. 2009;55:47.


Letters to Editor


Book Reviews


Newsletter


Proceedings Paper


F. Intellectual Property

1. PATENTS


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2013 Mar 20 **Speaker.** Course on Radiobiology and Radiobiological Modelling in Radiotherapy. The Clatterbridge Cancer Centre. Port Sunlight, Wirral, United Kingdom.

2012 **Invited Speaker.** MRgRT at Princess Margaret Cancer Centre. Dana Farber Cancer Centre (Brigham & Women’s Hospital). Boston, Massachusetts, United States. Authors: **Carlone MC**, Breen S, Jaffray DA. Nov 1, 2012. (Continuing Education).


Presented Abstracts

2016 Oct **Speaker.** Focal Salvage high dose rate brachytherapy for locally recurrent prostate cancer after primary radiotherapy-early results and feasibility of an interventional platform based Authors: P.Chung, A. Berlin, A. Rink,A. Simeonov, B. Lao, M. Carlone, G. O’Leary, C. Catton, A. Bayley, C. Menard. 11th Interventional MRI Symposium. Maryland, United States.


2016 **Presenter.** Magnetic Resonance (MR)-guided high-dose-rate (HDR) Brachytherapy: simultaneous integrated focal boost to intraprostatic lesions Authors: M. Carlone, A. Rink, C. Menard, P. Chung,A. Berlin. World Congress of Brachytherapy. San Francisco, California, United States.
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Marco C. CARLONE


Comparison of α/β estimates from homogeneous (individual) and heterogeneous (population) tumor control models for early stage prostate cancer. American Association of Physicists in Medicine (AAPM), 45th Annual Meeting. Aug 2003. San Diego, California, United States.


Presented and Published Abstracts


Publication Details:

2011 Application Of Receiver Operator Characteristic Analysis To IMRT QA. European Society for Radiotherapy and Oncology (ESTRO). London, United Kingdom.

Publication Details:


Publication Details:

2002 Radiobiological parameter estimation for a predictive tumor control model for early stage prostate carcinoma. American Association of Physicists in Medicine (AAPM), 44th Annual Meeting. Montreal, Quebec, Canada.

Publication Details:

Poster


2016 CT-Based Planning and Monte Carlo Dosimetry for Penile Brachytherapy Authors:M. Caralone, Y. Ma, A. Beiki-Ardakani, S. Elantholi Parameswaran, L. Beaulieu, A. Berlin. World Congress of Brachytherapy. San Francisco, California, United States.

2. NATIONAL

Invited Lectures and Presentations


2011  Speaker. Improved Quality and Safety in Radiotherapy by Inter-Professional collaboration based on Accepted Quality Methodology Authors: M. Carlone, S. Breen, J. Waldron, G. Medlam. CARO Workshop. Winnipeg, Manitoba, Canada.

2011  Lecturer. Improved Quality and Safety in Radiotherapy by Inter-Professional collaboration based on Accepted Quality Methodology. CARO Workshop. Winnipeg, Manitoba, Canada. Audience: Radiation Oncologists = 20. (Continuing Education).


2007  Speaker. Methods to eliminate RF interference between a linear accelerator and MRI to allow concurrent use Authors: M. Carlone, B.G. Fallone, B. Murray, S. Rathee, S. Steciw, M. Lamey. CARO-COMP Joint Meeting. Toronto, Ontario, Canada.


Presented Abstracts


Does sufficient evidence exist to support hypofractionation for prostate cancer. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists (CARO-COMP) Annual Scientific Meeting. Halifax, Nova Scotia, Canada. Presenter(s): **Carlone MC**, Wilkins, Raaphorst GP.

Parameter correlation for a fully heterogeneous tumour control model. CAP/CASCA/COMP Congress. Winnipeg, Canada. Authors: **Carlone MC**, Nyiri B, Wilkins D, Raaphorst GP.

Presented and Published Abstracts

Development of a small bore linac-MRI system for real time image guided adaptive radiotherapy. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists (CARO-COMP) Joint meeting.

Publication Details:

Methods to eliminate RF interference between a linear accelerator and MRI to allow concurrent use. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists (CARO-COMP) Joint Meeting.

Publication Details:

Designing a linac to operate near an MRI. Canadian Association of Radiation Oncology – Canadian...
Organization of Medical Physicists (CARO-COMP) Joint Meeting.

Publication Details:

2003
Defining the Appropriate Parameters for a TCP Model. Canadian Organization of Medical Physicists (COMP), 49th Annual Scientific Meeting. Edmonton, Alberta, Canada.

Publication Details:

2003
An extension to the linear quadratic model aimed at improving the description of the high dose portion of the cell survival curve. Canadian Organization of Medical Physicists (COMP), 49th Annual Scientific Meeting. Edmonton, Alberta, Canada.

Publication Details:

2001
Radiobiological considerations in fractionation of radiotherapy for prostate cancer. Canadian Organization of Medical Physics (COMP), 47th Annual Scientific Meeting. Kelowna, British Columbia, Canada.

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


2016  **Lecturer.** Magnetics in Radiotherapy. Princess Margaret Cancer Center. Toronto, Ontario, Canada.

2015  **Lecturer.** SIMAC: Teaching linac physics in a simulated environment. Princess Margaret Cancer Center. Toronto, Ontario, Canada.

2014 Dec  **Invited Speaker.** Linear Accelerator Physics using SIMAC. London Regional Cancer Centre. London, Ontario, Canada.

2014 Dec  **Invited Speaker.** Teaching Linac Physics Using SIMAC. Ottawa Hospital Regional Cancer Center. Ottawa, Ontario, Canada.


2013  **Lecturer.** The Radiobiology of 2. Princess Margaret Hospital. Toronto, Ontario, Canada. Audience: Radiation Oncology professionals = 30. (Continuing Education).

2012  **Lecturer.** Quality Management for Radiation Oncology. Princess Margaret Cancer Center. Toronto, Ontario, Canada.

2011  **Lecturer.** MRI Guided Radiotherapy. Princess Margaret Hospital. Toronto, Ontario, Canada. Audience: Radiation Oncology professionals = 35. (Continuing Education).


2011  **Lecturer.** COMP Winter School: Lessons Learned. Princess Margaret Hospital. Toronto, Ontario, Canada. Audience: Radiation Oncology professionals = 40. (Continuing Education).


2010  **Lecturer.** Highlights of 2010 COMP Winter School Quality & Safety in Radiation Oncology. Princess Margaret Hospital. Toronto, Ontario, Canada. Audience: Radiation Oncology professionals = 75. (Continuing Education).

2009  **Lecturer.** Clinical Radiobiology without alpha or beta. Princess Margaret Cancer Center. Toronto, Ontario, Canada.
## 5. OTHER

### Presented and Published Abstracts

<table>
<thead>
<tr>
<th>Year</th>
<th>Abstract</th>
<th>Details</th>
</tr>
</thead>
</table>
H. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

Simulation software for teaching linear accelerator physics, Faculty of Medicine, Dept of Radiation Oncology

As an aid to teaching Linear Accelerator technology, I developed software that can simulate a simplified service mode of a Varian style linear accelerator. The software takes as inputs common voltages and currents for typical linac components (klystron, electron gun, modulator, etc) and calculates dose rate in a water phantom as well as beam profiles typically measured with a water tank. It has been used 4 times in a teaching environment, and has won numerous teaching innovation awards at Princess Margaret Cancer Center and the University of Toronto. It has been accepted in the finals of the Innovation in Medical Physics Education competition at the AAPM meeting in August 2016. The software is freely available at simaclinac.com.

2013 Mar 4 - 2013 Mar 7 Accelerator Technology Education Course, Faculty of Medicine, Dept of Radiation Oncology, Princess Margaret Cancer Centre

2012 Teaching Innovation at McGill University, Graduate Education, Faculty of Medicine, Dept of Radiation Oncology

A presentation that I did at COMP: [Carlone MC. Compensation of missed fractions without knowledge of radiobiological parameters. Med Phys 36: 4323, 2009] was well received by Michael Evans, who is a Medical Physicist at the McGill University. He asked for my slides, which he now uses in Medical Physics resident teaching at McGill University. This abstract was converted to a publication: [M. Carlone, Compensation Of Missed Fractions Without Knowledge Of Radiobiological Parameters, Medical Dosimetry, Volume 36(4), 429 – 433, 2011]. A letter of support from Michael Evans is available.

2011 Linear Accelerator Technology Course at Princess Margaret, Faculty of Medicine, Dept of Radiation Oncology

I have been the course director for an Accelerator Technology Education Course (ATEC), offered through the Accelerated Education Program at Princess Margaret Cancer Center since 2011. The purpose of this course is to give a basic understanding of the principles of operation of medical linear accelerators at the level of physics residents and beginner accelerator service personnel. The high level objective is to give medical physicists and accelerator service people the communication tools so that they can effectively collaborate on maintaining proper operation of linear accelerators in modern cancer clinics. The course is meant to fill the gap between the theoretical mode of operation of medical linear accelerators that physicists are taught in residencies and the practical skills that accelerator service people are taught at vendor training.

2009 COMP Student Council, Faculty of Medicine, Dept of Radiation Oncology, Canadian Organization of Medical Physicists (COMP)
In 2009, COMP initiated a student council, which has the mandate of providing medical physics students in Canada with a better voice within the Canadian Medical Physics community. As the Chair of COMP’s Science and Education Committee, I provided the resources to start this group, starting with organisational support, providing information to interested students, and organising an election for the inaugural Chair. Two candidates came forward, and both were equally committed and passionate, so I suggested that they become co-chairs of the student council (instead of having an election), which they did. These were Alejandra Rangel and Nadia Octave. I provided support for them, and helped them draft terms of reference, budgets for their annual meeting and helped them create a structure for their committee. The principle achievement for this group was a COMP sponsored exchange for senior Canadian Ph.D. students in Medical Physics; students who are close to obtaining their Ph.D. The travel award is to allow students to travel to the lab of a collaborator, and learn from a different environment. Letters of support are available from both Alejandra Rangel and Nadia Octave.

Canadian Winter School on Quality and Safety, COMP Winter School
I was the founder and course director for the first two years of the COMP Winter School on Quality and Safety in Radiation Oncology. This course was offered for the 7th consecutive time in 2016 with the same essential elements as the original offering. It has been attended by radiation oncology professionals from almost every cancer centre in Canada and has also had attendees from many US centres, Europe, Asia and Australia. The two ideas that this course was built on were (a) that quality and safety in radiation oncology can only be improved by a collaborative effort between all three professional disciplines: physicists, radiation oncologists and radiation therapist; and (b) that important tools for improving quality and safety in radiation oncology could be learned from other fields including process engineering, human factors, system design, medical ethics and law. The courses have featured faculty from across Canada and the United States and include engineers, bioethicists, radiation oncology professionals and lawyers. A driving focus of this course has also to foster a learning environment where open discussion is encouraged such that attendees of the course can learn from each other through multidisciplinary interactions. The course has also been successful in attracting regulators (the CNSC has been a major sponsor), as well as industry and managers of radiation medicine programs.
Curriculum Vitae

Lee Chin
Ph.D., MCCPM

A. Date Curriculum Vitae is Prepared: 2016 August 17

B. Biographical Information

Primary Office
Medical Physics Department
Odette Cancer Centre
2075 Bayview Avenue, T-Wing, TG 217
Toronto, Ontario, Canada
M4N 3M5
Telephone 416 480 6100 x2806
Fax 416 480 6801
Email lee.chin@sunnybrook.ca

1. EDUCATION

Degrees
1999 - 2007 PhD, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Alex Vitkin and Dr. William Whelan
1994 - 1999 BSc, Medical and Health Physics Co-op, McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training
2006 Apr - 2008 Jun Clinical Physics Resident, Department of Radiation Physics – Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2012 Jul - present Member, Canadian College of Physicists in Medicine

2. EMPLOYMENT

Current Appointments
2013 Sep - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2010 Dec - present Adjunct Professor, Department of Physics, Ryerson University, Toronto, Ontario, Canada
2008 Nov - present Medical Physicist, Medical Physics Department, Odette Cancer Centre, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2003  CAP Medical Biophysics Competition (2nd place), Canadian Association of Physicists. (Distinction)
Total Amount: 200 CAD

PROVINCIAL / REGIONAL

Received

2003 - 2004  Ontario Graduate Scholarship. (Distinction)
Total Amount: 15,000 CAD

2002 - 2003  Cunningham Fellowship – OSOTF, Ontario Student Opportunity Trust Funds (OSOTF). (Distinction)
Total Amount: 2,000 CAD

2002 - 2003  Ontario Graduate Scholarship. (Distinction)
Total Amount: 15,000 CAD

2000 - 2001  Cunningham Fellowship – OSOTF, Ontario Student Opportunity Trust Funds (OSOTF). (Distinction)
Total Amount: 7,000 CAD

1999 - 2000  Harold Johns Summer Fellowship, Cancer Care Ontario. (Distinction)
Total Amount: 4,500

LOCAL

Received

2002 - 2003  Top Up Fellowship – MBP, University of Toronto. (Distinction)
Total Amount: 8,000 CAD

2001 - 2002  Scace Prostate Fellowship, University of Toronto. (Distinction)
Total Amount: 14,000 CAD

2001 - 2002  Top Up Fellowship – MBP, University of Toronto. (Distinction)
Total Amount: 7,500 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2011 Aug - present  Member, Canadian Organization of Medical Physicists
2011 Aug - 2012 Jun  Associate Member, American Society for Therapeutic Radiology and Oncology
Administrative Activities

PROVINCIAL / REGIONAL
Head and Neck Community of Practice, Cancer Care Ontario
2013 Jan - present  Lead, IGRT Working Group
2012 Sep - present  Member, IGRT Working Group

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
Journal of Biomechanical Engineering
Journal of Optics A: Pure and Applied Optics
Journal of Physics D: Applied Physics
Lasers in Surgery and Medicine
Medical Physics
Optics Express
Optics Letters
Physics in Medicine and Biology

Other Research and Professional Activities

THESIS PROJECT
1999 - 2007  PhD. Optical monitoring of interstitial thermal therapies. University of Toronto. Supervisor(s): Dr. Alex Vitkin and Dr. William Whelan.

C. Academic Profile

1. RESEARCH STATEMENTS
2008 - present  Statement of Scholarly and Professional Activity.
Since October 2008, I have been working full time as a medical physicist at the Odette Cancer Centre (OCC). At the OCC, I am the primary resource physicist for patient specific IMRT quality assurance, the Mosaiq RV system and the head and neck (HN) site group. In addition, I have over four years of experience in various aspects of clinical practice including plan checking of 3D conformal, Tomotherapy, IMRT, prostate LDR and prostate HDR as well as machine quality assurance of linear accelerators and CT simulators. I am also part of a physics consult rotation that helps to troubleshoot planning issues, pacemaker dose, time-dose-fractionation calculations and reconstruction of previous dose distributions for patient re-treatments.

The experience gained through daily clinical involvement has lead to 13 different supervised clinical research projects since 2012 for 4th year Ryerson Medical Physics, therapy and summer students. These projects include innovations in adaptive re-planning for pancreatic and HN patients, automated plan check quality assurance of treatment plans and beam...
segments, optimal pass criteria for IMRT QA and in vivo EPID dosimetry. The software and protocols from these projects has often been implemented immediately into our clinic.

Beyond the clinic, I am also actively involved in a number of funded research projects. As part of the OCAIRO consortium, I am the primary investigator for a study investigating adaptive strategies for pancreatic patients using Tomotherapy and daily MVCT imaging. I am also a co-investigator of a CBCF grant with Dr. Greg Czarnota assessing diffuse optical tomography and spectroscopy of breast cancer patients for monitoring early chemotherapeutic response. Finally, my Ph.D. work in interstitial optical monitoring of thermal ablation is currently being evaluated for on-line clinical intervention of prostate cancer patients.

In summary, I believe that my combination of practical clinical insight and active involvement in developmental research will make me a productive asset to the Department of Radiation Oncology (DRO) at the University of Toronto.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts


2. NATIONAL

Presented Abstracts


3. PROVINCIAL / REGIONAL

Presented Abstracts

2011 Adaptive helical tomotherapy for pancreatic patients. ImNO Annual Meeting. Chin L, Venuogopal N,
### G. Research Supervision

#### 1. PRIMARY OR CO-SUPERVISION

**Undergraduate Education**

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
<th>Degree</th>
<th>Institution</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 - present</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Ms. Jidney Cifuentes, Ryerson University</td>
<td>Achievability criteria for head and neck IMRT.</td>
</tr>
<tr>
<td>2012 - present</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Mr. Andrew Agnanti, Ryerson University</td>
<td>Development of an adaptive radiotherapy system utilizing Tomotherapy for head and neck cancer patients.</td>
</tr>
<tr>
<td>2012 - present</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Mr. Darren Yohan, Ryerson University</td>
<td><em>In vivo</em> EPID dosimetry using an isodose shift approach.</td>
</tr>
<tr>
<td>2012 - present</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Mr. Scott Mackenzie, Ryerson University</td>
<td>Automated IMRT QA analysis for data-mining of optimal pass rates and outlier beams.</td>
</tr>
<tr>
<td>2012 - present</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Mr. Eric Vorauer, Ryerson University</td>
<td>Adaptive radiotherapy phantom for KVCT to MVCT deformable registration verification.</td>
</tr>
<tr>
<td>2012 - present</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Ms. Leann Ban, Michener Institute</td>
<td>Process control maps for in vivo EPID dosimetry.</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Ms. Zahra Chandani, Ryerson University</td>
<td>A systematic analysis of the IMRT quality assurance process at the Odette Cancer Centre.</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Ms. Frances Tonolette, Ryerson University</td>
<td>Development of an adaptive radiotherapy system utilizing Tomotherapy for pancreatic cancer patients.</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Mr. Karanvir Virdi, Ryerson University</td>
<td>Patient specific indicators for adaptive re-planning of head and neck IMRT patients using an a priori perturbation analysis.</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>Primary Supervisor</td>
<td>B. Sc.</td>
<td>Ms. Peggy Le, McMaster University</td>
<td><em>In vivo</em> EPID dosimetry.</td>
</tr>
<tr>
<td>2010 - 2011</td>
<td>Co-Supervisor</td>
<td>B. Sc.</td>
<td>Mr. Scott Mackenzie, Ryerson University</td>
<td>Automated segment check system for IMRT QA.</td>
</tr>
</tbody>
</table>
Curriculum Vitae

Young-Bin Cho
PhD, MCCPM

A. Date Curriculum Vitae is Prepared: 2016 March 10

B. Biographical Information

Primary Office
Princess Margaret Hospital (UHN)
610 University Avenue
Suite 5-913
Toronto, Ontario, Canada
M5G 2M9
Telephone (416) 946-4501 x5593
Fax (416) 946-6566
Email young-bin.cho@rmpuhn.on.ca

1. EDUCATION

Degrees
1993 - 1999 PhD, Mechanical Engineering, Korea Advanced Institute of Science and Technology, Taejon, Korea, Republic Of
1991 - 1993 MSc, Mechanical Engineering, Korea Advanced Institute of Science and Technology, Taejon, Korea, Republic Of
1987 - 1991 BSc, Mechanical Engineering, Hanyang University, Seoul, Korea, Republic Of

Postgraduate, Research and Specialty Training
2002 - 2004 Physics Resident, Princess Margaret Hospital, Toronto, Ontario

Qualifications, Certifications and Licenses
2006 CCPM Certificate, Canadian College of Physics in Medicine

2. EMPLOYMENT

Current Appointments
2006 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario
2004 - present Radiation Physicist, Princess Margaret Hospital, Toronto, Ontario
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL
Received

2008  Best Oral Presentation, Co-author, Canadian Organization of Medical Physicists. (Distinction)
For “On-line Dynamic Contrast Enhanced Cone-Beam CT for Measuring Changes in Tumor Perfusion due to Radiation Therapy”, presented at annual meeting.

2004  J.R. Cunningham Award for Excellence in Physics Research, Canadian Organization of Medical Physicists. (Research Award)


LOCAL
Received

2013 Jul - 2014 Jun  Research Productivity, Radiation Medicine Programme. (Research Award)

1991  Honour of Excellency, University of Hanyang, Seoul, Korea, Republic Of. (Distinction)

Teaching and Education Awards

LOCAL
Nominated

2013 Jul - 2014 Jun  UT DRO Education Award, Postgraduate Advocacy & Mentorship, Dept of Radiation Oncology, Faculty of Medicine, Ontario, Canada. (Postgraduate MD)
The awards embody our goal of excellence in Education Programs administered by the Department of Radiation Oncology, University of Toronto and show appreciation for individuals who have contributed and demonstrated exceptional educational abilities.

Student/Trainee Awards

INTERNATIONAL
Received

2014 Aug - 2015 Aug  Best in Physics, Co-supervisor, Awardee Name: Yifang Liu. Dep of MIE, Univ. of Toronto

LOCAL
Received

2013 May  Best Oral Presentation, Co-supervisor, Awardee Name: Yifang Liu. Dep of MIE, Univ. of Toronto

2005 Jul - 2006 Jun  Howard Johns Summer Studentship, Co-supervisor with Ivan Yeung, Awardee Name: Chen, Sam. Princess Margaret Hospital, Toronto, Ontario, Canada

Nominated
2008 Jul - 2009 Jun  Howard Johns Summer Studentship, Supervisor, Awardee Name: Zhang, Angela.  
Princess Margaret Hospital, Toronto, Ontario, Canada  
Virtual simulation of Frame Setup for Gamma Knife.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 - present</td>
<td>Member</td>
<td>Korean Association of Medical Physicists in North America</td>
</tr>
<tr>
<td>2007 - present</td>
<td>Member</td>
<td>American Society Therapeutic Radiology Oncology</td>
</tr>
<tr>
<td>2006 - present</td>
<td>Member</td>
<td>Canadian College of Physicists in Medicine</td>
</tr>
<tr>
<td>2004 - present</td>
<td>Member</td>
<td>American Association of Physicists in Medicine</td>
</tr>
</tbody>
</table>

Administrative Activities

NATIONAL
Princess Margaret Hospital
2012 - present  Member, COMP

LOCAL
Association of Korean-Canadian Scientists and Engineers
2013 Jan - 2014 Dec  Ontario, Canada.

Peer Review Activities

ASSOCIATE OR SECTION EDITING
Reviewer
2005 - present  Medical Physics

GRANT REVIEWS
External Grant Reviewer
2007 Dec - 2008 Jul  Natural Sciences and Engineering Research Council of Canada (NSERC)

MANUSCRIPT REVIEWS
Reviewer
2012 - present  European Journal of Medical Physics
2006 - present  International Journal of Radiation Oncology, Biology and Physics
2006 - present  Physics in Medicine and Biology

PRESENTATION REVIEWS
Reviewer
2012 Jul 1 - 2013 Jun 30  American Association of Physics in Medicine, Number of Reviews: 40
2007 International Conference on the Use of Computers in Radiation Therapy (ICCR), Number of Reviews: 20

Other Research and Professional Activities

THESIS PROJECT

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


NON-PEER-REVIEWED GRANTS

FUNDED

2014 Nov - 2015 Oct Principal Investigator. Retrospective Planning Study using Multiple Hybrid iso-centres. Collaborator(s): Dr Normand Laperriere Dr Caroline Chung Dr Hodaie Mojgan. [Clinical Trials] The aim of this study is to evaluate the feasibility and usefulness of the new treatment technique, multiple hybrid iso-centres for radiosurgery of trigeminal neuralgia in gamma knife Perfexion.

2008 - 2009  **Co-Investigator.** Retrospective quantitative analysis examining the relationship between bladder volume and radiation induced acute GU toxicity throughout treatment for gynecologic patients. 08-1057-AE. PI: Kelly V. Collaborator(s): Austin J, Rosewell T, Li W, Xie J, Milosevic M, Fyles A. [Clinical Trials]


2006  **Co-Investigator.** Exploring the role of 3T MRI in gamma knife radiosurgery: a pilot study. 06-0427-CE. PI: Menard C. Collaborator(s): Mikulis D, Damyanovich A, Bernstein M, Zhang B. [Clinical Trials]

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters

3. SUBMITTED PUBLICATIONS

Journal Articles

E. Intellectual Property

1. PATENTS

Phantoms and methods for verification in radiosurgery systems. Granted. Patents #: 8,039,790, United States.

Method and system for calibration of source and detector. Granted. Patents #: 7,147,373 B2, United States.


Perpendicularity Measuring Method and Apparatus thereof. Granted. Patents #: 5,774,210, United States.


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations
2015 Oct 12 Invited Lecturer. Haiti. Teach Radiation Physics to MD in general from Oct 12 - 16 at Haiti National University.


2000 Kilovoltage X ray Target integrated into the Medical Linear Accelerator. Korea Advanced Institute of Science and Technology. Taejon, Korea, Republic Of.

Presented Abstracts


Young-Bin CHO


1993  Correspondence of axial stereo vision system using self-organizing neural network. Presented at JSME ICAM. Tokyo, Japan. Cho Y, Gweon D.

Presented and Published Abstracts


Publication Details:

Panel Discussant


2. NATIONAL

Invited Lectures and Presentations

2011 Nov 18  Chair. Pelvic Nodal IMRT - focus on Volume Delineation and Planning. GUROC. Toronto, Ontario, Canada. (Continuing Education).

Presented Abstracts


Young-Bin CHO


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2014 Apr 25  Lecturer. Personalized High Precision RadiationTherapy management for Brain Tumor. Accelerated Education Program. Toronto, Ontario, Canada. PTV margin design from general concept to local practice Treatment Planning Case Discussion.

Presented Abstracts


Media Appearances


4. LOCAL

Invited Lectures and Presentations


2011 Jan 11  SRS program in PMH for the management of brain metastasis using Perfexion. Physics round, Princess Margaret Hospital. (Continuing Education).

2009 Feb 19  Perfexion and Beyond: A Surgical Tool in Radiation Oncologist’s Hand. RMP round, Princess Margaret Hospital. (Continuing Education).

2008 Oct 9  Whole Pelvis Gynae IMRT Planning. Therapy Education Session, Princess Margaret Hospital. (Continuing Education).

2008 Apr 1  Adaptive Radiation Therapy for Cervix Cancer - Catch me if you can. Physics round, Princess Margaret
Presented Abstracts

2005 Oct 11 On-line Assessment of Tumour Perfusion with Contrast Enhanced Dynamic CBCT. Physics round, Princess Margaret Hospital. (Continuing Education).

Presented Abstracts


5. OTHER

Presented Abstracts


Presented and Published Abstracts

2013 Aug A MOOrphing technique that projects 3D surface objects to a STandard metric (MOST); geometric modeling of cervix cancer patients for adaptive radiation treatment.

Publication Details:

2013 Jun Dosimetric implications of tissue heterogeneity correction on Gamma Knife plans.

Publication Details:

2012 MR Guided Radiotherapy for Cervix Cancer Treatment; Retrospective Feasibility Study.

Publication Details:


Publication Details:


Publication Details:

2012 DEFORMATION ANALYSIS OF PDR BRACHYTHERAPY IN CERVICAL CARCINOMA.
Publication Details:
J. Cuartero, M.L. Yap, S. Oh, M. Morgia, Y.B. Cho, J. Xie, W. Levin, L. Manchul, A. Fyles, M. Milosevic. DEFORMATION ANALYSIS OF PDR BRACHYTHERAPY IN CERVICAL CARCINOMA. Radiotherapy and Oncology. 103 (S2), S34-S35. Coauthor or Collaborator.

2011
On-line Verification of Adapted Treatment Fields.

Publication Details:

2011
A Novel Prototype for Image-Guidance on a Dedicated Radiosurgery Treatment Unit.

Publication Details:

2011
Dosimetric Changes During Daily MR-Guided Pulse-Dose-Rate Brachytherapy for Cervix Cancer.

Publication Details:

2011
Geometric Calibration of Novel Cone-Beam CT developed for Dedicated Stereotactic Radiotherapy Unit.

Publication Details:

2010
The Intensity Modulated Radiotherapy Alternative: a Boost for Gynecological Cancers Not Suited to Brachytherapy.

Publication Details:

2010
Cervical Spine Positioning and immobilization Accuracy with a Novel Head Frame Intended for intracranial Stereotactic Radiotherapy.

Publication Details:

2009
CBCT/CBDT equipped with the x-ray projection system for image-guided proton therapy.

Publication Details:

2009
Evaluating stress-related uncertainties in stereotactic frame-based localization for gamma knife® radiosurgery.
Publication Details:

2009
Planning target volumes for cervix cancer patients using a modified convex hull technique.

Publication Details:

2009
Cone-beam CT based evaluation of a novel head frame for intra-cranial stereotactic radiotherapy.

Publication Details:

2009
Virtual simulation of frame placement for gamma knife perfexion.

Publication Details:

2009
Iterative methods of cone-beam CT image reconstruction for under-sample and truncated projection data.

Publication Details:

2009
Immobilization accuracy of a novel re-locatable head frame investigated with a real-time optical tracking.

Publication Details:

2009
Effects of peripheral dose fall-off on biologically equivalent dose to normal brain for intracranial stereotactic radiosurgery and radiotherapy.

Publication Details:

2008
Whole pelvis MIRT for cervix cancer: what gets missed & why.

Publication Details:

2008
Region of interest analysis as a tool for exploring adaptive IMRT strategy for cervix cancer patients.

Publication Details:

2008
Dosimetric considerations of treating larger target volumes with perfexion.
Publication Details:

2008
On-line perfusion measurement with dynamic contrast enhanced cone-beam CT in radiation therapy.

Publication Details:

2008
Planning target volume adaptation using convex hull of CTVs for cervix cancer patients.

Publication Details:

2008
Verification of source and collimator configuration for gamma knife perfexion using panoramic imaging.

Publication Details:

2008
On-line dynamic contrast enhanced cone-beam CT for measuring changes in tumor perfusion due to radiation therapy.

Publication Details:

2008
Organ motion and the dose consequence in whole pelvis intensity modulated radiation therapy (IMRT) for cervix cancer.

Publication Details:

2008
Influence of bladder filling on uterus and cervix motion based on uterus position sub-grouping.

Publication Details:

2007
Adaptive whole pelvis intensity modulated radiotherapy for cervix cancer.

Publication Details:

2007
A description of computed tomography (CT) and magnetic resonance (MR) image fusion in radiation treatment planning for prostate cancer patients with unilateral or bilateral hip prostheses.

Publication Details:
Lam T, Cho Y, Kong V, Bayley A, Catton C. A description of computed tomography (CT) and magnetic
resonance (MR) image fusion in radiation treatment planning for prostate cancer patients with unilateral or bilateral hip prostheses. Radiother and Oncol. 84(Supp2): S70, 2007. Coauthor or Collaborator.

2007

Optimal adaptive IMRT strategy for cervix cancer.

Publication Details:

2007

Inter-observer precision of cone-beam Ct soft tissue matching and contouring for gynaecological malignancies.

Publication Details:

2007

Characterization of deformation and treatment response of cervical cancer patients.

Publication Details:

2007

Impact of inter-fraction motion and dose accumulation in adaptive whole pelvis IMRT for cervix cancer.

Publication Details:

2007

Impact of organ motion on IMRT dose distributions for patients with cancer of the cervix.

Publication Details:

2007

Imaging performance of a mobile cone-beam CT c-arm for an image guided intervention.

Publication Details:

2007

MRI-based brachytherapy treatment planning for cervix cancer.

Publication Details:

2007

Finite element modeling of prostate edema and seed dynamics post LDR prostate brachytherapy using CT-MRI fusion.

Publication Details:
Yeung I, Chen S, Cho Y, Taussky D, Beiki-Ardakani A, Crook J. Finite element modeling of prostate edema and seed dynamics post LDR prostate brachytherapy using CT-MRI fusion. Int J Radiat Oncol Biol...
Phys. 66(3): S649-S650, 2006. **Coauthor or Collaborator.**

2006

A method of online MLC aperture adjustment for treatment of patients with setup variation.

**Publication Details:**

2006

A new arterial input free method of deconvolution in functional CT.

**Publication Details:**

2006

Investigating factors affecting weight selection for safe delivery of four dimensional weighted radiotherapy (4D WRT).

**Publication Details:**

2006

Adequacy of nodal clinical target volume coverage and dose escalation of radiographically positive lymph node metastases in endometrial and cervical cancers using external beam radiotherapy.

**Publication Details:**

2006

Segment weighted post midline block planning technique for external radiotherapy of cervix and corpus carcinoma.

**Publication Details:**
Lam T, Cho Y, Milosevic M, Chaulk G. Segment weighted post midline block planning technique for external radiotherapy of cervix and corpus carcinoma. Radiother and Oncol. 80(Supp1): S56, 2006. **Co-Principal Author.**

2006

MRI-based brachytherapy treatment planning for cervix cancer.

**Publication Details:**

2006

Implementation of a provincial gamma knife radiosurgery program.

**Publication Details:**

2005

Geometric calibration of an extended view c-arm platform for cone-beam CT.

**Publication Details:**
2005 Free breathing synchronized 4D radiotherapy: imaging, treatment planning, and delivery.

*Publication Details:*

2004 4DCTTTM imaging to study the motion of anatomical structures in thoracic region.

*Publication Details:*  

2004 Geometric cross-calibration of an integrated cone-beam imaging and treatment unit.

*Publication Details:*  

2004 Dynamic thoracic surface acquisition using digital surface imaging to monitor breathing motion: a feasibility study.

*Publication Details:*  

2004 Integration of free breathing 4DCTTTM in treatment planning process.

*Publication Details:*  

2003 Computation of signal spread in transparent scintillation screen.

*Publication Details:*  

2003 Analytic non-iterative method for geometric calibration of cone-beam computerized tomography system.

*Publication Details:*  

2003 The effect of the prostate deformation due to ultrasound probe stand-off in permanent seed brachytherapy using finite element modelling.

*Publication Details:*  

2002 A variational approach to efficient and accurate film dosimetry using scatter dose component.

*Publication Details:*  
Young-Bin CHO

2001 Kilovision: kilovoltage imaging using a linear accelerator.

Publication Details:


Publication Details:

G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2015 Oct 12 - 2015 Oct 16 Radiation Physics, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology Teaching Radiation Physics to Undergraduate MD students at Haiti National University.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


2005 Primary Supervisor. Ryan McCabe. Cone beam CT calibration on Linear Accelerator.

Graduate Education


Continuing Education


2. OTHER SUPERVISION

Undergraduate Education

Secondary Supervisor

I. Creative Professional Activities

1. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2011 Jul - 2012 Jun Korean Fall Community Forum 2011. The event is dedicated to “Understanding Our Community and Higher Education”. It is jointly organized by the Toronto Korean Families Study (TKFS) and the Korean-Canadian University Professors Forum (KCUPF) with generous support from the Consulate General of The Republic of Korea in Toronto and the Korea Times Daily.
A. Date Curriculum Vitae is Prepared: 2016 August 11

Only includes Activities from January 2011 to August 2016

B. Biographical Information

1. EDUCATION

Degrees
1995           PhD, Physics, University of Hong Kong, Hong Kong
1992           BSc, (First Class Hon.) in Applied Physics, City University, Hong Kong

Postgraduate, Research and Specialty Training
1998 - 2000    Postdoctoral Fellow, McMaster University, Hamilton, Ontario, Canada
1997 - 1998    Postdoctoral Research Assistant, University of Toronto, Toronto, Ontario, Canada
1995 - 1997    Croucher Postdoctoral Research Fellow, Interdisciplinary Research Centre in Superconductivity, University of Cambridge, Cambridge, Cambridgeshire, United Kingdom

Qualifications, Certifications and Licenses
2007 Jul - present    Fellow of the Canadian College of Physicists in Medicine (FCCPM) in Canada, Canadian College of Physicists in Medicine, Canada
2003 Jul - present    Member of the Canadian College of Physicists in Medicine (MCCPM) in Canada, Canadian College of Physicists in Medicine, Canada
2003 Jul - present    Peer Review A certification, Cancer Care Ontario, Ontario, Canada
2003 - present        Chartered Scientist certification, Science Council, United Kingdom
1999 - present        Professional Physicist certification, Canadian Association of Physicists, Canada
1996 - present        Chartered Physicist certification, Institute of Physics, United Kingdom
                        European Register of Physicist certification, European Physical Society

2. EMPLOYMENT

Current Appointments
2006 - present    Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2005 - present    Medical Physicist, Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2015 Outstanding Reviewer of 2014, American Society for Radiation Oncology. (Distinction)
“Vous are one of a small group who have earned this award by your readiness to review, the timeliness by which you complete the reviews, and by the thoughtful, in-depth, and professional way in which you conduct them. You have come to be relied upon by our editors and, whatever the final decision, our authors will benefit from the comments and observations you make. The journal is only as good as its peer reviewers and we are lucky to have you on our team.”.

2014 Certificate of Excellence in Reviewing, American Society for Radiation Oncology. (Distinction)

2014 Top 25 best referees in the Physics in Medicine and Biology Journal, Institute of Physics (UK). (Distinction)

2012 Outstanding Reviewer of 2012 in the International Journal of Radiation Oncology Biology Physics, American Society for Radiation Oncology. (Distinction)

2012 Outstanding Reviewer of Medical Physics Journal, American Association of Physicists in Medicine. (Distinction)

2011 Top 20 best referees in the Physics in Medicine and Biology Journal, Institute of Physics (UK). (Distinction)

LOCAL

Received

2013 Research Productivity 2013 Award, Princess Margaret Cancer Centre. (Distinction)

2011 Research Productivity 2011 Award, Princess Margaret Cancer Centre. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2003 - present Fellow, Caadian College of Physicists in Medicine, 4259
2003 - present Member, Caadian Organization of Medical Physicists, 4259
2001 - present Member, American Association of Physicists in Medicine, 22820
1997 - present Member, Canadian Association of Physicists, 4744
1996 - present Member, Institute of Electrical and Electronics Engineers, 40221385
1996 - present Member, Institute of Engineering and Technology, 32584143
1994 - present Member, Institute of Physics, 569709
Administrative Activities

INTERNATIONAL

4th International Multi-Conference on Engineering and Technological Innovation: IMETI
2011 Reviewer, Orlando, Florida, United States.

6th International Multi-Conference on Engineering and Technological Innovation: IMETI
2013 Reviewer, Orlando, Florida, United States.

Institute of Physics
2004 Oct - present Member, Chartered Physicist Panel, United Kingdom.
2004 Oct - present Reviewer, Chartered Physicist Panel, United Kingdom.

NATIONAL

Canadian Association of Physicists
2013 Jan 1 - present Member, Professional Certification Committee, Canada.

Canadian College of Physicists in Medicine (MCCPM)
2013 Question Writer for the membership examination, Canada.

Canadian Institutes of Health Research

Canadian Organization of Medical Physics/Canadian College of Physicists in Medicine
2012 Judge, Halifax, Nova Scotia, Canada.
Annual meeting- J R Cunningham Young Investigators Awards.

Peer Review Activities

EDITORIAL BOARDS

Editor
2013 Sep - 2016 Sep American Society for Radiation Oncology, Practical Radiation Oncology

GRANT REVIEWS

External Grant Reviewer
2015 Natural Sciences and Engineering Research Council of Canada (NSERC), NSERC-I2I Idea to Innovation Program
2014 Swiss National Science Foundation, Biology and Medicine
2012 - 2013 Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek – Vlaanderen, FWO) Belgium, Chemical Engineering, Material Sciences
2011 - 2012 Foundation for Scientific Research Belgium, Science and Technology
2011 Natural Sciences and Engineering Research Council of Canada (NSERC), NSERC-I2I Idea to Innovation Program
### MANUSCRIPT REVIEWS

**Reviewer**

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<th>Number of Reviews</th>
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<td>Institute of Nuclear Chemistry and Technology, and Polish Nuclear Society, NUKLEONIKA - International Journal of Nuclear Research</td>
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<td>The Japan Radiation Research Society (JRRS), and the Japanese Society for Radiation Oncology (JASTRO), Journal of Radiation Research</td>
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<td>2013 Jan - present</td>
<td>Elsevier, Medical Dosimetry</td>
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<td>2012 Dec - present</td>
<td>American V-King Scientific Publishing, Parallel &amp; Cloud Computing</td>
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<td>Novin Medical Radiation Institute, International Journal of Radiation Research</td>
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<td>2012 Apr - present</td>
<td>Association of Radiation Oncologists of India (AROI), Journal of Cancer Research and Therapeutics</td>
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<td>2012 Feb - present</td>
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<td>Hindawi Publishing Corporation, ISRN Biomathematics</td>
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<td>Taylor and Francis, Expert Review in Medical Devices</td>
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<td>2009 Oct - present</td>
<td>BioMed Central, Radiation Oncology</td>
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<td>2009 Sep - present</td>
<td>Elsevier, Radiotherapy and Oncology</td>
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2007 Dec - present American Association of Physicists in Medicine, Journal of Applied Clinical Medical Physics, Number of Reviews: 16
2007 Apr - present American Association of Physicists in Medicine, Medical Physics Journal, Number of Reviews: 23
2007 Feb - present Institute of Physics, Physics in Medicine and Biology, Number of Reviews: 70
2013 Jun - 2015 Jun 30 Hindawi Publishing Corporation, Computational and Mathematical Methods in Medicine, Number of Reviews: 2

PRESENTATION REVIEWS
Reviewer
2016 Jul 20 - 2016 Jul 23 COMP/CCPM, The 62nd COMP/CCPM Annual Scientific Meeting 2016, Number of Reviews: 15
2016 May 23 - 2016 May 27 University of Nis, The 4th International Conference on Radiation and Applications in Various Fields of Research (RAD 2016)
2016 Apr 1 - 2016 Apr 4 The 5th International Conference on Biomedical Engineering and Biotechnology (ICBEB2016), Number of Reviews: 1
2016 Mar 21 - 2016 Mar 23 European Society for Radiotherapy and Oncology, the 3rd Ghent Small Animal Symposium 2016
2015 Apr 15 - 2015 May 15 The 4th International Conference on Biomedical Engineering and Biotechnology (ICBEB2015), Number of Reviews: 10
2014 Mar - 2014 Apr COMP/CCPM, 60th COMP/CCPM Annual Scientific Meeting, Number of Reviews: 6

Other Research and Professional Activities

THESIS PROJECT
2013 Aug 11 PhD examiner of Mohammad Rezaee. Radiosensitization of Plasmid DNA to Secondary Electrons by Platinum Chemotherapeutic Drugs. Sherbrooke University, Sherbrooke, Quebec, Canada. Supervisor(s): Professors Leon Sanche and Darel Hunting.

C. Academic Profile

1. TEACHING PHILOSOPHY

Teaching is my passion. It has always been a most rewarding experience seeing how my students made progress and went on to develop a career of their choice. The cornerstone of my teaching philosophy is to engage students in active, participatory learning, accommodating to their varied learning levels to enhance student achievement. I believe in culturally responsive pedagogy, and my classrooms are inclusive. From teaching, I also gain personal satisfaction from students’ positive feedback, and learn how to improve my own research from the problems the students encountered. My teaching philosophy is developed from my experiences as a learner, a teaching assistant and a teacher.

My lectures are interactive. My students know that I am there to help them to learn, and they have to be serious learners and active participants. I keep good eye contact to the students and respond promptly to their questions. Through interacting with the students I can determine what I shall need to adjust and improve in my presentation, as each student
and each class is different. I have to accommodate my teaching to the students’ varying learning levels to clarify technical and practical material so that deep-learning occurs. I make use of technologies and encourage students to use advanced online tools such as the Google search engine in learning. I teach them how to verify the searched results and identify the best answers. After the lecture, I am always available online to provide prompt feedback to students regarding questions in the lecture via email.

As a Medical Physicist teaching Radiation Science class, in addition to explain advanced technologies, I also make sure my students acquire basic critical thinking and problem solving skills that will be used on a daily basis. When I ask a student to solve a problem, I not only require him/her to do the job, but s/he should think why s/he should do so. For example, when I ask a question in the lecture, every student not only needs to write down his/her answer, but also need to discuss with his/her neighbor the reason. Through peer discussions, they can think carefully why they need to perform the solution. They can also learn communication and critical thinking skills through comparing their results with others. This teaching tactic is especially useful for students who are shy to speak up. An active learning environment will therefore be created and developed, where students feel comfortable to discuss questions and to participate in classroom activities.

For the course content, I included every concept in a broad knowledge structure for Radiation Science, so that the students can understand the big picture of the idea. In the lecture, I teach the students to solve problems by breaking complicated scenarios into simple steps where big ideas are clear. I look for exciting demos and fun facts to explain the complicated algorithm so that students can be kept engaged. For home assignment and examination, I require the students to explain and illustrate their work. They not only need to write down the mathematical equations but also a short paragraph describing how to apply the equations step by step to obtain the result. My students are active learners who are not only learning a course, but also acquire critical skills that will be useful throughout their lives.

2. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

I completed my Medical Physics Residency training in the London Regional Cancer Centre, London in 2002 and worked in the Grand River Regional Cancer Centre, Kitchener as a Medical Physicist from 2002 to 2005. I then moved to the Princess Margaret Cancer Centre, Toronto as a Medical Physicist in 2005, and was appointed Assistant Professor in the Department of Radiation Oncology at the University of Toronto in 2006. I am a medical researcher in radiation dosimetry and computer calculation. During the early years of my appointment, my interest was mainly in the Monte Carlo simulation on photon and electron beams. My goal was to develop a precise and accurate radiation dose delivery process for cancer patients, so that required dose coverage prescribed by the Radiation Oncologist can be achieved at the tumour target sparing the surrounding normal tissues.

My objectives are to employ Monte Carlo simulations using computer codes such as the EGSnrc and Geant4, to predict radiation dose within highly and small irregular human heterogeneities. The simulations carry out a history-by-history charge particle transport simulation in various materials with different morphologies. Unlike other commercial semi-empirical/analytic dose calculation algorithms such as the pencil beam and convolution/superposition, Monte Carlo simulation is independent of the assumption of electronic equilibrium and therefore provides superb accuracy. Monte Carlo method has been well known (Rogers Phys Med Biol 51:R287, 2006) as a benchmark in predicting dosimetry in a heterogeneous system containing soft tissue, air and bone.

From 2006 to 2016, I led a research program performing Monte Carlo simulations on dosimetric studies. I have published my results with my team members including faculties, graduate and undergraduate students. The objectives of my research program are (1) macroscopic radiation dosimetry (millimeter scale) for radiotherapy; and (2) nanoscopic radiation dosimetry (nanometer scale) for nanoparticle-enhanced radiotherapy. The former produced useful dosimetric results in the kilovoltage cone-beam computed tomography, small-animal irradiation, and heterogeneous correction in dose calculation leading to professional innovations in image-guided radiotherapy and preclinical irradiation. The latter provided dosimetric results based on the photon and electron interactions with the irradiated gold nanoparticle. This establishes the base to configure the best strategy in the novel gold nanoparticle-enhanced radiotherapy.

In carrying out my research program, basing on the above-mentioned objectives, I designed the experiments in radiation dosimetry and computer calculations in Monte Carlo simulations. Once we collected the raw data, I led the team to organize and analyse it. Finally, with contributions from my team, I prepared the related figures, tables and wrote the manuscript/abstract for submission to the International peer-reviewed journal for publication or International meeting for presentation.
My research program resulted in the following impacts:

(1) For my work on the radiation dosimetry in radiotherapy, my group carried out Monte Carlo simulations of kilovoltage photon beam for the image-guided radiotherapy. We used Monte Carlo simulation to calculate the imaging dose due to kilovoltage cone beam computed tomography and included such dose in the prostate radiation treatment plan. We proved that the imaging dose from the cone beam computed tomography would only slightly affect the final dose distribution in the prostate intensity modulated radiotherapy. For the dose calculation of preclinical radiation treatment plan, we developed and published a graphical user interface (DOSCTP) for Monte Carlo treatment planning (Chow et al Med Phys 34:4810, 2012), and a user interface (FFD4D) for four-dimensional computed tomography image voxel-tracking using the free-form model (Markel et al J Phys CS 385:012001, 2012). These graphical user interfaces have been circulated among different universities, research institutes and hospitals in North and South America, Europe and Asia, being tools for Radiation Physics and Medical Dosimetry studies. Apart from the above highlighted works, we carried out Monte Carlo studies on human heterogeneities such as lung and bone, electron backscatter from lead, MOSFET dosimeter, Solid Water, preclinical irradiator design, treatment planning commissioning, photon energy spectra of flattening-filter-free photon beam and so on.

(2) For Monte Carlo simulation on gold nanoparticle irradiated by radiation beams, result of photon beam was published in Leung et al (Med Phys 38:624, 2011) and was selected for the January 2011 issue of Virtual Journal of Biological Physics Research due to its excellence. Moreover, this work was the top 20 most downloaded articles in the Medical Physics Journal (January 2011). In this work, we found that for a cell of typical size, a low energy (35 keV) x-ray generates much more secondary electrons when a gold nanoparticle is present, and will have sufficient range to cause damage in the cell where the nanoparticle is uptaken. There are a lot of related works following our findings and the above paper has been cited over 100 times. Afterwards, we focused on the interaction between the electrons and irradiated gold nanoparticle (Chow et al Phys Med Biol 57:3323, 2012). Comparing to the photon irradiation, electron irradiation was found not better as the yield of secondary electrons per unit mass of gold is less than water. These works provide valuable information in the innovation of gold nanoparticle-enhanced radiotherapy, particularly in the selection of the gold nanoparticle size, shape, concentration, radiation type and energy in radiotherapy.

A number of international peer-reviewed papers were published followed by presentations in the national/international Medical Physics meetings. Impacts of the above works can be reflected by my invitations as senior editor, editor, guest editor and referee in international peer-reviewed journals, reviewers in national/international meetings, reviewers in research grant proposals, speakers of invited seminars and talks, writer or co-writer of book chapters and committee members in the professional organizations. Moreover, I was recognized by some awards such as the top referees in the international journals and research productivity awards. Through these activities, I learned and updated works from other groups to expand my research horizons.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED

2010 Apr - 2014 Apr  

2009 Apr - 2013 Apr  
**Principal Investigator.** Determination of the mucosal dose using Monte Carlo method in radiation therapy. University of Toronto. Dean’s Fund. 10,000 CAD. [Grants]
E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


This is the first study of the secondary electron production from a gold nanoparticle irradiated by electron beams using Monte Carlo simulation. We proved that electron beam in the presence of gold nanoparticle does not seem to be better than photons as the yield of secondary electrons per unit mass of gold is less than water. Cited by 27.


This is the first work to study the characteristics of secondary electrons generated by a gold nanoparticle with photons. We found that irradiation of the gold nanoparticle at photon energy of kV range will be more efficient for cell killing. Cited by 109.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


12. **Chow JCL** and Owrangi AM. Dosimetric dependences of bone heterogeneity and beam angle on the unflattened and flattened photon beams: A Monte Carlo comparison. Radiation Physics and Chemistry. 2014;101:46-52. **Principal Author.**


22. **Chow JCL** and Jiang R. Prostate volumetric-modulated arc therapy: dosimetry and radiobiological model variation between the single-arc and double-arc technique. J Appl Clin Med Phys. 14: 3-12, 2013. **Principal Author.**

23. Asnaashari K, **Chow JCL** and Heydarian M. Dosimetric comparison between MLC systems commonly used for stereostatic radiosurgery and radiotherapy: A monte Carlo and experimental study. Physica Medica. 29: 350-356, 2013. **Co-Principal Author.**


Book Chapters


3. NON-PEER-REVIEWED PUBLICATIONS

Conference paper


F. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


Presented and Published Abstracts
2016 Jul Presenter. An android app and windows executable with GUI for the monitor unit calculation in kV x-ray therapy. AAPM. Washington DC, Washington DC, United States.

Publication Details:
2016 Jul  **Presenter.** Dosimetric impacts on the mucosa and bone in radiotherapy with unflattened photon beams. AAPM. Washington DC, Washington DC, United States.

*Publication Details:*


2016 Jul  **Presenter.** Dose enhancement due to nanoparticle addition in skin radiotherapy: A Monte Carlo study using kilovoltage photon beams. AAPM. Washington DC, Washington DC, United States.

*Publication Details:*


2016 Jul  **Presenter.** Monte Carlo simulation on surface dose in preclinical irradiation using monoenergetic photon beams. AAPM. Washington DC, Washington DC, United States.

*Publication Details:*


2016 Jul  **Presenter.** Evaluation of the dose enhancement with gold nanoparticle in microdosimetry level using the Geant4-DNA toolkit. AAPM. Washington DC, Washington DC, United States.

*Publication Details:*


*Publication Details:*


*Publication Details:*


2016 Jul  **Presenter.** Dosimetric impacts of topical agents and dressings on skin in radiotherapy. AAPM. Washington DC, Washington DC, United States.

*Publication Details:*


2015 Jul  **Presenter.** Estimation of DVH variation for PTV due to interfraction organ motion in prostate VMAT using Gaussian error function. AAPM. Anaheim, California, United States.

*Publication Details:*


2015 Jul  **Presenter.** Computational optimization of Monte Carlo simulation on 4D treatment planning using the cloud computing technology. AAPM. Anaheim, California, United States.
Publication Details:

2015 Jul
Presenter. Dose variation at bone in small-animal irradiation: A Monte Carlo study using monoenergetic photon beams. AAPM. Anaheim, California, United States.

Publication Details:

2015 Jul
Presenter. Evaluation of DVH change for PTV due to patient weight loss in prostate VMAT using Gaussian error function. AAPM. Anaheim, California, United States.

Publication Details:

2015 Jul
Presenter. Performance evaluation of MLC leaf-sequencing algorithms in head-and-neck IMRT. AAPM. Anaheim, California, United States.

Publication Details:

2015 Jul
Presenter. Variation of surface photon energy spectra on bone heterogeneity and beam obliquity between flattened and unflattened. AAPM. Anaheim, California, United States.

Publication Details:

2015 Jul

Publication Details:

2015 Jul

Publication Details:

2015 Jul

Publication Details:

Publication Details:

2015 Jun 17  Presenter. Radiation treatment planning based on big data of previously treated plans using the Gaussian error function model. Compute Canada. Montreal, Canada.

Publication Details:


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2015 Jun  Presenter. Two-dimensional probability density function presenting the pre-treatment variability of the rectal wall integrating the variability of the motion of the rectum and the rectal wall thickness. IUPESM 2015. Toronto, Ontario, Canada.

Publication Details:

2014 Jul  Presenter. Effect of the bone heterogeneity on the Unflattened and flattened photon beam dosimetry: a Monte Carlo comparison. AAPM. Austin, Texas, United States.
Publication Details: 


Publication Details: 

2014 Jul Presenter. Dosimetric dependence on the collimator angle in prostate volumetric modulated arc therapy. AAPM. Austin, Texas, United States.

Publication Details: 

2014 Jul Presenter. Dosimetric dependence on bone backscatter in orthovoltage radiotherapy. AAPM. Austin, United States.

Publication Details: 

2014 Jul Presenter. Prostate IMRT: Product-mixture model of a two-dimensional probability density function integrating the variability of the motion of the rectum and the rectal wall thickness. AAPM. Austin, United States.

Publication Details: 


Publication Details: 

2013 Aug Presenter. Dosimetric dependence on patient size reduction between prostate IMRT and VMAT. AAPM. United States.

Publication Details: 


Publication Details: 


Publication Details:

2012 Jul  Presenter. Dosimetric comparison between two multileaf collimator systems for stereotactic radiosurgery and radiotherapy. AAPM. United States.

Publication Details: 

2012 Jul  Presenter. Prostate IMRT QA: Prediction of the range of rectal NTCP using a 2D field approach based on variations of the rectal wall motion and thickness. AAPM. United States.

Publication Details: 

2012 Jul  Presenter. Dosimetric effect on variation of patient size in prostate volumetric modulated arc therapy. AAPM. United States.

Publication Details: 


Publication Details: 

2011  Presenter. Rectal equivalent uniform dose analysis on the prostate IMRT for interfraction organ motion using the Gaussian error function. AAPM and COMP. Canada.

Publication Details: 

2011  Presenter. Calculation of the prostate equivalent uniform dose for interfraction organ motion using the Gaussian error function model. AAPM and COMP. Canada.

Publication Details: 

2011  Presenter. Comparison of the physical characteristics of secondary electrons and dose enhancement from x-ray irradiation of gold nanoparticles using Monte Carlo simulation. AAPM and COMP. Canada.

Publication Details: 

2011  Presenter. Dosimetric dependence on variations of the lung density and geometry: A Monte Carlo evaluation using virtual dynamic heterogeneous phantom. AAPM and COMP. Canada.
Publication Details:


Publication Details:


Publication Details:


Publication Details:

2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


Presented and Published Abstracts

2016 Mar Dosimetric impacts on skin toxicity for patients using topical agents and dressings in radiotherapy. Toronto, Ontario, Canada. Presenter(s): Tse K.

Publication Details:
2013 Sep  Speaker. Monte Carlo study on mucosal dose in skin radiotherapy. CARO and COMP. Canada.

Publication Details:

2013 Sep  Presenter. Dosimetry of thin soft tissue in a bone joint: A Monte Carlo study. CARO and COMP.

Publication Details:

2013 Sep  Evaluating the relevance of dosimetric considerations to patient teaching regarding skin care during radiation therapy. CARO and COMP. Canada.

Publication Details:

2013  Evaluating the relevance of dosimetric considerations to patient teaching regarding skin care during radiation therapy. Canada.

Publication Details:


Publication Details:


Publication Details:


Publication Details:

2012  Presenter. Statistical analysis and verification of the percentage depth dose calculation based on the tissue maximum ratio in external beam radiotherapy. COMP. Canada.

Publication Details:

2012  Presenter. Improved clustering MLC leaf-sequencing algorithm for step-and-shoot IMRT. COMP.
Publication Details:

2012 Presenter. Dosimetric evaluation on the variation PTV coverage due to patient size reduction using the prostate dose-volume factor in prostate radiotherapy. COMP. Canada.

Publication Details:


Publication Details:

2012 Presenter. A dosimetric comparison between single-arc and double-arc prostate VMAT plans. COMP. Canada.

Publication Details:

2012 Presenter. An Improved leaf sequencing algorithm based on MLC shape regulation. COMP. Canada.

Publication Details:


Publication Details:

3. PROVINCIAL / REGIONAL

Media Appearances

2011 Mar 14 Health effects of radiation exposure from nuclear plant explosions in Japan. Ryerson University Campus. Toronto, Ontario, Canada. TV media interview (CP24): Conducted by Sarah Tratt, Senior Producer and Reporter Jee-Yun Lee at Ryerson University Campus, 5-5.30 pm on-live.

4. LOCAL

Invited Lectures and Presentations

2012 Speaker. Cloud computing in Monte Carlo simulation. Radiation Physics Seminar, Princess Margaret
James Chun Lam CHOW
Hospital. Toronto, Ontario, Canada.

Media Appearances

2011 Mar 16  Radiation safety after the demineralized water leak at the Pickering nuclear plant. Princess Margaret Hospital, University Health Network. Toronto, Ontario, Canada. Radio media interview (AM1540 A1 Radio): conducted by Mary Yang, Director of news and public affairs at Princess Margaret Hospital, University Health Network, 5.30-6.30 pm.

2011 Mar 15  The effects of radiation on people’s health resulting from the latest nuclear incidents in Japan. Princess Margaret Hospital, University Health Network. Toronto, Ontario, Canada. Radio media interview (AM1540 A1 Radio): conducted by Mary Yang, Director of news and public affairs at Princess Margaret Hospital, University Health Network, 5.30-6.30 pm.

5. OTHER

Presented and Published Abstracts


G. Teaching and Design

My role, as a teacher, is to facilitate learners in their achievement of the goals they have set in their education. This facilitation includes assisting learners to examine the profession and practice of Medical Physics. In Princess Margaret Cancer Centre, I am actively involved in both course teaching and student supervision.

From 2007 to 2016, I contributed to the Medical Radiation Science Program by teaching the Radiation Science I course (Michener Institute course code: RSRT310 and University of Toronto course code: MRS142H1). There were about 50 - 70 students in the class every year and I taught about half of lectures in the course from every September to December since 2007. The topics include the Structure of Matter and Radiation Types, Photon Beam Characteristics, Radiation Dosimetry, Radiation Therapy Machines and Physics of Radioactivity. This teaching work was challenging because it was a first year undergraduate course. Students taking the course were green and did not have the related Radiation Physics and Science background.

In September and October 2012, I also delivered two lectures in the Radiation Therapy Devices course (Ryerson University course code: BME 704) as an invited lecturer. This course covered the Radiation Producing Equipment, Character of Photon and Electron Radiation Beams, Radiation Dose Functions, Computerized Radiation Treatment Planning and Quality Assurance. This course was for the third or final year undergraduate students who had related Medical Physics knowledge.

For my research supervision, I supervised 6 summer students in the Department of Medical Physics in the Princess Margaret Cancer Centre. I also supervised 13 undergraduate thesis students from the Department of Medical Physics of Ryerson University and 2 undergraduate thesis students from the Division of Engineering Science of University of Toronto. I supervised one Postdoctoral Fellow and one PhD visiting student in the Princess Margaret Cancer Centre. This training of highly qualified persons was very productive: we produced over 27 international peer-reviewed papers and over 65 conference abstracts/papers. Some of my students are now Assistant Professor at University of Gujrat, Pakistan, Medical Physics Resident at Princess Margaret Cancer Centre and PhD/MSc candidates in University of Toronto and
Ryerson University.

I have also given numerous invited lectures and seminars. For example, I was invited by the University of Waterloo (2007), Ontario and Sherbrooke University (2013), Quebec for seminars regarding radiation dose calculation and Monte Carlo simulation on gold nanoparticle, respectively. I also delivered Radiation Physics seminars (2006, 2007, 2010 and 2012), and Radiation Medicine Program round (2016) in Princess Margaret Cancer Centre. I was also invited to be one of the judges in the Sanofi BioGENEisu Challenge Canada in 2012, 2013 and 2014.

The nine-year of teaching in the Medical Radiation Science Program has built a solid relationship and communication between the teaching team and me. I updated my teaching materials constantly to keep pace with the rapid progress of Medical Radiation Science. Moreover, I contributed to the course assignments and examination questions. Similarly, supervising student research for seven years at University of Toronto and Ryerson University, I have maintained a very good relationship with the Division of Engineering Science in University of Toronto and Department of Medical Physics in Ryerson University. My students have produced very good final year projects, which greatly enhance their careers and further studies.

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2016 Jan - 2016 Dec  Reviewer of Professional Physicist renewal and application, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Physicists
Review and approve Professional Physicist renewal for the Canadian Association of Physicists.
To maintain the profession standard of Professional Physicist in Canada.

2016 Jan - 2016 Dec  Reviewer of the Chartered Physicist application, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Institute of Physics, UK
As a Chartered Physicist panel member, to review and approve CPhys application for the Institute of Physics in the UK.
To maintain the professional standard and continuing professional development of Chartered Physicist in the UK.

2016 Jan - 2016 Mar  Examination Question Writer, Reviewer and Marker, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Physicists
Professional Physicist (PPhys) examination of the Canadian Association of Physicists 2016.
To maintain the profession standard of Professional Physicist in Canada.

2015 Jan - 2015 Dec  Reviewer of Professional Physicist renewal and application, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Physicists
Review and approve Professional Physicist renewal for the Canadian Association of Physicists.
To maintain the profession standard of Professional Physicist in Canada.

2015 Jan - 2015 Dec  Reviewer of the Chartered Physicist application, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Institute of Physics, UK
As a Chartered Physicist panel member, to review and approve CPhys application for the Institute of Physics in the UK.
To maintain the professional standard and continuing professional development of Chartered Physicist in the UK.

2015 Jan - 2015 Mar  Examination Question Writer, Reviewer and Marker, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Physicists
Professional Physicist (PPhys) examination of the Canadian Association of Physicists 2015.
To maintain the profession standard of Professional Physicist in Canada.

2014 Jan - 2014 Dec  Reviewer of Professional Physicist renewal and application, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Physicists
Review and approve Professional Physicist renewal for the Canadian Association of Physicists.
To maintain the profession standard of Professional Physicist in Canada.

2014 Jan - 2014 Dec  Reviewer of the Chartered Physicist application, Continuing Education, Faculty of Medicine,
Dept of Radiation Oncology, Institute of Physics, UK
As a Chartered Physicist panel member, to review and approve CPhys application for the Institute of Physics in the UK.
To maintain the professional standard and continuing professional development of Chartered Physicist in the UK.

2014 Jan - 2014 Mar
Examination Question Writer, Reviewer and Marker, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian Association of Physicists
Professional Physicist (PPhys) examination of the Canadian Association of Physicists 2014.
To maintain the profession standard of Professional Physicist in Canada.

2013 Jan - 2013 Dec
Reviewer of the Chartered Physicist application, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Institute of Physics, UK
As a Chartered Physicist panel member, to review and approve CPhys application for the Institute of Physics in the UK.
To maintain the professional standard and continuing professional development of Chartered Physicist in the UK.

2013
Examination Question Writer, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Canadian College of Physicists in Medicine
Membership examination of the Canadian College of Physicists in Medicine (MCCPM).
To maintain the professional standard of Medical Physicist in COMP.

2012 Jan - 2012 Dec
Reviewer of the Chartered Physicist application, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Institute of Physics, UK
As a Chartered Physicist panel member, to review and approve CPhys application for the Institute of Physics in the UK.
To maintain the professional standard and continuing professional development of Chartered Physicist in the UK.

2011 Jan - 2011 Dec
Reviewer of the Chartered Physicist application, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology, Institute of Physics, UK
As a Chartered Physicist panel member, to review and approve CPhys application for the Institute of Physics in the UK.
To maintain the professional standard and continuing professional development of Chartered Physicist in the UK.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


2014 Sep - 2015 Apr  Primary Supervisor. B. Sc. Andrew Vuong. Supervisee Position: Undergraduate student, Supervisee Institution: Ryerson University. Monte Carlo simulations on surface and bone
dose from kilovoltage photon beams.


Graduate Education


Postdoctoral Research Fellow (PhD)


I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2006 - present Monte Carlo Simulation on Radiation Dosimetry for Radiotherapy.

For my Monte Carlo study on radiation dosimetry, I carried out dose calculations using kilovoltage and megavoltage photon beams and megavoltage electron beams. I focused on phantoms and patients with tissue heterogeneities and irregular geometries using the EGSnrc-based Monte Carlo code for dose calculations.

For the kilovoltage photon beams, I studied the heterogeneous correction in skin therapy using the orthovoltage photon beams. I also studied photon backscatter from the lead shield used in the skin therapy. I modeled the kilovoltage cone beam computed tomography source to study the effects of imaging dose and positional uncertainty of patient setup in image-guided radiotherapy. For the preclinical model, I contributed to the small-animal irradiator design and treatment planning using Monte Carlo simulation. I also studied the dose enhancement of bone under the kilovoltage photon beam in preclinical model and human small bone joint.

For the megavoltage photon beams, I studied the dosimetric effect of gold pseudo marker implanted to the prostate. I carried out Monte Carlo study on lung dosimetry with different densities and geometries. Moreover, I used Monte Carlo simulation as benchmark to verify
the performances of other dose calculation algorithms in the presence of irregular heterogeneities. I investigated computer hardware such as cell processor used to increase the Monte Carlo simulation speed, and the photon energy spectra of the flattening-filter-free and flattening-filter photon beams.

For the megavoltage electron beams, I carried out Monte Carlo simulation to study the lateral build up ratio of the electron beam dosimetry. I also studied the peripheral dose outside the electron beams with an applicator, and the effect of electron beam obliquity on lateral build up ratio. Similar to the megavoltage photon beams, Monte Carlo simulation was carried out to study the electron backscatter from the lead and the MOSFET dosimeter in electron therapy. Moreover, I studied the electron backscatter of Solid Water, and electron dosimetry of a small air cavity. I used Monte Carlo simulation to calculate the monitor unit of electron arc radiotherapy.


2006 - present

Monte Carlo Simulation on Gold Nanoparticle.

In radiotherapy, using heavy-atom contrast agent such as gold nanoparticle can deliver a highly conformed radiation dose to the tumour while sparing surrounding critical tissues. Since this agent enhances the contrast of the tumour in medical imaging, the accuracy of radiation beam targeting is increased. The agent also improves the dose absorption in the tumour and cancer cell kill. The application of gold nanoparticle in radiotherapy innovates a novel cancer treatment option called gold nanoparticle-enhanced radiotherapy, which is presently in the preclinical study.

Monte Carlo simulation is used to predict different outcomes of dose enhancement resulting from gold nanoparticles irradiated by photon and electron beams. The Monte Carlo results enable us to discover which scenario would yield the largest cancer cell killing effect. The results would also help to build a nanodosimetric model of nanoparticles which helps to design and develop a new gold nanoparticle contrast agent in cancer treatment.

I used the Geant4 Monte Carlo code to simulate particle transports of gold nanoparticles in
water, and investigated the spatial and energy characteristics of electrons generated when photon and electron beams irradiate a gold nanoparticle. To understand the role of gold nanoparticle in enhancing cell kill, I performed Monte Carlo simulation on a gold nanoparticle. I found that for a cell of typical size, low-energy (35 keV) photons generate much more secondary electrons when a gold nanoparticle is present, and will have sufficient range to cause damage in the cell where the nanoparticle is uptaken. I concluded that the irradiation of gold nanoparticle at lower photon beam energies will be more efficient for cell killing and this is consistent with published results. I also performed Monte Carlo simulation on gold nanoparticle irradiated by electron beams. I found that the secondary electron energy deposition ratio is highest for the smallest nanoparticle of 2 nm diameter in my calculation. I concluded that the addition of gold nanoparticle can increase the secondary electron energy deposition in water, though most of the energy was self-absorbed by the large nanoparticles of 50 and 100 nm. However, electron source with gold nanoparticle does not seem to be better than photon as the yield of secondary electron per unit mass of gold is less than water. Results of Monte Carlo simulation on gold nanoparticle irradiated by photon beams were published (Leung et al Med Phys 38:624, 2011) and selected for the January 2011 issue of Virtual Journal of Biological Physics Research due to its excellence, and was the top 20 most downloaded articles in the Medical Physics Journal (January 2011). This work was also presented in the 2011 Joint American Association of Physicist in Medicine/Canadian Organization of Medical Physics Meeting in Vancouver (Chow et al Med Phys 36:2512, 2009, Leung et al Med Phys 36:2819, 2009, Chithrani et al IJROBP 72:S717, 2008). For Monte Carlo simulation on gold nanoparticle irradiated by electron beams, an oral presentation was given in the International Workshop on Recent Advances in Monte Carlo Techniques in Radiation Therapy, Montreal in 2011. Detailed results were published (Chow et al Phys Med Biol 57:3323, 2012). I was also the co-investigator of the research grant entitled “Engineering gold nanoparticle radiosensitizers for cancer therapy” from the Canadian Institutes of Health Research (2010-2014), and awarded 1 million super-computing hours for the project entitled “Monte Carlo simulation on gold nanoparticle-enhanced radiotherapy” in the SciNet local resource allocation research proposal competition. I was then invited to review a number of research papers related to gold nanoparticle studies in international peer-reviewed journals such as the Physics in Medicine and Biology and Medical Physics. I was also invited as research grant proposal reviewer regarding gold nanoparticle by the Research Foundation Flanders in Belgium in 2011 and 2012. I was invited as the PhD examiner in the Sherbrooke University, Quebec and delivered a seminar entitled “Monte Carlo simulation on gold nanoparticle” there. My work also resulted in some book chapter invitations from the publishers such as Springer International and Elsevier. With my other publications and presentations (e.g, Chow et al Phys Med Biol 58:2003, 2013, Leung and Chow et al Med Phys 38:3643, 2011, Jing and Chow et al Med Phys 40:321, 2013, He and Chow et al Med Phys 43:3674, 2016), my gold nanoparticle study impacted the understanding of the particle interaction on gold nanoparticle. This innovates the development of gold nanoparticle-enhanced radiotherapy optimizing the best strategy in the cancer treatment.
Curriculum Vitae

Daria C. Comsa

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

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Radiation Medicine Program
Stronach Regional Cancer Centre
Southlake Regional Health Centre
596 Davis Drive
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L3Y 2P9
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Email
dcomsa@southlakeregional.org

1. EDUCATION

Degrees
2003 - 2008 PhD, Medical Physics, McMaster University, Hamilton, Ontario, Canada
2001 - 2003 MSc, Medical Physics, McMaster University, Hamilton, Ontario, Canada
1996 - 1997 MSc, Biophysics and Medical Physics, Universitatea Babes-Bolyai Cluj-Napoca, Romania
1992 - 1996 BSc, Physics, Universitatea Babes-Bolyai Cluj-Napoca, Romania

Postgraduate, Research and Specialty Training
2008 - 2010 Clinical Residency, Medical Physics, Princess Margaret Hospital, Toronto, Ontario

Qualifications, Certifications and Licenses
2011 - present Certification, Radiation Oncology, Canadian College of Physicists in Medicine
2010 - present Certification, Radiation Oncology Physics, Ontario Peer Review A

2. EMPLOYMENT

Current Appointments
2010 - present Clinical Physicist, Southlake Regional Cancer Centre, Newmarket, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2005 Sep - 2007 Sep  
**Postgraduate Scholarship D**, Natural Sciences and Engineering Research Council of Canada (NSERC). (Distinction)

2002 May - 2004 May  
**Postgraduate Scholarship A**, Natural Sciences and Engineering Research Council of Canada (NSERC). (Distinction)

PROVINCIAL / REGIONAL

Received

2005 Jan - 2005 Aug  
**Ontario Graduate Scholarship (OGS)**, Government of Ontario. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Association of Physicists in Medicine (AAPM)
Canadian Organization of Medical Physicists (COMP)

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer

2014 Jan - present  
Practical Radiation Oncology
Physics in Medicine and Biology

C. Academic Profile

1. RESEARCH STATEMENTS

2010 - present  
Statement of Scholarly and Professional Activity.
As a medical physicist at the Stronach Regional Cancer Centre I lead the imaging and informatics section of the Department of Radiation Physics. In this role, I am responsible for maintaining and reporting on a CT simulator, three on-board imagers and the interconnectivity of the different clinical software applications used in our clinic. I am part of the image-guided radiation therapy group (IGRT) at SRCC, and physics lead for the thorax site group. Research interests and projects focus on the implementation and clinical evaluation of new radiotherapy treatment techniques (VMAT, ABC, SBRT) and advanced image guidance in radiation therapy. My aim is to investigate measures to refine, evaluate and efficiently use these techniques clinically.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

NON-PEER-REVIEWED GRANTS

Funded


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


2. NATIONAL

Presented Abstracts


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


4. LOCAL

Presented Abstracts


Curriculum Vitae

Catherine Coolens

A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

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Princess Margaret Hospital
Radiation Physics Department
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M5G 2M9

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Fax
(416) 946-6566
Email
catherine.coolens@rmp.uhn.on.ca

1. EDUCATION

Degrees
2001 Oct - 2005 Jan
PhD, Medical Physics Radiotherapy, Institute of Cancer Research, London, United Kingdom,
Supervisor(s): Steve Webb

2000 Sep - 2001 Sep
MSc, Medical Physics Applications (Distinction), Department of Biomedical Engineering,
University College London, London, United Kingdom, Supervisor(s): Gary Royle

MSc, Experimental Physics (Magna cum Laude), Wiskundige/Natuurk.(Math/Physics), State
University of Ghent (Gent or Gand), Belgium

Postgraduate, Research and Specialty Training
2005 - 2007
Medical Physics Clinical Residency, Radiation Physics, Royal Marsden Hospital Foundation
Trust, London, United Kingdom, Supervisor(s): Margaret Bidmead

Qualifications, Certifications and Licenses
2008
Board Certification Clinical Medical Physics, Medical Physics, Institute of Physics and
Engineering in Medicine / Health Professional Council, United Kingdom

2. EMPLOYMENT

Current Appointments
2015 Jun - present
Physics Site Lead CNS (GammaKnife + External Beam Therapy), Radiation Medicine
Program, Princess Margaret Hospital Cancer Centre, Toronto, Ontario, Canada

2014 Jun - present
Assistant Professor (Cross Appointment), Institute of Biomaterials & Biomedical Engineering,
University of Toronto, Toronto, Ontario, Canada
Catherine COOLENS

2014 - present  Affiliated Faculty, Joint Department of Medical Imaging, University Health Network, Toronto, Ontario, Canada
2013 Apr - present  Affiliated Faculty, TECHNA Research Institute, Ontario, Canada
2008 Jun - present  Radiation Physicist, Radiation Medicine Program, Radiation Physics Department, Princess Margaret Hospital, Toronto, Ontario
2010 Apr  Affiliated Faculty, Department of Physics, Ryerson University
2009 May - 2018 Jun  Assistant Professor, Radiation Oncology, University of Toronto

Previous Appointments

CLINICAL
2010 - 2015 May  Physics Site Lead Lymphoma, Radiation Medicine Program, Princess Margaret Hospital Cancer Centre, Toronto, Ontario, Canada
2007 Jul - 2008 Jun  Clinical Research Physicist, Royal Marsden Hospital, London, United Kingdom

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2015 Oct  ‘Best in Radiomics’ Featured Presentation, 57th ASTRO Annual Meeting, San Antonio, Texas, United States. (Distinction)
2012 Oct  Basic Science Abstract Award, 54th ASTRO Annual Meeting, Boston, Massachusetts, United States. (Distinction, Specialty: Radiation Physics)
Total Amount: 1,000 USD
2010 Jul  ‘Best of Physics’ Abstract, 52nd ASTRO Annual Meeting, San Diego, United States. (Distinction)
Total Amount: 1,000 USD
2005 Jul  Annual Travel Award, IPEM-AAPM. (Distinction)
Total Amount: 2,000 GBP

NATIONAL
Received
Total Amount: 45,000 GBP

Student/Trainee Awards

INTERNATIONAL
Received
2012 May  Summa Cum Laude Merit Award (top 3%), Supervisor, Awardee Name: Sangjune (Laurence) Lee. International Society for Magnetic Resonance in Medicine (ISMRM) Annual Meeting
2011 Jul  “Best in Physics - Poster Discussion”, Supervisor, Awardee Name: John Bracken.
American Association of Physicists in Medicine (AAPM) Annual Meeting, Vancouver, British Columbia
2010 Feb Runner Up Award - “Best Post Graduate Project”, Supervisor, Awardee Name: Wallace Wee. American Association of Medical Instrumentation 2010 Annual Meeting

LOCAL Received
2010 Jan Best Thesis Project Award, Supervisor, Awardee Name: Melanie Pigeon-Peladeau. University of Toronto, Canada Clinical Engineering MSc program, IBBME.
2006 Jan Best MSc Project of the Year, Supervisor, Awardee Name: Joan Coward. University of London - King’s College, United Kingdom Medical Engineering & Physics.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations
2011 - present Member, Radiological Society of North America (RSNA)
2009 - present Member, American Association of Physics in Medicine (AAPM)
2008 - present Member, American Society for Therapeutic Radiology and Oncology (ASTRO)
2008 - present Member, Health Professional Council UK
2004 - present Corp. Member, Institute of Physics and Engineering in Medicine (UK)
2003 - present Member, European Society for Therapeutic Radiology and Oncology (ESTRO)

Administrative Activities

INTERNATIONAL
American Association of Physicists in Medicine (AAPM)
2013 Apr - present Member, Imaging for Treatment Planning Task Group, United States.

National Institute of Health (NIH)
2014 Oct - present Member, Quantitative Imaging Network (QIN), United States.

Quantitative Imaging Biomarker Alliance (QIBA) DCE-MRI Committee
2016 Jun - present Member, Quantification Profile v1.1 (International Guidelines), United States.

Radiological Society of North America (RSNA)
2014 Oct - present Member, Quantitative Imaging Biomarker Alliance (QIBA) CT Committee, United States.

NATIONAL
Canadian Organization for Medical Physics (COMP)
2015 Member, Imaging Committee, Canada.
Catherine COOLENS

LOCAL

Ontario Cancer Institute - Academic - Canada - Ontario
2012 - present Member, Annual Scientific Retreat, Toronto, Ontario, Canada.

Radiation Medicine Program (Princess Margaret Cancer Centre)
2011 - present Member, Radiation Medicine Program Imaging Committee, Toronto, Ontario, Canada.

University Health Network
2012 - 2013 Member, Strategic Planning Board, Molecular Imaging Task Group, Toronto, Ontario, Canada.

University of Toronto
2016 Contributor, DRO 5 Year External Review, Toronto, Ontario, Canada.
2012 Member, Strategic Planning Board, Department of Radiation Oncology, Toronto, Ontario, Canada.
2012 Contributor, DRO 5 Year External Review, Toronto, Ontario, Canada.

Peer Review Activities

ASSOCIATE OR SECTION EDITING

Editor
2005 - present Medical Physics, Number of Reviews: 5

EDITORIAL BOARDS

Editor
2013 Aug - present Frontiers in Biomedical Physics

GRANT REVIEWS

External Grant Reviewer
2016 May Canadian Research Society, 2016 Operating Grants competition, Number of Reviews: 1
2012 Jun Windsor & Essex County Cancer Centre Foundation, Seeds4Hope, Number of Reviews: 1

Internal Grant Reviewer
2016 Aug 15 RMP Radiogenomics/Radiomics Grants, Number of Reviews: 3
2013 Apr - present Canadian Cancer Society Research Institute, Innovation Grant: Imaging and Technology Development Panel, Number of Reviews: 15
2011 - present Natural Sciences and Engineering Research Council of Canada (NSERC), Discovery Grant, Number of Reviews: 2

MANUSCRIPT REVIEWS

Reviewer
2015 - present Biomedical Signal Processing and Control, Number of Reviews: 2
2015 - present European Radiology, Number of Reviews: 1
Catherine COOLENS

2015 - present  
IEEE Transactions on Medical Imaging, Number of Reviews: 1

2012 - present  
British Journal of Radiology, Number of Reviews: 3

2010 - present  
BioMed Central, Number of Reviews: 1

2010 - present  
Radiotherapy and Oncology, Number of Reviews: 3

2007 - present  
International Journal of Radiation Oncology, Biology, Physics, Number of Reviews: 2

2005 - present  
Medical Physics, Number of Reviews: 7

2004 - present  
Physics in Medicine and Biology, Number of Reviews: 29

2014 Jun  
Zeitschrift für Medizinische Physik, Number of Reviews: 1

PRESENTATION REVIEWS

Reviewer  
2011 - present  
American Association of Physicists in Medicine, Annual Meeting Abstract Review

2008 - present  
University of Toronto, Department of Radiation Oncology Research Day

2016  
Imaging Network of Ontario (ImNO), Annual Meeting Abstract Review

INDUSTRIAL COLLABORATION

Collaborator  
2006 - 2008  
Varian Medical Systems, Imaging Laboratory, Switzerland

Scientific Advisor  
2005 - 2007  
VisionRT, London, UK

MEDICAL ADVISORY BOARD

Scientific Advisor  
2007  
GE Medical Systems

PRODUCT COMMERCIALISATION

Inventor and Commercialization Lead  
2011 - present  
Modus Medical Systems Inc., London, Ontario, Canada, Development of a CT contrast calibration phantom

2011 - present  
Shelley Medical, London, Ontario, Canada, Development of a Dynamic Perfusion Phantom

Other Research and Professional Activities

THESIS PROJECT

2001 Oct - 2005 Jan  

2000 Sep - 2001 Aug  
Graduate Student. The effects of artificial hips on radiotherapy planning. Univ of London - University College London, London, United Kingdom. Supervisor(s): Dr. Peter Childs. Collaborator(s): Royal Marsden Hospital Foundation Trust.

1999 Sep - 2000 Jun  
Graduate Student. Skin dose reconstruction in Interventional Cardiology - Different dosimetric techniques. National Standards Laboratory Benelux, Gent, Belgium. Supervisor(s): Prof. Thierens. Collaborator(s): Dr. Van de Putte, Dr. Verhaegen, Dr. Y Taeymans.
CLINAC COMMISSIONING


2014 Mar - 2014 May  Contributor. Supervise installation and commissioning of Elekta Infinity Accelerator (Unit 8). Princess Margaret Cancer Centre, Toronto, Ontario, Canada.

2006  Contributor. Commissioning of Varian Accelerator Clinac 2100. Royal Marsden Hospital Trust, Toronto, Ontario, Canada.

CLINICAL IMPLEMENTATION

2011 - present  Clinical Lead. Perfusion CT for Treatment Response Assessment using a 320-slice CT scanner. Princess Margaret Hospital, Toronto, Ontario, Canada. Collaborator(s): Dr. Laura Dawson, Dr Cynthia Menard, Dr Caroline Chung, Dr Arjun Saghal.


2011 - 2013  Clinical Lead. Volumetric 4D CT for Tumor Motion Assessment using a 320-slice CT scanner. Princess Margaret Hospital, Toronto, Ontario, Canada. Collaborator(s): Dr. Andrew Hope.

2010 - 2011  Clinical Lead. Implementation of Active Breath Controlled treatment for Mediastinal Radiotherapy of Hodgkin Lymphoma. Princess Margaret Hospital, Toronto, Ontario, Canada. Collaborator(s): Dr. David Hodgson, Dr. Mary Gospodarowicz, Dr. Richard Tsang.


CLINICAL RESEARCH DEVELOPMENT

2012 Apr - 2015 May  Co-Lead. Development of a Multi-Center Clinical Trial Data Archiving and Analysis Platform for Functional Imaging. Princess Margaret Hospital, Canada. Collaborator(s): Dr. David Jaffray, Dr. Ivan Yeung.

2012  Lead. Perfusion Imaging in Patients with Brain or Liver Cancer. Princess Margaret Hospital, Canada. Collaborator(s): Dr. Caroline Chung, Dr. Laura Dawson.

CONSULTANCY


Expert consultancy services on the replacement of the Institute’s educational CT scanner. Provided help with structural design and safety requirements as well as support the RFP selection process for a new scanner.

Review installation and acceptance tests and documentation.
C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly Achievement.
The focus of my scholarly and professional activity at UofT DRO has been on the
development and validation of quantitative imaging methodologies with the long-term goal of
maximizing its ability to characterize tumor morphology and physiology and to use this tool to
probe tumor prognostic factors and response during therapy. Tumor response to treatment is
viewed as a critical un-used source of data that may be used to adapt treatment and thereby
focus non-standard treatment towards patients likely to benefit. Dynamic contrast-enhanced
(DCE) CT, with high resolution, physiological relevance, and wide-spread clinical
convenience, is a key potential method to gather critical morphological and physiological data
before, during, and after therapy. Since the installation of the 320-slice CT scanner at PMH in
the summer of 2008, I have extensively characterized this technology for implementation into
routine CT simulation as well as for performing ‘true’ 4D CT. Following this, I established
novel quality assurance methods for contrast-enhanced CT imaging and these are currently
being patented and commercialized. In order to truly validate the accuracy of perfusion
kinetics models as applied to DCE CT data, another novel phantom has been developed and
patented that is able to simulate clinically relevant DCE uptake curves within a controlled
setting. The success of this dynamic flow phantom development has generated wide-spread
interest for collaborations with international academic partners (QIBA, QIN) as well as
perfusion CT validation within the province (under OICR IPP) and industry.

Using this phantom, it was then possible to develop a 4D kinetic model that automatically
segments vasculature based on DCE CT data and calculates perfusion parameters for every
individual voxel in the image. The software algorithm has been tested on the controlled flow
phantom and is currently being applied in a number of clinical trials in prostate, brain and
liver cancer patients. This work received a number of awards, including the Best in Physics
abstract at the ASTRO Annual Meeting in 2010 and 2012.

My current interests lie in the validation and use of functional imaging, not only with DCE CT
but also DCE MRI and PET for measurements of IFP and hypoxia as well as perfusion. The
main sites of interest are in brain, cervix and liver cancers, in combinational therapies of
radiation and anti-angiogenic drugs as well as assessment of improved drug delivery.
Phantom developments were extended to dual energy CT for imaging validation and
optimization of functional imaging.

As an educator, I have had the opportunity to supervise and mentor several students and
post-doctoral fellows, as well as act as an examiner and supervisor for the Physics
Residency Program, IBBME thesis committees and Ryerson Radiation Physics Course. My
current research group consists of 2 graduate students and 2 research assistants combined
with temporary multi-level training staff, which enables a dynamic and interactive learning
environment.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2016 Sep - 2017 Sep  **Co-Investigator.** Evaluation of RF Transmit Calibration Options for Quantitative DCE-MRI. RSNA. QIBA Groundwork Project Grant. PI: Nayak, Krishna. Collaborator(s): Sung K,  
**Coolens C,** Bosca R, Kirsch J, Laue H, Chung C, Boss M A. 50,000 USD. [Grants]  
The DCE-MRI task force is in the process of generating a v2.0 DCE-MRI profile that includes the use of parallel imaging and imaging at 3 Tesla (v1.0 covered only 1.5T without parallel imaging). In our literature search, we found significant published evidence that (spatial) inhomogeneity in the transmitted RF (B1+) field resulted in significant bias and variance in quantitative DCE-MRI metrics (e.g. tracer kinetic parameter maps). If unaccounted for, these errors can dominate all other sources of bias and variance. Furthermore, we found that the amount and pattern of inhomogeneity depended on the RF coil geometry, the circuits that drive them, and the vendor-specific pre-scan calibration. The purpose of this groundwork project is to measure and compare the spatial RF transmit inhomogeneity across different scanners, and to compare different methods for RF transmit measurement that can be used to correct data prior to quantitative DCE-MRI analysis.

2016 Apr - 2022 Apr  **Principal Investigator.** Transport modeling for multi-modality contrast-enhanced imaging. Natural Sciences and Engineering Research Council of Canada (NSERC). Discovery Grant. 96,000 CAD. [Grants]

The goals of treatment for brain metastases are shifting to minimize treatment-related complications and maximize functional preservation. Specifically, rising concerns of neurocognitive toxicity following whole brain radiation has led to growing use of radiosurgery (SRS), a focal radiation treatment targeting the visible tumor that is usually delivered in a single session. To ensure accurate immobilization, most patients have been treated with an invasive metal head frame. Patient discomfort from frame placement has motivated the development of a less invasive, frameless immobilization system. The team at Princess Margaret has worked with an industry partner (Elekta) to develop an image-guidance system that incorporates cone-beam computed tomography (CBCT) and infrared (IR) tracking to maintain highly accurate immobilization and radiation delivery with the patient immobilized in a thermoplastic mask that is comparable to treatment in the invasive frame. This jointly developed technology has been commercialized in the form of Elekta’s recently released IconTM treatment system. This collaborative research proposal aims to optimize clinical application of this new treatment technology, evaluate further novel applications to improve patient care and to ensure appropriate access for Canadian cancer patients with brain tumors to optimized radiosurgery treatment.

2015 Apr - 2020 Apr  **“Other User”.** Integrative Systems-Level Imaging (ISLI). Canada for Funding Innovations. CFI ISLI. PI: Jaffray, David A. Collaborator(s): Joshua, Anthony; Jurisica, Igor; Mikulis, David; Milosevic, Michael. 7,766,630 CAD. [Grants]  
Many of the diseases with the greatest impact on the Canadian health care system are united by basic underlying processes: inflammation is a key component in cancer, cardiovascular disease and arthritis, while microvascular perfusion and tissue oxygenation
Catherine COOLENS

impact cancer care and neuroscience studies. An image-based understanding and ability to measure pharmacokinetics and drug delivery will thus impact numerous therapeutic approaches. We are developing tools and methods to non-invasively image and quantify these important determinants of disease and treatment outcomes. Five inter-connected research activities will form the core of the IGDL and use the new and expanded capabilities of the requested facility to advance imaging research: Next-Generation X-ray Technology Development; Image-Guided Therapeutics Development; Image-Based Ex Vivo and Post Mortem Tissue Characterization; Image-Guided Drug Delivery; Quantitative and Radiomic Image Analysis.

The proposed program will leverage published techniques, existing clinical trials at multiple institutions, international collaborations, and a world-class hypoxia research program to guide the development of tools and methods that facilitate the establishment of reproducible, accessible measures of the joint perfusion-hypoxia state of tumors before, during, and after therapy.


2010 May Principal Investigator. 4D perfusion computed tomography. University of Toronto. Dean’s Fund. 10,000 CAD. [Grants]

2010 Apr - 2015 Apr Principal Investigator. Validation framework for 4D perfusion computed tomography. Natural Sciences and Engineering Research Council of Canada (NSERC). Discovery Grant. 100,000 CAD. [Grants]


NON-PEER-REVIEWED GRANTS

FUNDED

2010 - present Collaborator. Discovery of biomarkers to guide individualized therapy in patients with brain metastasis receiving radiotherapy. 10-0743-C. PI: Menard, C. Collaborator(s): Chung C (Co-I), Zadeh G (Co-I), Bernstein M (Coll), Laperriere N (Coll), Millar BA (Coll), Bristow R (Coll), Camphausen K (Coll), Foltz W (Coll), Damyanovich A (Coll), Stanescu T (Coll), Cho Y-B (Coll), Ruschin M (Coll), Kucharzyk W (Coll). [Clinical Trials]

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2011 - 2014 **Co-Investigator.** A Phase II Study to Determine Efficacy of Stereotactic Body Radiotherapy (SBRT) for Spinal/Para-Spinal Metastases. 10-0540-C. PI: Sahgal, A. Collaborator(s): Massicotte E (Co-I), Rampersaud R (Co-I), Lewis S (Co-I), Letourneau D (Co-I), Xu W (Co-I), Jaffray D (Co-I), Yu E (Co-I), Fehlings M (Co-I), Laperriere N (Co-I). [Clinical Trials]

2009 - 2015 **Collaborator.** Hypofractionated and adaptive stereotactic radiotherapy (HFA-SRT) for large-volume brain metastases. 08-0602-C. PI: Menard, C. Collaborator(s): Cho Y-B (Co-I), Edelstein K (Co-I), Jaffray D (Co-I), Laperriere N (Co-I), B-AMillar (Co-I), Sahgal A (Co-I), Ruschin M (Co-I), Tamerou M (Co-I), Zadeh G (Co-I), Bristow R (Coll), Camphausen K (Coll), Damyanovich A (Coll), Foltz W (Coll), Kassner A (Coll), Kirilova A (Coll), Lockwood G (Coll). [Clinical Trials]

2009 - 2014 **Co-Investigator.** Biomarkers in hepatocellular carcinoma treated with radiation therapy and sorafenib. 08-0598-C. PI: Dawson, L. Collaborator(s): Brade A (Co-I), Jang H-J (Co-I), Kim T-K (Co-I), Knox J (Co-I), Yeung I (Co-I). [Clinical Trials]

2009 - 2012 **Collaborator.** Low-intermediate risk prostate cancer: improving acute toxicity outcomes of radiotherapy with the integration of advanced imaging for treatment planning and guidance. 06-0520-C. PI: Menard, C. Collaborator(s): Chung P (Co-I), Bayley A (Co-I), Rosewall T (Co-I), Craig T (Co-I), Haider M (Co-I), Gospodarowicz M (Coll), Warde P (Coll), Catton C (Coll), Milosevic M (Coll), Bristow R (Coll), McLean M (Coll), Crook J (Coll), Kassner A (Coll), Kirilova A (Coll), Divanbeigi L (Coll), Jaffray D (Coll), Brock K (Coll), HoisakJ (Coll). [Clinical Trials]

2. SALARY SUPPORT AND OTHER FUNDING

**Trainee Salary Support**


2010 May - 2010 Sep Physics Summer Studentship. Trainee Name: Larry Chrichlow. Radiation Medicine Programme. 6,000 CAD. Toronto, Ontario, Canada. (Specialty: Volumetric 4D CT quality assurance development).

E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


**2. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


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Abstract


3. NON-PEER-REVIEWED PUBLICATIONS

Manuals


4. SUBMITTED PUBLICATIONS

Journal Articles


F. Intellectual Property

1. PATENTS


2010 Method and system for managing imaging data. Applied. Patents #: Application/Provisional # US12/954,808, United States.

2. LICENSES

2014 Jul Dynamic Flow Phantom. Granted. United States. This novel phantom was licensed to Shelley Medical Inc. and produces predictable, reproducible and quantifiable time concentration attenuation curves (TCCs), which generate a wide range of realistic input and output functions simulating clinically relevant perfusion TCCs. The ability of this phantom to generate DCE quality assurance protocols with realistic flow provides an excellent framework for the validation of perfusion and kinetic modeling, and enables DCE imaging to be utilized as a quantitative imaging tool to compare scanners within an imaging modality, or across CT, MRI & PET modalities, as well as to compare imaging protocols. The phantom’s ability to reproduce typical input and output enhanced profiles ensures a multimodal ground truth for sensitivity in dynamic contrast enhanced (DCE) imaging.

2011 Contrast Enhancement CT Phantom. Granted. United States. Contrast agent (Iodine) injections lead to a large range of density values in vessels of different size and
orientation. These variables, although important, are not fully tested with current QA techniques. The QUASAR™ Dynamic Contrast Enhanced CT (DCE-CT) system, consisting of a phantom and automated image analysis software, is the only comprehensive product available in the market to quantify and calibrate the CT number linearity for densities applicable to iodine injections. This makes possible the quantification of DCE-CT values independent of scan parameters (mAs, kV), machine, manufacturer, and DCE software. The system is designed with daily, monthly, and annual CT calibration of DCE-CT measurements in mind.

3. DISCLOSURES


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

Dual-energy CT technology is becoming increasingly available to the medical imaging community. In addition, several models of CT simulators sold for use in radiation therapy departments now feature dual-energy technology. The images provided by dual-energy CT scanners add new information to the radiation treatment planning process; multiple spectral components can be used to separate and identify material composition as well as generate virtual mono-energetic images. In turn, this information could be used to investigate pathologic processes, separate the properties of contrast agents from soft tissues, assess tissue response to therapy, and other applications of therapeutic interest. Additionally, the decomposition of materials in images could directly integrate with and impact the accuracy of dose calculation algorithms. This symposium will explore methods of generating dual-energy CT images, spectral and image analysis algorithms, current and future applications of interest in oncologic imaging, and unique considerations when using dual-energy CT images in the radiation treatment planning process.


2013 Apr Distinguished Speaker. The Clinical Impact Of Volumetric And Helical CT Imaging. Toshiba Medical. Canada. The Toshiba 2013 International CT Symposium was held in Toronto, from April 12-13th. The objective of the meeting was to explore the challenges and clinical impact of volumetric and helical CT imaging, from head to toe. An internationally renowned faculty from various leading hospitals was invited to share best practices related to Toshiba’s state-of-the-art CT systems. The conference was well attended with 190 registrants and 13 renowned speakers.

2012 Jul Visiting Professor. Perfusion Imaging: Is contrast all it takes? Memorial Sloan Kettering Cancer Center. New York, New York, United States. Grand Rounds Invited Speaker to the Departments of Radiation Oncology and Medical Imaging within 2-day visit.


2010 Nov Chair. Treatment Management of IMRT/IGRT/ART. 52nd ASTRO Conference. San Diego, United States.
Session Chair.


2009 Mar Visiting Professor. Stereotactic partial liver irradiation. MAASTRO Center. Maastricht, Netherlands. Two-day visit discussing treatment planning and image guidance issues around liver motion and delivery of stereotactic partial liver irradiation. This included Grand Rounds Seminar to the Department of Radiation Oncology and Imaging.


2006 Apr Invited Speaker. Accuracy of organ motion compensation. McGill University. Montreal, Quebec, Canada. IPEM-AAPM Travel Award Collaborative Visit.

2006 Apr Invited Speaker. Accuracy of organ motion compensation. Princess Margaret Hospital. Toronto, Ontario, Canada. IPEM-AAPM Travel Award Collaborative Visit.


2006 Apr Invited Speaker. Tracking techniques in radiotherapy. Virginia Commonwealth University. Richmond, Virginia, United States. IPEM-AAPM Travel Award Collaborative Visit.

2006 Apr Invited Speaker. Accuracy of tracking techniques in radiotherapy. Stanford University. Palo Alto, California, United States. IPEM-AAPM Travel Award Collaborative Visit.


Presented Abstracts


Presented and Published Abstracts


Publication Details:
2. NATIONAL

Invited Lectures and Presentations

2015 Feb 4 **Invited Speaker.** Perfusion Imaging for Personalised Cancer Medicine. UHN PCM Conference. Ontario, Canada.

2011 May **Invited Speaker.** 4D Perfusion CT Imaging. Target Insight Conference. Toronto, Ontario, Canada. “On Target, On Track”. This meeting is a partnership between the University of Toronto, Department of Radiation Oncology, and Cancer Care Ontario and explores the question of whether or not Ontario is on track in the adoption of technologies, guidelines and best practices to provide effective and safe treatment to all who might benefit. (Continuing Education).

Workshop

2012 Jun 25 **Participant.** 4th Annual Probe Development Workshop. Centre for Probe Development & Commercialization and OICR. Toronto, Ontario, Canada. The Centre for Probe Commercialization and Development (CPDC), the world’s first facility focusing on all aspects of the discovery, development and distribution of molecular imaging probes, held a Probe Development workshop in Toronto on June 28. The workshop brought together experts from across North America, who discussed the latest developments in their field with members of Ontario’s medical and molecular imaging communities.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2014 Oct 16 **Invited Speaker.** Imaging for Treatment Response. Department of Radiation Oncology, University of Toronto. Toronto, Ontario, Canada.

2014 May 21 **Keynote Speaker.** Functional Imaging in Radiation Oncology. University of Toronto. Toronto, Ontario, Canada. Inaugural Lecture - Adjunct Faculty Appointment to the Institute Institute of Biomaterials and Biomedical Engineering (IBBME).


4. LOCAL

Invited Lectures and Presentations

2014 Dec 9 **Invited Speaker.** Functional Imaging Validation Framework. University of Toronto, Medical Biophysics. Toronto, Ontario, Canada. The SMIAL seminars were set up to allow speakers to go into more technical detail about their work than would be the case for a more general interest audience. The main target audience is made up of students/post-docs/scientists and research assistants who are developing and using medical image analysis techniques or image guided therapy applications.

2012 Jul 11 **Participant.** STTARR Strategic Planning Retreat. STTARR. Toronto, Ontario, Canada.
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2012 Mar  **Invited Speaker.** 4D DCE Imaging. Department of Radiation Oncology, University of Toronto. Toronto, Ontario, Canada. Grand Rounds to DRO Community and Satellite centres in the province.


5. OTHER

**Presented and Published Abstracts**


*Publication Details:*

2013 Apr  Early Detection of Tumor Response Using 4D DCE-CT and DCE-MRI in Patients Treated With Radiosurgery for Brain Metastases.

*Publication Details:*
Chung C, Driscoll B, Gorjizadeh A, Foltz W, Lee S, Menard C, **Coolens C.** Early Detection of Tumor Response Using 4D DCE-CT and DCE-MRI in Patients Treated With Radiosurgery for Brain Metastases. Practical Radiation Oncology. 2013 Apr;3(2 Suppl. 1):S17-18. **Senior Responsible Author.**

2013  Feasibility Study of 4D Perfusion CT for Hepatocellular Carcinoma Patients Treated With Radiation and Sorafenib.

*Publication Details:*
**Coolens C,** Driscoll B, Dawson L. Feasibility Study of 4D Perfusion CT for Hepatocellular Carcinoma Patients Treated With Radiation and Sorafenib. Practical Radiation Oncology. 2013. Vol. 3, issue 2, Suppl. 1, S29, April 2013. **Principal Author.**


*Publication Details:*

2013  Development of a Multi-Center Clinical Trial Data Archiving and Analysis Platform for Functional Imaging.
Catherine COOLENS

Publication Details:

2012 Sep
A Multimodal CT/Optical Imaging Agent for Improved Lung Cancer Detection.

Publication Details:

2012 May
Impact of 4DCT Image quality on ITV margins for radiotherapy simulation: helical vs volumetric 4DCT.

Publication Details:

2012 Mar
Feasibility of a novel 4D perfusion CT methodology in liver cancer patients treated with radiation and Sorafenib.

Publication Details:

2012
Comparison of Arterial Input Functions by Magnitude and Phase Signal Measurement in Dynamic Contrast Enhancement MRI using a Dynamic Flow Phantom.

Publication Details:

2012
Feasibility of a Novel 4D Perfusion CT Method for Response Assessment in Hepatocellular Carcinoma Patients Treated With Radiation and Sorafenib.

Publication Details:

2011 May
Quantitative DCE-CT imaging quality assurance with a novel dynamic imaging flow phantom.

Publication Details:

2011
Novel methodology for visualisation and analysis of 4D Functional CT.

Publication Details:

2011
Establishment of a novel orthotopic peripheral lung tumor animal model suitable for imaging and thoracic interventional studies.
**Publication Details:**

2011 Safety systems and failure modes and effects analysis for a linear accelerator – Magnetic Resonance Imager – Brachytherapy System.

**Publication Details:**

2011 The DCE Tool: A freeware analysis tool for DCE CT and MR Studies, AAPM Annual Meeting.

**Publication Details:**

2011 Volumetric 4D Computed tomography with a 320-detector row scanner for radiotherapy simulation.

**Publication Details:**

2011 Quantitative DCE-CT Imaging quality assurance with a novel dynamic flow phantom.

**Publication Details:**

2011 Active breath control to reduce normal tissue dose for young patients receiving mediastinal rt for hodgkin lymphoma.

**Publication Details:**

2011 Active breath control to reduce normal tissue dose in patients receiving mediastinal rt for hodgkin lymphoma.

**Publication Details:**

2011 Active Breath Control to Reduce Normal Tissue Dose for Young Patients Receiving Mediastinal RT for Hodgkin Lymphoma.

**Publication Details:**
2010 Methodology for visualization and perfusion analysis of 4D dynamic contrast-enhanced CT imaging.

Publication Details:

2010 Methodology for visualization and perfusion analysis of 4D dynamic contrast-enhanced CT imaging.

Publication Details:

2010 Quantification and Validation of DCE-CT using a Novel Dynamic Flow Phantom.

Publication Details:

2010 Volumetric 4D computed tomography with a 320 multi-slice scanner.

Publication Details:

2010 Volumetric 4D computed tomography with a 320 multi-slice scanner.

Publication Details:

2010 Highly conformal partial liver irradiation for chemorefractory Unresectable Colorectal Liver Metastases.

Publication Details:

2010 Novel methodology for Visualization and Analysis of Functional Vasculature for 4D DCE-CT, ASTRO Annual Meeting.

Publication Details:

2010 High resolution imaging of perfused radical nephrectomy specimens.

Publication Details:

2009 Aug Characterisation of a 320-slice CT scanner for perfusion assessment in radiotherapy.

Publication Details:

2009 Effect of motion on high contrast vessel-like objects for volumetric DCE-CT.
**Publication Details:**

2009


**Publication Details:**

2009

VMAT compared with gated highly conformal optimization for dose escalation in partial liver radiotherapy.

**Publication Details:**

2009

Results from a phase I partial liver radiotherapy for patients with unresectable colorectal liver metastases.

**Publication Details:**

2009

Characterisation of a 320-slice volumetric CT scanner for 4D perfusion imaging.

**Publication Details:**

2009

Characterization of a 320-slice CT scanner for perfusion assessment in radiotherapy.

**Publication Details:**

2008

Application of dynamic margins to account for respiration-induced lung tumour motion and its variability.

**Publication Details:**

2008

Volume and motion definition in helical CT, 4DCT and MR imaging in upper gastrointestinal radiotherapy planning.

**Publication Details:**

2008

Assessment of dose escalation in partial liver RT with deformable motion models and biological plan optimisation.

**Publication Details:**
Free breathing liver gated radiotherapy with external markers using MRI derived models of hepatic motion.

**Publication Details:**

Feasibility of free-breathing respiratory gated liver radiotherapy with MRI-derived models.

**Publication Details:**

Comparison of volume and motion definition in helical CT, 4DCT and MR imaging in upper gastro-intestinal radiotherapy.

**Publication Details:**

Image Deformation Recovery using Overlapping Partial Samples (iDROPS): model-based respiratory artefact correction in freebreathing liver MRI.

**Publication Details:**

Effects of Averaging Over Motion and the Resulting Systematic Errors in Radiation Therapy.

**Publication Details:**

Effects of averaging over motion and the resulting systematic errors in radiation therapy.

**Publication Details:**

Feasibility of free-breathing respiratory gated liver radiotherapy with MRI-derived motion models.

**Publication Details:**

A dynamic internal margin model to account for organ motion variability.

**Publication Details:**

Clinical feasibility of a proposed internal margin model to account for variability in respiratory motion in gated radiotherapy delivery.

**Publication Details:**

2005 A study of the complexity, necessary for the delivery of intensity-modulated radiotherapy.

Publication Details:

2004 Susceptibility of IMRT dose distributions to deformable organ motion and the impact of beam smoothing.

Publication Details:

2003 Combinatorial use of conformal and intensity modulated beams in radiotherapy planning.

Publication Details:

2003 Analysis of stochastic noise in intensity-modulated beams.

Publication Details:

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Graduate Education


2016 Sep - 2018 Primary Supervisor. MSc. Soroush Ghomashchi, Biomedical Engineering. Supervisee Institution: University of Toronto. Dual Energy CT.

2015 May - 2015 Sep Primary Supervisor. Carly Pellow, Biomedical Engineering. Supervisee Position: Graduate
Summer Student, Supervisee Institution: University of Toronto. DCE-MRI brain perfusion analysis.


2007 Sep - 2009 Apr Co-Supervisor. MSc. Rachel Trimble, Physics, Biomedical Engineering. Supervisee Institution: King’s College London. Characterisation of the Varian aS500 EPID for the Replacement of Radiographic Film in Routine Clinac and IMRT Dosimetry QA, Non-thesis Project.


Undergraduate MD


Postgraduate MD


Postdoctoral Research Fellow (PhD)


Research Associate


2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2014 Jul - present  **MSc.** Ana Maria Jaimes Castillo, Pharmaceutical Sciences. Supervisee Position: Graduate student transferring to PhD. *Porphyrin nanoemulsion development for dual CT fluoroscopy imaging.* Supervisor(s): Gang Zhang.

2014 Jul - 2015 Jun  **MHSc Clinical Biomedical Engineering.** Daniel Lin, Mechanical and Industrial Engineering. Supervisor(s): Mohammad Islam.

Thesis Examiner

2014 Jul - 2015 Jun  **PhD.** Navid Samavati, Biomedical Engineering. *Validation of biomechanical deformable registration.* Supervisor(s): Kristy Brock.

Internship Supervisor

2010 - 2011  **MHSc Clinical Biomedical Engineering, IBBME.** Tina Shek. *Perfusion Analysis of 4D Dynamic Contrast-Enhanced CT Imaging.*


Postgraduate MD

Research collaboration

2010 - 2013 Jun  **Joe Barfett, Medical Science.** *Non-thesis Project.* Supervisor(s): David Mikulis.

I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2008 - present  Quantitative Imaging for Personalized Treatment Response Assessment. Development of a validation framework multi-center Clinical Trial Data Archiving and Analysis Platform for validation of Quantitative Functional Imaging. This includes protocol standardization, development and testing both within UHN as internationally. Non-invasive imaging for quantification of early treatment response and drug delivery.

2008 - present  Transport modeling.

2. CONTRIBUTIONS TO THE DEVELOPMENT OF PROFESSIONAL PRACTICES

2003 - present  Treatment Optimization and Image-Guided Delivery.
Curriculum Vitae

Timothy Craig
Clinical Physicist

A. Date Curriculum Vitae is Prepared: 2016 July 15

B. Biographical Information

Primary Office
Radiation Medicine Program
Princess Margaret Hospital
610 University Ave
Toronto, Ontario, Canada
MS5 2M9

Telephone 416-946-4501
Fax 416-946-6566
Email tim.craig@rmp.uhn.on.ca

1. EDUCATION

Degrees
1997 - 2002 PhD, Medical Biophysics, Western University, London, Ontario, Canada
1993 - 1997 BSc, Medical Biophysics, Western University, London, Ontario, Canada

Postgraduate, Research and Specialty Training
2002 - 2004 Residency, Clinical Physics, Radiation Therapy Physics Department, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2007 - present Member, Canadian College of Physicists in Medicine, Canada

2. EMPLOYMENT

Current Appointments
2011 - present Associate (Restricted), Mechanical and Industrial Eng. Graduate Faculty, University of Toronto, Toronto, Ontario, Canada
2006 - present Assistant Professor, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2005 - present Clinical Physicist, Radiation Therapy Physics Department, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
2002 - 2004 Clinical Physics Resident, Radiation Therapy Physics Department, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2011  Research Productivity 2011/2012 - Radiation Physics, Radiation Medicine Program, Princess Margaret Hospital. (Distinction)

1997  Harold E. Johns Summer Studentship, London Regional Cancer Centre, London, Ontario, Canada. (Distinction)

Teaching and Education Awards

LOCAL

Received

2011  Resident's Award for Excellence in Physics Teaching, Dept of Radiation Oncology, Faculty of Medicine, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

2010  Professional Development & CME Award, Dept of Radiation Oncology, Faculty of Medicine, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2006 - present  Associate Member, Canadian Association of Radiation Oncologists

1997 - present  Member, American Association of Physicists in Medicine

1997 - present  Member, Canadian Organization of Medical Physicists

Administrative Activities

INTERNATIONAL

International Conference on the use of Computers in Radiation Therapy

2006 - 2007  Member, Local Organizing Committee

Radiation Therapy Oncology Group

2012 - present  Co-Chair, RTOG 1112 – Randomized Phase III Study of Sorafenib versus Stereotactic Body Radiation Therapy Followed by Sorafenib in Hepatocellular Carcinoma

NATIONAL

Ontario Clinical Oncology Group

2006 - present  Member, Quality Assurance Committee, PROFIT trial, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.
PROVINCIAL / REGIONAL

Cancer Care Ontario
2012 - present  Member, Steering committee, Gyne Community of Practice, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

LOCAL

Princess Margaret Hospital
2012 - present  Member, Radiation Oncology Resident Interview Committee (CaRMS), Faculty of Medicine, Dept of Radiation Oncology, Postgraduate MD, Toronto, Ontario, Canada.
2010 - present  Member, Quality Assurance Monitoring Committee, Toronto, Ontario, Canada.

Peer Review Activities

GRANT REVIEWS

External Grant Reviewer
2011  Canadian Radiation Oncology Foundation, Sanofi – Aventis Research Innovation Award (CASARIA)
2010  Prostate Cancer Foundation of Australia, Competitive National Research Support Program

MANUSCRIPT REVIEWS

Reviewer
2010 - present  Clinical Oncology
2008 - present  Physics in Medicine and Biology
2005 - present  Cancer Letters
2004 - present  Radiotherapy and Oncology
2001 - present  International Journal Radiation Oncology Biology Physics

Associate Editor and Reviewer
2002 - present  Medical Physics

PRESENTATION REVIEWS

Abstract reviewer
2007 - present  International Conference on the use of Computers in Radiation Therapy
2006 - present  American Association of Physicists in Medicine Annual Meeting

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2007 - 2008  **Co-Investigator.** Advanced Image Guidance will Improve Toxicity Outcomes for Patients with Prostate Cancer: A Prospective Study. Abbott-CARO Uro-Oncologic Radiation Award (ACURA). Collaborator(s): Menard C, Dinniwel RE, Rosewall T. 32,500 CAD. [Grants]

### D. Publications

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


2. Boutilier JJ, Lee T, Craig T, Sharpe MB, Chan TCY. Models for predicting objective function weights in prostate cancer IMRT. Medical Physics. 2015;42:1586. **Coauthor or Collaborator.**


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2. NATIONAL

Invited Lectures and Presentations


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations

5. OTHER

Presented and Published Abstracts

2013 Oct  
**Deriving Planning Target Volume Margins for Intracranial Stereotactic Radiation Therapy.**

Publication Details:

2013 Oct  
**A Clinical Process for Imaging, Planning, and Delivery of Dose Escalation for Intraprostatic Gross Tumor Volumes.**

Publication Details:

2013 Oct  
**Improved Geometric Performance of Diffusion-Weighted Imaging for Prostate Tumor Delineation Using a Readout-Segmented Echo-Planar-Imaging Technique.**

Publication Details:

2013 Oct  
**Deriving Planning Target Volume Margins for Intracranial Stereotactic Radiation Therapy.**

Publication Details:

2013 Oct  
**A Clinical Process for Imaging, Planning, and Delivery of Dose Escalation for Intraprostatic Gross Tumor Volumes.**

Publication Details:

2013 Oct  
**Improved Geometric Performance of Diffusion-Weighted Imaging for Prostate Tumor Delineation Using a Readout-Segmented Echo-Planar-Imaging Technique.**

Publication Details:

2013 Mar  
**Image-Guided Adaptive Radiotherapy - Delivering Personalized Radiation Medicine to Improve Treatment Quality and Patients’ Outcome.**

Publication Details:


Publication Details:

2013 Mar Image-Guided Adaptive Radiotherapy – Delivering Personalized Radiation Medicine to Improve Treatment Quality and Patients’ Outcome.

Publication Details:

2013 Predicting Objective Function Weights for IMRT Prostate Treatment Planning Using Patient Anatomy.

Publication Details:

2013 Initial Results From Multiple Irradiations of An Anthropomorphic Liver Phantom.

Publication Details:

2012 Determining Critical Objectives and Importance Factors for Prostate IMRT Treatment Planning.

Publication Details:

2012 Dose Conformality and Acute Toxicity Analysis in Patients With Prostate Adenocarcinoma Treated With Volumetric Modulated Arc Therapy (VMAT) Versus Conventional Intensity Modulated Radiation Therapy (IMRT).

Publication Details:

2012 Evaluation of Inguinal Region Set-Up Accuracy Using Cone-Beam CT in Anal Cancer Patients Treated with IMRT.

Publication Details:

2011 Evaluation of Set-up Reproducibility With and Without Customized Vacuum Immobilization Device in Rectal Cancer Patients Treated With Preoperative Radiation Therapy.
Publication Details:

2011
Prospective Evaluation of IMRT for Anal and Perianal Cancer: Early Patterns of Failure.

Publication Details:

2010
Intensity-modulated radiotherapy (IMRT) and concurrent chemotherapy for anal and perianal cancer: The Princess Margaret Hospital experience.

Publication Details:

2010
IMRT and Concurrent Chemotherapy for Anal and Perianal Cancer: The Princess Margaret Hospital Experience.

Publication Details:

2009
Impact of daily imaging in reducing set-up margins for lung cancer patients treated with conventionally fractionated radiotherapy.

Publication Details:

2009
Intensity modulated radiotherapy (IMRT) and concurrent chemotherapy (CHT) for anal and perianal cancer: Preliminary report of acute toxicity.

Publication Details:

2009
Impact of Different Image-guided Protocols on Geometric Accuracy of Radiotherapy for Locally-advanced Lung Cancer.

Publication Details:

2009
Hypofractionated Radiotherapy for High-Risk Prostate Cancer: Dosimetric Comparison and Acute Clinical Toxicity of Two Pelvic Nodal Volume Delineation Strategies and Evaluation of Radiation Delivery Techniques.
Timothy CRAIG

Publication Details:


Publication Details:

2008 Integration of kV Image-Guidance with Arc Therapy for Radiotherapy of the Prostate.

Publication Details:

2008 Advanced Image Guidance Allows Margin Reduction in Radiation Therapy of Prostate Cancer.

Publication Details:

2008 Dosimetry and Acute Toxicity in IG-IMRT using a Consensus Prostate Bed CTV Following Prostatectomy.

Publication Details:

2008 Measuring Interfraction and Intrafraction Motion with Cone Beam Computed Tomography (CBCT) and an Optical Localization System (OLS) for Lower Extremity Soft Tissue Sarcoma Patients Treated with Preoperative Intensity Modulated Radiation Therapy (IMRT).

Publication Details:

2008 Online Palliative Radiotherapy Planning and Treatment using Cone-Beam Computerized Tomography (CBCT).

Publication Details:

2008 Comparing the Performance of CBCY during Radiotherapy to the Prostate Gland and Prostate Bed.

Publication Details:

2008 Dosimetric Impact of Minimizing Beam Segments in Breath Hold Liver Cancer IMRT.
Publication Details:

2007
Estimated Dosimetric Impact of IGRT in Liver SBRT with ABC.

Publication Details:

2007
Change in Child-Pugh Liver Function Following Conformal Radiation for Patients With Hepatocellular Carcinoma.

Publication Details:

2007
Dose Escalated IMRT to Pelvic Lymph Nodes and Prostate/Seminal Vesicles for High Risk Prostate Cancer–Feasibility and Toxicity.

Publication Details:

2007
Setup Uncertainty and Planning Target Volume Margin for Thoracic Lymphoma Patients: Value of Cone Beam CT Image Guidance.

Publication Details:

2006
Phase I Study of Stereotactic Radiotherapy for Unresectable Primary and Metastatic Liver Cancer.

Publication Details:

2006
Deformable Registration and Modeling for Precision Application and Assessment of Stereotactic Body Radiotherapy.

Publication Details:

2006
Effect of Deformation due to Breathing on Dose Accumulation for Liver Cancer Radiotherapy.

Publication Details:

2006
Brainstem Doses and Positional Uncertainty for IMRT of Nasopharyngeal Carcinoma.

Publication Details:
Breen SL, Craig T, Bayley A, Kim J O'Sullivan B. Brainstem Doses and Positional Uncertainty for IMRT of
Timothy CRAIG


2005

Impact of Volume Definition on Prescribed Dose in a Liver Cancer Dose Escalation Study.

Publication Details:

2005

Planning Target Volumes for Image-Guided Therapy of Prostate Cancer.

Publication Details:

2005

Internal Fiducial Markers can Assist Dose Escalation in Treatment of Prostate Cancer: Results of Organ Motion Simulations.

Publication Details:

2004

Craig T, Sharpe M, Jaffray D.

Publication Details:

2004

Spinal cord planning risk volumes for intensity modulated radiation therapy of oropharyngeal cancer.

Publication Details:

2004

Optimal dose distributions for moving lung tumours: A planning study.

Publication Details:

2004


Publication Details:

2003

Geometric Uncertainties in the Evaluation of Prostate Treatment Plans.

Publication Details:

2002

An Examination of the Impact of Geometric Uncertainty in Hypofractionated External Beam Therapy for Prostate Cancer.
Publication Details:

2002
The Use of Convolution for Modeling Patient Repositioning and Organ Motion for Radiation Treatment Planning.

Publication Details:

2001
Modeling Geometric Uncertainty in Fractionated Radiation Therapy Using a Convolution Method.

Publication Details:

2001
Lung Complications in Radiation Treatment of Malignant Thymoma: A Retrospective Analysis of Dose-Volume Dependence.

Publication Details:

2001
Correction of Surface Dose Artifacts in Convolution Models of Geometric Uncertainties.

Publication Details:

1999
Quality Assurance of the Non-Dosimetric Components of a Treatment Planning System.

Publication Details:

1999

Publication Details:

1999
Radiation Treatment Uncertainties: Issues and Controversies.

Publication Details:

1999
Limitations of Convolution Methods for Modeling Geometric Uncertainties in Radiation Treatment.

Publication Details:

1998
The Effect of Anatomical Uncertainties on Conformal Radiation Therapy.

Publication Details:
1998 Quality Assurance of Three-Dimensional Treatment Planning Systems and CT-Simulators with a Novel Phantom.

Publication Details:


Publication Details:


Publication Details:

Image-Guided Radiotherapy with Cone-Beam CT after Prostatectomy: Evaluating the Impact on PTV Margin.

Publication Details:
Curriculum Vitae

Melanie T. M. Davidson
Ph.D.

A. Date Curriculum Vitae is Prepared: 2016 August 16

B. Biographical Information

Primary Office
Department of Medical Physics, TG 217
Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5

Telephone 416-480-6100 x1089
Fax 416-480-6801
Email melanie.davidson@sunnybrook.ca

1. EDUCATION

Degrees
2000 - 2005 PhD, Medical Biophysics, Western University, London, Ontario, Canada, Supervisor(s): Dr IA Cunningham
1996 - 2000 BSc, Honours Medical Biophysics, Western University, London, Ontario, Canada, Supervisor(s): Dr IA Cunningham

Postgraduate, Research and Specialty Training

Qualifications, Certifications and Licenses
2010 - present Member, Canadian College of Physicists in Medicine (MCCPM), Canada

2. EMPLOYMENT

Current Appointments
2008 - present Medical Physicist, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2005  **Poster Award – Honourable Mention**, SPIE - The International Society for Optical Engineering, United States. (Distinction)


NATIONAL

Received

2007  **People’s Choice Award**, Canadian Association of Radiation Oncologists, Canada. (Distinction)


PROVINCIAL / REGIONAL

Received

2005  **Dean’s Award of Excellence**, Western Research Forum (UWO), Canada. (Distinction)

*Awarded first place for presentation: Kidney stone analysis by coherent scatter: new insights for therapy? MTM Davidson, DL Batchelar, IA Cunningham. UWO, London, ON.*

2005  **JR Cunningham Young Investigators Award**, Canadian Organization of Medical Physicists. (Distinction)


2003 - 2005  **Ontario Graduate Scholarship**, Canada. (Distinction)

2001 - 2003  **Ontario Graduate Scholarship in Science and Technology**, Canada. (Distinction)

LOCAL

Received

2005  **Best Poster**, Margaret P. Moffat Graduate Research Day (UWO), Londo, Ontario, Canada. (Distinction)

*Awarded in Biomedical Engineering and Imaging category: Laboratory kidney stone analysis by coherent scatter: new insights for therapy? MTM Davidson, DL Batchelar, JD Denstedt and IA Cunningham. UWO.*

2003 - 2005  **Special University Scholarship**, UWO, Canada. (Distinction)

2003  **Graduate Teaching Assistantship Award**, UWO, Canada. (Distinction)

2000  **Special University Scholarship**, UWO, Canada. (Distinction)

1996  **Entrance scholarship**, UWO, Canada. (Distinction)
Teaching and Education Awards

LOCAL
Received

2005
University Student's Council Award for Teaching Excellence, Dept of Radiation Oncology, Faculty of Medicine, UWO, Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Society for Radiation Oncology
Member, Canadian Organization of Medical Physicists

Administrative Activities

LOCAL
Odette Cancer Centre (OCC)

2014 - present
Physics site team lead, Technical teams for gynecological, genito-urinary radiotherapy

2011 - present
Member, Image-guided radiotherapy technical review committee

2010 - 2014
Member, Technical teams for gynecological, genito-urinary, gastro-intestinal, breast and lymphoma radiotherapy

2010 - 2012
Member, Radiation Oncology program Quality Assurance committee, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

2009 - 2012
Contributor, Radiation Oncology program Intranet committee

2007 - 2015
Coordinator, Dosimetry / Treatment Planning, Toronto, Ontario, Canada.

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
Applied Clinical Medical Physics Journal
International Journal of Radiation, Oncology, Biology, Physics
Medical Physics Journal

Other Research and Professional Activities

Dissertation

2000 - 2005
Imaging composition and structure of urinary calculi using x-ray coherent scatter. Western University, London, Ontario, Canada. Supervisor(s): Dr IA Cunningham.

1996 - 2000
Analysis of a Bragg monochromator for coherent-scatter computed tomography. Western University, London, Ontario, Canada. Supervisor(s): Dr IA Cunningham.
C. Academic Profile

1. RESEARCH STATEMENTS

Research interest.
Improving efficiency and quality of radiation therapy treatment planning and patient-specific quality assurance.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


NON-PEER-REVIEWED GRANTS

FUNDED


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Melanie T. M. DAVIDSON

Book Chapters


F. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


Presented and Published Abstracts


Melanie T. M. DAVIDSON

States. Presenter(s): Bosnic S, Tran WT, Davidson M, McKeon P, Vesprini D, Pignol JPP. A retrospective study of the prone breast technique: Analysing dosimetry, breast volume, breast separation and acute skin toxicity.


Publication Details:
Predicting dose in the periphery of intensity-modulated radiotherapy treatment fields.


Publication Details:
Predicting dose in the periphery of intensity-modulated radiotherapy treatment fields.


Publication Details:
Evaluation of patient immobilization for liver SBRT.

2007 Presenter. CT-based cervix HDR brachytherapy treatment planning: Is CT simulation necessary for each HDR insertion? American Brachytherapy Society (ABS) Annual Conference. Chicago, United States. Presenter(s): Davidson, Melanie T. M.

Publication Details:
CT-based cervix HDR brachytherapy treatment planning: Is CT simulation necessary for each HDR insertion?


Publication Details:
Does Intraoperative ultrasound guidance benefit routine intracavitary cervical carcinoma therapy?


Publication Details:
Characterization of FX-sucrose dosimeter properties: Potentials for in vivo dosimetry.


Publication Details:


Publication Details:
Urinary stone composition analysis by coherent scatter: is a monoenergetic source necessary?.

**2002**


**Publication Details:**
Material-Specific Imaging of Atherosclerotic Plaque Using Coherently-Scattered X Rays.

**2002**

**Presenter.** Characterization of Atherosclerotic Plaque Components by Coherent Scatter Imaging. American Association of Physicists in Medicine (AAPM) Annual Scientific Meeting. Montreal, Canada. Presenter(s): Davidson, Melanie T. M.

**Publication Details:**
Characterization of Atherosclerotic Plaque Components by Coherent Scatter Imaging.

2. NATIONAL

**Invited Lectures and Presentations**

**2015**

**Invited Speaker.** PACE trial Canadian Meeting. Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada. Presenter(s): Melanie T.M. Davidson, Joe Presutti, Marko Cadonic. Prostate SBRT: Technical implementation, protocol development and QA.

**Presented Abstracts**

**2016**


**2015**


**2015**


**2015**


**2015**


**2014**

Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Bosnic S, Tran WT, Davidson M, McKeon P, Vesprini D, Pignol JPP. A retrospective study evaluating patterns in acute skin toxicity in prone patients receiving whole breast irradiation. The Canadian Experience.

**2013**

Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Nicolae A, Venugopal N, Cheung P, Loblaw A, Chu W, Davidson M, Jain S, Ravi
A. Determination of a population-based PTV margin for patients with intermediate-risk prostate cancer being treated with a single-fraction stereotactic body radiation therapy (SBRT) boost.

2013 Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): King J, Davidson MTM. MLC leaf width and interdigitation capability on VMAT plan quality for prostate cancer treatments.


2012 Clinical implementation of post-operative gynaecological IMRT with single CT simulation: Dosimetric advantages compared to 3D conformal. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Ottawa, Ontario, Canada. Presenter(s): Wiebe E, Presutti J, Davidson M, Yip K, Ackerman I, Barnes E, Thomas G, Barbera L.

2011 Image-guided supine cranio-spinal irradiation using kilovoltage (kV) radiographs. RTi3 Radiation Therapy conference. Toronto, Ontario, Canada. Presenter(s): Makhani N, Davidson MTM, Ravi A.


2009 Dosimetric comparison of boost techniques for adjuvant breast radiotherapy. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Quebec, Canada. Presenter(s): Mitera G, Davidson M, Cardoso M, Rakovitch E, Pignol JP.


2007 CT-based cervix HDR brachytherapy treatment planning: does custom planning for each insertion provide better conformal avoidance of organs at risk? Canadian Organization of Medical Physicists (COMP)/ Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting, Brachytherapy symposium. Toronto, Ontario, Canada. Presenter(s): Yuen J, Davidson MTM, D’Souza DP, Batchelar DL.


Presented and Published Abstracts


Publication Details:
Clinical implementation of an automated segmented field approach to improve safety of radiation treatment delivery: eliminating wedges, external shields and physical junction shifts.


Publication Details:
Single fraction spine SBRT utilizing cone-beam CT image-guidance and the HexaPOD robotic couch.
2010  Quantification of head and neck IMRT complexity and prediction of deliverability using the modulation complexity score. Canadian Organization of Medical Physicists (COMP) Annual Scientific Meeting. Ottawa, Ontario, Canada.


2010  **Presenter.** Volumetric modulated arc therapy (VMAT) planning strategies for treating target volumes of varying complexity. Canadian Organization of Medical Physicists (COMP) Annual Scientific Meeting. Ottawa, Ontario, Canada.


2010  **Presenter.** Assessing the role of VMAT relative to IMRT and helical Tomotherapy in the management of localized, locally advanced and post-operative prostate cancer. American Society for Radiation Oncology (ASTRO) Annual Meeting. San Diego, United States. Presenter(s): Davidson, Melanie T. M.

*Publication Details:* Assessing the role of VMAT relative to IMRT and helical Tomotherapy in the management of localized, locally advanced and post-operative prostate cancer.

2008  Mathematical modeling of tumour growth and control with radiotherapy: Case study using multiple liver metastases. Canadian Organization of Medical Physicists (COMP) Annual Scientific Meeting. Quebec, Canada.


2007  **Presenter.** Characterization of FX-sucrose dosimeter properties: Potentials for in vivo dosimetry. Canadian Organization of Medical Physicists (COMP) / Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Toronto, Ontario, Canada. Presenter(s): Davidson, Melanie T. M.

*Publication Details:* Characterization of FX-sucrose dosimeter properties: Potentials for in vivo dosimetry.


### 3. PROVINCIAL / REGIONAL

**Invited Lectures and Presentations**

4. LOCAL

Invited Lectures and Presentations


2013  Interdisciplinary Radiation Oncology Research Rounds. Odette Cancer Centre, Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada. Presenter(s): Melanie T.M. Davidson, Anthony Kim. The dynamically evolving VMAT program at the OCC.


Presented Abstracts

2005  Presenter. Laboratory kidney stone analysis by coherent scatter: new insights for therapy? The University of Western Ontario Margaret P. Moffat Graduate Research Day. London, Ontario, Canada. Davidson MTM, Batchelar DL, Denstedt JD, Cunningham IA.


G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2009 - 2010  Co-Supervisor. S. Blake, HE Johns Summer studentship. Supervisee Institution: Western University. Dosimetric comparison of tomotherapy, IMRT and volumetric modulated arc therapy- evaluating the role of advanced techniques for various treatment sites.

2007  Co-Supervisor. H. Faulkner, University of Western Ontario Medical Biophysics Summer Student. Supervisee Institution: Western University. Longitudinal analyses of head and neck cancer using positron emission tomography and computed tomography.

2007  Co-Supervisor. A. Campbell, University of Western Ontario Medical Biophysics Summer Student. Mathematical Modelling of Tumour Growth and Control with Radiotherapy: Case Example of Liver Metastases.

coherently-scattered x rays: Application to metabolic bone diseases.

2004

Primary Supervisor. S. Black. Characterizing breast tumor microcalcifications using coherent-scatter imaging: an alternative to biopsy?

Postgraduate MD

2011 - 2013

Primary Supervisor. Clinical Fellow. J. King, University of Toronto CAMPEP. Impact of multi-leaf collimator leaf width on volumetric modulated arc therapy plan quality: does the effect depend on the complexity of the planning task?

2010 - 2012

Primary Supervisor. Clinical Fellow. A. Kim, University of Toronto CAMPEP. Predicting dose in the periphery of intensity-modulated radiotherapy treatment fields.

2009 - 2010

Primary Supervisor. Clinical Fellow. A. Ravi, University of Toronto CAMPEP. Image-guided supine cranio-spinal irradiation using kilovoltage radiographs.
Curriculum Vitae

Warren Foltz
Ph.D

A. Date Curriculum Vitae is Prepared: 2016 August 10

B. Biographical Information

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Toronto, Ontario, Canada
M5G 1L7
Telephone 416-481-8590
Fax 416-260-9707
Email warren.foltz@rmpuhn.on.ca

1. EDUCATION

Degrees
1998 - 2004 PhD, Medical Biophysics, University of Toronto
1995 - 1997 MSc, Medical Biophysics, University of Toronto
1990 - 1994 BSc, Physics, University of Guelph

Postgraduate, Research and Specialty Training
2004 - 2007 Post-doctoral Fellow, Cardiology/Imaging, University of Toronto

2. EMPLOYMENT

Current Appointments
2011 - present Assistant Professor, Radiation Oncology, University of Toronto
2008 - present Scientific Associate II, Radiation Medicine Program, University Health Network

Previous Appointments
HOSPITAL
2007 - 2008 Research Associate, Imaging Research, Sunnybrook Health Sciences Centre
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2012 Jan - 2013 Jan  Distinguished Reviewer of MRM, Magnetic Resonance in Medicine. (Distinction)

Recognition for completion of at least 5 reviews within requested time constraints or otherwise provided exceptional service to aid MRM’s peer-review process.

Nominated

2000  Moore Award, International Society for Magnetic Resonance in Medicine. (Research Award)

Finalist – Young Investigator’s Competition.

NATIONAL

Received

1998 - 2002  Research traineeship, Heart and Stroke Foundation of Canada. (Research Award)
1992  Summer Scholarship, Natural Sciences and Engineering Research Council of Canada (NSERC). (Distinction)
1992  Summer Scholarship, Natural Sciences and Engineering Research Council of Canada (NSERC). (Distinction)
1990 - 1993  Post-graduate Scholarship, Natural Sciences and Engineering Research Council of Canada (NSERC). (Distinction)

Nominated

1999  Young Investigator’s Competition (Finalist), Canadian Organization of Medical Physicists. (Research Award)

LOCAL

Received

1990 - 1994  Canada Scholarship, University of Guelph. (Distinction)
1990 - 1994  Open scholarships, University of Toronto. (Distinction)
1990  Physics Entrance Scholarship, University of Guelph. (Distinction)

Nominated

2004  Bigelow Book Prize (Finalist), University of Toronto. (Distinction) Cardiovascular Sciences Collaborative Program.
2003  Bigelow Book Prize (Finalist), University of Toronto. (Distinction) Cardiovascular Sciences Collaborative Program.
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2012 - 2015  Canadian Association of Radiation Oncology
1994 - 2011  International Society of Magnetic Resonance in Medicine

Administrative Activities

LOCAL

Princess Margaret Hospital
Member, MRI Safety Committee
Member, Core II Operations Committee (STTARR, Radiation Medicine Program)

University Health Network
2014 Jul 1 - present  Toronto Western Hospital 7 Tesla MRI Operations/Equipment Selection/Equipment Review/Faculty Recruitment
Member, STTARR Pre-clinical Wide-Bore MRI/HIFU/Robotics Facility Planning/Operations

Peer Review Activities

GRANT REVIEWS
External Grant Reviewer
2015 Oct - 2016 Jan  CIHR, Number of Reviews: 10
2013 Mar 9 - 2013 Mar 31  Technology Foundation STW, Netherlands, Number of Reviews: 1

MANUSCRIPT REVIEWS
Reviewer
2015 Jan - present  Practical Radiation Oncology, Number of Reviews: 1
2015 - present  British journal of Radiology, Number of Reviews: 2
2015 - present  PLOS1, Number of Reviews: 1
2014 Jan - present  Biomaterials, Number of Reviews: 3
2014 Jan - present  Journal of Controlled Release, Number of Reviews: 3
2013 Apr 17 - present  Medical Physics, Number of Reviews: 9
2012 Dec - present  Acta Oncologica, Number of Reviews: 1
2012 Apr - present  Journal of Magnetic Resonance Imaging, Number of Reviews: 17
2006 Nov - present  Magnetic Resonance in Medicine, Number of Reviews: 16

PRESENTATION REVIEWS
Reviewer
2013 Jan - present  The Engineering in Medicine and Biology Conference, Number of Reviews: 8
C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2011 - present
Discovery of biomarkers to guide individualized therapy in patient’s with brain metastasis receiving radiotherapy. Brain Tumor Foundation of Canada. 10-0743-C. PI: Ménard, C. [Clinical Trials]

2008 - present
Fiducial Localization and Individualized Radiotherapy for Prostate Cancer. 08-0271-C. PI: Ménard, C. [Clinical Trials]
Abbott-CARO Uro-Oncologic Radiation Award titled “Multiparametric MRI based evaluation of hypoxia in men with prostate cancer”.

2006 - present
Low-Intermediate Risk Prostate Cancer: Improving Acute Toxicity Outcomes of Radiotherapy with the Integration of Advanced Imaging for Treatment Planning and Guidance. 06-0520-C. PI: Ménard, C. [Clinical Trials]
Abbott-CARO Uro-Oncologic Radiation Award titled: “Advanced Image Guidance Will Improve Toxicity Outcomes for Patients with Prostate Cancer: A Prospective Study”.

2016 Nov - 2017 Nov

2016 Jul - 2017 Jul
To turn a previously approved drug for Alzheimer’s Disease into a MRI contrast agent which could improve brain imaging in general, and have the potential to localize amyloid plaque in clinical MR images.

2015 Jul - 2018 Jun
Co-Principal Investigator. Using magnetic resonance imaging to non-invasively image and quantify kidney fibrosis. CIHR Collaborative Health Research Projects (CHRP). PI: Yuen, Darren. 758,376. [Grants]
The goal of this research is to validate needle-free MRI techniques to measure kidney scarring in both animal models and humans.

2013 Jul - 2014 Jul
Principal Investigator. Development of a novel geometrically robust technique for diffusion tensor MR imaging of the prostate applied to image-guided needle interventions. Canadian Association of Radiation Oncologists (CARO). 15,500 CAD

2013 - 2015

2012 - 2015

2011 - 2012
Co-Principal Investigator. Anti-VEGF therapy in murine brain radionecrosis model.
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


14. Abbasi AZ; Prasad P; Cai P; He C; Foltz WD; Amini M; Gordijo CR, PhD; Rauth AM, Wu X. Manganese oxide and docetaxel co-loaded fluorescent polymer nanoparticles for dual modal imaging and chemotherapy of breast cancer. J Control Rel. 2015;209(186-196). Coauthor or Collaborator.


Book Chapters

Other Publications

2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


3. SUBMITTED PUBLICATIONS

Journal Articles


E. Intellectual Property

1. PATENTS

2000 Jul Measurements of Coronary Flow Reserve using MR oximetry. Granted. Patents #: 06094591, United States. Joint Holder Name(s): Merchant N, Wright GA. This patent describes the design of the non-invasive MRI method for measuring coronary venous oxygen saturation using vascular T2, and strategies for estimating coronary flow reserve and myocardial oxygen metabolic rate from the oxygen level measurement. This MRI method is the only non-invasive measurement of coronary venous oxygen levels, and its precision is limited by the precision of the calibrating gold standard methodology, optical oximetry.

The relevance of this technique stems from the intrinsic value of oxygen to viable cardiac muscle. Utilizing Fick’s law, simple integrated expressions yielding coronary flow reserve, oxygen extraction, and oxygen metabolic rate can be derived. Coronary flow reserve has long been regarded as a useful parameter for quantifying the severity of coronary atherosclerosis, while myocardial oxygen metabolic rate is perturbed by aging, ischemic disease, and heart failure.

F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts


2011 Progressive change in biomechanical properties of ex vivo prostate with pathology fixation as measured by MR elastography at 7 Tesla, and correlation with changes in T1, T2, and ADC. International Society of Magnetic Resonance in Medicine. Montreal, Quebec. McGrath D, Foltz W, Brock KK.


2010 Serial multiparametric MRI in study design and response evaluation of radiation and antiangiogenic therapy in an intracranial murine glioblastoma model. International Society of Magnetic Resonance in
Measuring the effect of formalin fixation on ex vivo tissue material properties using high resolution 3D quasi-static MR elastography at 7 tesla for improved biochemical registration of histopathology, and correlation with the effect of fixation on T1, T2, and ADC. International Society of Magnetic Resonance in Medicine. Stockholm, Sweden. McGrath D, Foltz W, Brock K.


2006 Tracking of intra-coronary delivered xenograft mesenchymal stem cells using magnetic resonance imaging in a porcine model of myocardial infarction. International Society for Magnetic Resonance in
Warren  FOLTZ


2005

2005

2005

2003

2002

2002

2002

2002
Myocardial T2 as an indicator of microcirculation oxygen state. MR Angiocclub. Essen, Germany. Wright G, Foltz  W, Huang H, and Fort S.

1999

1999

1998

1998
Effects of B0 and B1 offsets on T2 accuracy when using magnetization preparation sequences. International Society for Magnetic Resonance in Medicine (ISMRM). Sydney, Australia. Foltz  W, Brittain JH, and Wright GA.

1998

1997

1996

1996
2. NATIONAL

Presented Abstracts


1999  Characterizing the myocardial blood oxygen state in vivo using MRI. Canadian Organization of Medical Physics (COMP). Sherbrooke, Quebec. Foltz W, Merchant N, and Wright G.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2006  Myocardial viability, myocardial cell therapy, and MRI. Ryerson University. Toronto, Ontario.


Presented Abstracts

2014  Technical Factors affecting Apparent Diffusion Coefficient in Women with Locally Advanced Cervical
2012  

2011  

2007  

4. LOCAL

Invited Lectures and Presentations

2014  
**Speaker.** Translational Opportunities in MRI. Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Head and Neck Translational Group Research Meeting.

2007  
Myocardial viability, myocardial cell therapy, and MRI. Princess Margaret Hospital. Toronto, Ontario.

Presented Abstracts

2014  

2006  
Robust quantification of T1 relaxation with reduced data acquisition parameters. Heart and Stroke Richard Lewar Centre of Excellence (HSRLCE). Toronto, Ontario. Foltz W, Stewart D, Wright G, Dick A.

2006  

2005  

2005  

2005  

5. OTHER

Presented Abstracts

2013  

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate MD

2011 May - 2013 Jan


Postgraduate MD

2013 Sep - 2014 Sep

Co-Supervisor. Adam Gladwish. *Investigating the utility of diffusion weighted imaging as a non-invasive biomarker for outcome in locally advanced cervical cancer*. Awards: Terry Fox Foundation Strategic Training Initiative for Excellence in Radiation Research for the 21st Century (EIRR21) at CIHR; Trainee Research Prize, RSNA; Resident Digital Poster Discussion Award, ASTRO; Resident Research Award and Chair’s Selection Award, UTDRO Research Day. Supervisor(s): W. Foltz, K. Han.

2. OTHER SUPERVISION

Undergraduate MD

2010


2009

Andy Wu. *Apparent Diffusion Coefficient as a Quantitative Biomarker for Radiation Response in Prostate Cancer*.

H. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2012 Feb 14

Curriculum Vitae

Robert Heaton
PhD, FCCPM

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

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Department of Radiation Physics
Princess Margaret Hospital (PMH)
University Health Network
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Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946-4501 ext. 5354
Email robert.heaton@rmp.uhn.on.ca

1. EDUCATION

Degrees
1994 PhD, Physics, Queen’s University at Kingston, Ontario
1988 MSc, Physics, Queen’s University at Kingston, Ontario
1984 BSc, Engineering Physics (Honours), Queen’s University at Kingston, Ontario

Postgraduate, Research and Specialty Training
1996 Medical Physics Resident, Western University, London, Ontario

Qualifications, Certifications and Licenses
2007 Fellow, Radiation Oncology, Canadian College of Physicists in Medicine
2000 Certification, Radiation Oncology, Canadian College of Physicists in Medicine

2. EMPLOYMENT

Current Appointments
1998 - present Lecturer, Radiation Oncology, University of Toronto, Toronto, Ontario
1997 - present Clinical Physicist, Princess Margaret Hospital, Toronto, Ontario
3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

INTERNATIONAL

American Association of Physicists in Medicine

2008 - 2010  Editor, Task Group 114: Secondary Monitor Unit Calculations for External Beam Radiotherapy

2006 - 2008  Member, Task Group 114: Secondary Monitor Unit Calculations for External Beam Radiotherapy

Other Research and Professional Activities

THESIS PROJECT

1994  The α-Induced Thick-Target γ-Ray Yield from Light Elements. Queen’s University at Kingston, Ontario.  
      PhD thesis.

1988  Neutron Shielding Calculations for the SNO Detector. Queen’s University at Kingston, Ontario.  
      MSc thesis.

C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Monographs


3. SUBMITTED PUBLICATIONS

Journal Articles

D. Intellectual Property

1. PATENTS


2. COPYRIGHTS


2006  A Specialized Dosimetry Phantom for IMRT and IGRT. Granted.

E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2011 Nov 15  Uncertainties in IMRT Monitor Unit Validations. Invited talk at Kuwait Cancer Control Centre. Kuwait City, Kuwait. (Continuing Education).

2011 Nov 13  Good Practices in Radiotherapy Delivery: Verification of Monitor Unit Calculations. Invited talk at Kuwait Cancer Control Centre. Kuwait City, Kuwait. (Continuing Education).

2011 Apr 11  Reference Dosimetry: From the Standards Lab to the Clinic. Kuwait Cancer Control Centre. Kuwait City, Kuwait. (Continuing Education).

2011 Apr 6  The evolution of total body irradiation delivery at Princess Margaret Hospital. Kuwait Cancer Control Centre. Kuwait City, Kuwait. (Continuing Education).


Presented Abstracts

2012 Jun 8  Good Practices in Radiotherapy Delivery: Is an independent MU calculation a necessity or a waste of time? 17th ISRRRT World Congress and the 70th CAMRT Annual General Conference. Toronto, Ontario, Canada.


2. NATIONAL

Invited Lectures and Presentations

2008 Nov The evolution of total body irradiation delivery at Princess Margaret Hospital. McGill University Health Centre. Montreal, Quebec.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations

2012 Apr 20 Acceptance Testing and commissioning of External Beam Treatment Units. Physics Resident Lecture Session at Princess Margaret Hospital. Toronto, Ontario, Canada. (Trainee Presentation).

2011 Dec 8 Water Tank Assessment and Quality Assurance. Physics Resident lecture Session at Princess Margaret Hospital. (Continuing Education).

2011 Oct 26 Diode and MOSFET dosimetry systems. Physics Resident Lecture Session at Princess Margaret Hospital. (Continuing Education).

2011 Oct 12 Ion Chamber Instrumentation. Physics Resident Lecture Session at Princess Margaret Hospital. (Continuing Education).

2010 Nov 10 Ion Chamber Instrumentation. Physics Resident Lecture Session at Princess Margaret Hospital. (Continuing Education).

2010 Aug 27 Orthovoltage dosimetry and comparison to electrons. Physics Resident Training Session at Princess Margaret Hospital. (Continuing Education).

2010 Jun 21 Treatment Planning for Electrons. Physics Resident Training Session at Princess Margaret Hospital. (Continuing Education).

2009 Nov 27 Dosimetry Array Instrumentation. Physics Resident Lecture Session at Princess Margaret Hospital. (Continuing Education).

2009 Nov 20 Interaction of Single Beams of X-rays with Medium. Physics Resident Training Session at Princess Margaret Hospital. (Continuing Education).

2009 Nov 5  Introduction to Visio. Physics Associate Training Lecture for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2009 Oct 23 Specialized Treatment Techniques: TBI, TSET and Stereotaxis. Physics Resident Training Session at Princess Margaret Hospital. (Continuing Education).

2009 May 7 Secondary MU Checks – Principles and Practice. Planner Training Lecture for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2009 Mar 5 Introduction to Electron Algorithms. Planner Training Lecture for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).


2008 Mar 3 Introduction to Electron Algorithms. Planner Training Lecture for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2008 Mar 3 Secondary MU Checks – Principles and Practice. Planner Training Lecture for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2008 Feb 11 Introduction to RadCalc Monitor Unit Calculation. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2007 Oct MOSFET Dosimetry. Physics Resident lecture at Princess Margaret Hospital. (Continuing Education).

2007 Sep TLD Dosimetry. Physics Resident lecture at Princess Margaret Hospital. (Continuing Education).

2007 Jul 4 Photon beam models. Physics Resident lecture at Princess Margaret Hospital. (Continuing Education).


2007 Feb Water Phantom Dosimetry Systems. Physics Resident lecture at Princess Margaret Hospital. (Continuing Education).


2006 Mar 16 Field Junctioning in the Era of IMRT. Department of Radiation Oncology Rounds. (Continuing Education).


2005 Dec 14 Electron Calculations in RadCalc. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2005 Nov 17 IMRT Case Presentation: Non-Coplanar Glioblastoma. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2005 May 24 Uncertainties in IMRT Monitor Unit Validation. Physics Seminar presentation at Princess Margaret Hospital. (Continuing Education).
2005 Mar 7  Electron beam algorithms. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2004 Nov 8  Electron beam algorithms. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2004 Aug 9  An Introduction to Pinnacle and RadCalc. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2004 Jul 7  An Introduction to Pinnacle and RadCalc. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2004 Jun 24 Pinnacle and RadCalc: A Documentation Primer. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2004 Jun 17 Pinnacle and RadCalc: A Documentation Primer. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2004 Apr 13 Monitor Unit Calculations for Pinnacle: “Getting the Point”. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2004 Apr 8  Monitor Unit Calculations for Pinnacle: “Getting the Point”. In service presentation for Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2004 Feb 17 RadCalc Monitor Unit Calculations. Physics Seminar presentation at Princess Margaret Hospital. (Continuing Education).

2003 Nov 13 Electron Beam Algorithms. In service presentation for Planning Radiation Therapists at Princess Margaret Hospital. (Continuing Education).

2003 Sep 25 Photon Dosimetry Characterizations and Calculations. In service presentation for the Planning Radiation Therapists at Princess Margaret Hospital. (Continuing Education).

2001 Oct 3  CadPlan 6.2.7. A Primer In service presentation for the Department of Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2000 Nov 25 CadPlan 3.1.2 Commissioning. Clinical Physics rounds presentation at Princess Margaret Hospital. (Continuing Education).

2000 Mar 16 Treatment Planning with CadPlan Electron Beams. In service presentation for the Department of Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2000 Mar 14 The Clinical Implementation of CadPlan Electron Calculations. In service presentation for the Department of Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

2000 Mar 14 MLC Sharpe Definition and Electronic Transfer at Princess Margaret Hospital. In service presentation for the Department of Radiation Therapy at Princess Margaret Hospital. (Continuing Education).

1999 Feb 24 Treatment Planning with CadPlan 3.1.2. In service presentation for the Department of Radiation Therapy at Princess Margaret Hospital. (Continuing Education).


Presented Abstracts


F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2013 Jul 1 - 2014 Jun 30   Michener Course RST320, Undergraduate Education, Faculty of Medicine, Dept of Radiation Oncology
2009 Jul - 2010 Jan   Course content and lecture development: Introduction to Radiation Dosimetry, Undergraduate Education, Faculty of Medicine, Michener Institute for Applied Health Sciences
2001 - 2012   Content Development: Radiation Physics and Dosimetry Experiments, Undergraduate Education, Faculty of Medicine, Michener Institute for Applied Health Sciences
Curriculum Vitae

Mohammad Khairul Islam

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Department of Radiation Physics
Radiation Medicine Program
Princess Margaret Cancer Centre
610 University Avenue, Room 5-625
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946 4501 ext. 5069
Fax (416) 946-6566
Email islam@rmp.uhn.on.ca

1. EDUCATION

Degrees
1975 - 1977 MSc, Honors in Physics, University of Rajshahi, Bangladesh
1987 PhD, Specialization in Medical Physics, Nuclear Eng. Sciences, University of Florida, Gainesville, Florida
1983 MS, Physics, University of Florida
1975 BSc, Honors in Physics, University of Rajshahi, Bangladesh

Postgraduate, Research and Specialty Training
2004 UHN – Rotman Leadership Development Program, Joseph L. Rotman School of Management, University of Toronto, Toronto

Qualifications, Certifications and Licenses
1991 Certified, Therapeutic Radiological Physics, American Board of Radiology

2. EMPLOYMENT

Current Appointments
2000 Jan - present Senior Physicist, Department of Radiation Physics, Princess Margaret Hospital, University Health Network, Toronto
Responsibilities (routine and clinical development projects) include: Quality assurance of Varian Clinac 2100 C/Ds, Commissioning of 2 new Clinac 2100C/Ds with dynamic MLCs, aSi portal imager and IMPAC RSTS. Commissioning and clinical implementation of Intensity
modulated radiation therapy (IMRT). Planning and quality assurance of IMRT. Supervision of the entire IMRT program as Radiation Medicine Program IMRT leader. Teaching and training of radiation therapists and radiation physics residents. Various R&D related to IMRT

2000 - present
Assistant Professor, Radiation Oncology, University of Toronto, Toronto

Previous Appointments

HOSPITAL

2002 Jul - 2012 Dec 31
Senior Physicist/ Associate Director, Department of Radiation Physics, Princess Margaret Hospital, University Health Network, Toronto
Responsibilities include:
• All aspects of treatment delivery physics, IMRT implementation/transition to site based initiatives, R&D for IMRT quality assurance and dose verifications
• Supervise staff physicists and Physics Associates
• Supervise Post doctoral fellow and graduate student
• Physics Operations Committee (chair)
• Physics Steering Committee (provide administrative support and strategic input to the head of the department)
• RMP External Beam process Committee (chair)
• RMP operations Committee
• Radiation Treatment Radiation Safety Committee

2002 Jan - 2002 Jun
Acting Head of the Department, Department of Radiation Physics, Princess Margaret Hospital, University Health Network, Toronto

1996 Jan - 1999 Nov
Senior Medical Physicist, Department of Biomedical Physics, King Faisal Specialist Hospital & Research Center

Completed Clinical Projects include: Acceptance testing and commissioning of Clinac 600C, Clinac 2300 C/D. Dosimetry and clinical introduction of TBI, TSET (HDTSe-), Dosimetry of Asymmetric Jaw (Open and Wedge), Dynamic Wedge, RMS-2000 and Portal Vision. Shielding design and dosimetry of special vaginal applicator. Acceptance and clinical introduction of CADPLAN version 3.06.

1995 Jun - 1995 Nov
Medical Physicist, Baptist Hospital of Miami, Miami, Florida
Responsibilities included: all aspects of physics service to radiation oncology, including HDR, conventional brachytherapy, electron intraop, stereotactic radio surgery, quality assurance of treatment machines and radiation safety

1991 Jan - 1995 Jun
Physicist, Department of Clinical Physics, Ontario Cancer Institute/Princess Margaret Hospital
Responsibilities included: treatment planning for complex situation, quality assurance of routine treatment plans, develop treatment planning protocols, projects related to clinical applications, provide support for brachytherapy (remote after loader including Nucletron pulse Dose Rate Unit, stereotactic brain implant), Electronic Portal Imaging (Philips, Varian and Infimed systems), teaching post doctoral trainees and resident’s tutorial class, various clinical development projects. Involved in radiation survey, acceptance and commissioning of a Philips SL25 Linac.

1987 Nov - 1990 Nov
Physicist, Department of Radiation Oncology, Albert Einstein College of Medicine and Montefiore Medical Center, Bronx, New York
Responsibilities included: supervision and quality assurance of treatment planning performed by dosimetrists, brachytherapy including stereotactic brain implant, quality assurance of radiation treatment units, teaching residents and radiotherapy technology students, brachytherapy. Commissioning of a high energy linear accelerator and research projects
Mohammad Khairul ISLAM

related to photon and electron dosimetry.

RESEARCH

1977 - 1980
Research Officer, Bangladesh Scientific and Industrial Research, Institute of Fuel Research and Development, Dhaka, Bangladesh
Responsibilities included: working in the research and development effort in solar energy applications

UNIVERSITY

1984 Sep - 1987 Nov
Graduate Assistant, January for Ph.D. dissertation (Portal Imaging), Department of Radiation Oncology, Shands Teaching Hospital, University of Florida

1980 Aug - 1983 Dec
Graduate Assistant, Physics, University of Florida
Responsibilities included: teaching laboratory and tutorial sessions for undergraduate physics students

UNIVERSITY - RANK

1988 - 1990
Assistant Professor, Radiation Oncology, Albert Einstein College of Medicine

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL

Received

2010 Inventor of the Year Award 2010, University Health Network. (Distinction)
1983 Outstanding Graduate Assistant Teaching Award, University of Florida. (Distinction)
1977 University of Rajshahi. (Distinction)
Awarded merit scholarships both in undergraduate and graduate schools at the University of Rajshahi.

1975 Class Standing, University of Rajshahi. (Distinction)
First position in first Class both in B.Sc. (Honors.) and M. Sc. in physics. Also placed in the first division both in Secondary certificate and Higher Secondary certificate examinations.

Teaching and Education Awards

LOCAL

Nominated

1983 Departmental nominee for Outstanding Graduate Assistant Teaching Award, Department of Physics, University of Florida. (Graduate Education)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

American Association of Physicists in Medicine
Canadian Organization of Medical Physics
Administrative Activities

INTERNATIONAL
American Association of Physicists in Medicine
2005 - 2010 Member, Radiation Safety Subcommittee

LOCAL
Princess Margaret Hospital, University Health Network
2009 - present Member, RMP Support Services Committee
2002 - present Member, Physics Steering Committee
2002 - present Member, Physics Operations
2002 - present Member, RMP Operations Committee

Peer Review Activities

ASSOCIATE OR SECTION EDITING
Associate Editor
Medical Physics

MANUSCRIPT REVIEWS
Reviewer
Medical Physics

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2007 Jul - 2009 Jun Principal Investigator. Improving patient safety during radiation therapy through human
factors methods. National Patient Safety Foundation. AAPM & NPSF. 10,000 CAD. [Grants]


**NON-PEER-REVIEWED GRANTS**

**FUNDED**


*Obtained a grant for the development of an IMRT phantom as a part of a group submission to the ontario research and development challenge fund.*

**D. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**

1. Thomadsen, B; Nath, R; Bateman, F; Farr, J; Glisson, C; **Islam, M**; LaFrance, T; Moore, M; Xu, G; Yudelev, M. Potential Hazard due to induced Radioactivity secondary to Radiotherapy: The Report of Task Group 136 of the American Association of Physicists in Medicine. Health Physics. 2014 Jun;107(5):442-460. **Coauthor or Collaborator.**


Conference Publications


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


Conference Publications


3. SUBMITTED PUBLICATIONS

Journal Articles


E. Intellectual Property

1. PATENTS


2. INTELLECTUAL PROPERTY RIGHT


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2011 Sep 29  Verification of adapted treatment fields by an on-line beam monitor. Pre-congress conference of 6th Japan-Korea Medical Physics and 11th Asian Oceania Congress of Medical Physics, Kyushu University. Fokouka, Japan.


2002  IMRT QA at Princess Margaret Hospital. Varian Users Meeting at the 44th Annual Meeting of the American Association of Physicists in Medicine. Montreal, Quebec.


Presented Abstracts


2. NATIONAL

Invited Lectures and Presentations

1989

1987
Real Time Megavoltage Imaging. The 29th Annual Meeting of the American Society of Therapeutic Radiology and Oncology. Boston, Massachusetts.

Presented Abstracts

2009
Validation of the delta4 phantom for 3-D dosimetry of IMRT plans. Canadian Organization of Medical Physicists (COMP) - Conference Proceedings of the 55th Annual Scientific Meeting. Victoria, British Columbia. Authors: Zhang TJ, Norrlinger B, Islam M.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2001
Introduction of a commercial IMRT System at Princess Margaret Hospital. The Target Insight Meeting. Toronto.

2001

2001
Clinical Applications of IMRT at Princess Margaret Hospital. The Target Insight Meeting. Toronto.

2001
Effect of Slice Thickness and Pixel Size on Anatomical Volumes. The Target Insight Meeting. Toronto.

2001
Application of Intensity Modulated Radiotherapy in a Case of Extremity Sarcoma. The Target Insight Meeting. Toronto.
4. OTHER

**Presented and Published Abstracts**

2011  Characterization of a large-area ion chamber used for on-line monitoring of radiotherapy.

*Publication Details:*

2011  Initial experience with a novel on-line beam monitoring system.

*Publication Details:*

2010  Improving patient safety through a simple independent on-line beam monitoring system.

*Publication Details:*

2010  Performance monitoring of VMAT delivery.

*Publication Details:*

2010  Clinical experience with an EPID based quality assurance system for linear accelerator.

*Publication Details:*

2009  Performance of a portable MOSFET dosimetry system for in-vivo dose measurements in orthovoltage treatments and kilovoltage cone beam CT.

*Publication Details:*

2009  The manageable levels of induced radioactivity in medical accelerators from high energy photon beams.

*Publication Details:*

2009  Small field electron beam dosimetry using MOSFET detector.

*Publication Details:*

2008  Verification of source and collimator configuration for gamma-knife perfexion TM using panoramic imaging, Toronto, ON.
Mohammad Khairul ISLAM

Publication Details:

2008 Clinical Implementation of Varian On-Board Imaging System.

Publication Details:

2008 Routine Linear Accelerator Electron Beam QA Using EPIDs, Toronto, ON.

Publication Details:

2008 Clinical implementation and experience with EPID-based precision isocentre localization.

Publication Details:

2007 Development of an ultra-wide dynamic range electrometer, Toronto, ON.

Publication Details:

2007 Dosimetric verification of a novel TBI technique using segmented radiation fields, Toronto, ON.

Publication Details:

2007 Peripheral dose variations with different IMRT delivery systems, Toronto, ON.

Publication Details:

2007 A novel quality assurance monitor for real-time verification of IMRT and IGART, Toronto, ON.

Publication Details:

2007 A CT based total body irradiation technique using intensity modulated beams, Toronto, ON.

Publication Details:

2007 Adaptive field aperture modification for the management of patient setup errors.

Publication Details:
Clinical implementation of a new elekta dedicated-stereotactic linac into radionics treatment planning system.

Publication Details:

Image guided high definition dosimetry of IMRT plans using the mobile MOSFET system, Toronto, Ontario, CA.

Publication Details:

Investigation of dose reduction strategies for image guidance with KV-CBCT in radiation therapy, Toronto, ON, CA.

Publication Details:

Peripheral dose to the patient due to kilovoltage cone beam computed tomography, Toronto, ON, CA.

Publication Details:

Response prediction of a transmission type chamber for verification of step-and-shoot IMRT.

Publication Details:

IMRT monitor unit verification.

Publication Details:

Quantitative evaluation of cumulative system uncertainties in intensity modulated radiation therapy treatments.

Publication Details:

Characterization of a large area transmission chamber for independent verification of IMRT dose delivery constancy.

Publication Details:

Performance characteristics of an amorphous silicon electronic portal imaging device as a relative dosimeter.

Publication Details:
Islam M, Norrlinger B, Fan E. Performance characteristics of an amorphous silicon electronic portal imaging device.

2003
Dosimetric evaluation of plastic water-diagnostic-therapy (PWDT) phantom material.

*Publication Details:*

2003
Integrated cone beam CT imaging and volumetric guidance system for high-precision radiotherapy of prostate.

*Publication Details:*

2002
The use of an ion chamber array for routine dynamic MLC quality assurance.

*Publication Details:*

1993
A method of online MLC aperture adjustment for treatment of patients with set up variations, Toronto, ON, CA.

*Publication Details:*

**G. Research Supervision**

1. **PRIMARY OR CO-SUPERVISION**

**Undergraduate Education**

2008 - 2009 **Primary Supervisor.** Phil Lam. “Vision Based Automated Safety System for Radiotherapy Treatment”.

**Graduate Education**

2013 - 2015 **Primary Supervisor.** IBBME. Daniel Xun Lin.
2011 - 2013 **Co-Supervisor.** Yifang Liu. “Adaptive Radiation Therapy for Cervix Cancer with Stochastic Model for Tumour Evolution”.
2007 - 2009 **Primary Supervisor.** MHSc Clinical Biomedical Engineering. Alvita Chan. “Patient Safety through Human Factors method”.
2001 - 2007 **Primary Supervisor.** MHSc Clinical Biomedical Engineering. Cary Fan. “Characterization of a large area gradient sensitive ionization chamber for real-time treatment verification”.

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CONFIDENTIAL DOCUMENT
Postdoctoral Research Fellow (PhD)

2011 - 2013  Primary Supervisor. Jina Chang, Ph.D. “On-line field modification adapting small changes in radiation therapy target configuration”.
Curriculum Vitae

David Anthony Jaffray

A. Date Curriculum Vitae is Prepared: 2016 August 18

B. Biographical Information

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Princess Margaret Cancer Centre
610 University Avenue, 5-631
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-2387
Fax 416-946-6566
Email david.jaffray@rmp.uhn.on.ca

1. EDUCATION

Degrees
1994 PhD, Medical Biophysics, Western University, London, Ontario
1988 BSc, Physics, University of Alberta, Edmonton, Alberta

Qualifications, Certifications and Licenses
1999 Certification, Radiation Oncology, American Board of Medical Physics

2. EMPLOYMENT

Current Appointments
2015 Oct - present Executive Vice President of Technology & Innovation, University Health Network, Toronto, Ontario, Canada
2015 Jul - present Scientist, Cross-Appointment, Joint Department of Medical Imaging, Toronto, Ontario, Canada
2013 Aug - present Head, Imaging Physics, Universal Health Network, Toronto, Ontario, Canada
2011 Oct - present Director, TECHNA, Institute for the Advancement of Technology for Health, University Health Network, Toronto, Ontario, Canada
2009 - present Professor, Institute of Biomaterials and Biomedical Engineering, University of Toronto, Toronto, Ontario, Canada
2007 - present Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2007 - present Professor, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
2002 - present Orey and Mary Fidani Family Chair in Radiation Physics, Princess Margaret Cancer Centre, Toronto, Ontario, Canada
David Anthony JAFFRAY

2002 - present  Head, Radiation Physics, Princess Margaret Cancer Centre, Toronto, Ontario
2002 - present  Senior Scientist, Ontario Cancer Institute, Toronto, Ontario, Canada

Previous Appointments

HOSPITAL
1993 - 2002  Staff Physicist, Radiation Oncology, William Beaumont Hospital, Royal Oak, Michigan

UNIVERSITY
1997 - 2002  Adjunct Assistant Professor, Department of Physics, Oakland University, Rochester, Michigan

UNIVERSITY - RANK
2002 - 2007  Associate Professor, Radiation Oncology, University of Toronto
2002 - 2007  Associate Professor, Medical Biophysics, University of Toronto

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
2012  Jorge Heller Award, Controlled Release Society, Missouri. (Distinction)

2011  James A. Purdy Lectureship, Washington University in St. Louis, Missouri. (Distinction)

2010  John S. Laughlin Lectureship, Memorial Sloan-Kettering Cancer Center, NY, New York. (Distinction)

2002  Farrington - Daniels Award Best Dosimetry Paper, American Association of Physicists in Medicine. (Distinction)

2001  Sylvia Sorkin Greenfield Best Paper Award, American Association of Physicists in Medicine. (Distinction)

NATIONAL
Received
2014 Jul  Fellow of COMP (FCOMP) Award, Canadian Organization of Medical Physicists, Calgary, Alberta, Canada. (Distinction)

2003  Canada’s Top 40 Under 40 Award, The Caldwell Partners. (Distinction)

2003  Sylvia Fedoruk Award Best Paper in Canadian Medical Physics, Canadian Organization of Medical Physicists. (Distinction)

1986  Summer Studentship, Cross Cancer Institute, Natural Sciences and Engineering Research Council of Canada (NSERC), Alberta Cancer Board, Edmonton, Alberta. (Distinction)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2005 - present  Member, American Society for Therapeutic Radiology and Oncology
2005 - present  Member, Canadian Organization of Medical Physicists
2002 - present  Member, Canadian Association of Radiation Oncologists
1988 - present  Member, American Association of Physicists in Medicine

Administrative Activities

INTERNATIONAL

American Association of Physicists in Medicine
2012 Jan - present  Chair, TETAWG (Therapy Emerging Technology Assessment Working Group)
2006 - present  Member, Science Council
2003 - present  Member, Task Group 76, Kilovoltage Image Guided Radiation Therapy
1998 - 2000  Member, Task Group 58 - Electronic Portal Imaging

National Institutes of Health
1999 - present  Reviewer, Center for Scientific Review, (P01, R43, R01, STTR/SBIR)
David Anthony JAFFRAY

NATIONAL

Canadian Institutes of Health Research
2005 - present  **Reviewer**, Medical Physics and Imaging Committee
2003 - present  **Reviewer**

National Cancer Institute of Canada/Clinical Trials Group
2003 - present  **Reviewer**

Natural Sciences and Engineering Research Council of Canada (NSERC)
2011 - present  **Member**, Physics Evaluation Group
2002 - present  **Reviewer**

LOCAL

University Health Network
2011 - present  **Director**, Techna Institute for the Advancement of Technology for Health
2007 - present  **Director**, Core II & IV, Spatio-Temporal Targeting and Amplification of Radiation Response (STTARR)

University of Toronto
2004 - present  **Vice Chair**, Faculty of Medicine, Dept of Radiation Oncology, Multilevel Education
1999 - present  **Member**, Department Academic Promotions Committee, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development

Peer Review Activities

ASSOCIATE OR SECTION EDITING
**Reviewer**
1994 - present  Medical Physics

EDITORIAL BOARDS
**Editor**
2009 - present  **Physica Medica**

**Member**
2011  **Natural Sciences and Engineering Research Council of Canada (NSERC), Physics Evaluation Group**
2011  **Nature, Scientific Reports**

GRANT REVIEWS
**Reviewer**
1998  **Dutch Cancer Society**

MANUSCRIPT REVIEWS
**Reviewer**
1995 - present  **International Journal of Radiation Oncology, Biology and Physics**
Other Research and Professional Activities

COMMUNITY ACTIVITY
Invitation to appear before the House of Commons Standing Committee on Health.

C. Academic Profile

1. RESEARCH STATEMENTS

STATEMENT OF SCHOLARLY ACHIEVEMENT.
1. Contribution to our understanding of the physics factors limiting the performance of megavoltage radiography systems. In the period of 1988-1995, Dr. Jaffray produced 4 papers that covered the scope of physical factors limiting the quality of megavoltage radiographs (as used in portal imaging for radiation therapy). The comprehensive characterization of x-ray source (focal and extra-focal) is a highly cited article that has impacted imaging and treatment planning system design. The development of detailed Monte Carlo and experimental studies on the topics of x-ray scatter and Swank noise are still some of the most comprehensive studies in this area to-date.

2. The development of portal imaging systems for use in radiation therapy. During his Ph.D. studies and during his time as a clinical physicist at William Beaumont Hospital, Dr. Jaffray developed the InfiMED (now Cablon Medical) portal imaging systems and Elekta iView portal imaging systems (software and original hardware design). These are still in use today in an evolved form (over 15 years in use in the community).

3. The development of kilovoltage cone-beam CT for image guided RT arise from the invention of Dr. Jaffray and colleagues (USPTO) while at the William Beaumont Hospital. This work was funded in part by the USAMRMC and NIH. The technology has been licensed to Elekta Oncology systems and cone-beam CT has become the standard for improving the precision and accuracy of radiation therapy throughout the world. There are approaching ~1000 such systems in the field and they are used every day to direct cancer therapy. In addition to developing technology, Dr. Jaffray and his team have been working to advance the practice through publication of results and techniques that rely in image-guidance approaches and technologies. This work has resulted in a sustained demand (>20/year) for invited talks and presentations around the globe on his work. Research in this area is ongoing with several papers and patentable technologies arising each year. The original paper by Dr. Jaffray on this development is one of most highly cited papers in the field of radiation therapy.

4. In addition to his work in image-guided radiation therapy, Dr. Jaffray has led the efforts to establish a comprehensive environment for radiation research at the Princess Margaret Hospital/University Health Network. The STTARR facility represents the state-of-the-art in technology and facility for radiation research in cells and pre-clinical models. This facility opened to the research community in October 2007 and now has over 200 projects operated by over 70 different investigators with research topics ranging from radiation response of normal lung to investigations of novel stroke therapies. The establishment and development of the facility has been a major focus of Dr. Jaffray over the past 5 years and has increased his interest in the topics of biology and nanotechnology.

5. Development of novel contrast agents and sensitzers for radiation therapy. In the interest
of increasing the performance of radiation therapy, Dr. Jaffray has embarked on the
development of nanotechnologies for increase contrast and sensitivity of tumors. The
development of multi-modal contrast agents over the past five years has led to several
technological innovations, as well as, an increased understanding of the nature of
macromolecule transport. The development of a contrast agent with sufficient life-time for
use in image-guidance has been achieved and is being pursued to clinical applications at this
time. In addition, the realization that novel radiosensitizers can be used to increase our
understanding of the physical chemistry of DNA damage, encouraged the pursuit of gold-
nanoparticles for this purpose. The publication of gold nanoparticle sensitization was
acknowledged through the front-cover of the Journal of Radiation Research in 2010.

6. The growing use of image-guided radiation therapy has driven the development of a small-
animal image-guided irradiator. This system was designed by Drs. Jaffray and Hill in
 collaboration with Precision X-ray (CT, USA). These systems have driven research and
development in the design and has resulted in a commercial success (selling 10 systems
thus far). The system continues to be a topic of innovation and has also been the topic of Dr.
Jaffray’s first graduate student in IBBME. Mr. James Stewart is working on the development
of optimization algorithms to drive the robotic elements of the system to enable complex dose
distributions for basic radiobiology studies.

7. A number of other publications (19 peer-reviewed articles in 2011) were produced over the
course of the year. These covered a range of topics in the field of radiation oncology
physics. This work is supported through numerous grants totaling in excess of $2M per year

8. A major focus of Dr. Jaffray’s time in 2011 was the advancement of Techna – The Institute
for the Advancement of Health Technology. This new institute is a collaboration between
UHN and the University of Toronto, with specific alignments with the IBBME. Dr. Jaffray has
raised $10M to expand the faculty in this domain and establish the network that will support a
greater pace of technological advances in healthcare. This program will facilitate the
development of training opportunities for IBBME engineers of both basic and clinical
interests. The institute was launched in November 2011.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

2015 Jun - 2020 Jun  Principal Investigator. Integrative Systems-Level Imaging (ISLI). Canada Foundation for
Innovation (CFI). Collaborator(s): Joshua A; Jurisica J; Mikulis D; Milosevic M; Murphy K;
Rogalla P; Valliant J; Wilson B; Wouters B. 5,734,904 CAD. [Grants]

Institutes of Health Research (CIHR). Collaborator(s): Boutros P, Coolens C, Dhani N, Fyles
Wouters B, Yeung I. [Grants]

Canadian Cancer Society. PI: Yasufuku K. Collaborator(s): Allen C; Jaffray DA; Weersink R;
Zheng J. 200,000 CAD. [Grants]
2014 Jul - 2019 Jul  **Co-Investigator.** A Research Pipeline for Hypoxia-Directed Precision Cancer Medicine. Terry Fox Research Institute (TFRI). PI: Bristow R; Wouters B. Collaborator(s): **Jaffray DA; Fyles A; Koritzinsky M; Milosevic M; 7,000,000 CAD. [Grants]**


2014 Mar - 2019 Mar  **Principal Investigator.** Advanced Strategies for Image Quality Improvement and Dose Reduction in CT. Natural Sciences and Engineering Research Council of Canada (NSERC). 175,000 CAD. [Grants]


2013 Mar - 2016 Apr  **Principal Investigator.** Improved treatment of cervical cancer through heat-activated delivery of chemoradiosensitizing agents in combination with radiotherapy. Canadian Institutes of Health Research (CIHR). Collaborator(s): Allen C; Milosevic M. 328,486 CAD. [Grants]

2012 Mar - 2016 Apr  **Principal Investigator.** Quantitative Imaging for Personalized Cancer Medicine (ITP-Trials). Ontario Institute for Cancer Research (OICR). Collaborator(s): Bauman G; Caffazo J; Coolens C; Fenster A; Haider M; Keller H; Murphy K; Parraga G; Ward A; Yeung I. 2,373,181 CAD. [Grants]


2011 Apr - 2014 Mar  **Co-Investigator.** ARRT: Adaptive and Robust Radiation Therapy Treatment Planning for Lung Cancer. Natural Sciences and Engineering Research Council of Canada (NSERC). PI: Chan T. Collaborator(s): Bezjak A; Bissonnette JP; Heath EC; Hope AJ; McCann C; Purdie TG; Sharpe MB; Purdie TG; Sharpe MB; 526,246 CAD. [Grants]


2010 Apr - 2017 Mar  **Principal Investigator.** Ontario consortium for adaptive interventions in radiation oncology (OCAIRO). Ontario Research Fund (ORF). Collaborator(s): Aleman D; Battista J; Breen S; Brock K; Caldwell C; Chin L; Cho YB; Clark B; Craig T; Cylger J; Fenster A; Fichtinger G; Islam M; Letourneau D; Mah K; Menard C; Moseley D; Patel R; Peters T; Purdie T; Ravi A; Schreiner J; Taylor M; Wong E. 7,000,000 CAD. [Grants]


2010 Mar - 2015 Apr  **Principal Investigator.** Engineering gold nanoparticle radiosensitizers for cancer therapy.
Canadian Institutes of Health Research (CIHR). Collaborator(s): Allen C, Hill R, Bristow R, Chow J. 710,029 CAD. [Grants]


2010 Jan - 2013 Dec  Co-Principal Investigator. Adaptation of head and neck radiotherapy based on magnetic resonance imaging. Ontario Research Fund (ORF). IMRIS. PI: Breen SL. 360,000 CAD. [Grants]


2009 May - 2012 Jul  Co-Investigator. Prospective study of 4DCT and 4DPET imaging during a course of radical radiotherapy to monitor tumor response and predict treatment outcome for non-small cell lung cancer. National Cancer Institute of Canada (NCIC). PI: Bissonnette JP. Collaborator(s): Bezjak A; Breen S; Freeman M; Hope A; Purdie T; Sun A; Vines D. 285,098 CAD. [Grants]


2008 Apr - 2012 Apr  Co-Principal Investigator. Imaging for clinical trials platform (Cancer Imaging Pipeline Platform). Ontario Institute for Cancer Research (OICR). Collaborator(s): Fenster A. 1,700,000 CAD. [Grants]

2008 Apr - 2012 Apr  Co-Principal Investigator. X-ray and optical probes for next generation detection and diagnosis of cancer (Cancer Imaging Pipeline Platform). Ontario Institute for Cancer Research (OICR). Collaborator(s): Yaffe M. 9,972,000 CAD. [Grants]
2008 Mar - 2011 Feb  **Co-Principal Investigator.** Improved radiation induced lung toxicity prediction with linked pre-clinical/clinical models and biomarkers. National Cancer Institute of Canada (NCIC). Collaborator(s): Hope A, Hill R. 381,099 CAD. [Grants]

2008 Jan - 2012 Dec  **Co-Principal Investigator.** Building the UHN advanced therapeutics research platform. Canada Foundation for Innovation (CFI). Research Hospital Fund. PI: Paige C. 92,255,967 CAD. [Grants]

2008 Jan - 2011 Dec  **Co-Principal Investigator.** Dynamic multi-organ anatomical models for hypofractionated RT design and delivery. National Institutes of Health (NIH) (USA). Collaborator(s): Brock KK. 946,598 USD. [Grants]

2007 Jan - 2012 Dec  **Co-Principal Investigator.** The cardiac regeneration (CARE) project: New therapies for CV. Canadian Institutes of Health Research (CIHR). Collaborator(s): Weisel R. 2,500,000 CAD. [Grants]

2007 Jan - 2011 Jan  **Co-Principal Investigator.** The regenerative medicine project (the REMEDI project). Canadian Institutes of Health Research (CIHR). Collaborator(s): Weisel R. 18,050,000 CAD. [Grants]

2007  **Co-Investigator.** Multi-scalar, multi-modal imaging agent for detection and targeting. Ontario Institute for Cancer Research (OICR). Collaborator(s): Allen C. 80,000 CAD. [Grants]

2007  **Principal Investigator.** Development of a framework to standardize acquisition and analysis of PET images for clinical trials. Ontario Institute for Cancer Research (OICR). 80,000 CAD. [Grants]

2007  **Principal Investigator.** Lung cancer biomarker imaging (IMM-10). Ontario Institute for Cancer Research (OICR). 80,000 CAD. [Grants]

2006 Jan - 2010 Dec  **Principal Investigator.** Spatio-temporal targeting and amplification of radiation response. Canada Foundation for Innovation (CFI). 1,167,954 CAD. [Grants]

2006 - 2009  **Co-Investigator.** On-line perfusion measurement with contrast enhanced cone-beam CT in radiation therapy. Canadian Institutes of Health Research (CIHR). Collaborator(s): Yeung I. 166,087 CAD. [Grants]


*UHN RaySearch corporation research collaboration.*


2006 - 2008  **Principal Investigator.** Development of a multi-modal imaging contrast agent platform. Canadian Institutes of Health Research (CIHR). 1,311,089 CAD. [Grants]


Principal Investigator. A prospective study to evaluate cone-beam CT in the planning of patients for palliative radiotherapy. Elekta Oncology Systems. 87,000 CAD. [Industrial Grants]


Principal Investigator. Stereotactic radiotherapy for primary and metastatic liver cancer. Elekta Oncology Systems. 87,000 CAD. [Industrial Grants]

Principal Investigator. Spatio-temporal targeting and amplification of radiation response (STTARR) innovation centre. Canada Foundation for Innovation (CFI). Ontario Innovation Trust. 9,824,217 CAD. [Grants]

Principal Investigator. Hypoxia program project grant. National Cancer Institute of Canada (NCIC). 660,000 CAD. [Grants]


Co-Investigator. Excellence in radiation research for the 21st century. Canadian Institutes of Health Research (CIHR). Strategic Training Grant. 500,000 CAD. [Grants]


Principal Investigator. Multi-modality contrast agents for image-guided radiation therapy. Premier’s research excellence award (PREA). 137,000 CAD. [Grants]


Principal Investigator. Flat-panel cone-beam CT for image-guided radiotherapy (8R01EB002470-04). National Institutes of Health (NIH) (USA). National Institute for Biomedical Imaging and Bioengineering. 1,079,708 USD. [Grants]
NON-PEER-REVIEWED GRANTS

FUNDED

2014 Apr - 2015 Apr  
**Principal Investigator.** Image-Guided Drug Delivery. Merrimack Pharmaceuticals Inc. 299,570.14 CAD. [Industrial Grants]

2013 Feb - 2014 Feb  
**Principal Investigator.** Image-Guided Drug Delivery. Merrimack Pharmaceuticals Inc. 259,323.16 CAD. [Industrial Grants]

2012 Oct - 2014 Oct  
**Principal Investigator.** Characterization of Tumor Hypoxia Following Chemotherapy. Merrimack Pharmaceuticals Inc. 171,653.96 CAD. [Industrial Grants]

2012 Feb - 2013 Feb  
**Principal Investigator.** Image-Guided Drug Delivery. Merrimack Pharmaceuticals Inc. 260,840.24 CAD. [Industrial Grants]

2011 Feb - 2012 Feb  
**Principal Investigator.** Image-Guided Drug Delivery. Merrimack Pharmaceuticals Inc. 173,392.65 CAD. [Industrial Grants]

2010 Jun - 2013 Jun  
**Co-Principal Investigator.** Pop-Cure. Pfizer Canada Inc. Collaborator(s): Wouters B, Neel B, Shaw P, Dick J, O’Brien C, Hudson T, McPherson J, Milosevic M. 6,001,162 CAD. [Industrial Grants]

2007 Jan - 2010 Jan  
**Co-Principal Investigator.** A pilot prospective study of FDG-PET-CT imaging utility in radiotherapy treatment planning and assessment in all stages and histological types of lung cancer. Philips Medical Systems. Collaborator(s): Sun A. 124,000 CAD. [Industrial Grants]

2007  
**Principal Investigator.** Imaging-enabled liposome platform to adaptively modulate the micro-distribution of targeted therapeutics. Johnson & Johnson (J&J). 80,000 CAD. [Industrial Grants]

2006 May - 2011 May  
**Principal Investigator.** Treatment design and response monitoring in the head and neck using multimodal imaging (Head and Neck). Philips Medical Systems. 1,142,480 CAD. [Industrial Grants]

2006 - 2008  
**Principal Investigator.** Development of auto-segmentation and online planning tools for palliative process. Philips Medical Systems. 174,128 CAD. [Industrial Grants]

2006 - 2008  
**Principal Investigator.** Quantification of deformation response (deformation). Philips Medical Systems. 174,128 CAD. [Industrial Grants]

2005 - 2008  
**Co-Investigator.** Accelerated education program: Image guided radiation therapy. Elekta Oncology Systems. RMP. 1,027,000 CAD. [Industrial Grants]

2003 - 2008  
**Principal Investigator.** An MR-based simulation process for advanced radiation therapy. Varian Oncology Systems. 1,400,000 CAD. [Industrial Grants]

2003 - 2005  
**Principal Investigator.** Flat-panel cone-beam CT on a mobile c-arm. Siemens Medical Systems Inc. SP Division. 310,000 USD. [Industrial Grants]

2002 - 2005  
**Principal Investigator.** On-line guidance technologies for precision radiation therapy. Elekta Oncology Systems. 1,196,600 CAD. [Industrial Grants]
E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


52. Stewart JM, Lindsay PE, **Jaffray DA**. Two-dimensional inverse planning and delivery with a preclinical image guided microirradiator. Med Phys. 2013 Oct;40(10). **Coauthor or Collaborator.**


Consensus Development Conference, Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


3. SUBMITTED PUBLICATIONS

**Journal Articles**


**F. Intellectual Property**

1. **PATENTS**


2009  **System and method for verification of radiotherapy systems.** Applied. United States. Joint Holder
Name(s): Cho YB, Islam MK, Jaffray DA, Taylor M, van Prooijen M.

US61/178,327 (pending).

Joint Holder Name(s): Islam MK, Norrlinger BD, Smale JR, Heaton RK, Jaffray DA.
US61/178,327 (pending).

US60/806,842, PCT/CA2007/001209 (pending).

2006 **Optimized aperture selection imaging computed tomography system and method.** Applied. United States. Joint Holder Name(s): Graham SA, Siewerdsen JH, Jaffray DA.
US11/867,998 (pending).


2005 **Retrospective sorting of 4D CT into breathing phases based on geometric analysis of imaging fiducials.** Applied. United States. Joint Holder Name(s): Kaus MR, Hoisak J, Purdie TG, Jaffray DA.

PCT/CA2006/000207, CA 2596,595 (pending).

USPTO Application #20040234115.

USPTO Application No. 20040096038.

USPTO Application No. 20040218719.

2003 **Cone-beam computed tomography with a flat panel imager.** Granted. Patents #: 7,471,765, United States. Joint Holder Name(s): Jaffray DA, Siewerdsen JH, Wong, JW.

2003 **Apparatus and method for determining radiation dose.** Granted. Patents #: 7,399,977, United States. Joint Holder Name(s): Jaffray DA, Vitkin A, Rink A.

2003 **Method and system for calibrating a source and detector instrument.** Granted. Patents #: 7,147,373 B2, United States. Joint Holder Name(s): Cho YB, Jaffray DA, Moseley DJ, Siewerdsen JH.

G. Presentations and Special Lectures

**1. INTERNATIONAL**

**Invited Lectures and Presentations**


2016 Mar 10 **Invited Speaker.** Advances in MR-Guided RT. Chilean National Radiation Oncology Meeting. Huilo Huilo, Los Ríos, Chile.


2016 Feb 29  Invited Speaker. Expanding Horizons in Biophysics and Medical Physics. Annual Biophysical Society meeting. Los Angeles, California, United States.

2016 Feb 28  Invited Speaker. Technologies around the corner; promise and risks. TMC Platinum Jubilee Conference. Mumbai, Maharashtra, India.


2015 Jan 30  Invited Lecturer. Image-guidance in Oncology: An Expanding Paradigm. University of Miami School of Medicine, Radiation Oncology Department. Miami, Florida, United States.


2014 Sep 13  Invited Speaker. ASTRO 56th Annual Meeting. San Francisco, California, United States. Keynote: Opportunities for imaging and advanced radiation therapy to join forces, a clinical perspective.


2014 Apr 6  Invited Speaker. Biological studies using the X-RAD 225Cx image-guided irradiator at OCI. European Society for Radiotherapy & Oncology (ESTRO) 33. Vienna, Wien, Austria.


2013 Sep 9  Invited Faculty Speaker. The future of image guidance. 9th ICDFTF Conference at University of Wisconsin-Madison. Madison, Wisconsin, United States.


2012 Dec 1  Invited Lecturer. The physics of Precision Radiotherapy: where it stands today. Association of Radiation Oncologists of India (AROICON). Kolkata, West Bengal, India.


2011 May  Importance of Acutal Versus Planned Delivered Dose Distributions. Radiogenomics Consortium
2011 Apr 7  **Visiting Professor.** Monte Carlo Calculations and Advanced Planning: Monte Carlo Current Status, Speed and Accuracy. International Centre for Theoretical Physics. Trieste, Italy.

2011 Apr 7  **Visiting Professor.** IGRT, Inter and Intra Fractional Motion Management. International Centre for Theoretical Physics. Trieste, Italy.

2011 Apr 6  **Visiting Professor.** Patient Specific QA for IMRT: Dosimetry, EPID and Cone Beam CT, MVCT (KV-CBCT). International Centre for Theoretical Physics. Trieste, Italy.

2011 Apr 5  **Visiting Professor.** Patient Immobilization, for Precision RT, Body Frames, Visual Patient Tracking, Respiratory Management. International Centre for Theoretical Physics. Trieste, Italy.

2011 Apr 4  **Visiting Professor.** Overview of Medical Imaging in Radiation Therapy Including ICRU Concepts. International Centre for Theoretical Physics. Trieste, Italy.


2010 Nov  Evaluation of Technology: Relevant Endpoints from the Perspective of the Physicist. AMPICON Scientific Meeting. Lucknow, India.


2010 May  Quantification of Unwanted Dose in Perfexion. 15th Int'l Leksell Gamma Knife Society Meeting. Athens, Greece.


2010 May  **Visiting Professor.** John S. Lauglin Memorial Lecture. (MSKCC) Memorial Sloan-Kettering Cancer Center. NY, New York.


2009 Nov  

2009 Oct  

2009 Oct  

2009 Sep  
Development and Assessment of Novel Radiation Technique - A Medical Physics Perspective. ECCO/ESMO Congress. Berlin, Germany.

2009 Sep  
Image-Guided Radiation Therapy: Beyond the Obvious. World Congress 2009. Munich, Germany.

2009 Aug  
Image Guided Radiation Therapy. IS3R. San Diego, California.

2009 May  

2009 Mar 19  

2009 Mar  

2009 Feb  

2009 Feb  

2008 Dec  

2008 Nov  

2008 Sep 21  

2008 Sep 16  
A Relocatable Frame for Use with the Perfexion Unit. European Society for Therapeutic Radiology & Oncology (ESTRO). Goteborg, Sweden.

2008 Sep 13  
Investigations of Performances and Applications of the Perfexion Unit. ESTRO-Elekta Users Meeting Talk. Goteborg, Sweden.

2008 Sep  

2008 Sep  

2008 Aug  

2008 Jul  


2007 Apr  **Visiting Professor.** Image-Guided Radiation Therapy. Duke University Medical Center. Durham, North Carolina.


2006 May  Visiting Professor. Clinical Implementation and Implications of CBCT IGRT - Can We Adapt? And Cone-Beam CT: Opportunities and Shortfalls. Cleveland Clinic Conference. Cleveland, Ohio.


2006 Jan  IGRT at Princess Margaret Hospital - The Clinical Story. Elekta Synergy Research Group Meeting. Miami Beach, Florida.


2005 Sep  Imaging for Radiation Oncology, Flat-Panel Detector CT in Radiation Therapy. The European Federation of Organizations for Medical Physics (EFOMP) and the American Association of Medical Physics (AAPM). Nuremberg, Germany.


2005 Apr  Verification of IMRT. United Kingdom Radiation Oncology Annual Meeting. York, United Kingdom.


2005 Feb  IGRT at Princess Margaret Hospital. Massachusetts General Hospital Department of Radiation Oncology Image Guided Radiotherapy Workshop. Boston, Massachusetts.


2005 Jan  Visiting Professor. Image-Guided RT and Adaptations. Radiation Oncology Center, Mallinckrodt Insitute of Radiology, Washington University Medical Center, Barnes-Jewish Hospital. St. Louis, Missouri.
David Anthony JAFFRAY

2004 Oct  An Analysis of Inter-Fraction Prostate Deformation Relative to Implanted Fiducial Markers Using Finite Element Modeling. 46th Annual American Society for Therapeutic Radiology and Oncology (ASTRO). Atlanta, Georgia.


2004 Jun  Flat-panel Cone-Beam CT Systems For Image-Guided Radiotherapy. United Kingdom Radiological Conference. Manchester, United Kingdom.


2003 Aug  Cone-Beam CT Image Guidance for High Precision Radiotherapy. World Congress on Medical Physics and Biomedical Engineering. Sydney, Australia.


2003 Jun  An Integrated Approach to High Precision RT of the Prostate. Varian Lecture, Massachusetts General Hospital, Harvard University. Boston, Massachusetts.


2003 Feb  Three-Dimensional NEQ Characteristics of Volume CT Using Direct and Indirect-Detection Flat-Panel
David Anthony JAFFRAY


2003 Jan
Image-Guided Therapy. Midwinter Symposium of the American Association of Physicists in Medicine Southern California Chapter (AAPM). Los Angeles, California.

2002 Dec

2002 Dec

2002 Nov
Flat-Panel Cone-Beam Computed Tomography on a Mobile C-Arm. Siemens Medical Systems, Inc. Erlangen, Germany.

2002 Oct
Image-Guided IMRT for Soft Tissue Sarcoma. Workshop at the American Society of Therapeutic Radiology and Oncology (ASTRO) 44th Annual Scientific Meeting. New Orleans, Louisiana.

2002 Sep
Flat-Panel Cone-Beam CT: An Emerging Technology for Image-Guided Radiation Therapy. 21st European Society of Therapeutic Radiotherapy and Oncology (ESTRO) Annual Scientific Meeting. Praha, Czech Republic.

2002 Jul

2002 Jun
Flat-Panel Cone-Beam CT: An Imaging System for High-Precision Radiation Therapy of the Prostate. National Meeting of the American Association of Medical Dosimetrists, University of Michigan.

2002 May

2002 Apr

2002 Feb
Flat-panel Cone-Beam CT on a Mobile Isocentric C-Arm for Image-Guided Brachytherapy. SPIE Physics of Medical Imaging. San Diego, California.

2002 Feb
A Unified ISO-SNR Approach to Task-directed Imaging in Flat-panel Cone-Beam CT. SPIE Physics of Medical Imaging. San Diego, California.

2002 Jan
Applications of Flat-Panel Imagers in Radiotherapy. University of Michigan.

2002

2001 Sep
Flat-Panel Cone-Beam CT: An Imaging System for High-Precision Radiation Therapy of the Prostate. Penn-Ohio Chapter of the American Association of Physicists in Medicine (AAPM).

2001 Aug
**Invited Speaker.** Flat-Panel Cone-Beam CT for Image-Guided Procedure. University of Wisconsin. Madison, Wisconsin, United States.

2001 Jul
Flat-panel Cone-Beam CT: Dosimetric Considerations. American Association of Physicists in Medicine AAPM Annual Meeting. Salt Lake City, Utah.

2001 May
**Visiting Professor.** Cone-Beam CT for Image-Guided Radiation Therapy. Department of Radiation Oncology, Massachusetts General Hospital, Harvard University. Boston, Massachusetts.

2001 Mar
**Visiting Professor.** A System for High-Precision Radiotherapy of the Prostate. Department of Medical Physics, University of Wisconsin. Madison, Wisconsin.

2001 Mar
A Novel Imaging System for Guiding Radiation Therapy. Department of Nuclear Medicine, William
Beaumont Hospital, Detroit, Michigan.

2001 Feb  Flat-Panel Cone-Beam CT: A Novel Imaging Technology For Image-Guided Procedures. SPIE Visualization, Display, and Image-Guided Procedures. San Diego, California.

2001 Feb  A Volumetric Cone-Beam CT System Based On A 41x41 Cm2 Flat-Panel Imager. SPIE Physics of Medical Imaging. San Diego, California.

2000 Dec  Flat-Panel Cone-Beam CT for High-Precision Radiation Therapy of the Prostate. AvL, Netherlands Cancer Institute. Amsterdam, Netherlands.


2000 Sep  Flat-Panel Cone-Beam CT and Applications. Siemens Medical Systems, SP Group. Erlangen, Germany.

2000 Aug  Flat-Panel Cone-Beam CT: Applications in Image-Guided External Beam Radiation Therapy and Brachytherapy. ADAC Laboratories. Milpitas, California.


2000 May  MV and kV Cone-Beam CT on a Medical Linear Accelerator. Proceedings of the XIII ICCR. Heidelberg, Germany.


2000 Mar  Clinical Applications of IMRT: Prostate, Breast, And Colorectal Cancer. Torino, Italy.

2000 Mar  Cone-Beam CT for Image-Guided Radiation Therapy. Torino, Italy.


2000 Optimal X-ray Imaging Geometry For Flat-Panel Cone-Beam Computed Tomography. American
2000 An Investigation Comparing Optical CT with MR Scanning for Polymer Gel Dosimetry. American Association of Physicists in Medicine (AAPM).

2000 Experimental and Simulation Results Of Two-Dimensional Prototype Anti-Scatter Grids For Mammography. American Association of Physicists in Medicine (AAPM).


1997 May Accounting for Deformation of Organs in Dose/Volume Evaluation. XIIth International Conference on the Use of Computers in Radiation Therapy. Salt Lake City, Utah.

1997 May Exploring "Target of the Day" Strategies for a Medical Linear Accelerator with Cone-beam CT Scanning Capability. XIIth International Conference on the Use of Computers in Radiation Therapy. Salt Lake City, Utah.

1997 May The Use of Active Breathing Control (ABC) to Minimize Breathing Motion in Conformal Therapy. XIIth International Conference on the Use of Computers in Radiation Therapy. Salt Lake City, Utah.

1997 May Calculating the Effects of Intra-treatment Organ Motion on Dynamic Intensity Modulation. XIIth International Conference on the Use of Computers in Radiation Therapy. Salt Lake City, Utah.


1997 The Use of Active Breathing Control (ABC) to Characterize and Minimize Breathing Motion in Radiation Therapy. Proceedings of the ESTRO Workshop on “Challenges in Conformal Radiotherapy”. Nice, France.


1996 Issues on the Clinical Implementation of Dynamic Intensity Modulated Beams in Corsendonk Seminar:

1996

1995

1995

1994
Dual Beam Imaging for Conformal Radiation Therapy Verification. Xlth International Conference in the Use of Computers in Radiation Therapy. Manchester, United Kingdom.

1990

Presented Abstracts

2013 May 8 Speaker. Detector modeling and processing considerations for fluence field modulated computed tomography. 17th International Conference on the Use of Computers in Radiation Therapy (ICCR). Melbourne, Victoria, Australia.


2007 Jun  

2007 Jun  

2007 Jun  

2007 Jun  

2. NATIONAL

Invited Lectures and Presentations

2015 Nov 5  
**Invited Lecturer.** The Future of Cancer Medicine: Personal or Industrial? 1st Annual Chris Newcomb Memorial Lectureship, Royal University Hospital. Saskatoon, Saskatchewan, Canada.

2015 Jul 28  

2014 Aug  
**Invited Speaker.** Advanced Technology and Applications in Pre-clinical Irradiation. 2nd Symposium - Precision Image-Guided Small Animal Radiotherapy. Vancouver, British Columbia, Canada.

2010 Apr  

2007 Feb  
Spatio-Temporal Targeting and Amplification of Radiation Responses. A Program for Cellular, Pre-Clinical, and Clinical Studies, Montreal General Hospital. Montreal, Quebec.

2007 Feb  

2007 Feb  

2006 Mar  

2004 Sep  

2003 Nov  

1991  

Presented Abstracts

2011 Aug  
Simultaneous Detection of Macro- and Micro-Molecular Weight CT Contrast Agents to Non-Invasively Probe the Transport Microenvironment in Solid Tumours (Oral). Vancouver, British Columbia. Stapleton S,
3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations

2014 May 15 Invited Speaker. Imaging - Advances in Clinical Management (Clinical Research). Princess Margaret Cancer Centre Fifth Annual Faculty Retreat. Huntsville, Ontario, Canada.


4. LOCAL

Invited Lectures and Presentations


2015 Dec 10 **Invited Lecturer.** Imaging Technologies. Regenerative Medicine graduate course (MSC7000Y), Toronto General Hospital. Toronto, Ontario, Canada.


2015 Oct 15 **Invited Speaker.** Amsterdam to Vienna. Radiation Medicine Program Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Drs. Mary Gospodarowicz, **David Jaffray**, Danielle Rodin.


2015 Apr 17 **Invited Speaker.** IGRT Technology: How did we get here? Accelerator Technology (ATec) Education Course Webinar, Accelerated Education Program, Princess Margaret Cancer Centre. Toronto, Ontario, Canada.

2015 Mar 26 **Invited Lecturer.** Imaging Technologies. Regenerative Medicine Course Lecture, Training Program in Regenerative Medicine, Toronto General Hospital. Toronto, Ontario, Canada.


2015 Mar 6 **Invited Speaker.** Imaging Quality in CBCT. Liver SBRT IGRT Education Course, Accelerated Education Program, Princess Margaret Cancer Centre. Toronto, Ontario, Canada.

2014 Oct 21 **Invited Speaker.** Cone beam CT Primer. International Society for Pediatric Oncology Meeting. Toronto, Ontario, Canada.

2014 Jun 6 **Invited Speaker.** The RMP Quality and Safety Framework at PMH. Princess Margaret Cancer Centre, Quality & Safety in Radiation Therapy Education Course. Toronto, Ontario, Canada.


2014 Jan 30 **Invited Lecturer.** Imaging Technologies. University of Toronto, Faculty of Medicine, Institute of Medical Science. Toronto, Ontario, Canada. Regenerative Medicine graduate course (MSC7000Y).


2013 Jun 19  **Chair.** MR-guided Radiation Delivery: An Emerging Paradigm. 11th ISRS Congress. Toronto, Ontario, Canada.

2013 Apr 4  The Basics of IGRT: Cone-beam CT Primer. Princess Margaret Cancer Centre, Radiation Medicine Program. Toronto, Ontario, Canada.

2013 Apr 3  The Basics of IGRT: Cone-beam CT Primer. Princess Margaret Cancer Centre, Radiation Medicine Program, Head & Neck IGRT Education Course. Toronto, Ontario, Canada.

2013 Mar 2  **Keynote Speaker.** Future of Radiation Therapy. RTi3 Conference. Toronto, Ontario, Canada.

2013 Mar 2  **Invited Speaker.** Future of Radiation Therapy. RTi3 Conference. Toronto, Ontario, Canada.


2013 Jan 17  Cone-beam CT Primer. Lung IGRT Education Course: The Basics of Lung IGRT. Princess Margaret Cancer Centre, Radiation Medicine Program. Toronto, Ontario, Canada.

2013 Jan 17  Cone-beam CT Primer. Princess Margaret Cancer Centre, Radiation Medicine Program, Lung IGRT Education Course: The Basics of Lung IGRT. Toronto, Ontario, Canada.


2012 May 9  **Invited Speaker.** Personalized Cancer Medicine 101. PMHF’s Professional Advisors Appreciation Luncheon. Toronto, Ontario, Canada.


2012 Apr 18  **Invited Speaker.** Innovation in the Healthcare Setting: Concepts, Examples, and Opportunities. Technology and Engineering in Medicine (STEM), University of Toronto. Toronto, Ontario, Canada.

2012 Apr 12  **Invited Speaker.** Unus pro omnibus, omnes pro uno. RMP Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada.

2012 Jan 26  Techna Institute: Advancing Technologies for Health A New Institute, A New Way of Thinking, A Formula for Healthcare, Innovation and Commercialization. PMH Innovation Rounds, Princess Margaret Hospital. Toronto, Ontario, Canada.


2011 Aug 30  Safety, Quality and Science: Aligning for Progress in RT. RMP Physics Seminar, Princess Margaret Hospital. Toronto, Ontario, Canada.


2010 Apr  Technology and the Research Hospital. GTX Symposium Hart House, University of Toronto. Toronto, Ontario.


2008 Jun  IGRT Cone-Beam CT Primer, IGRT Implementation Strategies, Exploring the Frontiers of Image


2007 Oct    Are We Equipped to Integrate and Support Technology in the RT Setting. The Royal College of Physicians and Surgeons of Canada at the Meeting of the Canadian Association of Radiation Oncology (CARO). Toronto, Canada.


2007 May    IGRT II: Retooling Radiation Therapy. RMP Rounds, Princess Margaret Hospital. Toronto, Ontario.


2006 Nov    The RT Target Problem and PET Imaging. University of Toronto, Faculty of Pharmacy. Toronto, Ontario.

2006 Nov Visiting Professor. The RT Target Problem and PET Imaging. University of Toronto, Faculty of Pharmacy. Toronto, Ontario.


David Anthony JAFFRAY

Children, Grand Rounds. Toronto, Ontario. (Continuing Education).


2006 May  Target Insight: Innovative Strategies for Target Definition to Enhance the Therapeutic Ratio. The STTARR Program. Toronto, Ontario.


2005 May  Everyone is a STTARR. Innovation in Radiation Medicine Rounds, Princess Margaret Hospital. Toronto, Ontario.


2005 Feb  Designing, Assessing, & Guiding Therapy Through Time Course Multimodal Imaging. Proposed University of Toronto Centre for Clinical Technologies and Medical Devices Call for Participation in the Institute of Biomaterials & Biomedical Engineering, University of Toronto (IBBME). Toronto, Ontario.


2001 Aug  Visiting Professor. A system for high-precision radiotherapy of the prostate. Princess Margaret Hospital, University of Toronto. Toronto, Ontario.

# H. Research Supervision

## 1. PRIMARY OR CO-SUPERVISION

### Undergraduate Education

<table>
<thead>
<tr>
<th>Year</th>
<th>Type</th>
<th>Supervisor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Primary Supervisor</td>
<td>Greg Stortz</td>
<td>Characterization of CT image quality and documentation of image quality trends over time and between different scanners.</td>
</tr>
<tr>
<td>2008</td>
<td>Primary Supervisor</td>
<td>Anton Semechko</td>
<td>Correlation of volumetric CT/MR data with 3D histology models.</td>
</tr>
<tr>
<td>2008</td>
<td>Primary Supervisor</td>
<td>Owen Melville</td>
<td>Development of liposomes to encapsulate and circulate contrast agents for CT/MR imaging in vivo.</td>
</tr>
<tr>
<td>2008</td>
<td>Primary Supervisor</td>
<td>Tom Tang</td>
<td>Devise an efficient way to calculate absorbance in the mathematical model developed by Alexandra Rink.</td>
</tr>
</tbody>
</table>

### Graduate Education

<table>
<thead>
<tr>
<th>Date</th>
<th>Type</th>
<th>Supervisor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 Sep - present</td>
<td>Primary Supervisor</td>
<td>MSc. Ryan Elliott</td>
<td>Applying high throughput methods to cellular assays.</td>
</tr>
<tr>
<td>2013 Sep - present</td>
<td>Co-Supervisor</td>
<td>PhD. Yannan (Nancy) Dou</td>
<td>Heat-activated Thermosensitive Liposomal Cisplatin for Cancer Treatment.</td>
</tr>
<tr>
<td>2013 Sep - present</td>
<td>Primary Supervisor</td>
<td>MSc. Mattea Welch</td>
<td>MRI guided gel dosimetry.</td>
</tr>
<tr>
<td>2010 - present</td>
<td>Primary Supervisor</td>
<td>PhD. James Stewart</td>
<td>Techniques for quantitative microscopy.</td>
</tr>
<tr>
<td>2010 - present</td>
<td>Primary Supervisor</td>
<td>PhD. Mike Daly</td>
<td>Fusion of intraoperative cone-beam CT and endoscopic video for image-guided interventions.</td>
</tr>
<tr>
<td>2013 Sep - 2014 Aug</td>
<td>Primary Supervisor</td>
<td>MSc. Alborz Gorjizadeh</td>
<td>Simultaneous perfusion and hypoxia measurement with dynamic PET-FAZA.</td>
</tr>
<tr>
<td>2010 - 2014 Aug</td>
<td>Primary Supervisor</td>
<td>MSc. Winnie Li</td>
<td>PTV Margins for Image-guided SRS/SRT.</td>
</tr>
<tr>
<td>2006 Sep - 2013 Jun</td>
<td>Primary Supervisor</td>
<td>PhD. Gregory Bootisma</td>
<td>Deformation modeling in invasive procedures.</td>
</tr>
<tr>
<td>2006 Jan - 2013 Jun</td>
<td>Primary Supervisor</td>
<td>PhD. Steven Bartolac</td>
<td>Fluence Field Modulated CT.</td>
</tr>
<tr>
<td>2006 - 2010</td>
<td>Primary Supervisor</td>
<td>MSc. Amanda Moretti</td>
<td>Image guided radiation therapy coupled with immunotherapy.</td>
</tr>
<tr>
<td>2006 - 2008</td>
<td>Primary Supervisor</td>
<td>MSc. Steven Bartolac</td>
<td>A local frequency space description of artifacts in circular cone-beam computed tomography.</td>
</tr>
<tr>
<td>2005 - 2008</td>
<td>Primary Supervisor</td>
<td>PhD. Daniel Letourneau</td>
<td>Online planning and treatment for patients receiving palliative radiotherapy of bone metastases of the spine.</td>
</tr>
<tr>
<td>2004 - 2012</td>
<td>Primary Supervisor</td>
<td>PhD. Jeremy Hoisak</td>
<td>Parametric imaging for target classifications in PET/CT.</td>
</tr>
</tbody>
</table>
### 2004 - 2008


**Co-Supervisor.** MSc. Sean Graham. *Compensators in cone-beam computed tomography.*

**Co-Supervisor.** MSc. Robert Dinniwell. *Delineation of lymphatic structures using USPIO.*

**Co-Supervisor.** MSc. Philip Chan. *Geometric targeting in radiation therapy for cancer of the cervix.*

### 2003 - 2008

**Primary Supervisor.** PhD. Alexandra Rink. *Radiation dosimeter based upon radiation-inducation changes in the optical properties of different media.*

**Co-Supervisor.** MSc. Mirel Palamaru. *Optimization of energy for lung radiosurgery.*

**Co-Supervisor.** MSc. Robert Dinniwell. *Delineation of lymphatic structures using USPIO.*

**Co-Supervisor.** MSc. Philip Chan. *Geometric targeting in radiation therapy for cancer of the cervix.*

### 1999 - 2000

**Primary Supervisor.** MSc. Douglas Drake. *Characterization of a fluoroscopic imaging system for kV and MV radiotherapy.*

**Co-Supervisor.** PhD. Laura J. Pisani. *Limitations of patient set-up precision in external beam radiation therapy.*

### 1997 - 2000

**Primary Supervisor.** MSc. Yan Zhang. *Veiling glare in fluoroscopic portal imaging systems.*

**Co-Supervisor.** MSc. Kamal Chawla. *Fixed pattern noise in fluoroscopic portal imaging systems.*

### Postgraduate MD

**2005 - 2008**

**Co-Supervisor.** Clinical Fellow. Kevin Franks. *Stereotactic radiation therapy of the lung.*

**2003 - 2004**

**Co-Supervisor.** Clinical Fellow. Alan Nichol. *Influence of bowel preparation on the mobility of the prostate.*

**2001 - 2002**

**Primary Supervisor.** Clinical Fellow. Michel Ghilezan. *MR studies of prostate motion.*

**1998 - 2000**

**Primary Supervisor.** Larry Kestin. *Improving the dosimetric coverage of interstitial high-dose-rate breast implants.*

### Postdoctoral Research Fellow (PhD)

**2014 Aug - present**

**Primary Supervisor.** Erik Pearson. *CT reconstruction methods for clinical and pre-clinical applications.*

**2013 Sep - present**

**Primary Supervisor.** Fred Sun. *Nanotechnology based X-Ray devices.*

**2014 May - 2015 Mar**

**Primary Supervisor.** Kimia Ghobadi. *Optimization methods in inverse treatment planning for continuous dose delivery with Perfexion.*

**2013 Dec - 2015 May**

**Primary Supervisor.** Tord Hompland. *Functional MRI for assessing and predicting tumor response to radiation treatment.*

**2003 - 2006**

**Primary Supervisor.** Kristy Brock. *Utilization of MR-derived image sets in radiation therapy and research.*

**2003 - 2006**

**Primary Supervisor.** Harald Keller. *Development of intervention strategies for geometric guidance of field placement.*

**2002 - 2003**

**Primary Supervisor.** AfSaneh Amirabadi. *X-ray scatter in cone-beam CT.*

**2000 - 2001**

**Primary Supervisor.** Carl Rowbottom. *Imageable dosimeters for integral checks of IGRT.*

**1998 - 2000**

**Primary Supervisor.** Jeffrey Siewerdsen. *Flat-panel cone-beam CT.*

**1997 - 1999**

**Co-Supervisor.** Michel Moreau. *Geometric characterization of a medical linear accelerator.*
Curriculum Vitae

Brian Michael Keller
PhD, DABR, FCCPM

A. Date Curriculum Vitae is Prepared: 2016 June

B. Biographical Information

Primary Office: Sunnybrook Health Sciences Centre
Odette Cancer Centre
Department of Medical Physics, Rm TG-284
2075 Bayview Avenue
Toronto, Ontario
CANADA M4N 3M5

Business Telephone #: 416-480-5000 ext. 1094

E-mail Address: Brian.Keller@Sunnybrook.ca

Citizenship: Canadian
1. EDUCATION

Degrees

2009  Ph.D., Radiation Medicine / Medical Physics, University of Toronto, Toronto, Ontario
1994  M.Sc., Radiation Physics, McGill University, Montreal, Quebec
1991  B.Sc., Honours Physics, University of Waterloo, Waterloo, Ontario

Postgraduate, Research and Specialty Training

1994 - 1995  Fellowship in Clinical Radiation Physics, Department of Radiation Oncology, University of Miami, Florida. Supervisor: Joseph Ting
Supervisor: John Schreiner
1981 - 1986  Bluevale Collegiate Institute, Waterloo, Ontario  
SSHGD (Secondary School Honour Graduation Diploma)

Qualifications, Certifications, Licenses

2010 Oct  Peer Review B Credentialing Achieved, Credentialing Committee, Cancer Care Ontario, Ottawa, Ontario
2010  Fellowship (FCCPM), Canadian College of Physicists in Medicine
1998  Diplomate (DABR), American Board of Radiology, United States
2. EMPLOYMENT

Current Appointments

2014 Jul 1 – present  
**Associate Member**, Institute of Medical Sciences, University of Toronto, Toronto, Ontario, Canada  
*Primary Graduate Unit*

2014 Jan – present  
**Senior Staff Physicist**, Dept Medical Physics, Sunnybrook Health Sciences Centre, Odette Cancer Centre, Toronto

2013 Jan – present  
**MRI-Linac Physics Lead**, Clinical Implementation and Projects

2012 Jan – present  
**Education Site Lead**, Physics Residency Program U of T, Dept Medical Physics, Sunnybrook Health Sciences Centre, Odette Cancer Centre, Toronto  
*Medical Physics Residency Training Program*

2010 Jan – present  
**Assistant Professor**, Dept Radiation Oncology, University of Toronto, Toronto, Ontario

Previous Appointments

2013 Jan –2013 Dec  
**Interim Chief**, Department of Medical Physics  
Sunnybrook Health Sciences Centre, Toronto, Canada  
- Responsible for Staff of 40, including 18 PhD Physicists  
- Site Lead for Medical Physics Residency Program  
- Operations / Organization of Workload Structure  
- Implementation of Site-Based Model  
- Managing a Budget of about 6 Million per annum  
- Negotiations with 3 Union Groups  
- HR related issues  
- Purchasing / Procurement for Capital Equipment  
  *MRI Linac, Gamma Knife, Linacs*

2010 Dec – 2012 Dec  
**Senior Staff Physicist** (as per CCO definition of senior physicist), Dept of Medical Physics, Sunnybrook Health Sciences Centre, Odette Cancer Centre, Toronto

**Staff Medical Physicist**, Dept of Medical Physics, Sunnybrook Health Sciences Centre, Odette Cancer Centre, Toronto  
- Development of High Dose Rate Prostate Program (2001)  
- Responsible for QA of Linear Accelerators (2001 - 2012 )
- Patient Radiation Chart QA (2001 - Present)
- Development of Permanent Breast Seed Implant Program and Lead Physicist (2003 - Present)
- High Dose Rate Brachytherapy (2001 - 2012)
- Head of SBRT Lung Program (2009 - 2012)
- Physics Lead, Residency Training Program atOdette Cancer Centre as of 2012
- Physics Lead for Breast Site Group (2011-2012)
- Lead Physicist for Active Breathing Coordinator (ABC) for Motion Management during Breast Radiotherapy (2011 - 2012)

1999 – Sept 2000  **Consultant Medical Physicist**, Radiation Physics, Inc., Miami, Florida, USA
- Instituted first prostate seed implant program in Puerto Rico
- Linacs: Siemens, Varian, GE
- Planning: Pinnacle, CMS Focus

1995 – 1999  **Staff Medical Physicist**, Mount Sinai Comprehensive Cancer Center, Department of Radiation Oncology, Miami Beach, Fl

External Beam: Pinnacle TPS, Varian Linacs, IORT, Superficial unit, Co-60 unit

Brachytherapy: HDR: lung, gyn, sarcomas (150 cases/yr)  
LDR: prostate

- Developed HDR Prostate Program (1997)
- Developed Novel Total Body Irradiation Program (1996)

1994 – 1995  **Gamma Knife Radiosurgery Physicist**, Department of Radiation Oncology, University of Miami, Miami, FL.
- Clinical Implementation of Gamma Knife Treatment Unit
- Planned & Treated 150 patients during first year

**OTHER**

Ionizing Radiation Standards Laboratory
*Co-op work experience*
Electron spin resonance (esr) was used to probe radiation induced changes in alanine pellets. The esr / alanine dosimeter is presently in use as a food irradiation dosimeter. Supervisor: Norman Klassen

1990 April – 1990 Aug  Ottawa General Hospital, Department Physiology, Ottawa  
*Co-op work experience*

- Dosimetry characterization of a Cs-137 small animal irradiator

1989 Sep – 1989 Dec  University of Notre Dame, South Bend, Indiana, USA  
Radiation Laboratory  
*Co-op work experience*

- Radiation Chemistry Research  
- Pulse radiolysis using high energy electron beams to characterize lifetimes of short lived ions and radicals

*Co-op work experience*

- Development of a high energy absorbed dose standard for photons and electrons (eventually TG-51)  
  Supervisor: David Rogers' group

*Co-op work experience*

HIGHLIGHTS OF CLINICAL SERVICE & LEADERSHIP

- Implemented/Lead Gamma Knife Radiosurgery Program (1994)  
- Developed/Lead a Pediatric Total Body Irradiation Program (1996)  
- Developed the first Prostate Seed Implant Program on the island of Puerto Rico: Involved flying to island for first few cases then dosimetry done remotely (1999)  
- Lead physicist for first CT-based HDR Prostate Program in South Florida (1998)  
- In charge of Co-60 teletherapy source replacement (1998)  
- Commissioned Pinnacle Treatment Planning System (1998)  
- Acted as interim Head of Physics in busy Miami clinic for 6 months (1996)  
- Co-developer and Lead medical physicist in Permanent Breast Seed Implant program, the first of its kind. The permanent breast seed implant eliminates 4-6 weeks of external beam radiation in select patients (2004 – present). Have lead
breast seed implant program for past 10 years, through 3 clinical trials, since its inception.

- Lead the development of the HDR prostate program at Sunnybrook in 2001.
- Lead the commissioning team for Siemens Primus linear accelerator (photons and electrons) in 2001 at Sunnybrook.
- Resource physicist (for electronics, therapists) for a number of linacs that I have been responsible for over the past 10 years at Sunnybrook. In general, I have had a minimum of 2 linacs at all times throughout the past 16 years of clinical physics service.
- Lead physicist for SBRT Lung (Ablation) Program at Sunnybrook (2009 – 2012)
- Interim Chief, Department of Medical Physics, Sunnybrook Odette Cancer Centre (Jan 2013 – Dec 2013)

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2006 Aug  Poster of Special Merit, American Association of Physicists in Medicine, Annual Meeting, Orlando, Florida August 2006 (Distinction)
“First report on a badge survey for family members living with permanent Pd-103 breast seed implant patients”

NATIONAL

Received

2006 Jun  Best Oral Presentation at conference “2nd Place”, Canadian Organization of Medical Physicists Meeting, Saskatoon, Saskatchewan (Distinction)
“Characterization of Intermediate Energy X-Ray Photons (0.2 - 1.0 MeV) for stereotactic radiosurgery: experimental demonstration of reduced radiological penumbra”

PROVINCIAL / REGIONAL

Received
1986  **Ontario Scholar Award**, Ontario, Canada  
*Total Amount = 100*

**LOCAL**  
**Received**

2008  **Doctoral Research Award**, University of Toronto, Faculty of Medicine, Toronto, Ontario, Canada (Research Award)  
*Total Amount = 20,000*

2006  **Alan Wu Poster Competition “Honourable Mention”**, IMS Annual Scientific Day, University of Toronto, Faculty of Medicine, Toronto, Ontario (Distinction)  
*Total Amount = 25*

2006  **Doctoral Research Award**, University of Toronto, Faculty of Medicine, Toronto, Ontario, Canada (Research Award)  
*Total Amount = 20,000*

2005  **Doctoral Research Award**, University of Toronto, Faculty of Medicine, Toronto, Ontario, Canada (Research Award)  
*Total Amount = 20,000*

2005  **Open Fellowship Award**, Institute of Medical Science, University of Toronto, Faculty of Medicine, Ontario, Canada  
*Total Amount = 5000*

**Teaching and Education Awards**

**LOCAL**  
**Received**

2011 Jul – 2012 Jun  **Teaching Award**, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Dept of Radiation Oncology  
*Excellence in Physics Teaching*

**4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

**Professional Associations**

- **Full Member**, Canadian Organization of Medical Physicists (COMP)  
- **Full Member**, American Association of Physicists in Medicine (AAPM)
**Full Member**, International Radiation Physics Society (IRPS)
**Full Member**, American Society for Radiation Oncology (ASTRO)

**Administrative Activities**

**INTERNATIONAL**

2012 – Present  **Member**, Elekta MR-Linac Consortium Group
2013 – Present  **Member**, Quality Assurance Working Group, MR-Linac Consortium
2013 – 2014  **Member**, MRI Working Group, MR-Linac
2014 – Present  **Member**, Breast Tumour Site Group Physics Representative, MR-Linac Consortium

**NATIONAL**

Canadian College of Physicists in Medicine (CCPM)

2011 Mar 12  **Exam Invigilator**, MCCPM exam, Canada
2012 Mar  **Exam Invigilator**, MCCPM exam, Canada
2013 Mar  **Exam Invigilator**, MCCPM exam, Canada

**PROVINCIAL / REGIONAL**

2013  **Member**, Physics Professional Advisory Committee (PPAC)

**LOCAL**

Sunnybrook Odette Cancer Centre

2013  **Member**, Clinical Operations Committee for the Radiation Program
2013  **Member**, Steering Committee for the Radiation Program
2013  **Member**, Selection Committee for Radiation Program Head
2012  **Member**, Odette Strategic Planning Advisory Group
   *Establishing the 5 year plan for the Odette Cancer Program*
2012 - Present  **Member**, Professional Education Program Advisory Committee
   *Established speaker list for monthly rounds*
2011  **Physics representative**, RESPECT Program
   *Monthly meetings*
2011 - Present  **Co-ordinator**, Physics Rounds
2001 – 2003  **Consultant**, Canadian Radiation Oncology Services (CROSS)

**University of Toronto, Department of Radiation Oncology**

2016 Jan  **Member**, Physics Residency Interviews, Hired 1 Physics Resident
2015 Jan  Member, Physics Residency Interviews, Hired 2 Physics Residents
2014 Nov  Member, Physics Residency Interviews, Hired 2 Physics Residents
2013 Nov  Member, Physics Residency Interviews, Hired 1 Physics Resident
2013 June Member, Physics Residency Interviews, Hired 1 Physics Resident
2013 - Present Member, Program Review Committee, Michener Institute
Periodic (typically quarterly) review of students in difficulty and
recommendations to board of examiners.
2013 - Present Member, Executive Committee
2013 - Present Member, Promotions Review Committee, Michener Institute
2011 Member, Informatics for Radiation Oncology / Data Warehouse
2011 – Present Member, Physics Residency Program Committee (PRPC)
Regular meetings and improvements to program
Re-accreditation process in 2013
Candidate selection hiring / interview process
2010 - Present Member, Residency Program Committee (RPC)
2010 Interview Panel Member, CaRMS interviews

University of Toronto, Institute of Medical Science

2016- Judge, Alan Wu Poster Competition
2015 - Judge, Alan Wu Poster Competition

Ryerson University

2014 - Member, Medical Physics Undergraduate Program Advisory
Committee
3 year term commitment

Moderator

2016 Aug MRgRT Session, AAPM Annual Meeting, 2 hour session
2013 Sept Brachytherapy Session: COMP/CARO Annual Meeting,
Montreal, 1.5 hours

Editorial & Peer-Reviewed Manuscript Responsibilities

International Journal of Radiation Oncology Biology Physics
Medical Physics
Physics in Medicine and Biology
Radiation Oncology
C. RESEARCH FUNDING

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

Currently funded as Co-Principal Investigator

Jan 2016 - Evaluation of a Linear Accelerator Software (SIMAC) for use in educating physics residents.
Principal Investigators (PI): M Carlone, B Keller, N Harnett, and A McNiven
University of Toronto / Department of Radiation Oncology Seed Funding Grant
Total amount funded = 62,500 over 1 years

2014 March - Elekta Industry Funding / Contract
MRI Linac: Evaluation & Development of the Monaco Treatment Planning System for the Elekta MRI Linac
Elekta Funding
Principal Investigators (PI): B Keller & A Sahgal
Total Amount Funded = 602,500 over 3 years

Currently funded as Co-Investigator

June 2016 - 4D Phantom for MR-guided Radiation therapy
Principal Investigator (PI): Brige Chugh
Co-Investigators: Song W, Keller BM, Soliman A, Stanisz G, Sahgal A.
Total amount funded = 40,000

2014 Jan - High fidelity simulation-based training in radiation therapy: attitudes and behaviors towards safety in radiation therapy.
Ontario Simulation Network
Principal Investigator: Jean-Pierre Bissonnette
Co-Investigators: Keller BM, Catton P, Szumacher, E, Liszewski B, and DiProspero, L.
Total amount funded = 25,000 (one time, non-renewable)
Previously funded as PI

2007 Feb  Development of a Digital Microscopy Imaging System to Analyze Dose Gradients in Radiochromic Films
Canadian Head & Neck Cancer Foundation.
Total Amount: 40,000 (one time, non-renewable)
**Principal Investigator: Keller B**
Co-investigator: Pignol JP

Previously funded as Co-Investigator

University of Toronto / Department of Radiation Oncology
Principal Investigators: Purdie T, Ruschin M, Zhang B
Total amount funded = 62,500 over 1 years (Oct 1 2013 – Sept 30 2014)

2009 Mar  A phase II study of adjuvant permanent breast seed implant (PBSI) for ductal carcinoma in situ (DCIS). Funded by The Canadian Breast Cancer Foundation (CBCF) - Ontario Chapter.
Total amount funded = 448,340 over 3 years (2009-2012)
Principal Investigator: Jean-Philippe Pignol
Co-Investigators: Rakovitch E, Caudrelier JM, Paszat L, **Keller B** and Cygler J.

Total Amount Funded: 297,300 over 3 years (2006-2009)
Principal Investigator: Jean-Philippe Pignol
Co-investigators: Caldwell C, **Keller B**, Beachey D, Reznik A.

2004 Apr  A Phase I/II clinical trial evaluating the safety and the feasibility of Breast Permanent Implant (BPI) using 103-Palladium seeds for partial breast radiation. Funded by The Canadian Breast Cancer Foundation (CBCF) - Ontario Chapter.
Total amount funded = 283,858 over 3 years (2004-2007)
Principal Investigator: Jean Philippe Pignol
Co-Investigators: **Keller B**, Rakovitch E, Benk V, Sankreacha R, Que W.
A Phase I/II Study of single fraction High Dose Rate (HDR) brachytherapy and hypofractionated external beam radiotherapy in intermediate risk carcinoma of the prostate. Funded by The Canadian prostate cancer research initiative (CPCRI).
Total amount funded = 26,404.
Principal Investigator: Gerard Morton
Co-Investigators: Morton G, Loblaw A, Sankreacha R, Keller B.

CLINICAL TRIALS

Keller BM, Lee J, McCann C et al. A prospective trial comparing two breast irradiation techniques in terms of dose to the heart. (July 2014, submitting to ethics for approval and applying for research funding for this trial, aiming for multi-center trial)

Pignol JP, Caudrelier JM, Rakovitch E, Keller B and Cygler J. A phase II study of adjuvant permanent breast seed implant (PBSI) for ductal carcinoma in situ (DCIS) (April 2009 - Present). REB# OCREB 09-012 CBCF


D. Publications

1. PEER-REVIEWED PUBLICATIONS

   (PA = primary author, SRA = senior responsible author, CPA = co-principal author, C = collaborator)

Journal Articles


9. Keller BM, Beachey D and Pignol JP. Experimental measurement of radiological penumbra associated with intermediate energy x-rays (1 MV) and small radiosurgery field sizes. Med Phys 34(10), 3996-4002, 2007. (PA)


Submitted Journal Articles


Abstracts (Peer-Reviewed)


76 Ahmad S, Sarfehnia A, Sahgal A, Keller B. Backscatter dose factors re-evaluated for inhomogeneities in the presence of a 1.5 T magnetic field using the GPUMCD Monte Carlo algorithm. Med Phys 43(6), 3854, 2016.


82. H Nusrat, G Pang, SB Ahmad, B Keller, A Sarfehnia. Towards LET detection: a study on effects of scintillator doping. (Accepted to COMP for 2016)

83. Hahn E, Soliman H, Vesprini D, Bosnic S, Keller BM,McCann C, Makhani N, Lee J. Hypofractionated partial breast irradiation for locally advanced breast cancer in metastatic and medically inoperable patients (Accepted to CARO and ASTRO for 2016).


2. NON-PEER-REVIEWED PUBLICATIONS & GOVERNMENT REPORTS

Articles and Reports


Book Chapters


Patents / Disclosures


A. Presentations and Special Lectures

PRESENTATIONS (PEER-REVIEWED)

1. INTERNATIONAL


2009 Keller et al. Small field intracranial radiosurgery using intermediate energy x-rays (1 MV) to improve dose gradient and homogeneity. American Association of Physicists in Medicine annual meeting, Anaheim, California, July 2009. (Oral)

2006 Keller et al. Intermediate energy x-ray photons (0.2 - 1.0 MeV) for radiosurgery: producing a beam and measurement of radiological penumbra. American Association of Physicists in Medicine annual meeting, Orlando, Florida, August 2006. (Oral)
2006 Keller et al. Characterization of Intermediate Energy X-Ray Photons (0.2 - 1.0 MeV) for stereotactic radiosurgery: experimental demonstration of reduced radiological penumbra. American Association of Physicists in Medicine annual meeting, Orlando, Florida, August 2006. (Oral)


2002 Keller et al. A retrospective study of total treatment time versus prostate gland volume in HDR prostate brachytherapy for two institutes. The American Association of Physicists in Medicine annual meeting, Montreal, Canada 2002.


2. NATIONAL (PEER-REVIEWED)


2006 Keller et al. Intermediate energy x-ray photons (0.2 – 1.0 MeV) for stereotactic radiosurgery applications: demonstration of reduced penumbra. Canadian Brain Tumour Symposium, Winnipeg, Manitoba, May 2006. (Oral)

2006 Keller et al. Characterization of intermediate energy x-ray photons (0.2 - 1.0 MeV) for stereotactic radiosurgery: experimental demonstration of reduced radiological penumbra. Canadian Organization of Medical Physicists annual meeting. Saskatoon, Saskatchewan, June 2006. (Oral)


1993 Keller et al. NMR studies of the Fricke-gelatin dosimeter. The Canadian Organization of Medical Physicists annual meeting, Ottawa, Ontario, May 1993. (Oral)

3. PROVINCIAL / REGIONAL (PEER-REVIEWED)

2001 Keller et al. HDR prostate brachytherapy as a new treatment option at Toronto-Sunnybrook Regional Cancer Centre. 18th Cancer Care Ontario Biennial Research Conference, November 2001. (Oral)

INVITED LECTURES AND PRESENTATIONS

INTERNATIONAL

2015 Dec 5 MRI Linac Current Research and Progress Update. Consortium Meeting, Houston, Texas at MD Anderson, USA

2015 Sep 14 Evaluation of a GPU-Based Monaco Algorithm for use with the MRI Linac. University Medical Centre, Utrecht, The Netherlands.


2013 Oct 30 MRI Linac Research Projects Update. Consortium Meeting, Houston, Texas at MD Anderson, USA


NATIONAL

2009 May 31 Breast Seed Therapy. American Brachytherapy Society Annual Meeting, Toronto, Canada
2009 May 1  *Intermediate energy x-rays for high precision, small field radiation therapy*. National Cancer Institute of Canada grant group meeting hosted by Luc Beualieu, Quebec City, Canada

**LOCAL / REGIONAL**

2015 Nov 11  Monaco and the MRI Linac. Cancer Ablative Therapy (CAT) Program in Action, Department of Radiation Oncology, Sunnybrook Health Sciences Centre, Toronto.

2015 May 22  *The Atlantic Project: Current Status*. Department of Medical Physics, Sunnybrook Odette Cancer Centre, Toronto.

2013 Sept 4  *MR Linac Project Update*. Department of Medical Physics, Sunnybrook Odette Cancer Centre, Toronto.


2011 Dec 19  *Implementation of Active Breathing Coordinator (ABC) for Left Sided Breast Cancer Patients*, Physics Rounds, Department of Medical Physics, Sunnybrook Odette Cancer Centre, Toronto.


2009 Sept 8  *Intermediate energy x-rays (1 MV) for high precision, small field radiosurgery*. Inter-disciplinary Radiation Oncology Rounds, web-cast, Sunnybrook Odette Cancer Centre, Toronto.

**MULTIMEDIA**

**INTERNATIONAL**


2005  HeartBeats episode on the permanent breast seed implant technique for women with early stage breast cancer, Women’s Network.

NATIONAL


LOCAL / REGIONAL

2004 Sep 9  “Breast cancer treatment takes one hour”, The Toronto Star, Ontario, Canada.


B. Research Supervision

Research Supervisor

2015 Sept – April  Stephanie Lim Reinders, BSc candidate  
(co-supervisor with Dr Anthony Kim)  
4th year undergraduate research project, University of Toronto, Department of Physics student  
Research Project: “Treatment planning strategies for hypofractionated breast irradiation in an MRI Linac”

2015 Sept – April  Caryn Geady, BSc candidate  
(co-supervisor with Dr Claire McCann)  
4th year undergraduate research project, Ryerson University Department of Physics student  
Research Project: “Margin determination for hypofractionated partial breast irradiation”

2015 May - Shahad Al-Ward, MSc  
Research Project: Development of a 4D treatment planning methodology for the MRI-Linac. (research assistant position)

2015 Jan - Syed Bilal Ahmad, PhD
Research Project: Validation of the Elekta Monaco TPS System against Geant4, considering magnetic field effects in the Elekta MRI-Linear accelerator (Post Doctoral Position)

2014 Sept - April  
**Stephanie Lim Reinders, BSc candidate**  
4th year undergraduate research project, University of Toronto, Department of Physics student

2014 - 2015  
**Moti Raj Paudel, PhD**  
Validation of a GPU-Based Monte Carlo dose calculation algorithm for use with an Elekta MRI-Linear Accelerator (residency project)

2010 - 2012  
**Anthony Kim, PhD**  
Towards the Clinical Implementation of Volumetric Modulated Arc Therapy for SBRT Lung (residency project)

2009 May  
**Christophe Pignol**  
The development of a teaching DVD for the permanent breast seed implant procedure (undergraduate summer student)

2009 - 2011  
**Ananth Ravi, PhD**  
The use of Cs-131 for a permanent breast seed implant (residency project)  
*Developed into a published manuscript*

2006 - 2008  
**Rick Holly, PhD**  
NMR Properties of Gafchromic EBT radiochromic film and potential use as an absolute dosimeter (residency project)  
*Developed into a published manuscript*

2002 – 2004  
**Michelle Nielsen, MSc**  
MAGIC Polymer Gel Dosimetry using CT as the read-out modality (residency project)

Thesis Reviewed


Xiao Juan Zheng. Dose enhancement on nanoparticle addition using kilovoltage photon beams and megavoltage electron beams in skin therapy: a monte carlo study. Reviewed April 2016 for Ryerson University. 4th year undergraduate research project.
Stephanie Lim-Reinders. Magnetic field dose effects for different radiation beam geometries for patient’s treated with hypofractionated partial breast irradiation. Reviewed April 2016 for University of Toronto, Dept of Physics. 4th year undergraduate research project.

TEACHING DOSSIER

Undergraduate Education

2014 Sept – 2014 Dec  The Michener Institute of Applied Health Sciences
University of Toronto

- Introduction to treatment planning systems (2 hr Lecture)
- Irregular fields (2 hr Lecture)

2013 Sept – 2013 Dec  The Michener Institute of Applied Health Sciences
University of Toronto

- Introduction to treatment planning systems (2 hr Lecture)
- Heterogeneities in Dosimetry (2 hr Lecture)
- Treatment Planning: Combined effects (2 hr Lecture)
- Irregular fields (2 hr Lecture)

Teaching effectiveness scores available upon request
Approximate # students = 50

2012 Sept – 2012 Dec  The Michener Institute of Applied Health Sciences
University of Toronto

- Introduction to treatment planning systems (2 hr Lecture)
- Heterogeneities in Dosimetry (2 hr Lecture)
- Treatment Planning: Combined effects (2 hr Lecture)
- Irregular fields (2 hr Lecture)

Teaching effectiveness scores available upon request
Approximate # students = 50

2011 Sept – 2011 Dec  The Michener Institute of Applied Health Sciences
University of Toronto

- Introduction to treatment planning systems (2 hr Lecture)
- Heterogeneities in Dosimetry (2 hr Lecture)
- Treatment Planning: Combined effects (2 hr Lecture)
- Irregular fields (2 hr Lecture)
Teaching effectiveness scores available upon request
Approximate # students = 50

2010 Nov 30  Ryerson University, Department of Physics
- Radiation therapy and x-ray generators (3 hrs Lecture)

2001 - 2008  The Michener Institute of Applied Health Sciences
              University of Toronto
- Stereotactic Radiosurgery (3 hours/year Lecture)
- Brachytherapy (3 hours/year Lecture up until 2005)

Postgraduate Education

2016  Rotation Supervisor for PGY3 Treatment Planning
      University of Toronto, Department of Radiation Oncology
      Evaluation of PGY3 Residents using POWER

2016  University of Toronto, Department of Radiation Oncology
      Radiation Oncology & Medical Physics Residents
      Applied Physics Course
- Conjunctival Lymphoma, electrons versus photons (1 hr)
- Brachytherapy: Physics Basics Didactic Lecture (1 hr)
- Brachytherapy: Tongue Cancer (1 hr)
- Radiation Protection (1 hr)

2015  Rotation Supervisor for PGY3 Treatment Planning
      University of Toronto, Department of Radiation Oncology
      Evaluation of PGY3 Residents using POWER

2015  University of Toronto, Department of Radiation Oncology
      Radiation Oncology & Medical Physics Residents
      Applied Physics Course
- Conjunctival Lymphoma, electrons versus photons (1 hr)
- Brachytherapy: Physics Basics Didactic Lecture (1 hr)
- Brachytherapy: Tongue Cancer (1 hr)
- Radiation Protection (1 hr)

2015  University of Toronto, Department of Radiation Oncology
      Medical Physics Residency Classroom Tutorial Sessions
- IMRT / VMAT (1.0 hrs)
2014 University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions

- Basic Interactions (1.0 hrs)
- Instrumentation (1.5 hrs)
- TBI / IORT / TSEI (1.5 hrs)
- HDR Brachytherapy (1.0 hrs)
- Imaging (1.5 hrs)
- Brachytherapy Basics (1.0 hrs)

2014 University of Toronto, Department of Radiation Oncology
Radiation Oncology & Medical Physics Residents
Applied Physics Course

- Radiation Safety (1 hr)
- Gynaecological Case Study (1 hr)

2013 University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions

- Basic Interactions (1.0 hrs)
- Mock Examination for resident Sonier (2 hrs)
- VMAT & IMRT Treatment Planning (1 hr)

2013 University of Toronto, Department of Radiation Oncology
Radiation Oncology & Medical Physics Residents
Applied Physics Course

- Brachytherapy Basics (2 hr)
- Gynecology Case Study (1 hr)

2012 - 2013 Rotation Supervisor for PGY3 Treatment Planning
University of Toronto, Department of Radiation Oncology
Evaluation of PGY3 Residents using POWER

2012 University of Toronto, Department of Radiation Oncology
Radiation Oncology & Medical Physics Residents
Applied Physics Course

- Treating tonsillary cancer (1 hr)
- Treating cervical cancer: external beam and brachy (1 hr)
- Treating tonsillary cancer repeat (1 hr)

2012 University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions
- Treatment Planning: field shaping/skin doses/junctions (1 hr)
- Radiation Safety I (1.5 hrs)
- Dose Calculation Algorithms (1.0 hrs)
- Radiation Safety II (1.5 hrs)
- Interpreting Treatment Plan (1.0 hrs)
- Dosimetry Equipment (1.5 hrs)
- Quality Management (2.0 hrs)
- Breast Cancer (1.0 hrs)
- Calibration of external beam treatment units (1.5 hrs)
- Lung Cancer (1.0 hrs)
- Treatment Planning Process (1.5 hrs)
- Single Beam Characteristics – Photons (1.5 hrs)
- Brachytherapy Basics: Isotopes and Equipment (1.0 hrs)

2011
University of Toronto, Department of Radiation Oncology
Radiation Oncology & Medical Physics Residents
Applied Physics Course

- Treating eyelid lymphoma using superficial vs electrons (1 hr)
- Squamous cell carcinoma of the tongue, xrt and brachy (1 hr)
- Treating Lung Carcinoma (double session 2 hrs)
- Lung SBRT (1 hr)
- Brachytherapy Basics (1 hr)

2011
Specialized Radiotherapy Techniques Observer Teaching

- SBRT Lung Program (4 visitors from Credit Valley Hospital to observe technique in August 2011)

2011
University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions

- Photon Interactions (1.5 hrs)
- Interactions of electrons with matter (1.5 hrs)
- HDR Brachytherapy and LDR prostate seeds (1.5 hrs)
- Radiosurgery (1.5 hrs)
- Radiation Safety and shielding design (1.5 hrs)
- Dose Calculation Algorithms (1.5 hrs)
- Linacs (1.0 hrs)
- HDR Prostate (1.5 hrs)
- Treatment Planning: Field Junctions & MLC (1.5 hrs) – June/11
- Quality management (1.5 hrs)
- Planning: Beam Arrangements and combination of beams (1.5 hrs)
- Planning: Beam Arrangements and combination of beams (1.0 hrs)
2010
University of Toronto, Department of Radiation Oncology
Radiation Oncology & Medical Physics Residents
Applied Physics Course

- Treating Lung Carcinoma (1 hr)
- Lung SBRT (1 hr)
- Brachytherapy review (1 hr)

2010
University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions

- Total body irradiation and total skin electron therapy (1 hr)
- Respiratory motion management & SBRT (1 hr)
- Prostate Cancer (1.5 hrs)
- Lung Cancer (1.5 hrs)
- Head & neck cancer (1.5 hrs)

2009
University of Toronto, Department of Radiation Oncology
Radiation Oncology & Medical Physics Residents
Applied Physics Course

- Treating Lung Carcinoma (2 hrs)
- Treating squamous cell carcinoma of tongue (1 hr)
- Radiosurgery for chondrosarcoma of base of skull (1 hr)

2009
University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions

- Single beam characteristics (1.5 hrs)
- Interaction of electrons with matter (1.5 hrs)
- Radiation treatment techniques – Lung Cancer (1.5 hrs)
- Radiation treatment techniques – Pelvis (1 hr)

2005 – 2008
University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions

- Imaging I: X-ray, CT, U/S, MRI, PET (1.0 hrs)
- Photons: single beam characteristics (1.0 hrs)
- Electrons: single beam characteristics (1.0 hrs)
- Electron Interactions (1.5 hrs)
- Single Beam Planning (1.0 hrs)
- Single Beam Planning (1.5 hrs)
2007
University of Toronto, Institute of Medical Sciences
MSC1500H - Advanced Radiotherapy and Medical Physics
Monte Carlo Simulation Workshop (3 hrs

2004
University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions
(Fall/Winter: 2 hours / every other week)

2003
University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions
(Fall/Winter: 2 hours / every other week)

2002 – 2003
University of Toronto, Institute of Medical Sciences
MSC1500H - Advanced Radiotherapy and Medical Physics
Immobilization and Treatment Verification (3 hrs Lecture)

2002
University of Toronto, Department of Radiation Oncology
Medical Physics Residency Classroom Tutorial Sessions
(Fall/Winter: 2 hours / every other week)

STUDENTS SUPERVISED

Primary Supervisor

Medical Physics Residents supervised through 2 year U of T residency

2015 Jan – Present  Shahram Moushaf: medical physics resident (supervisor)

2014 Jan – 2015 Dec  Moti Raj Paudel: medical physics resident (supervisor)
Candidate successfully completed residency

2013 - 2015  Marcus Sonier: medical physics resident (supervisor)
Candidate successfully completed residency

2010 - 2012  Anthony Kim: medical physics resident (supervisor)
Candidate successfully completed residency

2002 – 2004  Michelle Nielsen: medical physics resident (supervisor)
Candidate successfully completed residency.

OTHER
2014  Raphy Jakubovic: Ryerson medical physics PhD student (mentor for clinical experience)

AGGREGATE TEACHING EVALUATIONS

2016 Jan 26  **Oral Examiner**, Physics Residency Program, Year 1 Oral Exam  
University of Toronto, Department of Radiation Oncology  
*Alyaa Elzibak, Shahram Mashouf*

2015 Dec 14  **Oral Examiner**, Physics Residency Program, Final Exam  
University of Toronto, Department of Radiation Oncology  
*Moti Paudel, Tania Karan, Mohammad Rezaee*

2014 Dec 17  **Oral Examiner**, Physics Residency Program, Year 1 Oral Exam  
University of Toronto, Department of Radiation Oncology  
*Moti Paudel, Tania Karan, Mohammad Rezaee*

2014 Aug 27  **Oral Examiner**, Physics Residency Program, Year 1 Oral Exam  
University of Toronto, Department of Radiation Oncology  
*Cindy Tam, Lisa Glass, Manual Rodriguez, Steve Bartolac*

2014 July 7  **Oral Examiner**, Physics Residency Program, Final Exam  
University of Toronto, Department of Radiation Oncology  
*Christine Ren*

2013 Dec 12  **Oral Examiner**, Physics Residency Program, Year 1 Oral Exam  
University of Toronto, Department of Radiation Oncology  
*Marcus Sonier, Congwu Cui*

2012 - 2013  **Rotation Supervisor**, PGY3 Treatment Planning Evaluations  
University of Toronto, Department of Radiation Oncology  
*Evaluation of PGY3 Residents using POWER*  
*Approximately 4-6 Radiation Oncology residents per year*

2013 Aug  **Oral Examiner**, Physics Residency Program, Final Exam  
University of Toronto, Department of Radiation Oncology  
*Jenna King, Niranjan Venugopal, Daron Owen, Theodore Mutanga, Nathan Becker*

2013  **Oral Examiner**, Physics Residency Program, Final Exam  
University of Toronto, Department of Radiation Oncology  
*Ali Fatemi*
2012 Sept  | **Oral Examiner**, Physics Residency Program, Year 1 Oral Exam  
University of Toronto, Department of Radiation Oncology  
*Jenna King, Niranjan Venugopal, Daron Owen*

2012 Dec  | **Oral Examiner**, Physics Residency Program, Final Exam  
University of Toronto, Department of Radiation Oncology  
*Tony Kim*

2011  | **Oral Examiner**, Physics Residency Program, Year 1 Oral Exam  
University of Toronto, Department of Radiation Oncology  
*Tony Kim*

Department of Medical Physics, “MR based Fricke-gelatin dosimetry: uncertainty evaluation and computerised analysis of measured dose distributions”  
*Philippe Belanger*

**PATIENT AND PUBLIC EDUCATION**

2013 Jun  | **Speaker**, Women’s Health Golf Classic, Magna Golf Club,  
Aurora, Ontario  
*Tournament raised 250 000 towards Sunnybrook’s Louise Temerty Breast Cancer Centre*
Curriculum Vitae

Harald Keller
PhD

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
Radiation Medicine Program
610 University Avenue
Room 5-946B
Toronto, Ontario, Canada
M5G 2M9

Telephone (416) 946 4501 x4925
Email harald.keller@rmp.uhn.on.ca

1. EDUCATION

Degrees
1999 PhD, Medical Physics, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland
1991 MSc, Nuclear Physics, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

Postgraduate, Research and Specialty Training
1999 - 2000 Postdoctoral Fellow, Department Medical Physics, University of Wisconsin - Madison, Madison, Wisconsin
1996 Masters of Advanced Studies (MAS), Medical Physics, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

Qualifications, Certifications and Licenses
2011 Certification, Radiation Oncology Physics, Canadian College of Physicists in Medicine
1996 Radiation Safety Officer Diploma, Paul Scherrer Institute, Switzerland

2. EMPLOYMENT

Current Appointments
2011 - present Adjunct Professor, Department of Physics, Ryerson University, Toronto, Ontario
2011 - present Adjunct Member, Yeates School of Graduate Studies, Ryerson University, Toronto, Ontario
2006 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario
2006 - present Physicist, Department Radiation Physics, Princess Margaret Hospital, Toronto, Ontario
Previous Appointments

HOSPITAL
2003 - 2005  Scientific Associate, Department Radiation Physics, Princess Margaret Hospital, Toronto, Ontario

RESEARCH
2000 - 2003  Research Scientist, Tomotherapy Department of Medical Physics, University of Wisconsin-Madison, Madison, Wisconsin
1998 - 1999  Research Associate, Tomotherapy Department of Medical Physics, University of Wisconsin-Madison, Madison, Wisconsin
1992 - 1999  Institute For Biomedical Engineering and Informatics, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

UNIVERSITY
2005 - 2010  Adjunct Professor, Applied Mathematics, Western University, London, Ontario

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2013 Jun  Best Technologist abstract for PET, Technologist Best Oral Abstract (2nd place), Co-author, Society of Nuclear Medicine Technologist Section (SNMTS). (Distinction)
   For abstract “Reproducibility of 18F-FAZA PET-CT mouse imaging”, presented at 2013 SNMMI Annual Meeting.

2012 Jun - 2012 Jul  First Place Award, Senior author on paper, Society of Nuclear Medicine Technologist Section (SNMTS). (Distinction)
   For manuscript “Evaluation of Mouse Tail Vein Injections using both Qualitative Assessments and Quantitative Analysis on MicroPET Tail Scans”, JNMT, 2011.

2011  Best Oral Paper Award (2nd place), Society of Nuclear Medicine Technologist Section (SNMTS), San Antonio, Texas. (Distinction)
   For abstract: “MicroPET FDG mouse imaging: Evaluation of 50 consecutive tail vein injections”.

2010  Best Oral Paper and Nuclear Oncology Council Best Technologist Abstract Award (2nd place), Society of Nuclear Medicine Technologist Section (SNMTS). (Distinction)
   For abstract: “Serial FDG PET-CT scans in oncology: A quality assurance study of repeatability of uptake times and blood glucose values”.

2008  1st Place Best Paper Award, Society of Nuclear Medicine Technologist Section (SNMTS). (Distinction)

2008  John S. Laughlin Science Council Research Symposium Award, American Association for Physicists in Medicine. (Distinction)
   For the presentation: Keller H, Hoisak J. “Association of Texture Features to Structure and Function in a Simple Tumor Model and Potential Application to Treatment Response Monitoring using FDG-PET”.

2002  Cum Laude Mention Poster Award, The International Society for Optics and Photonics (SPIE). (Distinction)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2011 - present  Canadian Organization of Medical Physicists (COMP)
2011 - present  Associate Member, Society of Directors of Academic Medical Physics Programs (SDAMPP)
2007 - present  Associate Member, American Society for Radiation Oncology (ASTRO)
2003 - present  Full Member, American Association of Physicists in Medicine (AAPM)
1995 - present  Swiss Society of Radiation Biology and Medical Physics (SGSMP)
1999 - 2003  Junior Member, American Association of Physicists in Medicine (AAPM)

Administrative Activities

INTERNATIONAL

American Association of Physicists in Medicine
2008 - present  Member, Imaging for Treatment Assessment Working Group

Radiological Society of North America
2010 - present  Member, Scientific Program Committee: Physics Subcommittee

PROVINCIAL / REGIONAL

Cancer Care Ontario (CCO)
2013 Nov - present  Physics Community of Practice (Physics CoP), Canada.

LOCAL

Princess Margaret Hospital
2007 - 2013  Member, RMP Education Committee, Faculty of Medicine, Dept of Radiation Oncology

Radiation Medicine Program RMP
2015 Jun - present  QUINCy Multi-incident Investigation on Tattoo nomenclature, Toronto, Ontario, Canada.

University of Toronto
2007 - 2012  Member, Board of Examiners for Medical Radiation Sciences (MRS), Faculty of Medicine, Dept of Radiation Oncology

Peer Review Activities

ASSOCIATE OR SECTION EDITING

Reviewer
1999 - present  Medical Physics
MANUSCRIPT REVIEWS

Reviewer
2009 - present Current Oncology
2008 - present Radiotherapy and Oncology
2002 - present International Journal of Radiation Oncology, Biology and Physics
2001 - present Physics in Medicine and Biology

PRESENTATION REVIEWS

Reviewer
2016 Apr 2016 RSNA and ASTRO Meetings, Number of Reviews: 128
2015 Apr 2015 RSNA and ASTRO Meetings, Number of Reviews: 120
2014 Apr 2014 RSNA and ASTRO Meetings, Number of Reviews: 84
2013 Mar 2013 Annual Meeting of the AAPM, Number of Reviews: 19
2012 Apr 2012 Annual COMP Meeting, Number of Reviews: 7
2012 Apr 2012 RSNA Meeting, Number of Reviews: 173
2011 Apr 2011 RSNA Meeting, Number of Reviews: 158

Other Research and Professional Activities

THESIS PROJECT
1993 Jul - 1999 Jun Author. Investigations on absolute portal dosimetry for the verification of static and dynamic dose delivery in radiotherapy. Swiss Federal Institute of Technology (ETH) Zurich, Zurich, Zürich (de), Switzerland. Supervisor(s): Peter Ruegsegger.

EXAM QUESTION DEVELOPMENT FOR TXIT (IN-TRAINING EXAMINATION FOR RADIATION ONCOLOGY RESIDENTS)
2010 May - 2010 Jun Exam question author for the American College of Radiology (ACR). American College of Radiology (ACR), United States. Develop 10 multiple choice questions in all areas of Medical Physics.

C. Academic Profile

1. RESEARCH STATEMENTS

2015 - present STATEMENT OF SCHOLARLY ACTIVITY 2015.
My main research interest is the investigation of different methods to adapt the treatment to changes that occur in anatomy and/or functional status of the tumor. In particular, I am working on "dose-painting" to alter dose distributions according to functional images (e.g.
PET images) of tumors. In addition, I am working on mathematical models for the optimization of fractionation schedules. To quantitatively monitor response to treatment, consistency of imaging protocols and image processing is crucial. Therefore, I am also interested in the development of calibration procedures and imaging phantoms for static and dynamic imaging systems.

The main educational activities center around the Physics residency program at the University of Toronto, the course “Clinical Radiation Physics and Dosimetry” for the Department Medical Biophysics (course instructor), the course “Advanced Radiotherapy and Medical Physics” for the Institute of Medical Sciences (course coordinator and instructor), and the Course “Fundamentals of Radiation Physics” for the Department of Physics at Ryerson University (course instructor).

2013 - 2015

STATEMENT OF SCHOLARLY ACTIVITY 2013.
My main research interest is the investigation of different methods to adapt the treatment to changes that occur in anatomy and/or functional status of the tumor. In particular, I am working on “dose-painting” to alter dose distributions according to functional images (e.g. PET images) of tumors. In addition, I am working on mathematical models for the optimization of fractionation schedules. To quantitatively monitor response to treatment, consistency of imaging protocols and image processing is crucial. Therefore, I am also interested in the development of calibration procedures and imaging phantoms for static and dynamic imaging systems.

The main educational activities center around the Physics residency program at the University of Toronto, the course “Clinical Radiation Physics and Dosimetry” for the Department Medical Biophysics (course instructor), and the course “Advanced Radiotherapy and Medical Physics” for the Institute of Medical Sciences (course coordinator and instructor).

2010

STATEMENT OF SCHOLARLY ACTIVITY 2010.
The main research activities center around treatment response imaging using PET and a longitudinal clinical study on Non-Hodgkin lymphoma patients. The main educational activities center around the Physics residency program and the course “Clinical Radiation Physics and Dosimetry” for the Department Medical Biophysics, where also Physics resident students are participating.

2009

Main Research Endeavours (in the past 3 years).
Study of geometrical uncertainties in fractionated radiotherapy and their implications on patient setup correction strategies.

Application of methods from control theory to the adaptation of radiation therapy.

Investigation of geometrical and functional “fidelity” of PET imaging.

Quantification of treatment response in longitudinal PET imaging studies.

Phantom-based validation of quantitative imaging: volume quantification in CT imaging and tracer dynamics validation for CT and MR perfusion as well as PET tracer kinetic imaging.

Mathematical optimization of dose-per-fraction schedules.
# D. Research Funding

## 1. GRANTS, CONTRACTS AND CLINICAL TRIALS

### PEER-REVIEWED GRANTS

#### FUNDED

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Role</th>
<th>Description</th>
<th>Collaborators</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Jun - 2016 May</td>
<td>Co-Investigator</td>
<td>Quantitative Imaging for Personalized Cancer Medicine. Ontario Institute for Cancer Research (OICR). PI: Jaffray, David. Collaborator(s): Catherine Coolens, Ph.D. Harald Keller, Ph.D. Ivan Yeung, Ph.D. Aaron Ward, Ph.D. Joe Cafazzo, Ph.D. Janet Dancey, M.D. Grace Parraga, Ph.D. Aaron Fenster, Ph.D. Kieran Murphy, M.D., Glenn Bauman, M.D., and Masoom Haider, M.D. 1,840,000 CAD. [Grants]</td>
<td>The grant commits to build the tools to enable quantitative imaging in clinical trials of new cancer therapies and new imaging biomarkers. The aims include developing software tools for image analysis, establishing testing procedures, and facilitating the use of imaging in clinical trials through a coordinated office.</td>
<td></td>
</tr>
<tr>
<td>2007 - 2008</td>
<td>Co-Principal Investigator</td>
<td>PET Imaging for Imaging Pipeline platform. Ontario Institute of Cancer Research (OICR). Collaborator(s): D. Jaffray, S. Breen. 80,000 CAD.</td>
<td>[Grants]</td>
<td></td>
</tr>
<tr>
<td>2003 - 2005</td>
<td>Principal Applicant</td>
<td>Application of feedback strategies to fractionated radiation therapy. Terry Fox Foundation (The). EIRR21 Research Training Program. PI: Keller, Harald. 90,000 CAD.</td>
<td>[Research Fellowships]</td>
<td></td>
</tr>
</tbody>
</table>

### NON-PEER-REVIEWED GRANTS

#### FUNDED

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Role</th>
<th>Description</th>
<th>Collaborators</th>
<th>Amount</th>
</tr>
</thead>
</table>
E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Book Chapters**


**Letters to Editor**


**Conference Proceedings**


**2. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Book Chapters


3. SUBMITTED PUBLICATIONS

Journal Articles


F. Intellectual Property

1. PATENTS


- **A Laser-Spirometer Combined Patient Respiratory Motion Monitoring System.** Granted. Patents #: 7,367,955, United States. Joint Holder Name(s): Paliwal et al.

- **Correction of Patient Rotation Errors in Radiotherapy Using Couch Translation.** Granted. Patents #: 7,302,038, United States. Joint Holder Name(s): Thomas Rockwell Mackie et al. Expires January 10, 2026.


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


- **2005** Biologically Optimal Setup Corrections and Implications on Action Levels for Image-Guided Radiotherapy Processes. Biomedical Imaging Research Opportunities Workshop BIROW III. Bethesda, Maryland. **Keller H.** Jaffray D.


Presented Abstracts


Harald KELLER


Contrast and noise in portal photon fluence images used for transit dosimetry. World Congress on Medical Physics and Biomedical Engineering (IUPESM/IFMBE/IOMP). Nice, France. Keller H, Stöcklin Ch, Fix M, Rüegsegger P.

Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:


Publication Details:

2016 Apr Respiratory gated hypoxia imaging using 18F-FAZA PET-CT. Society of Nuclear Medicine and Molecular Imaging (SNMMI). San Diego, California, United States. Presenter(s): Doug Vines.

Publication Details:
Douglass C. Vines, Brandon D. Driscoll, Harald Keller, Angela Lin, Alexander Sun, and David A. Jaffray. Respiratory gated hypoxia imaging using 18F-FAZA PET-CT. 2016 May. Coauthor or Collaborator.


Publication Details:


Publication Details:
Gordon Chan, Juravinski Cancer Centre, Hamilton Lee Chin, Odette Cancer Centre, Toronto
Harald Keller, Princess Margaret Cancer Centre, Toronto
Keith Nakonechny, Simcoe Muskoka Regional Cancer Centre, Barrie
Cathy Neath, R.S. McLaughlin Durham Regional Cancer Centre, Oshawa
Greg Salomons, Cancer Center of Southeastern Ontario, Kingston. Physics Plan Checking Practices.

2015 Jun 12 Development of a Multi-Center Clinical Trial Data Archiving and Analysis Platform. IUPESM. Toronto, Ontario, Canada. Presenter(s): Brandon Driscoll. Collaborator.

Publication Details:
Brandon Driscoll, Julia Publicover, Ivan Yeung, Harald Keller, Catherine Coolens. Development of a Multi-Center Clinical Trial Data Archiving and Analysis Platform. 2015 Mar 26. IUPESM World Congress Toronto, June 7-12, 2015. Coauthor or Collaborator.

2015 Jun 10 Presenter. Investigation of Pass Rate Variability in ArcCheck(TM) Measurements. IUPESM. Toronto, Ontario, Canada. Presenter(s): Harald Keller:

Publication Details:

2015 Feb 4 A Phase 2 biomarker-enriched study of evofosfamide (TH-302) in subjects with advanced melanoma. ASCO. Presenter(s): Elaine McWhirter:

Publication Details:


Publication Details:


Publication Details:


Publication Details:

Publication Details:

2013 Jun

Publication Details:

2013 Jun
Reproducibility of 18F-FAZA PET-CT mouse imaging. Vancouver, British Columbia, Canada. Presenter(s): Doug Vines.

Publication Details:

2012 Sep
18F-FAZA PET-CT Mouse Imaging Reproducibility in Primary Orthotopic Cervix Tumours. WMIS. Presenter(s): Doug Vines.

Publication Details:


2012 Jul 29

Publication Details:

2012 Jun
Presenter. SU-E-T-616: Efficacy of Biological Dose Painting for Head and Neck Cancer. AAPM. Charlotte, North Carolina, United States.

Publication Details:

2011 Aug 4

Publication Details:

2011 Jun
Publication Details:

2010

Mouse PET Imaging: Quantitative or Qualitative Evaluation of Tail Vein Injections. European Association of Nuclear Medicine, 23rd Annual Congress. Vienna, Austria.

Publication Details:

2010

Serial FDG PET-CT scans in oncology: A quality assurance study of repeatability of uptake times and blood glucose values. Society of Nuclear Medicine (SNM), 57th Annual Meeting. Salt Lake City, Utah.

Publication Details:

1998


Publication Details:

2. NATIONAL

Invited Lectures and Presentations

1999


Presented Abstracts

1998


1995


Presented and Published Abstracts

2015 Feb 1

Ontario Survey on Treatment Plan QA. COMP. Presenter(s): Greg Solomons.

Publication Details:

2014 Nov 7

Development of a Quantitative PET QA Procedure for Multi-Center Clinical Trials. PMH. Toronto, Ontario, Canada. Presenter(s): Brandon Driscoll. Collaborator.

Publication Details:
Harald KELLER


2013 Sep 19 Presenter. Quantitative Selection of Optimal Dose Fractionation Based on Novel Dose-Volume Metrics. Canadian Association of Radiation Oncology (CARO), Canadian Organization of Medical Physicists (COMP). Montreal, Quebec, Canada.

Publication Details:

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented and Published Abstracts


Publication Details:


Publication Details:


Publication Details:

2012 Feb 13 Quality Control of DCE-CT Using a Novel Dynamic Flow Imaging Phantom. ImNO. Presenter(s): Brandon Driscoll.

Publication Details:
4. LOCAL

Invited Lectures and Presentations

2014 Oct 6  Presenter. Who is the Lord of the Standard?_The importance of PET QA for Multicenter Clinical Trials. RMP Physics Rounds, Princess Margaret Cancer Centre. Toronto, Ontario, Canada.

5. OTHER

Presented and Published Abstracts

2011 Nov Validation and Quality Control of Perfusion CT Using a Novel Dynamic Flow Imaging Phantom.

Publication Details:


Publication Details:

2010 Characterization of FLT-PET response to high- and low-dose radiation of a lung cancer xenograft in mice.

Publication Details:

2010 Functional relationships between imaging and biological markers for the purpose of dose painting using the example of FLT-PET and the Ki-67 labeling index.

Publication Details:

2010 Quantification and Validation of DCE-CT using a Novel Dynamic Flow Imaging Phantom.

Publication Details:


Publication Details:

2009 An Evaluation of FDG-PET Uptake Thresholds for Head & Neck Target Definition Based On Local Regions of High Inter-Observer Concordance.

Publication Details:
Hoisak JDP, Keller H, Breen S, Waldron J, Jaffray DA. An Evaluation of FDG-PET Uptake Thresholds for
2009 Effect of Motion On High Contrast Vessel-Like Objects for Volumetric DCE-CT.

*Publication Details:*

2009 Characterization of a 320 slice volumetric CT scanner for 4D perfusion imaging.

*Publication Details:*


*Publication Details:*

2008 Lung FDG-PET dual time point SUVs: Effects of radiation treatment and uptake time.

*Publication Details:*

2008 Association of Texture Features to Structure and Function in a Simple Tumor Model and Potential Application to Treatment Response Monitoring using FDG-PET.

*Publication Details:*


*Publication Details:*

2008 Analysis of the effects of multiple gEUD-type constraints on dose distribution for IMRT optimization.

*Publication Details:*

2008 A statistical framework for the assessment of surrogates for patient setup corrections in radiotherapy.

*Publication Details:*

Publication Details:

2007
Quantification of uptake volumes in PET images for treatment response monitoring: challenges and solutions.

Publication Details:

2006
Absolute quantification of PET radioactivity using motion-gated and non-gated acquisitions of a moving NEMA phantom.

Publication Details:

2006
Thresholding of PET Target Volumes for Treatment Planning and Response Monitoring: Measurement and Modelling Approaches.

Publication Details:

2006
A Framework for Multimodal Thresholding, Target Delineation and Therapy Monitoring.

Publication Details:

2006
Using cone beam CT to investigate the local geometrical uncertainties during head and neck radiation therapy.

Publication Details:

2005
Novel Geometric and Dosimetric On-Line Correction Strategies: Can Chance Work in Your Favor?

Publication Details:

2005
Planning Target Volumes for Image-Guided Radiation Therapy of Prostate Cancer.

Publication Details:

2005
Intensity-Modulated Cone-Beam CT for Patient-Specific Distribution of SNR.

Publication Details:

2005
Optimized Sampling Pattern for Step and Shoot IMRT QA with a Diode Array.
Publication Details:

2005
A Direct, Empirical Method for X-Ray Scatter Correction in Digital Radiography and Cone-Beam CT.

Publication Details:

2005
Assessing Prostate Volume Changes During Conformal Radiotherapy Using Implanted Fiducial Markers.

Publication Details:

2005
Geometric Fidelity of Radiotherapy Target Volumes in 2D and 3D PET.

Publication Details:

2005
Improved Geometric Fidelity of 2D and 3D PET using Point Spread Functions.

Publication Details:

2005
Image-guided radiation therapy for prostate cancer - what’s in a margin?

Publication Details:

2004

Publication Details:

2004
Four Dimensional Tomotherapy.

Publication Details:

2004
Framework for Respiration-Correlated Cone-Beam CT.

Publication Details:

2004
A Novel Method to Correct for Rotational Patient Setup Errors in Helical Tomotherapy.

Publication Details:

2004  
Three-dimensional correction maps and action levels for daily image guided prostate radiotherapy.  
*Publication Details:*  

2003  
Adaptive radiotherapy as optimal sequential decision making: a simple boost scenario.  
*Publication Details:*  

2003  
Automated, on-line registration of MVCT tomotherapy images: accuracy and reproducibility in the clinical setting.  
*Publication Details:*  

2003  
Online image and dose reconstruction.  
*Publication Details:*  

2003  
Three-dimensional lung respiratory motion study using finite element analysis.  
*Publication Details:*  

2003  
The thread artifact of helical tomotherapy.  
*Publication Details:*  

2003  
Treatment Margins for Daily Ultrasound Guided Setup Corrected Prostate Treatments.  
*Publication Details:*  

2003  
How Feasible are very Small Margins for Ultrasound Guided Prostate and Post-prostatectomy Treatments?  
*Publication Details:*  

2003  
Breathing synchronized delivery - a new technique for radiation treatment of the targets with respiratory motion.  
*Publication Details:*  
A phantom study of intrafractional image acquisition and dose calculation.

Publication Details:

Effectiveness of Daily Setup Measurement and Correction Techniques.

Publication Details:

Inter-observer Variability of the Six Rigid-body Setup Parameters for Prostate Treatment.

Publication Details:

Lung Motion Tracking with a Combined Spirometer-Laser Sensor System.

Publication Details:

Design Optimization of An Ionization-Type Multielement Detector for Megavoltage Photons Using the Monte Carlo Method.

Publication Details:

Virtual Image Guided Radiotherapy System.

Publication Details:

Improving ultrasound guided prostate radiation therapy using optimal stochastic setup corrections.

Publication Details:

Monte Carlo characterization of a highly efficient photon detector for megavoltage imaging.

Publication Details:

A novel approach for a highly efficient detector for megavoltage photons.

Publication Details:
Publication Details:

2001
Elastic registration incorporating prior knowledge of segmentation and point mapping.

Publication Details:

2001
Advantages and limitations in patient setup for prostate treatments using image based automatic fusion techniques.

Publication Details:

2001
Optimal correction strategies for reducing systematic and random setup errors and their impact on treatment margins.

Publication Details:

2000
Dose gradients as a tool in the optimization and verification of intensity modulated radiation therapy (IMRT).

Publication Details:

1999
Determination of two parameters of a liquid filled ionisation chamber to predict portal dose images of dynamically modulated treatment beams.

Publication Details:

1999
A multiple source model for Monte Carlo photon dose calculations in radiotherapy.

Publication Details:

1999
Dose reconstruction in Tomotherapy.

Publication Details:

1999
Calculation of portal dose distributions for verification in radiotherapy.

Publication Details:
1999 Verification of Intensity Modulated Beams in Radiotherapy.

**Publication Details:**

1998 Influence of beam quality on the dosimetry with a portal imaging device.

**Publication Details:**


**Publication Details:**

1997 Absolute detector sensitivity of a liquid filled ionisation chamber used for portal imaging.

**Publication Details:**

1997 Contrast and noise in portal photon fluence images used for transit dosimetry.

**Publication Details:**

1997 Performance of a virtual photon source for Monte Carlo calculations.

**Publication Details:**

1995 Photonenflussmessungen mit einer Fluessigkeits-Ionisationskammer.

**Publication Details:**

**H. Teaching and Design**

1. **INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION**

2011 Sep - 2011 Dec  BME 704: Medical Devices, Undergraduate Education, Faculty of Engineering and Architectural Science, Department of Electrical and Computer Engineering, Biomedical Engineering, Ryerson University

*In the fall of 2011 the Biomedical Engineering Department at Ryerson offered a course BME704 “Radiation Therapy Devices” to their senior undergraduate students. This course was co-coordinated by Dr. Heath, Department of Physics, Ryerson University and Dr. Keller, Department of Radiation Oncology, University of Toronto.*

*The course was attended by 23 BME students from Ryerson University, and 5 MHSc*
students from University of Toronto. It consisted of 33 hours of classroom lectures, 12 hours of tutorials (6 topical tutorials), and 10 hours of lab sessions (5 labs). The lab sessions were a mix of computer-based simulation labs (Monte Carlo transport of radiation, treatment planning, image registration), and hands-on labs (orthovoltage dosimetry). Fostered interactions between biomedical engineers and therapy master’s students.

I. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Graduate Education

2015 Jun - 2015 Oct  Primary Supervisor. MSc. Reto Küng, ETH Zurich, Department of Physics. Variability of clinical analysis metrics derived from PET images as function of acquisition and reconstruction parameters.


2010 Sep - 2011 Feb  Primary Supervisor. MSc. Gabriel Meier, ETH Zurich, Department of Physics. Optimal dose-per-fraction schedules for single tumor-single normal tissue anatomies.


2009 Sep - 2010 Feb  Primary Supervisor. MSc. Dominik Henzen, ETH Zurich, Department of Physics. “Development of a Novel Phantom for Dynamic CT and PET Imaging.


2002  Co-Supervisor. PhD. Weiguo Lu, Department Medical Physics, University of Wisconsin. Motion Detection and Correction for Image-Guided Radiation Therapy.

Other

2013 May - 2013 Aug  | **Primary Supervisor.** Albert Chen. Supervisee Institution: Ryerson University. *Improving the consistency of VMAT quality control for spine SBRT by a systematic study of ArcCheck measurements and plan characteristics.*, Completed 2013.

2008 Apr - 2008 Aug  | **Primary Supervisor.** Ashley Tao.

### 2. OTHER SUPERVISION

#### Undergraduate Education

**Secondary Supervisor**


#### Graduate Education

**Thesis Committee Member**


#### Postdoctoral Research Fellow (PhD)


#### Other

2009 Mar - present  | Brandon Driscoll (Research Associate I).

2009 Apr - 2009 Aug  | Ryan Day.

2009 Apr - 2009 Aug  | Ashley Tao.


2007 Apr - 2007 Dec  | Benjamin Chui (co-op student).

2007 Jan - 2007 Apr  | Kelvin Li.
Curriculum Vitae

Dr. Anthony Taywon Kim
Medical Physicist

A. Date Curriculum Vitae is Updated: 2016 June 17

B. Biographical Information

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Odette Cancer Centre
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Fax 416-480-6801
Email Anthony.Kim@sunnybrook.ca

1. EDUCATION

Degrees
Presented in reverse chronological order

2005-2010 Doctor of Philosophy, Medical Biophysics, University of Toronto, Toronto, Ontario, Canada
Supervisor: Dr. Brian C. Wilson
Thesis: “Quantitative and depth-resolved fluorescence guidance for the resection of glioma”

2002-2004 Master of Applied Science, Mechanical Engineering, University of Waterloo, Waterloo, Ontario, Canada

1997-2002 Bachelor of Applied Science, Mechanical Engineering with Mechatronics Option, University of Waterloo, Waterloo, Ontario, Canada

Postgraduate, Research and Specialty Training

Jan 2011-Nov 2012 Medical Physics Resident, Medical Physics, Sunnybrook Health Sciences Centre/Odette Cancer Centre, Toronto, Ontario, Canada
Supervisor: Dr. Brian Keller

Qualifications, Certifications and Licenses

Dec 2012 Passed Review A Provincial Medical Physics Examination, Medical Physics, Cancer Care Ontario, Toronto, Ontario, Canada

Dec 2012 Passed UT DRO Medical Physics Exit Examination, Medical Physics, University of Toronto Department of Radiation Oncology, Toronto, Ontario, Canada
Continuing Education

Apr 2015   Effective Business Communication and Negotiation, Univ. Toronto Continuing Education
Jul 2014   Monaco Treatment Planning System Training, Elekta LINC Centre in Atlanta, GA
Nov 2011   Accelerator Technology Education Course, Princess Margaret Cancer Centre, Nov. 16-19, 2011
Apr 2011   Image Guided Radiation Therapy Course, Princess Margaret Cancer Centre, Apr. 14-16, 2011

2. EMPLOYMENT

Current Appointments

Dec 2012-Present  Medical Physicist, Medical Physics, Sunnybrook Health Sciences Centre/Odette Cancer Centre, Toronto, Ontario, Canada
May 2015-Present  Assistant Professor, University of Toronto, Department of Radiation Oncology, Toronto, Ontario, Canada

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Nominated

June 2014  Poster award nomination for the Canadian Organization of Medical Physicists Annual Scientific Meeting 2014

Student/Trainee Awards

NATIONAL

Received

May 2007-Apr 2009  Natural Sciences and Engineering Research Council of Canada, Canada Graduate Scholarship D
May 2002-Apr 2004  Natural Sciences and Engineering Research Council of Canada, Postgraduate Scholarship M
May 2002-Apr 2004  Materials and Manufacturing Ontario, Entry to Graduate Studies Award
May 2001-Aug 2001  Natural Sciences and Engineering Research Council of Canada Undergraduate Student Research Award

PROVINCIAL/ REGIONAL

Received

Jan 1999-Apr 1999  Ontario Hydro Undergraduate Scholarship

LOCAL

Received

Sep 2009-Apr 2010  Doctoral Completion Grant
Sep 2009  Dr. J.R. Cunningham Graduate Fellowship
Apr 2002  Sandford Fleming Foundation, Co-operative Proficiency Silver Medal
Anthony KIM

Sep 2001-Apr 2002  University of Waterloo, Faculty of Engineering Upper Year Scholarship
Sep 1997-Apr 1998  University of Waterloo, Faculty of Engineering Entrance Scholarship

Teaching Awards

LOCAL
Received
Dec 2003  University of Waterloo, Teaching Assistant Excellence Award

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Jan 2011-Present  Full member, Canadian Organization of Medical Physicists
Aug 2011-Present  Union member, Professional Institute of the Public Service of Canada, Mem. #2026256

Peer Review Activities

Mar 2014  Lung SBRT External Review of Southlake Cancer Centre
Sep 2011  Co-Author (with Dr. Julia Skliarenko and Veny Li) of a Learner’s Report for the University of Toronto, Department of Radiation Oncology as part of an External Review of the department.
Sep 2011  Member of a selection committee for the University of Toronto, Department of Radiation Oncology Education Awards, for selection of awards for recognizing clinical supervision, research supervision, mentorship, and leadership excellence within the department.

Other Research and Professional Activities

OTHER ACTIVITY TYPE

Jan-Dec 2012  Chief Medical Physics Resident for the University of Toronto Department of Radiation Oncology
Sep 2010  Panel Member for the debate “Biophotonics Education” at the Optics Within Life Sciences conference in Quebec City, QC

C. Academic Profile

1. RESEARCH STATEMENT

My radiation physics practice includes many areas of research and development. I have been heavily involved with the implementation of volumetric modulated arc therapy (VMAT) at the Odette Cancer Centre. I developed the VMAT treatment planning protocol and physics development for lung stereotactic body radiation treatment (SBRT), the second site to treat with VMAT at our centre. In addition, I developed the quality assurance program and led general VMAT implementation for our large field Synergy MLCi and Agility linear accelerators. Recently, Elekta and OCC have partnered up to implement an MRI linear accelerator hybrid system at our cancer centre. I am involved with implementing Monaco, the Elekta TPS solution for the MRI-linac, for our clinic as well as general developmental work on the MRI-linac project. In addition, I have research interests in the field of biomedical optics and its intersection with radiation oncology. Recently, our group has developed a technique to detect the early onset of radiation-induced erythema, giving a potentially valuable tool for early intervention for severe skin toxicity effects during a radiation therapy course.
My doctoral studies were in the field of biomedical optics, specifically the use of visible light photons to interact with tissue for disease diagnosis. My research was targeted towards improving the detection of intracranial tumor during surgical resection using fluorescence guidance. Many brain tumors recur at the surgical margins, underlining the importance of eliminating residual tumor cells during surgery; however, this must be tempered by the need to preserve normal brain tissue. By accurately identifying residual tumor cell nests during surgery, this enables the surgeon to resect the tumor more completely, with the aim of increasing the patient’s survival. To this end, I have created two novel diagnostic devices for improved intraoperative brain tumor detection. An exciting development is that one of my device prototypes has been deployed in neurosurgical trials and has demonstrated significant improvement compared with state-of-the-art fluorescence imaging over a large spectrum of brain tumor pathologies.

2. TEACHING STATEMENT

I am drawn to the rewards and challenges of teaching. I find it valuable and worthwhile to pass along hard-earned knowledge to inquisitive minds. I strongly believe in kinesthetic learning—that is learning by doing. While I was a medical physics resident, I found that physically performing the machine measurements, designing the radiation treatment plans, and creating quality assurance reports were the best activities to truly understand real-world practice. When I mentor residents and students, I suggest that they take on a small project or a set of tasks to understand a concept. I find that this type of learning is far more rewarding than reading about a topic from a book.

I am regularly involved with teaching our physics trainees during their evaluation sessions as well as during their clinical rotations. In particular, I am involved with training medical physics residents on the physics of treatment planning systems. I am also involved with continuing education within the Odette Cancer Centre. I have created and delivered various practical training sessions on radiation physics—recent training sessions include an introduction to the Monaco TPS, in vivo use of optically stimulated luminescence dosimeters, and machine characteristics of the new Elekta Agility linear accelerators.

D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Submitted Journal Articles**


**Abstracts, Conference Proceedings**


**Book Chapters**


**E. Patents and Copyrights**


F. Presentations and Special Lectures


G. Research Supervision and Teaching

1. **GRADUATE EDUCATION**

   May-Aug 2010 Mentorship of Marco Brantsch, MSc student from Aalen University, Germany, for his project “Quantitation of PpIX Levels in Primary Brain Tumor Tissue in the Context of Fluorescence Guided Resection.”

2. **UNDERGRADUATE**

   Sep 2015-Current Supervision of Stephanie Lim-Reinders, U of T Physics undergraduate student, for the project “IMRT versus VMAT for organ-at-risk sparing on an MRI-linear accelerator”.

   May-Aug 2014 Supervision of Stephanie Lim-Reinders, U of T Physics undergraduate student, for the project “Adaptive radiation therapy using Elekta ADMIRE deformable registration program”.

   May-Aug 2013 Supervision of Ray Xiao, U of T Engineering Science undergraduate student, for the project “Automated quality assurance for high-dose rate brachytherapy”.

3. **POSTGRADUATE**

   Jan 2013-present Ongoing teaching duties for medical physics resident evaluation sessions, in particular for topics such as VMAT/IMRT, breast cancer treatment, lung cancer treatment, and radiation dosimetry.

4. **CONTINUING EDUCATION**

   Aug 2014 Training sessions at the Odette Cancer Centre for medical physicists on the Monaco TPS

   Nov 2013 Training sessions at the Odette Cancer Centre for radiation therapists, radiation oncologists, and medical physicists entitled “Elekta Synergy with the Agility MLC head”.

   Nov 2012 Training sessions at the Odette Cancer Centre for radiation therapists entitled “Optically Stimulated Luminescence Dosimeters for In Vivo Patient Dosimetry”.

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June 17, 2016
CONFIDENTIAL DOCUMENT
Curriculum Vitae

Dr. Renee Korol
Medical Physicist

A. Date Curriculum Vitae is Prepared: August 12, 2016

B. Biographical Information

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Department of Medical Physics
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Cellphone 416-892-7942
Fax 416-480-6801
Email Renee.Korol@sunnybrook.ca

1. EDUCATION

Degrees

2002 – 2007 Ph.D. Medical Biophysics
Dissertation: Fluorescence spectroscopy of ECM remodeling during atherosclerosis
Department of Medical Biophysics, University of Western Ontario, London, ON, Canada.
Supervisors: Dr. Peter Canham and Dr. Alex Lucas

Dissertation: IMRT with Co-60
Department of Applied Physics, Laurentian University, Sudbury, ON, Canada.
Supervisor: Dr. Peter Dunscombe

1996 – 2000 B.Sc. Medical & Health Physics
Department of Medical & Health Physics, McMaster University, Hamilton, ON, Canada.

Postgraduate, Research and Specialty Training

2007 – 2008 Medical Physics Resident, Department of Physics & Engineering, London Regional Cancer
Program, London, ON, Canada. Supervisors: Prof. Jake Van Dyk and Dr. Scott Karnas

Qualifications, Certifications and Licenses

2010 Member, Canadian College of Physicists in Medicine (MCCPM).
2. EMPLOYMENT

Current Appointments

2009-Present  Medical Physicist, Department of Medical Physics, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, ON, Canada.
Currently the lead physicist for SBRT (sites: bone, prostate, liver, lung, spine, kidney/adrenal and oligomet), RTOG clinical trials and external treatment planning lead. Involved in teaching and training junior physicists, medical physics residents and radiation oncology fellows and supervise a research radiation therapist. Lead physicist for radiation therapy education and training. Secondary responsibilities include treatment planning consults, HDR and the record and verify system (Mosaiq) in addition to daily clinical services.

Previous Appointments

CLINICAL

CAMPEP accredited medical physics residency rotations in treatment planning, external beam dosimetry, radiation protection and brachytherapy. Responsible for a Varian linac, electron commissioning for treatment planning system, commissioning new LDR brachytherapy permanent seed, residency member of the residency committee and evaluated optically stimulated luminescent dosimeters.

2002-2002  Physics Assistant, Department of Medical Physics, Northeastern Ontario Regional Cancer Centre, Sudbury, ON, Canada.
Performed quality assurance checks on radiotherapy equipment and assisted with commissioning of a new linear accelerator and trained new physics assistant.

3. HONOURS AND CAREER AWARDS

Student/Trainee Awards

PROVINCIAL/ REGIONAL

Received

2005-2006  Ontario Graduate Scholarship. Graduate Student, University of Western Ontario, London, ON, Canada. (Specialty: Science & Technology)

2002-2006  Special University Scholarship. Graduate Student, University of Western Ontario, London, ON, Canada. (Specialty: Science & Technology)

2004  CIHR First place poster award for “Best integration of biology in the physical sciences,” University of Western Ontario, London, ON, Canada.

2002-2004  CIHR Strategic Training Fellowship, Graduate Student, University of Western Ontario, London, ON, Canada. (Specialty: Vascular Science)

2000-2002  Northern Research Foundation Scholarship, Graduate Student, Northeastern Regional Cancer Centre, Sudbury, ON, Canada. (Specialty: Medical Physics)

2000-2002  Graduate Fellowship, Graduate Student, Laurentian University, Sudbury, ON, Canada. (Specialty: Applied Physics)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2010-2013  Member, American Society for Radiation Oncology

2001-2013  Member, Canadian Organization of Medical Physicists

Administrative Activities

LOCAL

2012-2013  Physics Representative, Planning Review Committee, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, ON, Canada.  
Evaluation of current efficiencies/inefficiencies and implementation of new planning model for radiation therapists.

PROVINCIAL / REGIONAL

2005-2006  Student Representative, Fellowship Committee, Department of Medical Biophysics, University of Western Ontario, London, ON, Canada.  
Reviewed applications for the Faculty of Medicine fellowship competition, ranked applications based on competition criteria and attended adjudication meeting.

2005-2005  Student Representative, Strategic Planning Task Force, Department of Medical Biophysics, University of Western Ontario, London, ON, Canada.  
Defined goals, measurable objectives and implementation strategy for “Enhancing academic programs” in the Schulich School of Medicine.

2001-2002  Vice-President, Graduate Student Association, Laurentian University, Sudbury, ON, Canada.  
Attended academic committee meetings and promoted the interest and welfare of the GSA members.

Other Research and Professional Activities

2010-2013  Reviewer. GU protocols. Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, ON, Canada.  
Evaluation of the impact of clinical trials on the physics department.

2010-2013  RTOG Physicist. RTOG clinical trials. Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, ON, Canada.  
Accreditation for RTOG (IMRT/VMAT treatment planning)

2010-2013  Protocol Development. Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, ON, Canada.  
Developed treatment planning protocols for liver, adrenal/kidney and pancreas SBRT
C. Academic Profile

1. RESEARCH STATEMENT

My research interests are in stereotactic body radiation therapy treatment. The main topic of my research is evaluating intra-fraction motion across different treatment sites and using various immobilization devices as well as determining the required frequency of CBCT imaging. The goal is to further minimize motion during treatment delivery through a reduction in treatment time as well as to assess the impact of new immobilization devices.

2015-2016

Assistant Professor, Department of Radiation Oncology, University of Toronto, Toronto, ON, Canada.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


E. Publications

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Case Reports**


**Abstracts**


Renee Korol


3. NON-PEER-REVIEWED PUBLICATIONS


G. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers


CONFIDENTIAL DOCUMENT


3. PROVINCIAL/REGIONAL

Abstracts and Other Papers


H. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2009-2016 Resident Tutorials, Primary audience: Medical Physics Residents, Odette Cancer Centre, Sunnybrook Health Sciences Centre

Involved in select tutorial sessions on treatment planning and brachytherapy.

2012-2012 Core Faculty Paraspinal IGRT Education Course, Primary audience: Radiation Therapists, Medical Physicists and Radiation Oncologists, UTDRO, Princess Margaret Cancer Centre

Topics presented: 1) Preparing for the future: development of a paraspinal program, 2) The basics of paraspinal IGRT: technical delivery of paraspinal SBRT.

Practical exercises: 1) Technical topics in paraspinal SBRT, 2) Multimodality registration for treatment planning.

2012-2013 Training ABS Fellows, Primary audience: Radiation Oncologists and Medical Physicists, Radiation Oncology Program, Odette Cancer Centre, Sunnybrook Health Sciences Centre

Physics member involved with training fellows in real-time ultrasound guided HDR Brachytherapy for treating intermediate risk prostate cancer using Oncentra TPS. This is a
Renee Korol

one-week intensive training program sponsored by ABS and Nucletron.

2011-2014 Treatment Planning Rotation Supervisor, Primary audience: Medical Physics Residents, Department of Medical Physics, Odette Cancer Centre, Sunnybrook Health Sciences Centre

Teach physics residents the fundamentals of treatment planning principles over a 4 month period annually.

2003-2006 Graduate Teaching Assistant, Primary audience: Undergraduate students, Department of Medical Biophysics, University of Western Ontario

Designed labs and assignments and provided pre-lab lectures, proctored exams and evaluated 4th year biophysics theses.

2003-2006 Graduate Teaching Assistant, Primary audience: Undergraduate students, Department of Medical Sciences, University of Western Ontario

Coordinated lab sessions, designed labs and provided pre-lab lectures.

2000-2002 Graduate Teaching Assistant, Primary audience: Undergraduate students, Department of Applied Physics, Laurentian University

Ran weekly tutorials, supervised labs and marked first-year exams.

2001-2002 Lab Demonstrator, Primary audience: High school and undergraduate students, Department of Applied Physics, Laurentian University

Science Career Day Demonstrator.

I. Research Supervision

1. MULTILEVEL EDUCATION

2013-2014 Supervisor, Marcus Sonier, Medical Physics Resident: Odette Cancer Centre, Sunnybrook Health Sciences Centre. Treatment planning protocol development for adrenal and kidney SBRT. Collaborators: Dr. William Chu and Dr. Patrick Cheung.

2011-2013 Supervisor, Fiona Lochray, Research Radiation Therapist: Odette Cancer Centre, Sunnybrook Health Sciences Centre. Evaluation of patient setup errors in Spine SBRT. Collaborators: Dr. Arjun Sahgal

2012-2013 Mentor, Jenna King, Medical Physics Resident: Odette Cancer Centre, Sunnybrook Health Sciences Centre.

Curriculum Vitae

Young K. Lee
B.Sc., M.Sc., Ph.D.

A. Date Curriculum Vitae is Prepared: 2016 July 22

B. Biographical Information

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Email young.lee@sunnybrook.ca

1. EDUCATION

Degrees
1999 Oct - 2003 Dec PhD, Radiation Physics, Physics, University of London, United Kingdom, Supervisor(s): Prof Steve Webb, Dr Maggie Flower and Dr Carl Rowbottom
1998 Sep - 1999 Sep MSc, Medical Physics, Physics, University of Surrey, Guildford, United Kingdom, Supervisor(s): Prof. Nicolas Spyrou
1994 Sep - 1998 May BSc, Physics, McGill University, Montreal, Quebec, Canada

Qualifications, Certifications and Licenses
2007 Clinical Scientist, ACS – Association of Clinical Scientist, HCPC - Health and Care Professions Council, United Kingdom, License / Membership #: CS15510

2. EMPLOYMENT

Current Appointments
2016 Jun - present Adjunct Professor, Physics, Faculty of Science, Ryerson University, Toronto, Ontario, Canada
2014 Nov - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2013 May - present Medical Physicist, Department of Medical Physics, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Canada
- CNS site group lead.
- Gamma Knife project lead.
- research and develop new techniques for CNS group.
- present work at meetings and conferences and lecture on courses.
Previous Appointments

HOSPITAL

2008 Nov - 2013 May
Principal Radiotherapy Physicist (specializing in pediatric radiotherapy development), Joint Department of Physics, Royal Marsden NHS Foundation Trust, Sutton, United Kingdom
- research/develop new techniques for radiation physics focusing on pediatric cancers.
- provide expertise in radiation treatment of pediatric cancers.
- work in a multidisciplinary team providing clinical services.
- present work at meetings and conferences and lecture on courses.

2006 Feb - 2008 Oct
Senior Radiotherapy Physicist, Joint Department of Physics, Royal Marsden NHS Foundation Trust, Sutton, United Kingdom
- member of a team responsible for the maintenance, dosimetry and operation of 7 Elekta Linacs, Gulmay kilovoltage unit, CT simulators, Pinnacle treatment planning system and other associated equipment.
- develop/implement new treatment techniques, participate in project work that involves a multidisciplinary team.

2003 Feb - 2004 Nov
Radiotherapy Physicist, Department of Medical Physics, Kent Oncology Centre, Maidstone Hospital, Maidstone, Kent, United Kingdom
- member of a team responsible for the maintenance, dosimetry and operation of 3 Varian treatment units, Cadplan and Pinnacle treatment planning systems and other associated equipment.
- develop and implement new treatment techniques.

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2010 Sep
IPEM/AAPM Travel Award, Annual Meeting, Institute of Physics and Engineering in Medicine / American Association of Physicists in Medicine, York, United Kingdom. (Distinction)
Funding for the cost of travel to 3 North American Centres (Memorial Sloan Kettering, Proton Center, Florida and Princess Margaret Hospital) to learn and benefit pediatric research and development at my centre. Total Amount: 2,000 GBP

2008 Nov
Young Investigator Award, CTOS Meeting, Connective Tissue Oncology Society (CTOS), London, United Kingdom. (Distinction)
Oral presentation of submitted abstract titled: Soft tissue sarcoma (STS) of the extremity - comparison of conformal post-operative radiotherapy (CRT) and intensity modulated radiotherapy (IMRT). Total Amount: 2,000 USD

NATIONAL
Received

2002 Jun
Travel Bursary, Institute of Physics, London, United Kingdom. (Distinction)
Funding to attend ICCR (International Conference on the Use of Computers in Radiation Therapy), Seoul, South Korea. Total Amount: 200 GBP

LOCAL
Received
2002 Jun  
First Prize Poster - Institute of Cancer Research Conference, Institute of Cancer Research, London, United Kingdom. (Distinction)  
Total Amount: 100 GBP

1999 Dec  
Mayneord Prize, University of Surrey, Guildford, United Kingdom. (Distinction)  
Highest achievement in M.Sc. Medical Physics course. Total Amount: 100 GBP

1999 Sep - 2004 Jan  
EPSRC PhD Funding, Institute of Cancer Research. (Distinction)  
University of London (40 months). Total Amount: 40,000 GBP

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2013 - present  
Full Member, Canadian Organization of Medical Physicists (COMP)

2007 - present  
Full Member, American Association of Physicists in Medicine (AAPM)

2007 - present  
Full Member, Institute of Physics and Engineering in Medicine (IPEM)

Administrative Activities

INTERNATIONAL

World Congress 2015

2014 - 2015  
Member, Publicity Committee - Medical physics and biomedical engineering conference to be held in Toronto in June.

NATIONAL

Canadian Organization of Medical Physicists

2015 Nov 18 - present  
2016 Annual Scientific Meeting Committee, Canada.

2015 Jul - 2015 Jul 30  
Communications Committee, Canada.

LOCAL

Other Organizations

2016 Apr - present  
Physics Residency Program Committee (PRPC), Faculty of Medicine, Dept of Radiation Oncology, Faculty Development, Toronto, Ontario, Canada.

University of Toronto

2014 May  
Member, Target Insights VIII Conference Committee

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer

2014 - present  
Technology in Cancer Research & Treatment

2012 - present  
Medical Dosimetry

2007 - present  
Clinical Oncology

2007 - present  
Radiotherapy and Oncology

2016 May - 2016 Jun 30  
Journal of Radiation Research, Number of Reviews: 1
Other Research and Professional Activities

RESEARCH PROJECT

2012 Feb  
Leukemia. Integrated Research Application System.
(Clinical Protocol CA180372 - A phase 2 multi-center, historically-controlled study of Dasatinib added to standard chemotherapy in pediatric patients with newly diagnosed Philadelphia chromosome positive acute lymphoblastic leukemia)

Provided radiation therapy dose range.

2012 Jan  
Spine Metastases. Integrated Research Application System.
Provided radiation therapy dose range.

2011 Sep  
Germ Cell Cancer. Integrated Research Application System.
Provided radiation therapy dose range.

THESIS PROJECT

2014 Jul 1 - 2015 Jun 30  
Comparison of Alzheimer’s disease and control glucose metabolic rates using hierarchical cluster analysis. University of Surrey, Guildford, Surrey, United Kingdom. Supervisor(s): Prof. Nicolas Spyrou.

1999 Oct - 2003 Dec  
Role of multimodality imaging in radiotherapy planning. University of London, Institute of Cancer Research, Sutton, Surrey, United Kingdom. Supervisor(s): Prof Steve Webb, Dr Maggie Flower and Dr Carl Rowbottom.

AUDITS

2011 Jun  
Stereotactic Audit. Charing Cross Hospital. Supervisor(s): Alan Warrington.

2006 - 2009  
National Photon/Electron Audits. Royal Marsden Hospital.

C. Academic Profile

1. RESEARCH STATEMENTS

My current research interest focuses on improving precision and accuracy of central nervous system radiation treatment delivery. I am involved in projects to create an inverse-planning platform and improve the cone-beam computed tomography treatment verification imaging for the Gamma Knife to increase planning and efficiencies in treating multiple targets in the brain. I am also interested in the incorporation of ‘functional’ information into the planning of brain radiation therapy. I have developed the current clinical craniospinal irradiation technique, focusing on reducing the dose to the organs-at-risk and reducing the set-up errors whilst modernizing the existing technique using intensity-modulated radiation methods. I am also interested in spinal stereotactic body radiation therapy using volumetric modulated radiation therapy and incorporating the flattening-filter-free beams in order to increase treatment delivery efficiency. Furthermore, I am interested in the development of efficient methods in detecting plan-and-delivery dose differences on very large (e.g. craniospinal irradiation) and very small (e.g. spinal SBRT) volumes.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded


2012 Collaborator. Functional MRI for paediatric brain tumour patients receiving radiotherapy. Institute of Cancer Research (CRUK) / Engineering and Physical Sciences Research Council (EPSRC). Cancer Imaging Centre Grant. [Clinical Trials]

2012 UK Physics QA Lead. Primitive neuroectodermal tumour (PNET5) trial. [Clinical Trials]

NON-PEER-REVIEWED GRANTS

Funded


2015 - 2019 Co-Investigator. Incorporation of inverse planning optimization algorithm into Gamma Knife treatment planning system for multi-target radiosurgery. Government of Canada. PI: Sahgal A. Collaborator(s): Lee YK, Ruschin M (Co-Investigators). 300,000 CAD. [Industrial Grants] This grant supports research activity in the development inverse planning optimization algorithm into the currently available treatment planning software. There is no direct budgetary overlap since the specific systems under investigation are not the focus of this grant.

2015 - 2016 Co-Principal Investigator. Investigation of plan quality for spine SBRT and brain SRT using the Monaco treatment planning system. Elekta Oncology Systems. PI: Ruschin M, Lee YK, and Sahgal A. 40,000 CAD. [Industrial Grants] This grant supports research activity in the development and evaluation of a new treatment planning system for radiosurgery of multiple brain metastases and spine metastases. There is no direct budgetary overlap since the specific systems under investigation are not the focus of this grant.

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Letters to Editor


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Magazine Entries


Online Resources


Other Publications


3. SUBMITTED PUBLICATIONS

Journal Articles


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Presented Abstracts


2015 Jun 7 Investigation of predictive parameters for pre-treatment measurement pass rates in hypo-fractionated volumetric arc therapy (HF-VMAT) plans of single brain metastasis. World Congress. Toronto, Ontario, Canada.


2014 Sep  

2014 Apr  

2014 Apr  

2012 Jun  

2012 May  

2011 Sep  

2011 May  

2011 May  

2011 May  

2011 May  

2011 May  

2011 Apr  

2011 Apr  

2010 Sep  

2010 Jun  

2008 Nov  

2008 Nov  
2007 Nov


2007

Changing the treatment planning paradigm for soft tissue sarcoma in the thigh. ECCO-ESTRO. Barcelona, Spain. Presenter(s): Stewart AJ, Lee YK, Saran FH.

2004


2003 Aug


2002


2001


Presented and Published Abstracts

2016 Jul

**Presenter.** Feasibility of using multileaf collimation (MLC) for stereotactic radiosurgery (SRS) of arteriovenous malformation (AVM). Canadian Organization of Medical Physicists. 4, Newfoundland and Labrador, Canada. Presenter(s): Lee YK, Tsao M, Schwartz M, Ruschin M.

*Publication Details:* Feasibility of using multileaf collimation (MLC) for stereotactic radiosurgery (SRS) of arteriovenous malformation (AVM).

2016


Other Lectures and Presentations

2011 Apr

Overview of projects - focus on improving paediatric radiotherapy. (IPEM Travel award seminar) Proton Center. Jacksonville, Florida.

2011 Apr

Overview of projects - focus on improving paediatric radiotherapy (IPEM Travel award seminar). Memorial Sloan Kettering. New York, United States.

2. NATIONAL

Presented Abstracts

2014 Jul 9

Estimation of true cumulative dose to the spinal canal in retreated spine SBRT. COMP. Banff, Alberta, Canada. Presenter(s): Lee YK, Thibault I, Sahgal A.

2014 Jul

Preliminary Investigation of arc configurations for optimal sparing of healthy brain tissue in
hypofractionated stereotactic radiotherapy (HF-SRT) of multiple brain metastases using a 5mm interdigitating micro-multileaf collimator. COMP. Banff, Alberta, Canada. Leavens C, Wronski M, Lee YK, Soliman H, Sahgal A, Ruschin M.

2012 Sep  
Use of volumetric modulated arc therapy (VMAT) for large volumes such as Hodgkin’s lymphoma. IPEM Biennial Radiotherapy meeting. Oxford, United Kingdom. Sept 10-12. Lee YK, Bedford JL, Taj M, Saran FH (Authors).

2010 Jul  

2008 Sep 2  

2008 Sep 2  


Other Lectures and Presentations

2012 Jun  PNET QA. Children’s cancer and leukaemia group (CCLG) meeting. Cambridge, United Kingdom.

3. LOCAL

Invited Lectures and Presentations

2016 Apr 7  Invited Lecturer. CNS radiation treatments at Sunnybrook Health Sciences Centre. Stanford University. Palo Alto, California, United States. Presenter(s): Young Lee.


Other Lectures and Presentations


2014 Apr  Clinical implementation of craniospinal IMRT – internal presentation. Odette Cancer Centre, Sunnybrook Health Sciences Centre.

2012 Mar  Improving paediatric radiotherapy, advanced radiotherapy group meeting. The Royal Marsden NHS Foundation Trust. Sutton, United Kingdom.


2011 Jul  Highlights from IPEM/AAPM travel award trip to MSK, Proton Institute and PMH (12/04/11 – 29/04/11) IPEM Travel award report. The Royal Marsden NHS Foundation Trust. Sutton, United Kingdom.

2010 Nov  Inverse/Forward planning prostate patients with bilateral hip prostheses. The Royal Marsden NHS Foundation Trust. Sutton, United Kingdom.

2008 Oct  IMRT verification RMH. The Royal Marsden NHS Foundation Trust. Sutton, United Kingdom.


2008 May  Feedback on Clatterbridge Radiobiology and Radiobiological Modelling Course. The Royal Marsden NHS
Foundation Trust. Sutton, United Kingdom.

2003 Oct MRI in radiotherapy planning of prostate cancer - Beneficial or Problematic? Kent Oncology Centre, Maidstone Hospital. Maidstone, Kent, United Kingdom.

4. OTHER

Other Presentations


G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


Graduate Education


Continuing Education


Research Associate


Between Two Commercial Treatment Planning Systems Used For Hypofractionated Stereotactic Volumetric Arc Radiotherapy Of Multiple Brain Metastases and spine stereotactic radiation therapy., Non-thesis Project.

Other

Curriculum Vitae

Daniel Létourneau
PhD

A. Date Curriculum Vitae is Prepared: 2016 August 17

B. Biographical Information

Primary Office  Princess Margaret Cancer Centre
                610 University Avenue
                Toronto, Ontario, Canada
                M5G 2M9
Telephone  (416) 946-4501 x5562
Email  Daniel.Letourneau@rmp.uhn.on.ca

1. EDUCATION

Degrees
2005 - 2008  PhD, Medical Physics, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): David Jaffray, PhD
1995 - 1996  MSc, Medical Physics, Laval University, Quebec City, Quebec, Canada, Supervisor(s): Jean Pouilhot, PhD
1991 - 1995  BEng, Specialisation in Optics and Communications, Engineering Physics, Laval University, Quebec City, Quebec, Canada

Qualifications, Certifications and Licenses
2005  Medical Physics, Oral Exam, American Board of Radiology, United States
2004  Medical Physics, Parts I and II, American Board of Radiology, United States

2. EMPLOYMENT

Current Appointments
2013 Jan - present  Associate Head of Physics, Radiation Physics Dept. Princess Margaret Cancer Centre, Toronto, Ontario, Canada

Previous Appointments
CONSULTING
2003 - 2007  Consultant Medical Physicist, Institut Paoli-Calmette, Marseille, France
HOSPITAL
2004 - 2012 Dec  Medical Physicist, Radiation Physics Dept. Princess Margaret Hospital, Toronto, Ontario,
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

1995 - 1996 Bursary for Master Degree in Medical Physics, FCAR-FRSQ. (Distinction)
1995 Bursary for Engineering and Science, Roche Foundation. (Distinction)

LOCAL

Received

2015 Research Productivity 2014/2015 - Medical Physics, Princess Margaret Cancer Centre - Radiation Medicine Program, Toronto, Ontario, Canada. (Research Award)
2014 Cancer Quality Council of Ontario Innovation Award for 2014, Princess Margaret Hospital / Radiation Medicine Program, Toronto, Ontario, Canada. (Innovation)
2013 Most Inspiring Team member - Radiation Physics, Princess Margaret Cancer Centre - Radiation Medicine Program, Toronto, Ontario, Canada. (Recognition)
In recognition of his contribution to inspire and motivate others within the Radiation Medicine Program.
1996 Award Honour Recipient, Masters Degree, Laval University, Quebec, Canada. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2001 - present Member, American Association of Physicists in Medicine
2001 - present Member, American Society for Radiation Oncology

Administrative Activities

INTERNATIONAL
American Association of Physicists in Medicine
2012 Jul 1 - present Task group 198, Continuing Education, United States.
Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer
2002 - present  International Journal of Radiation Oncology, Biology and Physics
2002 - present  Journal of Applied Clinical Medical Physics
2002 - present  Medical Physics
2002 - present  Radiotherapy & Oncology

ABSTRACT REVIEWS

Reviewer
2010  Canadian Association of Radiation Oncologists, Annual Meeting 2010
2007  International Conference on the Use of Computers in Radiation Therapy (ICCR)

Other Research and Professional Activities

RESEARCH PROJECT

2011 - 2012  Volumetric modulated arc therapy for paraspinal radiosurgery.
2010 - 2013  Development and implementation of a centralized quality assurance software system for radiation oncology equipment.
2009 - 2013  Automatic beam modeling optimization for treatment planning systems.
2009 - 2010  Evaluation and development of a novel dosimetric phantom for the quality assurance of volumetric modulated arc therapy.
2008 - 2010  Clinical implementation of the Vertebra Finder for automatic detection and segmentation of vertebrae for radiotherapy of spinal bone metastases.
2007 - 2008  Automated planning study to assess the impact of patient setup rotations on the dose to the spinal cord for paraspinal radiosurgery treatments.
2005 - 2008  Development of an On-Line Planning and Delivery Method for Palliative Treatment of Patients with Metastases of the Spine. Princess Margaret Hospital, Toronto, Ontario, Canada. Supervisor(s): David Jaffray, PhD.
1995 - 1996  Development of a Miniature Scintillating Radiation Detector for Stereotactic Radiosurgery. Laval University, Quebec City, Quebec, Canada. Supervisor(s): Jean Pouilot, PhD.

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED
2013 - 2016  Co-Investigator. Improving quality and patient safety in radiation therapy by integrating...


**NON-PEER-REVIEWED GRANTS**

**FUNDED**


**D. Publications**

1. **PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


2. Toussaint, A; Richter, A; Mantel, F; Flickinger, JC; Siiner Grills, I; Tyagi, N; Sahgal, A; Létourneau, D; Sheehan, JP; Schlesinger, DJ; Gerszten, PC; and Guckenberger, M.; Variability in Spine Radiosurgery Treatment Planning - Results of An International Multi-Institutional Study. Radiation Oncology. 2016 Apr 18;11(57):1-9. Coauthor or Collaborator.


8. Létourneau, D; Wang, A; Amin, N; Pearce, J; McNiven, A; Keller, H; Norrlinger, B; and Jaffray, D. Multileaf collimator performance monitoring and improvement using semi-automated quality control testing and statistical process control. Medical Physics. 2014;41(12):121713-121713. Principal Author.


2. NON-PEER-REVIEIVED PUBLICATIONS

**Book Chapters**


3. J-P Bissonnette, S Breen, D Létourneau. Quality Assurance in the Modern Era. In: Jacob Van Dyk, editor(s). The Modern Technology of Radiation Oncology. 3. (United States); 2013. **Co-Principal Author.**


E. Intellectual Property

1. PATENTS


F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2007 Podium. Assessment of Intra-Fraction Motion for On-Line Planning and Delivery of Radiotherapy for
Patients with Spinal Metastases. ESTRO.


2006  Podium. Integral Test Phantom For Dosimetric and Geometric Assurance of IG-IMRT. AAPM.


2004  Podium. Assessment of Residual Error for Online Cone Beam CT Guided Treatment of Prostate Patients. ASTRO.


2003  Podium. Evaluation of a 2D Diode Array for IMRT QA. AAPM.

2003  Podium. Implementation of an On-Board Kilovoltage Cone-Beam CT Imaging System for Clinical Applications. ASTRO.


Presented and Published Abstracts


Publication Details:


Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2013 May  Invited Speaker. VMAT and Paraspinal RT. University of Toronto - Target Insight. Ontario, Canada. Presenter(s): D Létourneau.

2009  **Lecturer.** Sim and Treat for Bone Metastasis Radiotherapy. CARO 2009. Quebec City, Quebec, Canada. Invited Workshop. Extramural.

### 3. PROVINCIAL / REGIONAL

#### Invited Lectures and Presentations


### 4. LOCAL

#### Invited Lectures and Presentations

2013 May 2  **Invited Speaker.** VMAT and paraspinal RT. 2013 Target Insight VII Conference. Toronto, Ontario, Canada.

2012 Oct 12  **Lecturer.** Princess Margaret Cancer Centre. Toronto, Ontario, Canada. Paraspinal SBRT IGRT Education Course.

2012 Feb  **Lecturer.** Infrastructure Quality Control. Princess Margaret Hospital. Toronto, Ontario, Canada. Quality & Safety in Radiation Therapy (QSRT) Education Course.

2011 Nov  **Lecturer.** Dynamic Beam Delivery. ATec Course. Princess Margaret Hospital. Toronto, Ontario, Canada.


2011 Jan 31  **Lecturer.** PGY1 Teaching on Conventional External Beam Radiotherapy. Princess Margaret Hospital, Physics Residency Program. Toronto, Ontario, Canada.

2011 Jan 27  **Lecturer.** PGY1 Teaching on Principles of Radiation Treatment Planning Part 1 & Part 2. Princess Margaret Hospital, Physics Residency Program. Toronto, Ontario, Canada.

2009 Jun  **Lecturer.** IGRT and Palliative Radiation Therapy. Princess Margaret Hospital. Toronto, Ontario, Canada. IGRT Education Course. (Continuing Education).

2009 Feb 24  **Invited Speaker.** Online Planning and Delivery Technique for Radiotherapy of Spinal Metastases. Palliative Rounds at the Odette Cancer Center. Toronto, Ontario, Canada. Extramural.

2006 Aug  **Lecturer.** IGRT and Palliative Radiation Therapy. Princess Margaret Hospital. Toronto, Ontario, Canada. IGRT Education Course. (Continuing Education).
5. OTHER

Presented and Published Abstracts

2015

Patterns of Epidural Progression Following Postoperative Spine Stereotactic Body Radiation Therapy (SBRT): Implications for Clinical Target Volume Delineation.

*Publication Details:*

2015


*Publication Details:*

2015

Multi-Centre Collaborative Quality Assurance Program for IMRT Planning and Delivery: Year 3 Results.

*Publication Details:*
McNiven A, Jaffray D, Letourneau D. Multi-Centre Collaborative Quality Assurance Program for IMRT Planning and Delivery: Year 3 Results. 2015;42(6):3191-3192. **Coauthor or Collaborator.**

2015

Characterization and Monitoring of Linear Accelerator Gantry Radiation Isocenter Motion.

*Publication Details:*

2015

Assessment of Seasonal Linear Accelerator Output Variations and Associated Impacts.

*Publication Details:*

2014 Sep 1

Dosimetric Impact of Combined Rotational and Translational Setup Errors on Spinal Cord Dose in Patients Treated with Spine Stereotactic Body Radiation therapy (SBRT) for Spinal Metastasis.

*Publication Details:*

2014 Sep 1

Multicenter Collaborative Quality Assurance Program in Ontario: Second Year Results.

*Publication Details:*
McNiven, A., Jaffray, D., Letourneau, D. Multicenter Collaborative Quality Assurance Program in Ontario: Second Year Results. Int J of Rad Oncology, Biology and Physics. 2014 Sep 1;90(1):S741-S742. **Coauthor or Collaborator.**

2014

Publication Details:

2013 Oct 1 Re-irradiation with Stereotactic Radiosurgery Treatment for Spinal Metastases: Results from an International Multicenter database.

Publication Details:

2013 Oct 1 Postoperative Stereotactic Body Radiation Therapy (SVRT) for Patients with Spinal Metastasis: Predictive and Prognostic Factors Analysis.

Publication Details:

2013 Feb Stereotactic body radiotherapy: a new paradigm in the management of spinal metastases.

Publication Details:

2013 Linear Accelerator Performance Monitoring and Improvement using Semi-Automated Testing and Statistical Process Control.

Publication Details:


Publication Details:

2013 Implementation of Volumetric Modulated Arc Therapy with Flattening-filter-free beams for Stereotactic body radiotherapy (SBRT) of spinal/paraspinal tumours.

Publication Details:

2013 Radiosurgery as Primary Treatment for Vertebral Metastases: Results from an International Multicenter Database.
Publication Details:
Guckenberger, M., Mantel, F., Kersh, R., Sheehan, J., Sahgal, A., Letourneau, D. Radiosurgery as Primary Treatment for Vertebral Metastases: Results from an International Multicenter Database. Int J of Rad Oncology, Biology, and Physics. 2013;87(2 Supp.). Coauthor or Collaborator.

2013
Spinal Cord Tolerance Specific to Re-irradiation Spine Stereotactic Body Radiation Therapy (SBRT) Following at least 2 courses of Prior Radiation.

Publication Details:

2012 Nov 1
Multicenter Collaborative Quality Assurance Program for the Province of Ontario, Canada: First Year Results.

Publication Details:
D Letourneau, A McNiven, DA Jaffray

2012 Nov 1
Variability in Spine Radiosurgery Treatment Planning--Results of an International Multi-institutional Study.

Publication Details:
M Guckenberger, RA Sweeney, JC Flickinger, I Grills, N Tyagi, A Sahgal, D Letourneau, J Sheehan, D Schlesinger, PC Gerszten

2012 Nov 1
The Risk of Vertebral Compression Fracture (VCF) Post-spine Stereotactic Body Radiotherapy (SBRT) and Evaluation of the Spinal Instability Neoplastic Score (SINS).

Publication Details:
A Al-Omair, M da Cunha, E Atenafu, D Letourneau, R Korol, E Yu, L Masucci, L Da Costa, M Fehlings, A Sahgal

2012 Nov 1
Spinal Cord Motion Considerations for Spine Stereotactic Body Radiation Therapy (SBRT): Does the Cord Move?

Publication Details:
C Tseng, M Sussman, A Simeonov, D Letourneau, E Yu, A Sahgal

2012 Aug
The Risk of Vertebral Compression Fracture (VCF) Post-spine Stereotactic Body Radiotherapy (SBRT) and Evaluation of the Spinal Instability Neoplastic Score (SINS).

Publication Details:
2012 Aug;71(2):E571. **Coauthor or Collaborator.**

2012 Jul  
Multileaf Collimator Performance and Validation of Quality Control Tolerances.

*Publication Details:*

2012 Mar  
Automation in Beam Modeling and Quality Control.

*Publication Details:*

2011 Oct 1  
Development of the Treatment Planning Component for a Multi-Centre Intensity Modulated Radiotherapy Quality Assurance Program.

*Publication Details:*

2011 Oct  
Local control with stereotactic body radiation therapy (SBRT) for spinal metastasis: is it dose or biology that matters?

*Publication Details:*

2011 Oct  
Active breath control to reduce normal tissue dose in patients receiving mediastinal radiotherapy for Hodgkin lymphoma.

*Publication Details:*

2011 Oct  
Multi-center intensity modulated radiotherapy quality assurance program for the Province of Ontario, Canada.

*Publication Details:*

2010 Nov  
Quality control comparison of intensity and volumetric modulated arc radiotherapy (IMRT and VMAT) for spine stereotactic body radiotherapy (SBRT): impact of arc discretization.

*Publication Details:*

2010 Nov  
Impact of immobilization on intra-fraction motion for spine stereotactic body radiotherapy (SBRT) using cone-beam CT (CBCT).
**Publication Details:**

2009 Nov
Risk and intervention assessment for rotational and translational setup errors on spinal cord dose for stereotactic body radiotherapy (SBRT) of paraspinal tumors: an automated planning study.

**Publication Details:**

2009 Nov
Apparatus-dependent differences in spine stereotactic body radiotherapy (SBRT) dosimetry.

**Publication Details:**

2009 Nov
Volumetric modulated arc therapy for stereotactic body radiotherapy (SBRT) of spinal/paraspinal tumors.

**Publication Details:**

2009 Sep 30
IMPLEMENTATION OF A SEMI-AUTOMATIC VERTEBRA DETECTION AND SEGMENTATION ALGORITHM FOR RADIOTHERAPY OF SPINOUS BONE METASTASES.

**Publication Details:**
M Martin, D Letourneau, V Pekar, R Wong, M Gospodarowicz, D Jaffray. IMPLEMENTATION OF A SEMI-AUTOMATIC VERTEBRA DETECTION AND SEGMENTATION ALGORITHM FOR RADIOTHERAPY OF SPINOUS BONE METASTASES. Radiotherapy and Oncology. 2009 Sep 30;92:S17. **Co-Principal Author.**

2009 Sep 30
DEVELOPMENT AND IMPLEMENTATION OF A CONE BEAM CT (CBCT) ENABLED ONE-STEP SIMULATION AND TREATMENT PROCESS FOR BONE METASTASES (BM).

**Publication Details:**
RKS Wong, D Letourneau, D Fitzpatrick, A Potter, M Martin, A Bezjak, M Gospodarowicz, D Jaffray. DEVELOPMENT AND IMPLEMENTATION OF A CONE BEAM CT (CBCT) ENABLED ONE-STEP SIMULATION AND TREATMENT PROCESS FOR BONE METASTASES (BM). Radiotherapy and Oncology. 2009 Sep 30;92(S8). **Co-Principal Author.**

2008 Sep
A statistical framework for the assessment of surrogates for patient setup correction in radiotherapy.

**Publication Details:**

2008 Sep
Online palliative radiotherapy planning and treatment using cone-beam computerized tomography (CBCT).

**Publication Details:**
Fitzpatrick A, Wong RKS, Letourneau D, Vloet A, Craig T, Bezjak A, Levin W, McLean M, Jaffray DA,

2008 Jun 1 Validation of a One-Click Spine Segmentation Approach for Online Planning of Palliative Radiation Treatment.

Publication Details:
V Pekar, D Letourneau, D Jaffray

2007 Oct 1 Feasibility testing of a quality assurance process for a cone-beam CT enabled online planning and treatment model for palliative radiotherapy.

Publication Details:
A Vloet, D Letourneau, S Moledina, A Vavda, R Wong, D Jaffray, M Gospodarowicz

2007 Sep 1 Assessment of intra-fraction motion for on-line planning and delivery of radiotherapy for patients with spinal metastases.

Publication Details:
D Letourneau, A Vloet, R Wong, F Sie, G Bootsma, M Gospodarowicz, D Jaffray
. Assessment of intra-fraction motion for on-line planning and delivery of radiotherapy for patients with spinal metastases. RADIOTHERAPY AND ONCOLOGY. 2007 Sep 1;84:S45-S46. Principal Author.


Publication Details:

2007 Integral Test Phantom For Dosimetric and Geometric Assurance of IG-IMRT.

Publication Details:
D Letourneau, D Moseley, M Sharpe, D Jaffray

2006 Nov Semi-automatic vertebrae localization and segmentation for online palliative radiotherapy.

Publication Details:

2006 Sep A cone-beam enabled one step scan-to-treat process for palliative radiotherapy.

Publication Details:

2005 Oct Towards a one-step scan and treat process for palliative radiotherapy - a potential application for cone beam computerized tomography (CBCT).
**Publication Details:**

2005 Oct  
Online strategy for palliative treatment of patients with bone metastases of the spine: a feasibility study.

**Publication Details:**  

2005 Sep  
Effects of intravenous contrast on head and neck IMRT dose distribution.

**Publication Details:**  

2005 Jun 1  
Optimized Sampling Pattern for Step and Shoot IMRT QA with a Diode Array.

**Publication Details:**  

2004  
Breathing variation during thoracic radiation: implications for adaptive radiotherapy of lung cancer.

**Publication Details:**  

2004  
Image-guided partial breast irradiation with on-board kvV imaging of radio-opaque markers.

**Publication Details:**  

2004  
Evaluation of a high-resolution diode array system for IMRT commissioning and verification.

**Publication Details:**  

2004  
Novel dosimetry systems for IMRT and complex radiation treatments.

**Publication Details:**  

2004  
Assessment of residual error for online cone beam CT-guided treatment of prostate patients.

**Publication Details:**  
2003 Oct Implementation of an on-board kilovoltage cone-beam CT imaging system for clinical applications.

Publication Details:


Publication Details:

2003 Evaluation of a 2D diode array for IMRT QA.

Publication Details:

2003 Use of a ‘virtual cross-hair’ to Calibrate a kV imaging system for online radiographic set-up verification.

Publication Details:

2003 Application of on-line volumetric and radiographic imaging to improve set-up in stereotactic therapy.

Publication Details:

2002 Calibration and targeting performance of a cone-beam computed tomography guidance system for radiation therapy.

Publication Details:

2002 Achieving and utilizing the 3rd dimension in optical gel-dosimetry.

Publication Details:

2002 Clinical implementation of a kilovoltage imager for setup error verification in radiotherapy.

Publication Details:
G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


2007  Primary Supervisor. B. Sc. Jurij Ivanoski B.Sc, Summer Student, Bio-Medical Engineering: McMaster University. *Assessment of the dosimetric impact of rotational errors on the spinal cord dose for paraspinal radiosurgery treatments.*

Graduate Education


Postgraduate MD

2008 - 2011  Primary Supervisor. Eve-Lyne Marchand, Resident in Radiation Oncology: Princess Margaret Hospital. *Planning of volumetric modulated arc therapy (VMAT) for radiosurgery of paraspinal tumors and sensitivity analysis to delivery errors.*


2. OTHER SUPERVISION

Graduate Education

External reviewer for PhD Thesis

2013  PhD. Mathieu Guillot, Université Laval, Québec. Collaborator(s): Dr Luc Beaulieu, Supervisor, Laval University, Quebec City.

2008 - 2009  PhD. Jean-François Aubry, Université Laval, Québec. Collaborator(s): Dr Jean Pouliot, Supervisor, University of California in San Francisco.
Contact Information

- Alexander Lightstone
- Dept of Medical Physics, Odette Cancer Centre, Toronto
- Business Telephone: 416-480-5000 ext 5000
- Business Fax: 416-480-6801
- E-mail Address: alex.lightstone@sunnybrook.ca
- Date: June 10, 2011

Education

- University Education
  BSc. Honours Physics, McGill University, 1970
- Post-Graduate and Medical Training
  PhD Solid State Physics, McGill University, 1977
  Resident in Medical Physics, Toronto-Sunnybrook Regional Cancer Centre (now called the Odette Cancer Centre) 1992-1994
- Scholarships and Awards
  Varian Associates Scholarship (1971-1972)

Biographical Information

- Degrees
  1970 Bachelor of Science, McGill University, Honours Physics
  1977 PhD, McGill University, Solid State Physics
- Hospital/Staff Appointments
  Affiliate in the Dept of Radiation Oncology, Sunnybrook Health Sciences Centre
- Academic Appointments
  Lecturer, Department of Radiation Oncology, University of Toronto
- Professional Affiliations and Activities
  Member, Canadian Organization of Medical Physicists
  Member, Canadian College of Physicists in Medicine
  Member, American Association of Physicists in Medicine
- Certifications and Licensures
  Ontario Peer “A” in Medical Physics
  Member, Canadian College of Physicists in Medicine, MCCPM

Statement of Scholarly and Professional Activity

- Clinical Responsibilities
  Medical Physicist in Radiation Therapy at one of the largest cancer treatment centres in North America. General Expertise: (1) computer calculations of radiation dose to tumour; (2) room shielding design for new equipment; (3) commissioning of new equipment. At the moment I lead the Stereotactic Radiosurgery Program at the Odette Cancer Centre and have primary responsibility for the Tomotherapy linear accelerator system. Chart checking and HDR are part of my "rota" duties.
• **Research**
  My principal research effort at the moment is implementing the use of cone-beam technology for aligning patients with small brain lesions. Previously, I was Chair of AAPM Task Group 68, "Intracranial Positioning Systems", which set formalism for assessing stereotactic head frames.

• **Teaching Responsibilities**
  Currently my teaching is mainly limited to training Physics Residents enrolled in the University of Toronto Department of Radiation Oncology CAMPEP-approved program and occasional lectures to students in a post-graduate program.

**Publications**

**Refereed Publications**

Cochrane RW, Hedgcock FT, **Lightstone AW**. Spin Resonance in Alloys of (SnTe)\(_{1-x}\)(MnTe)\(_x\), Can J Phys, 56:68, 1978.


McIntyre RJ, **Lightstone AW**. Comment on 'Near Room Temperature 1 Micron Single Photon Counting with an InGaAs Avalanche Photodiode, Elect Lett, 2:96, 1984


**Lightstone AW**, Videla N, Mason DLD. Exceptional increases in electron cone output as the backup diaphragms are opened, Med. Phys 24 (1), 133, 1997.


Published Abstracts

Cochrane RW, Hedgcock FT, Lightstone AW. Electron Spin Resonance in \( (\text{SnTe})_1, \times (\text{MnTe})_\times \), Proceedings of the 1975 Low Temp. Conf. LT 14, 3:290, 1975


**Lightstone AW**, Videla N, Mason DLD. Increases in dose output as the backup diaphragms are opened with electron cone irradiation, Canadian Organization of Medical Physicists, Conference Proceedings, 318, 1996.


**Presentations**


Sanghera P, **Lightstone AW**. Fractionated stereotactic treatment of brain metastases using Tomotherapy and image guided MVCT: follow-up on patients who could not be treated with radiosurgery. Canadian Radiosurgery Society Meeting, Mt. Tremblant, Quebec, Feb 2008.


CURRICULUM VITAE

Contact Information

Name Patricia Lindsay

Business Address Radiation Medicine Program
Princess Margaret Hospital
610 University Ave
Toronto, ON, M5G-2M9

Business Telephone 416-946-4501 ext. 5231

Business Fax 416-946-6566

E-mail Address Patricia.Lindsay@rmp.uhn.on.ca

Last Updated Jan 27, 2014

Education

University Education
1998 B.Sc. in Physics and Mathematics, University of Victoria
2004 Ph.D. in Medical Biophysics, University of Western Ontario

Post-Graduate and Medical Training
2006 Medical Physics Residency, MD Anderson Cancer Center, Houston TX

Scholarships and Awards
1998-2000 NSERC PGS-A Graduate Student Scholarship
2000-2002 NSERC PGS-B Graduate Student Scholarship

Biographical Information

Degrees
B.Sc. University of Victoria Physics and Mathematics
Ph.D. University of Western Ontario Medical Biophysics

Employment
2003-2005 Post-doctoral Fellow, Washington University School of Medicine, St. Louis, MO
2005-2007 Medical Physics Resident, UT MD Anderson Cancer Center, Houston, TX
2007-present Radiation Physicist II, Radiation Medicine Program, Princess Margaret Hospital, Toronto, ON
**Academic Appointments**
2009–present  Assistant Professor, Department of Radiation Oncology, University of Toronto, Toronto, ON

**Professional Affiliations**
Member, American Association of Physicists in Medicine
Member, Canadian Organization of Medical Physicists
Member, American Society for Therapeutic Radiology and Oncology
Member, European Society for Therapeutic Radiation Oncology

**Certifications and Licensures**
Therapeutic Radiologic Physics, American Board of Radiology, 2009

**Patents and Commercialization Activities**
Co-inventor, XRad225Cx Small animal irradiation system, Precision X-Ray, Inc.

**Administration and Committee Appointments**

**Local Committees**
- Member, RMP Data and Information Committee (2011-present)
- Member, University of Toronto Department of Radiation Oncology Executive Committee (July 2011-July 2012)
- Member, University of Toronto Department of Radiation Oncology Working Group on Informatics and Data Warehousing (2011-present)

**National and Provincial Committees**
N/A

**International Committees**
- Member, Working Group on Conformal Small Animal Irradiation Devices, American Association of Physics in Medicine (2015-present)
- Chair, Working Group on Conformal Small Animal Irradiation Devices, American Association of Physics in Medicine (2008-2014)

**Journal and Grant Peer Reviewed Responsibilities**

i. Provincial/National
N/A

ii. International
N/A
Editorial and Peer-Reviewed Responsibilities

i. Editor
   N/A

ii. Manuscript Peer-Reviewer for:
   (i) Medical Physics (2003-present)
   (iii) Radiation Research (2009-present)
   (iv) ZMedPhys (2010-present)
   (v) Physica Medica (2015-present)

Statement of Scholarly and Professional Activity

Pre-clinical image guided irradiation systems – development and implementation of conformal, image-guided, irradiation systems for small animal pre-clinical experiments. Design of experimental protocols, and training of users.

Outcome analysis for lung and head-and-neck - development of methods for automated extraction of plan and dose-volume data from treatment planning system, software development of tools for data-mining. Deformable image registration and dose accumulation to improve predictions of treatment outcomes based on actual delivered doses.

Research Grants

Currently Funded as Principal Investigator
N/A

Currently Funded as Co-Investigator

<table>
<thead>
<tr>
<th>Title of Grant</th>
<th>Adaptive Radiotherapy in Head and Neck Cancer: Personalizing Therapy in the HPV Era for Enhanced Response and Reduced Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Internal Grant Competition (Princess Margaret Cancer Center - Radiation Medicine Program “Adaptive IDEAS Grant”)</td>
</tr>
<tr>
<td>Dollars Awarded</td>
<td>$50,000</td>
</tr>
<tr>
<td>Name of PI:</td>
<td>Beibei Zhang and Meredith Giuliani</td>
</tr>
</tbody>
</table>
| Co-applicants:                       | Jean-Pierre Bissonnette  
Biu Chan  
Patricia Lindsay  
Andrea McNiven  
John Waldron |
| Dates of Project:                    | 1/2016-1/2017                                                              |

Pending Grants
N/A

Previously Funded as Principal Investigator
N/A

Previously Funded as Co-Investigator

<table>
<thead>
<tr>
<th>Title of Grant</th>
<th>Techna Guided Therapeutics Cluster</th>
</tr>
</thead>
</table>
Source: Mathematics of Information Technology and Complex Systems (MITACS) Mitacs-Accelerate Graduate Research Internship Program

Dollars Awarded: $45,000
Name of PI: David Jaffray
Dates of Project: 1/2013-12/2014

Title of Grant: Anti-VEGF Therapy in Murine Brain Radionecrosis Model
Source: RAZCER grant – Astra-Zeneca and Canadian Association of Radiation Oncology
Name of PI: Caroline Chung and Cynthia Ménard
Co-applicants: Andrew Hope
Gelareh Zadeh
Patricia Lindsay
Warren Foltz
David Jaffray
Dollars Awarded: $25,000

Title of Grant: Radiation therapy and Sorafinib evaluation in preclinical models: a clinical companion study
Source: RAZCER grant – Astra-Zeneca and Canadian Association of Radiation Oncology
Name of PI: Kristy Brock
Co-applicants: Catherine Coolens
Laura Dawson
Patricia Lindsay
Dollars Awarded: $43,000

Clinical Trials
N/A

Publications

Book Chapters:


Refereed Publications


26. Cynthia L. Eccles, Patricia E. Lindsay, Tim D. Craig, John J. Kim, Laura A. Dawson, Dosimetric Impact of Image-Guided Radiotherapy in Liver Stereotactic Radiotherapy, Journal of Medical Imaging and Radiation Sciences, Volume 44, Issue 1, March 2013, Pages 5-13, ISSN 1939-8654,


Published Abstracts


37. A. Gasparini, R. Clarkson, P. Lindsay, J. J. Sonke, Performance Characterization of a High Resolution Imaging System for Small Animal Radiation Research, Rad Oncol 96 (S1) S562, 2010.


44. J Stewart, **P Lindsay**, and D Jaffray, Quantitative Evaluation of Non-Uniform Dose Patterns for Preclinical Radiobiology Studies Med. Phys. 38, 3735 (2011)


47. A. Hope, P. Lindsay, A. Venugopal, 281 INCREASED ACUTE SYMPTOMS OF RADIATION PNEUMONITIS WITH CONCURRENT CHEMORADIOThERAPY VS. RADIOTHERAPY ALONE IN A MURINE MODEL OF FRACTIONATED SUB-TOTAL THORACIC IGRT, Radiotherapy and Oncology, Volume 102, Supplement 1, March 2012, Page S147, ISSN 0167-8140, 10.1016/S0167-8140(12)70244-X. http://www.sciencedirect.com/science/article/pii/S016781401270244X


Other Abstracts (Peer-Reviewed)


Presentations

Invited Presentations


2. Clinical and pre-Clinical Applications of Image Guidance. Presented at German Cancer Research Center (DKFZ), Heidelberg, Germany. 2008


Visiting Professorships
N/A

Lay and Media Presentations
N/A

Teaching and Design

Graduate Courses
MSC 1501H: Frontiers of Radiation Medicine Research (Institute of Medical Sciences, University of Toronto). January-April 2010 (course co-coordinator).

MSC 1501H: Frontiers of Radiation Medicine Research (Institute of Medical Sciences, University of Toronto). January-April 2012 (course co-coordinator).
MSC 1501H: Frontiers of Radiation Medicine Research (Institute of Medical Sciences, University of Toronto). January-April 2014 (course co-ordinator).

Post-Graduate Courses
Longitudinal Physics for Radiation Oncology Residents (PGY-2): Department of Radiation Oncology, University of Toronto. July 2016-June 2017 (course co-ordinator)

Student Supervision
Unofficial co-supervisor: James Stewart, Ph.D. candidate, IBBME, University of Toronto (2011-present)

Leaves of Absence and Impact on Research
Reason for Leave: Parental Leave, University Health Network
During this 9 months of parental leave, on-going research activities were overseen by colleagues.

Reason for Leave: Parental Leave, University Health Network
During this 9 months of parental leave, on-going research projects were overseen by my colleagues.
Curriculum Vitae

Miller MacPherson

A. Date Curriculum Vitae is Prepared: 2013 July 9

B. Biographical Information

Primary Office
University Health Network/Princess Margaret Hospital
610 University Avenue, Suite 5-609
Toronto, Ontario
M5G 2M9

Telephone 905-813-1100 Ext 5064
Fax 905-813-4452
Email Miller.MacPherson@rmpuhn.on.ca

1. EDUCATION

Degrees
1998 PhD, Physics, Carleton University, Ottawa, Ontario
1993 MSc, Physics, University of Western Ontario, London, Ontario
1990 BSc, First Class Honours in Physics, Mount Allison University, Sackville, New Brunswick

Postgraduate, Research and Specialty Training
1998 - 1999 Medical Physics Resident, Ottawa Regional Cancer Centre, Ottawa, Ontario

Qualifications, Certifications and Licenses
2002 Fellow, Canadian College of Physicists in Medicine
2001 Member, Canadian College of Physicists in Medicine

2. EMPLOYMENT

Current Appointments
2009 - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
2008 - present Senior Physicist, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario
2008 - present Head, Medical Physics, Carlo Fidani Peel Regional Cancer Centre, Mississauga, Ontario

Previous Appointments
HOSPITAL
2003 - 2007 Senior Medical Physicist, Ottawa Regional Cancer Centre, Ottawa, Ontario
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received
1998 Aug Third prize, Young Investigators Symposium, American Association of Physicists in Medicine Annual General Meeting, San Antonio, Texas. (Distinction)

NATIONAL
Received
1996 Jun First prize, Young Investigator's Symposium, Canadian Organization of Medical Physicists Annual General Meeting, Vancouver, British Columbia. (Distinction)

PROVINCIAL / REGIONAL
Received
1993 Ontario Graduate Scholarship, University of Western Ontario. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2009 Canadian Association of Radiation Oncologists
2009 European Society for Therapeutic Radiology and Oncology
2007 American Society for Therapeutic Radiology and Oncology
2002 Fellow, Canadian College of Physicians in Medicine
2001 Member, Canadian College of Physicians in Medicine
1990 American Association of Physicists in Medicine
1990 Canadian Organization of Medical Physicists

Administrative Activities

PROVINCIAL / REGIONAL
Cancer Care Ontario
2009 - present Member, Physics Credentialing Committee
2008 - present Member, Physics Provincial Advisory Committee
2008 - 2011 Member, Radiation Therapy Quality and Safety Committee
C. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Abstracts


Book Chapters


Conference Publications


Reports


D. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers


1999 Commissioning of the Brachytherapy Module for Theraplan Plus. AAPM AGM. Nashville, Tennessee. MacPherson MS, Cygler JE, and Wilkins D.


Invited Lectures and Presentations


2010 Feb 19  RapidArc QA with MapCheck and ArcCheck. 3rd Annual QA and Dosimetry Symposium. Orlando, Florida.

2009 Sep 1  Applications of the MapCheck2 and ArcCheck for Volumetric Modulated Arc Therapy. ESTRO Satellite
### 2. NATIONAL

#### Abstracts and Other Papers

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Title</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Jul 12</td>
<td><strong>Presenter.</strong> A quality control to achieve planning consistency in arc radiotherapy of the prostate. Canadian Organization of Medical Physicists. Halifax, Canada. Presenter(s): Zeng G.</td>
<td></td>
</tr>
<tr>
<td>2012 Jul 12</td>
<td><strong>Presenter.</strong> A set of tests designed for electron dose calculation algorithm verification during a treatment planning system upgrade. Canadian Organization of Medical Physicists. Halifax, Nova Scotia, Canada.</td>
<td></td>
</tr>
</tbody>
</table>
MacPherson M. July 31-August 4 2011.


2009 Jul Detrimental Dose: A Proposed Metric to Score Incidents in Radiation Therapy. COMP Annual General Meeting. Carlone M and MacPherson MS.


2006 Early Experience with a Clinical TomoTherapy Unit. COMP AGM. Saskatoon. Gerig L, MacPherson MS, Malone S, MacRae R, Carty K, Montgomery L, Fox G, Clark B.


Invited Lectures and Presentations

2009 Oct 2 RapidArc Radiotherapy Technology Clinical Applications. Varian CARO Symposium. Quebec City, Quebec.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Abstracts and Other Papers


Invited Lectures and Presentations

2010 Sep 22 Two Years of Volumetric Modulated Arc Therapy. Credit Valley Hospital, Juravinski Regional Cancer Centre. Hamilton, Ontario.

E. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2011 Mar 2 - 2011 Mar 3  Volumetric Modulated Arc Therapy as Accelerated IMRT: Principles, Practice, and Implementation, Continuing Education
Course Director. Metropolitan Hotel, Toronto, ON.

F. Research Supervision

1. UNDERGRADUATE EDUCATION

2009 - 2010  Primary Supervisor, Charmainne Cruje. B. Sc.
2002  Primary Supervisor, Trevor Crljenko, Carlton University. B. Sc., A photogrammetric gated radiotherapy system.
2001  Primary Supervisor, Adam Badeen, Carlton University. B. Sc., Fast Monte Carlo calculations of linac head scatter.
2000  Primary Supervisor, Damien Dery, Carlton University. B. Sc., A CT-based missing tissue compensator system.

2. GRADUATE EDUCATION

2006 - 2008  Primary Supervisor, Jared Strydhorst, Carlton University. MSc, Helical tomotherapy for breast radiotherapy.
2004 - 2006  Co-Supervisor, Cliff Dugal, Carlton University. MSc, Monte Carlo evaluation of linear accelerator shielding design.

3. POSTGRADUATE MD

2011 - present  Primary Supervisor, Theodore Mutanga, CAMPEP resident.
Academic Curriculum Vitae for

Katherine Mah, M.Sc., FCCPM

Name: Katherine Mah

Business Address: Medical Physics, Odette Cancer Centre, Sunnybrook Health Sciences Centre 2075 Bayview Ave., Toronto, Ontario, Canada  M4N 3M5

Business Telephone #: (416) 480-5000 ext. 1091
Business Fax #: (416) 480-6801
E-mail Address: kathy.mah@sunnybrook.ca

Date of Last Update: June, 2011

EDUCATION:

University Education

M.Sc. University of Toronto, Medical Physics 1985

B.Sc. University of Toronto, Physics and Biology Honours Degree 1982

Scholarships and Awards
1. University of Toronto Open Masters Fellowship 1983/84, 1982/83
2. Innis College, University of Toronto Entrance Scholarship 1978/79
3. Reichhold Ltd. Education Scholarship 1978/79
4. J. Keiller MacKay C.I. Award & an Ontario Scholar 1978

BIOGRAPHICAL INFORMATION

_degrees_ M.Sc., B.Sc.

Hospital/Staff Appointments

January 2013 - present  SENIOR PHYSICIST
Odette Cancer Centre, Sunnybrook Health Sciences Centre

Dec 2010 to Dec 2012  ACTING HEAD, Medical Physics, Simcoe Muskoka Regional Cancer Centre, Royal Victoria Hospital, Barrie
**ACTING HEAD, Medical Physics, Odette Cancer Centre, Sunnybrook Health Sciences Centre**

Dec. 2008 - Dec 2012
**DEPUTY HEAD, Medical Physics, Odette Cancer Centre**
(formerly the Toronto-Sunnybrook Regional Cancer Centre)

June 1996 - Nov 2008
**SENIOR PLANNING PHYSICIST**
Toronto-Sunnybrook Regional Cancer Centre

March 1996 – June 1996
**PHYSICIST**
Toronto-Sunnybrook Regional Cancer Centre, Toronto

April 1988 – March 1996
**PHYSICIST**
Princess Margaret Hospital, Toronto, Ontario

Nov 1985 – March 1988
**JUNIOR PHYSICIST**
Princess Margaret Hospital, Toronto, Ontario

**Academic Appointments**

Assistant Professor, University of Toronto, Dept of Radiation Oncology
1998 to present

Adjunct Professor, Ryerson University, Dept of Physics, Jan 2011 to present

**Professional Affiliations**

AAPM: Member of American Association of Physicists in Medicine
COMP: Member of Canadian Organization of Medical Physicists

**Certifications and Licensures**

FCCPM: Fellow of the Canadian College of Physicists in Medicine (1997)

**Administration and Committee Appointments**

2013 to present
Member, Cancer Care Ontario, Lung Community of Practice

2009 to present
Co-Chair, Radiation Oncology Program QA Committee, Odette Cancer Centre

2009 to 2012
Member, Radiation Therapy Steering Committee, Odette Cancer Centre

2009 to present
Member, Incidence Reporting Committee, Cancer Care Ontario
2009 to 2012  Member, Physics Professional Advisory Committee to Cancer Care Ontario

2009 to 2012  Member, Executive Committee, University of Toronto, Department of Radiation Oncology

2010 to 2012  Member, Physics Residency Program Committee, University of Toronto, Department of Radiation Oncology

2009 to 2012  Member, Program Review Committee, The Michener & University of Toronto Medical Radiation Sciences Program

2008 – 2013  Member, Capital Equipment Replacement Committee, Cancer Care Ontario

2007  Member, Organizing Committee, International Conference on Computers in Radiation, Toronto, Ontario, Canada

2006 to 2012  Member, Radiation Therapy Operations Committee, Odette Cancer Centre
2000 – 2005  Member, Continuing Education Committee of the Dept. of Radiation Oncology, University of Toronto

2004  Member, Organizing Committee, Target Insight I, UofT, Dept O of Radiation Oncology, Toronto, Ontario, Canada

1998  Member, American Association of Physicists in Medicine, (AAPM) Radiation Therapy Task Group No. 50. Basic Applications of Multi-Leaf Collimators

STATEMENT OF SCHOLARLY & PROFESSIONAL ACTIVITY:

Research Grants

(A) Previously Funded as Principal Investigator


(B) Previously Funded as Co-Principal Investigator


Caldwell CB, Mah K, Poon I. Automated delineation of targets for radiation treatment of head and neck cancer based on computerized analysis of FDG-PET/CT images. Canadian

(D) Previously Funded as Principal Investigator


Mah K, Caldwell CB, Danjoux, CE. Can 18FDG-PET images provide the 3D extent of lung tumour motion for individualized radiation targeting?. National Cancer Institute, Canada. 2002-2003. $126,000

(E) Previously Funded as Co-Investigator


Caldwell CB, Ung YC, Mah K. Incorporating gamma camera coincidence images in CT-based radiotherapy treatment planning for lung cancer. National Cancer Institute of Canada. 2000. $34,808

Caldwell CB, Mah K, Ung Y, Ehrlich L. Evaluation of fusion of nuclear medicine images with computed tomography images to enhance management of oncology patients. Marconi Medical Systems. 1999-2000. $60,000


PUBLICATIONS:

PEER REVIEWED PUBLICATIONS:


**INVITED STANDARDS PUBLICATION: PEER-REVIEWED**


**NON-PEER REVIEWED PUBLICATIONS:**


BOOK CHAPTERS


PUBLISHED ABSTRACTS


4. M. T. Davidson, S. Blake, D. L. Batchelor, P. Cheung, K. Mah Assessing the role of VMAT relative to IMRT and Helical Tomotherapy In The Management Of Localized, Locally Advanced, and Post-
operative Prostate Cancer. Int J Radiat Oncol Biol Phys June 2010


**Invited Presentations (Extramural only)**

1. Overview of Motion Management Strategies, IMRT insight, On Target, On Track Conference, University of Toronto, Toronto, Ontario May 27, 2011


3. Advances in CT and PET Imaging for Radiation Treatment Planning. Education Course 406 at American Society for Therapeutic Radiation and Oncology (ASTRO), Boston, USA. 2008

4. PET/CT: Basic Principles and Considerations. Ontario Gastrointestinal Multidisciplinary Oncology Conference, Toronto. 2006

5. Advances in CT and PET Imaging for Radiation Treatment Planning. Educational Course 406 at American Society for Therapeutic Radiation and Oncology (ASTRO), Philadelphia, USA. 2006


7. Radiation Oncology Targeting: Can PET/CT help with the what and where?. Grand Rounds-Radiation Oncology at Memorial Sloan Kettering Cancer Centre, New York, USA. 2006
8. Advances in CT and PET Imaging for Radiation Treatment Planning. Educational Course at American Society for Therapeutic Radiation and Oncology (ASTRO), Denver, USA. 2004

9. Target Insight with PET/CT. Philips Medical Systems, Oncology Symposium, Atlanta, USA. 2004

10. The PET/CT at Sunnybrook: Improving Patient Management through the Integration of Functional and Anatomic Imaging. Ontario Association of Medical Radiation Technologists (OAMRT) Education Day, Toronto. 2004

11. PET and Radiation Oncology: Target-in-sight. Toronto Society of Nuclear Medicine, Toronto. 2003


13. Imaging Innovations in Radiation Oncology. 4th RN/RTT Collaborative Conference in Cancer Care, Toronto. 2003

14. PET: The potential role in radiation oncology. 27th Annual Meeting of the American Association of Medical Dosimetrists, Michigan, USA. 2002

15. PETS in the Clinic: The potential role in radiation oncology. Grand Rounds Kingston Regional Cancer Centre, Kingston. 2002


18. The Integration of FDG-PET with CT-Simulation: Impact on Tumour Localization and Dose-Volume Histograms. 7th Annual Marconi Oncology Symposium, Boston, USA. 2000

19. PET Contribution to Radiation Therapy Treatment Planning. Symposium on PET in Oncology, Cross Cancer Institute, Edmonton. 2000

20. QA, Acceptance and Commissioning of a CT-Simulator. AAPM Great Lakes Chapter Meeting, Providence Hospital, Michigan, USA. 2000

21. CT-Simulation Process, Implementation and Operation. AAPM Great Lakes Chapter Meeting, Providence Hospital, Michigan, USA. 2000

22. CT-Simulation Techniques. AAPM Great Lakes Chapter Meeting, Providence Hospital, Michigan, USA. 2000

23. Emerging Technologies in Radiotherapy. 2nd RN/RT Collaborative Conference on Radiotherapy in Cancer Care, Toronto. 2000


26. The reality of virtual simulation. Radiation Program Rounds, Ottawa Regional Cancer Centre, Ottawa. 1999

27. The reality of virtual simulation comes to T-SRCC. Oncology Grand Rounds, Hamilton Regional Cancer Centre, Hamilton. 1998


29. The reality of virtual simulation comes to T-SRCC. Radiation Program Rounds, Princess Margaret Hospital, Toronto. 1998

30. Radiation-induced lung damage: Clinical studies at the Princess Margaret Hospital. University of Michigan, Ann Arbor, USA. 1991


32. Radiation-induced pulmonary damage: Clinical studies at the Princess Margaret Hospital. University of Chicago Medical Center, Chicago, USA. 1987

**PRESENTATIONS AT SCIENTIFIC MEETINGS**


7. Dosimetric Evaluation of Bluk Electron Density Based Treatment Planning in IMRT Head and Neck Patients: Can it be used for MRI-based Planning? The 2010 COMP Meeting, Ottawa, Ontario


11. Remote Radiation Oncology (or a Tale of Two Cities) – The Royal Victoria Hospital and Odette Cancer Centre Experience in Remote Radiation Treatment Deliver (RTD). The 2009 CARO Annual Meeting, Quebec City. 2009


15. Defining the Appropriate PET Intensity Threshold and CT Threshold for Target Delineation in Early Stage Non-small Cell Lung Cancer: A Radiological and Pathological Correlation Study. The Annual Meeting of the American Society of Therapeutic Radiology and Oncology, Boston, USA. 2008

16. Automatic definition of radiation targets using textural characteristics of both Co-registered PET and CT images. The Annual Meeting of the American Society of Therapeutic Radiology and Oncology, Boston, USA. 2008

17. Variability in identification of positive nodes for head and neck cancers: Comparison of CT alone with PET-CT. The Annual Meeting of the American Society of Therapeutic Radiology and Oncology, Boston, USA. 2008

18. Automatic definition of radiation targets using textural characteristics of both Co-registered PET and CT images. The Annual Meeting of the American Association of Physicists in Medicine, Houston, USA. 2008
19. Observer variability in radiotherapy targeting of head and neck tumors: Can PET-CT reduce the variability?. The Annual Meeting of the Society of Nuclear Medicine, New Orleans, USA. 2008

20. FDG PET/CT based feature analysis of head and neck cancer for radiation targeting. The Annual Meeting of the Society of Nuclear Medicine, New Orleans, USA. 2008

21. Radiological-Pathological Correlation (RPC) In Non-Small Cell Lung Cancer (NSCLC): Developing 3-Dimensional (3-D) Methodologies For Examining Radiation Target Volume Delineation. The Joint Scientific Meeting of the Canadian Association of Radiation Oncologists and the Canadian Organization of Medical Physics, Toronto. 2007

22. Variability in Identification of Positive Nodes for Head And Neck Cancers: Comparison Of CT Alone With PET/CT. The Joint Scientific Meeting of the Canadian Association of Radiation Oncologists and the Canadian Organization of Medical Physics, Toronto. 2007

23. Co-registered PET/CT based 3D Texture Classification of Head and Neck Cancer. The Joint Scientific Meeting of the Canadian Association of Radiation Oncologists and the Canadian Organization of Medical Physics, Toronto. 2007


25. Observer Variability in Primary Tumor Localization for Head and Neck Cancers: Can PET-CT reduce the variability? The Multidisciplinary Head & Neck Cancer Symposium, Rancho Mirage, USA. 2007


27. Prospective Evaluation of Pulmonary Toxicity using CT Density, Pulmonary Function and Symptom Assessment. The Annual Meeting of the Canadian Association of Radiation Oncologists, Victoria. 2005

28. Individualized tumor motion from PET for radiation therapy targeting. The 52nd Annual Meeting of the Society of Nuclear Medicine, Toronto. 2005

29. Cost effectiveness of $^{18}F$-FDG PET/CT on radiation therapy for non-small cell lung cancer: A Canadian perspective. The 52nd Annual Meeting of the Society of Nuclear Medicine, Toronto. 2005


31. Can Positron Emission Tomography (PET) Provide Individualized Internal Target Volumes (ITV)? A Physiological Phantom Study and Clinical Validation. The 46th Annual Meeting of the American Society of Therapeutic Radiology and Oncology, Atlanta, USA. 2004
32. Automated Target Definition for Radiation Treatment. The Canadian Organization of Radiation Oncologists, Halifax. 2004


34. Results of a Needs Assessment for Education in Rectal Contouring in Planning of 3DCRT for Prostate Cancer. The 11th International Ottawa Conference on Medical Education, Barcelona, Spain. 2004

35. Performance evaluation of a PET/CT imaging system for radiation oncology treatment simulation. The Canadian Organization of Physicists in Medicine Annual Meeting, Winnipeg. 2004

36. Is Central Necrosis Detected by FDG PET an Adverse Feature in Non-Small Cell Lung Cancer?. The 88th Annual Meeting of the Radiological Society of North America, Chicago, USA. 2002

37. Defining Internal Target Volume (ITV) of Moving Targets: Limitations of Spiral CT and Potential of PET Imaging. The 2nd Annual Meeting of Canadian Association of Radiation Oncologists, Toronto. 2002

38. The Limitations of Spiral CT and the Potential for PET Imaging in Defining the Internal Target Volume of Moving Targets. The 44th Annual Meeting of the American Association of Physicists in Medicine. 2002


41. Interobserver Variation in Contouring Gross Tumour Volume in Carcinoma of the Lung Associated with Pneumonitis and Atelectasis: The Impact of 18FDG-Hybrid PET Fusion. 42nd Annual Meeting of the American Society for Therapeutic Radiology and Oncology, Boston, USA. 2000

42. Fusing 18fluorodeoxyglucose (FDG)-hybrid PET to CT images significantly alters treatment planning in the radical treatment of non-small cell carcinoma of the lung. The 42nd Annual Meeting of the American Society for Therapeutic Radiology and Oncology, Boston, USA. 2000

43. Inter-Observable Variation in Contouring Gross Tumour Volume In Carcinoma Of The Lung: The Impact. The Annual Meeting of the European Society of Radiation Oncology, Istanbul, Turkey. 2000


47. Fusing $^{18}$fluorodeoxyglucose (Fdg)-Hybrid Pet To Ct Images Significantly Alters Treatment Planning In The Radical Treatment Of Non-Small Cell Carcinoma Of The Lung. Presented at the 69th Annual Meeting of the Canadian Association of Radiation Oncologists (CARO), Edmonton. 2000

48. FDG-PET/CT Integration: Impact on Tumour Localization and Dose Volume Histograms in Radiation Therapy. World Congress on Medical Physics and Biomedical Engineering, Chicago, USA. 2000

49. FDG-PCD to CT Fusion: Improved Tumour Localization for Radiotherapy Planning in Lung Carcinoma. The Ontario OCTRF/OMPA Meeting, Lake Couchiching. 1999

50. Image Fusion as an Investigative Tool in Radiation Therapy. The 6th Annual Picker Oncology Symposium, San Antonio, USA. 1999

51. Beyond the conventional: Advanced applications of CT-simulation. The 45th Annual Scientific Meeting of the Canadian Organization of Medical Physicists, Sherbrook. 1999

52. Evaluation of a 3D Treatment Planning system using the AAPM TG23 Test Package. The 44th Annual Scientific Meeting of the Canadian Organization of Medical Physicists, London. 1998


55. Radiation therapy planning of recurrent meningioma using image registration in combination with virtual simulation. The XI International Conference on Medical Physics at the World Congress on Medical Physics and Biomedical Engineering, Nice, France.1997

56. CT-Simulation of Craniospinal Fields in Paediatric Patients: Accurate Planning-Simulation without Distress. The 43rd Annual Scientific Meeting of the Canadian Organization of Medical Physicists, PEI. 1997

57. Experience in Acceptance & Commissioning of a Philips Multileaf Collimator. The Ontario OCTRF/OMPA Meeting, Lake Couchiching. 1993


59. Clinical studies on radiation-induced pulmonary damage at the Princess Margaret Hospital. The 3rd International Conference on Dose, Time and Fractionation in Radiation Oncology. 1988
60. Isoresponse distributions for pulmonary tissues. The 3rd International Conference on Dose, Time and Fractionation in Radiation Oncology. 1988

61. Evaluation of correction factor distributions in thoracic treatment planning. The World Congress on Medical Physics and Biomedical Engineering. 1988


64. Quantitative changes in human lung density following fractionated radiation therapy. The 28th Annual Meeting of the American Association of Physicists in Medicine, Lexington, USA. 1986

65. Isoresponse curves for radiation-induced lung damage. The 28th Annual Meeting of the American Association of Physicists in Medicine, Lexington, USA. 1986


67. CT findings in acute radiation-induced pulmonary damage. The 71st Annual Meeting of the Radiological Society of North America, Chicago, USA. 1985

68. Acute radiation-induced pulmonary damage: Dose response to fractionated radiation therapy. The 27th Annual Meeting of the American Society of Therapeutic Radiology and Oncology, Miami Beach, USA. 1985


70. Dose response data for acute radiation-induced pulmonary damage: Preliminary results. The XIV International Conference on Medical and Biological Engineering and the VII International Conference on Medical Physics, Espoo, Finland. 1985

71. Radiation-induced lung damage, the determination of dose response data. The Wescan Conference on Medical Physics, Thunder Bay. 1985

72. A clinical study to evaluate the dose response of lung tissues to fractionated radiation therapy. The 2nd International Conference on Dose, Time, and Fractionation in Radiation Oncology, Madison, USA. 1984

73. Quantitative measurement of lung density changes following lung irradiation. The 8th International Conference on the Use of Computers in Radiation Therapy, Toronto. 1984

74. Time varying dose due to respiratory motion during radiation therapy of the thorax. The 8th International Conference on the Use of Computers in Radiation Therapy, Toronto. 1984
RESEARCH SUPERVISION; TEACHING; DESIGN:

Undergraduate Courses Taught

Sept 2010 to Dec 2010: Lecture for Michener’s Radiation Sciences RSRT231 Treatment Planning I

Jan 2008 to April 2008: Lecturer for Michener’s Radiation Sciences III: Advanced Planning; University of Toronto’s Dept of Radiation Oncology

Sept 2001 to 2008: Lecturer for Michener’s Radiation Sciences III: Advanced Planning; University of Toronto’s Dept of Radiation Oncology

Postgraduate Courses Taught

1996 to present; also in 1993-94 Applied Physics Course, DRO, one of three physicists responsible for Applied Physics Course. Co-director of the course 2014 to present

2008 to present: Interdisciplinary Rotation for Medical Physics Residents, Odette Cancer Centre, UofT.

2013 to present: Supervisor, Treatment Planning 2 Medical Physics Residents, Odette Cancer Centre, UofT

1996 to 2007: Weekly session with Radiation Oncology Residents during Physics Rotation

1996 to 2007: Weekly session with Medical Physics Residents during Dosimetry Rotation

1986 to 1990: Tutorials with Radiation Oncology Residents in Planning

Medical Physics Resident Supervision

2011-2013 Dr. Niranjan Venugopal (Mentor – Clinical only)
2009-2011 Dr. Huan Yu (Mentor & Research project)
2007-2009 Dr. Alex Karotki (Mentor & Research project)
2004-2006 Dr. Beibei Zhang (Mentor & Research project)
2000-2002 Mr. Matthew Skinner (Mentor & Research project)
1998-1999 Dr. Geordi Pang (Mentor)

Educational Media

1. Virtual Elective in Radiation Oncology (VERO), University of Toronto, Dept of Radiation Oncology; Author of Medical Physics Chapter; In Preparation


3. Co-course supervisor: Radiation Sciences III (Advanced Treatment Planning) for Radiation Therapy Students, Michener Institute and the University of Toronto, Dept. of Radiation Oncology. 2001-2002
4. Organizing Committee, DRO, University of Toronto, for “Target Insight: Innovative strategies to improve target definition in Radiation Oncology” May 4 – 6, 2001, Toronto, Ontario

2015 CURRICULUM VITAE

Contact Information

Name Claire McCann Ph.D., MCCPM
Business Address Department of Medical Physics
Odette Cancer Center
Sunnybrook Health Sciences Center
2075 Bayview Avenue
T wing Rm TG277
Toronto ON, Canada, M4N 3M5
Business Telephone 416-480-6100 ext. 1096
Business Fax 416-480-6801
Email Address Claire.McCann@sunnybrook.ca
Date of Preparation August 17, 2016

Education

University Education

2000 Bachelor of Applied Science, Honours
Department of Mechanical Engineering, University of Toronto, CANADA

2002 Master of Health Science
Institute of Biomaterials and Biomedical Engineering (IBBME),
Clinical Engineering Program, University of Toronto, CANADA

2007 Doctor of Philosophy
Department of Medical Biophysics, University of Toronto, CANADA
PhD Supervisor: Dr. M D Sherar

Post-Graduate and Medical Training

2007-2009 Medical Physics Residency (CAMPEP Accredited)
Princess Margaret Hospital, Department of Radiation Oncology,
University of Toronto, CANADA
Continuing Education

2005  Teaching in Higher Education (THE500), University of Toronto
2009  Transport Dangerous Goods Training, Princess Margaret Hospital
2009  Radioactive Spill Training, Princess Margaret Hospital
2009  IGRT Course, Princess Margaret Hospital
2010  Intensity Modulated Radiotherapy – IMRT Insights 2010
2010  Linear Accelerator Service Training Course, Stronach Regional Cancer Center
2011  CCO: Arc Therapy as Accelerated IMRT: Principles, Practice and Implementation

Scholarships and Awards

1999-Present  Golden Key National Honor Society
2000  Natural Sciences and Engineering Research Council (NSERC) Undergraduate Summer Research Scholarship
2000-2001  Ontario Graduate Scholarships in Science and Technology (OGSST)
2001-2002  Natural Sciences and Engineering Research Council (NSERC) PGS-A: Postgraduate Scholarship
2001-2003  Ontario Graduate Scholarship (OGS)
2000-2004  University of Toronto Fellowship Award
2004  International Congress of Hyperthermic Oncology Travel Award
2003-2005  Natural Sciences and Engineering Research Council (NSERC) PGS-B: Postgraduate Scholarship
2005-2007  National Cancer Institute of Canada (NCIC) Terry Fox Foundation Research Studentship Award (Ranking: 1 of 56 applications nationally)
2014  UTDRO Teaching Excellence Award

Biographical Information

Degrees
2000 BASc
2002 MHSc
2007 Ph.D

C McCann
Hospital/Staff Appointments

Feb 2010-Nov 2010  Medical Physicist  
                  Stronach Regional Cancer Center,  
                  Southlake Regional Health Center, Newmarket, ON
Dec 2010-Present  Medical Physicist  
                  Odette Cancer Center  
                  Sunnybrook Health Sciences Center, Toronto, ON
October 2013-2016  Medical Director OCC Clinical Research  
                  Odette Cancer Center  
                  Sunnybrook Health Sciences Center, Toronto, ON

Academic Appointments

2013-2019  Assistant Professor  
            Department of Radiation Oncology,  
            University of Toronto
2011-2017  Adjunct Professor  
            Department of Physics and Yeates School of Graduate Studies  
            Ryerson University, Toronto, ON
2012-2018  Affiliated Faculty Member  
            The Techna Institute: Institute for the Advancement of technology for Health  
            University Health Network and the University of Toronto
2014-2017  Associate Member  
            Institute of Medical Science, University of Toronto
2013-2019  Affiliate Scientist  
            Sunnybrook Research Institute  
            Physical Scientists Platform of the Odette Cancer Program

Administration and Committee Appointments

2015-2018  Director of Academic Communications, Department of Radiation Oncology,  
            Faculty of Medicine, University of Toronto
2015-2016  Physics Residency Registrar, Department of Radiation Oncology,  
            Faculty of Medicine, University of Toronto
2012-present  Radiation Program Quality Assurance Committee
2013-present  Cancer Committee, Odette Cancer Center, Sunnybrook Health Sciences Center

Professional Affiliations and Activities

Member  Canadian Organization of Medical Physicists (COMP)
Associate Member Canadian Association of Radiation Oncology (CARO)

C McCann
Certifications and Licensures

2010-2015  Member of Canadian College of Physicists in Medicine (MCCPM)

Patents and Commercialization Activities

<table>
<thead>
<tr>
<th>Patent Title</th>
<th>Patent Number</th>
<th>Patent Location</th>
<th>Patent Status</th>
<th>Filing Date</th>
<th>Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coil electrode apparatus for thermal therapy</td>
<td>8,073,551</td>
<td>US</td>
<td>Completed</td>
<td>2007-04-04</td>
<td>2011-12-06</td>
</tr>
<tr>
<td>Coil Electrode for Thermal Therapy Application</td>
<td>61/437653</td>
<td>US</td>
<td>In Progress, Provisional</td>
<td>2011-05-01</td>
<td></td>
</tr>
<tr>
<td>Coil Electrode Apparatus for Thermal Therapy for Treating Bone Tissue</td>
<td>Application number 61677367</td>
<td>US</td>
<td>In Progress, Provisional</td>
<td>2012-30-07</td>
<td></td>
</tr>
</tbody>
</table>

Editorial and Peer-Reviewed Responsibilities

Manuscript Peer-Reviewer for:
(i) Physics in Medicine and Biology
(ii) Journal of Applied Clinical Medical Physics
(iii) Medical Physics

Conference Peer-Reviewed Responsibilities

COMP 2010
COMP 2014
Research Grants


McCann C (PI), Giordano J, Czarnota G. Canadian Cancer Clinical Trials Network Infrastructure Grant, Ontario Institute for Cancer Research, $1,116,348, 2015-2018.


Clinical Trials

2011-present Thermal Ablation with a Loosely Wound Helical Coil for Radiofrequency Treatment of Large Renal and Hepatic Tumors in Patients Undergoing Partial or Total Nephrectomy or Hepatectomy.

Sponsor: OICR
Principal Clinical Investigator: Jewett M
Principal Scientific Investigator: Sherar M
REB#: 10-0654-C

C McCann
**Publications**

**Refereed Publications**


Published Abstracts and Other Abstracts e.g. Non-published (non peer-reviewed, peer-reviewed & presented)

Peer-Reviewed


Non-Peer Reviewed

2. **McCann C.** A novel radiofrequency applicator for interstitial thermal therapy. Department of Radiation Physics, Princess Margaret Hospital, Toronto ON, March 2006.


4. **McCann C.** A Robust IMRT Optimization Method for Lung Cancer, Accounting for Tissue Heterogeneity and Intra-Fraction Lung Tumour Motion. Invited Talk. Princess Margaret Hospital, Department of Radiation Oncology, Lung Case Review Rounds, July 14, 2009.

5. **McCann C.** A Robust IMRT Optimization Method for Lung Cancer, Accounting for Intra-Fraction Lung Tumour Motion. Department of Radiation Physics, Radiation Medicine Program, Princess Margaret Hospital, Toronto ON, October 27, 2009.


7. **McCann C.** From Radiotherapy to Radiofrequency and Beyond. Invited Talk. Sunnybrook Health Sciences Center, Odette Cancer Center, September 3, 2010.

8. **McCann C.** From Radiotherapy to Radiofrequency and Beyond. Invited Talk. Credit Valley Hospital, Peel Regional Cancer Center, October 13, 2010.


11. **McCann C.** 3CTN. Medical Oncology Research Retreat. Department of Medical oncology, Odette Cancer Center, SHSC. June 9, 2014.

**Research Supervision**

**Students**

<table>
<thead>
<tr>
<th>Year</th>
<th>Department, Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-2016</td>
<td>C.G., Department of Physics</td>
</tr>
<tr>
<td></td>
<td>4th Year Undergraduate Thesis: Margin Determination in Hypofractionated Partial Breast Irradiation (HPBI)</td>
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<tr>
<td></td>
<td>Supervisor</td>
</tr>
<tr>
<td>2015-2017</td>
<td>J.L., Ryerson University, Department of Physics and Yeates School of Graduate Studies</td>
</tr>
<tr>
<td></td>
<td>MSc Project: Conjugation of Gold Nanoparticles and Unsealed Radioactive Palladium-103 for Radiation Enhancement and Improvements in Bio-distribution of Radiation in breast Brachytherapy</td>
</tr>
<tr>
<td></td>
<td>Co-Supervisor</td>
</tr>
<tr>
<td>2014-2016</td>
<td>D.D, Ryerson University, Department of Physics and Yeates School of Graduate Studies</td>
</tr>
</tbody>
</table>

C McCann
MSc Project: Radiation Enhancement with Gold Nanoparticles and Hyperthermia
Co-Supervisor

2010-2014 P. P., University of Toronto, Institute of Biomaterials and Biomedical Engineering
PhD Project: Novel radiofrequency devices for treatment of bone metastases.
Member of Supervisory Committee

2012-2014 M. A., Ryerson University, Department of Physics and Yeates School of Graduate Studies
MSc Project: Evaluating the Robustness of an IMRT Planning Method for Lung Radiotherapy that Accounts for Intrafraction Motion.
Co-Supervisor

2012-2014 S. A-W., Ryerson University, Department of Physics and Yeates School of Graduate Studies
MSc Project: Clinical Implementation of a Robust Planning Method for Lung Cancer Radiotherapy
Supervisory Committee Member

2012-2013 J. C., Ryerson University, Department of Physics
4th Year Undergraduate Thesis: Achievability Criteria for Head and Neck IMRT Dose Constraints
Co-Supervisor

2013-2014 W.P. Ryerson University, Department of Physics
4th Year Undergraduate Thesis: Development of an Immobilization and Guidance Platform for Breast RFA
Supervisor

2013-2014 P.W. Ryerson University, Department of Physics
4th Year Undergraduate Thesis: Retrospective Planning Study of Heart Sparing in ABC vs. Reverse Decubitus Patients
Supervisor

2013-2014 F.F. Ryerson University, Department of Physics
4th Year Undergraduate Thesis: Characterization of the Electromagnetic Fields of an RFA Coil for Breast and Bone Ablation
Supervisor

Examination Committee Member
2013 C.P., Ryerson University, Department of Physics and Yeates School of Graduate Studies
MSc Defense: A robust 4D treatment planning approach for lung radiotherapy
2015 S. A-W., Ryerson University, Department of Physics and Yeates School of Graduate Studies, MSc Project: Clinical Implementation of a Robust Planning Method for Lung Cancer Radiotherapy

Teaching and Design
2000 Research Associate
University of Toronto, Department of Mechanical and Industrial Engineering

C McCann
Development of Control Systems Laboratories (MIE404: Control System I)

2000-2003  Teaching Assistant
University of Toronto, Department of Mechanical and Industrial Engineering
MIE404: Control System I
MIE100: Dynamics

2011  Dosimetry Education
Odette Cancer Center, Sunnybrook Health Sciences Center
IMRT Lung Planning
IMRT H&N Planning

2011  UTDRO Medical Physics Residency Teaching/Evaluation
Odette Cancer Center, Sunnybrook Health Sciences Center
Radiobiology I
Radiobiology II
Radiation Safety I
Gynae HDR

2012  Dosimetry Education
Odette Cancer Center, Sunnybrook Health Sciences Center
IMRT H&N Planning-Automated H&N Scripts

2012  UTDRO Medical Physics Residency Teaching/Evaluation
Odette Cancer Center, Sunnybrook Health Sciences Center
Treatment Planning (I)
Field Shaping and Junctions
Dose Calculation Algorithms

2012-2013  UTDRO Medical Physics Residency: Redesign/Development of Resident Session Tutorials

2013  UTDRO Medical Physics Residency Mock Exam
Odette Cancer Center, Sunnybrook Health Sciences Center

2013  Lecture: Respiratory Motion in Radiation Therapy
4th yr Radiation Therapy Course
Medical Physics Program, Ryerson University

2013  UTDRO Medical Physics Residency Teaching/Evaluation
Odette Cancer Center, Sunnybrook Health Sciences Center
Breast Cancer: Radiation Treatment Techniques
TBI and TSEI
Brachytherapy Basics
IMRT and IGRT
Radiobiology
LDR Implants
Treatment Planning-Breast
Radiation Physics
Treatment Planning-Head and Neck
Brachytherapy: LDR
2014  UTDRO Medical Physics Residency Teaching/Evaluation  
Odette Cancer Center, Sunnybrook Health Sciences Center  
  Combinations of Beams  
  Radiobiology  
  Brachytherapy Basics  
  Treatment Planning: Breast Radiotherapy  

McCann C. Heart Sparing in Breast Radiotherapy: Techniques at OCC  

2014  UTDRO Teaching Excellence Award  

2015  UTDRO Medical Physics Residency Teaching/Evaluation  
Odette Cancer Center, Sunnybrook Health Sciences Center  
  Breast Cancer: Radiation Treatment Techniques  
  IMRT and IGRT  
  Radiobiology  
  Radiation Safety and Protection  
  Treatment Planning-Breast  
  Radiation Physics  
  Treatment Planning-Head and Neck  

2016  UTDRO Medical Physics Residency Teaching/Evaluation  
Odette Cancer Center, Sunnybrook Health Sciences Center  
  Instrumentation  
  Radiobiology  

2016  Medical radiation Sciences, The Michener institute, University of Toronto, Department of Radiation Oncology, Course Title: Radiation Beams and Their Applications  
  13 week full course
Curriculum Vitae

Andrea Leigh McNiven

Business Address:
Radiation Medicine Program
UHN- Princess Margaret Cancer Centre
610 University Avenue, Rm 5-612
Toronto, ON
M5G 2M9

Phone: 416-946-4501 x.4273
Fax: 416-946-4501 x. 4578
E-mail: andrea.mcniven@rmp.uhn.on.ca

Residence: 223-900 Mount Pleasant Road, Toronto, ON, M4P 3J9

1. Date of Preparation: October 12, 2015

BIOGRAPHICAL INFORMATION

1. Education and Certification

2002 BMSc
The University of Western Ontario, Honours Biophysics

2007 PhD
The University of Western Ontario, Medical Biophysics

2009 CAMPEP Medical Physics Residency
University of Toronto, Medical Physics

2010 MCCPM
Member, The Canadian College of Physicists in Medicine

2014-2016 Education Scholars Program
Centre for Faculty Development, University of Toronto
Expected Graduation: September 2016

2. Employment

2009 – Medical Physicist
Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, ON

2010 - Assistant Professor
University of Toronto, Department of Radiation Oncology
AL McNiven  2 of 10

2014 - Residency Site Coordinator
Princess Margaret Cancer Centre, University of Toronto, Department of Radiation Oncology Medical Physics Residency Program, Toronto, ON

2007 – 2009 Medical Physics Resident,
Princess Margaret Cancer Centre

2002 – 2007 Teaching Assistant, Department of Medical Biophysics,
The University of Western Ontario, London, ON

3. Honours and Awards

National

2004 – 2007 CIHR/UWO Strategic Training Program in Cancer Research and Technology Transfer
2006 J.R. Cunningham Young Investigator Award Finalist, 52nd Annual COMP Meeting
2004 J.R. Cunningham Young Investigator Award Finalist, 50th Annual COMP Meeting

Provincial

2005 – 2007 Ontario Graduate Scholarship
2003 – 2005 Ontario Graduate Scholarship in Science and Technology

Local

2013 Physics Resident’s Choice Award, Best Clinical Teaching
2011 Radiation Medicine Program, Best Physicist Award
2009 J.R. Cunningham Award for Excellence in Academic Research by a Physics Trainee, University of Toronto Department of Oncology Research and Awards Day
2002 – 2003 Special University Scholarship, The University of Western Ontario
1998 – 1999 Merit Entrance Award, The University of Western Ontario
4. Professional Affiliations and Activities

Professional Associations

Member, American Association of Physicists in Medicine
Member, Canadian Organization of Medical Physicists

Other Research and Professional Activities

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2016</td>
<td>Student in Education Scholars Program (ESP), University of Toronto</td>
</tr>
<tr>
<td>2014</td>
<td>Physics Residency Program Committee Member, Department of Radiation Oncology, University of Toronto</td>
</tr>
<tr>
<td>2014</td>
<td>Strategic Planning Committee, UTDRO</td>
</tr>
<tr>
<td>2014-2016</td>
<td>Evaluation Committee, Radiation Oncology Residency Program, UTDRO</td>
</tr>
<tr>
<td>2013</td>
<td>Abstract Reviewer, AAPM Annual Meeting 2013</td>
</tr>
<tr>
<td>2012-2016</td>
<td>Reviewer, AAPM, Medical Dosimetry, Medical Physics, BJR, IJROBP</td>
</tr>
<tr>
<td>2010-2016</td>
<td>Co-Lead, Advisory Group for Dosimetric Guidelines and Clinical Acceptability, Head and Neck Community of Practice</td>
</tr>
<tr>
<td>2010-2016</td>
<td>Member, Cancer Care Ontario (CCO) Head and Neck Community of Practice</td>
</tr>
<tr>
<td>2010</td>
<td>Head and Neck Communities of Practice Workshop, December 16, 2010</td>
</tr>
<tr>
<td>2006-2010</td>
<td>AAPM Subcommittee Member, Student Physics Association (SPASC)</td>
</tr>
<tr>
<td>2008, 2010</td>
<td>Education Awards Review Committee, University of Toronto, Department of Radiation Oncology</td>
</tr>
<tr>
<td>2007 – 2008</td>
<td>Chief Resident and Physics Residency Committee Member, University of Toronto, Department of Radiation Oncology, Physics Residency Program</td>
</tr>
<tr>
<td>2003 – 2007</td>
<td>Medical Biophysics Councilor, Society of Graduate Students, The University of Western Ontario</td>
</tr>
</tbody>
</table>

PUBLICATIONS

Peer Reviewed Publications


PRESENTATIONS AND LECTURES

Scientific Presentations and Activities

INTERNATIONAL

1. Papers/Posters/Abstracts


12. McNiven, AL, Davidson, MTM., Sharpe, MB., Purdie, TG. Predicting the deliverability of head and neck IMRT using the modulation complexity score. ASTRO 2010.


1. Papers/Posters/Abstracts


7. McNiven, AL, Davidson, MTM., Sharpe, MB., Purdie, TG. Head and neck IMRT complexity characterization and prediction of deliverability using the modulation complexity score. COMP, 2010.


1. Papers/Posters/Abstracts


2. Invited Presentations

   1. **McNiven, A.** Improving the Accuracy of Ion Chamber Measurements in Small Field Dosimetry, Toronto Sunnybrook Regional Cancer Centre, May 23, 2007.


   4. **McNiven, A.** The accuracy of modeling 3D prostate deformation from ex vivo histology to invivo MRI: A preliminary investigation. Odette Cancer Centre, Toronto, ON, April 21, 2009.


   7. **McNiven, A.** Potential Tools for the Assessment of Treatment Plan Quality: Examples from Head and Neck IMRT. Radiation Medicine Program Rounds, Princess Margaret Hospital. April 7, 2011.


TEACHING AND DESIGN

2002 – 2007  Teaching Assistant, Human and Animal Biomechanics
            3rd Year Undergraduate Course
            Department of Medical Biophysics,
            The University of Western Ontario, London, ON

2009  Co-Lecturer for Physics Review Sessions for PGY1 Radiation Oncology
      Residents, University of Toronto, Department of Radiation Oncology

2009-Current  Moderator for UTDRO Physics Residency Tutorials at PMH

2010  Lecturer, Physics Course for PGY1 Medical Residents
      Two lectures on Radioactivity and Brachytherapy
      University of Toronto, Department of Radiation Oncology

2010  Lecturer, Physics Review for PGY3 Medical Residents
      University of Toronto, Department of Radiation Oncology

2010  Lecturer, Medical Physics Residency, Film Dosimetry (2 h)

2011  Lecturer, Physics Course for PGY1 Medical Residents
      Two lectures on Radioactivity and Brachytherapy
      University of Toronto, Department of Radiation Oncology

2011  Lecturer, Medical Physics Residency, Film Dosimetry (2 h)

2011  Lecturer, Physics Review for PGY3 Medical Residents
      University of Toronto, Department of Radiation Oncology

2012  Lecturer, Physics Course for PGY1 Medical Residents
      Two lectures on Radioactivity and Brachytherapy
      University of Toronto, Department of Radiation Oncology

2013  Lecturer, CANMEDS Scholar for PGY1 Medical Residents
      Two lectures on Radioactivity and Brachytherapy
      University of Toronto, Department of Radiation Oncology

2013  Rotation Supervisor, PGY2 and 3 Medical Residents
      Dosimetry Rotation
      University of Toronto, Department of Radiation Oncology
      Lecturer in Rotation (15 h x 3)

2013  Lecturer, Longitudinal Physics, PGY2 Medical Residents
      Four treatment planning sessions (12 h)
      University of Toronto, Department of Radiation Oncology

2013  Lecturer, Medical Physics Residency
      Film Dosimetry, Plan QC, Treatment Planning (6 h)
2013 Faculty, Head and Neck IGRT Course and IMRT Course
Accelerated Education Program
Princess Margaret Cancer Centre

2013 Faculty, Head and Neck IMRT Course
Kuwait Cancer Centre

2013- Supervisor, Treatment Planning 1 Rotation for Physics Residents
Princess Margaret Cancer Centre

2014 Lecturer, PGY1 Medical Residents
Introduction to Basic Interactions and Introduction to Machines
University of Toronto, Department of Radiation Oncology (3 h)

2014 Rotation Supervisor, PGY2 Radiation Oncology Medical Residents
Dosimetry Rotation
University of Toronto, Department of Radiation Oncology
Lecturer in Rotation (15 h)

2014 Lecturer, Longitudinal Physics, PGY2 Medical Residents
Four treatment planning sessions (12 h)
University of Toronto, Department of Radiation Oncology

2015 Lecturer, Longitudinal Physics, PGY2 Medical Residents
Five treatment planning sessions (15 h)
University of Toronto, Department of Radiation Oncology
Curriculum Vitae

Douglas Moseley
Medical Physicist

A. Date Curriculum Vitae is Prepared: 2013 July 9

B. Biographical Information

Primary Office 610 University Avenue
    Toronto, Ontario, Canada
    M5G 2M9
Telephone (416) 946-4501 x5594
Fax (416)946-6566
Email douglas.moseley@rmp.uhn.on.ca

1. EDUCATION

Degrees
1984 - 1989 BMath, Co-op Degree in Applied Mathematics and Computer Science, University of Waterloo, Waterloo, Ontario
1984 Cameron Heights Collegiate Institute, Kitchener, Ontario

Qualifications, Certifications and Licenses
2007 - present Therapeutic Radiologic Physics Certification, American Board of Radiology

2. EMPLOYMENT

Current Appointments
2008 - present Deputy Head, Radiation Therapy Physics, Stronach Regional Cancer Centre at Southlake, Newmarket, Ontario
2007 - present Medical Physicist II, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario
2006 - present Adjunct Associate Professor, Dept of Computational Engineering and Science, Faculty of Engineering, McMaster University
2005 - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
2012 Sep - 2015 Director of Knowledge Translation, Radiation Oncology, Faculty of Medicine, University of Toronto, Ontario, Canada

The Director of Knowledge Translation (KT) for UT-DRO will oversee the development of a comprehensive KT program, comprised of innovative educational products targeting a broad audience, with global impact.
Responsibilities

- Develop an integrated, inter-professional, internationally-renowned KT program for all relevant disciplines, in collaboration with other members of the UT-DRO Executive
- Emphasize an inclusive learning environment; maintain a culture of respect, civility, professionalism, and social responsibility within UT-DRO
- Ensure the KT program abides by all Faculty of Medicine policies including Industry relations, and professionalism
- Oversee the overall coordination, implementation and evaluation of all components of the KT Program, currently comprised of Target Insight, RTi3, UT-DRO Rounds, and Visiting Professorships
- Advise the Chair or Vice-Chair of Academic Affairs, on any issues relevant to the KT Program
- Oversee the financial aspects of the KT Program, develop an operating budget, with a robust long-term business strategy
- Participate as a member of the UT-DRO Executive Committee
- Chair the KT Committee of UT-DRO
- Represent UT-DRO on CE/KT, and any pertinent committees within the Faculty of Medicine
- Collaborate with external groups such as the Faculty of Medicine Continuing Education Professional Development (CEPD) Office, or the Li Ka Shing Knowledge Institute, to partner for mutual success
- Submit reports to the UT-DRO Executive on KT activities within UT-DRO as requested

Previous Appointments

HOSPITAL

2005 - 2007 Medical Physicist I, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario
2002 - 2005 Scientific Associate, Ontario Cancer Institute, Princess Margaret Hospital, Toronto, Ontario

RESEARCH

1998 - 2001 Principal Engineer (Advanced Process Control Development Group), Honeywell Industrial Automation and Control, Phoenix, Arizona
1994 - 1998 Jun Simulation Technology Specialist (Operator Training Simulators), Honeywell Hi-Spec Solutions (formerly SACDA), London, Ontario
1989 Research Assistant, Department of National Defence (DCIEM), Downsview, Ontario

UNIVERSITY

1989 - 1994 Teaching Assistant, University of Western Ontario, London, Ontario

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2007 Apr Editor’s Choice Award, Cogent Medicine. (Distinction)
For Red Journal Article: “Comparison of localization performance with implanted fiducial markers and cone-beam computed tomography for on-line image-guided radiotherapy of the prostate”. 
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2005 - present  Full Member, American Association of Physicists in Medicine (AAPM)
2005 - present  Associate Member, American Society of Therapeutic Radiology and Oncology (ASTRO)
2004 - present  Member, Member of Society of Optical Engineers (SPIE)
1994 - present  Member, Society for Industrial and Applied Mathematics (SIAM)
Administrative Activities

INTERNATIONAL
American Association of Physicists in Medicine
2008 Member, TG179 Quality Assurance for IGRT utilizing CT-based technologies
2007 Member, TG161 Research Software for Cone-Beam CT Reconstruction

15th International Conference on the use of Computers in Radiation Therapy
2007 Member, Organizing Committee

LOCAL
Other Organizations
2013 Jan - present Appointments Committee, Faculty of Medicine, Dept of Radiation Oncology, Faculty Development, Toronto, Ontario, Canada.

University of Toronto
2008 - present Member, RMP CE Committee (Chair David Wiljer), Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2005 - present Medical Physics
2004 - present Physics in Medicine and Biology

PRESENTATION REVIEWS
Reviewer
2007 International Conference on the Use of Computers in Radiotherapy
Judge
2004 Nov American Association of Physicists in Medicine (AAPM) Great Lakes Chapter, Young Investigator and Image-Guided Therapy Symposium

Other Research and Professional Activities

THESIS PROJECT

C. Academic Profile

1. RESEARCH STATEMENTS

Research Endeavours.
X-ray computed tomography

Image-Guided Therapy

Adaptive Radiation Therapy

Computed Tomography Reconstruction

Respiration Correlated CT / 4D CT.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

NON-PEER-REVIEWED GRANTS

FUNDED
2006 Jan - present  Principal Applicant. PentaGuide Daily QA Phantom. Modus Medical Devices Inc. License agreement with royalties. [License Agreement]
This phantom allows daily quality assurance of the imaging and treatment isocentre for medical linear accelerators that are equipped with image-guided radiation therapy technologies.

E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEVED PUBLICATIONS

**Journal Articles**


Abstracts


Douglas MOSELEY


F. Patents and Copyrights


G. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers


2006 Integral Test Phantom for Dosimetric and Geometric Assurance of IG-IMRT. American Association of Physicists in Medicine (AAPM). Orlando. Authors: Jaffray DA, Letourneau D, Moseley DJ, Sharpe M.


2006 Assessment of Lung Tumor and Diaphragm Motion using Cone-Beam CT and 4DCT. American Association of Physicists in Medicine (AAPM). Orlando. Authors: Bissonnette JP, Bezyak A, Franks K, Jaffray DA, Moseley DJ, Purdie T, Sharpe M.


Douglas MOSELEY

Jaffray DA.


2005 Active Tool/Fiducial Segmentation and Tracking in Multiple Modalities. American Association of Physicists in Medicine (AAPM). Seattle. Authors: Siddique MAS, Jepson AD, **Moseley DJ**, Hatzinakos D, Jaffray DA.


Invited Lectures and Presentations


2. NATIONAL

Abstracts and Other Papers


Invited Lectures and Presentations


3. PROVINCIAL / REGIONAL

Abstracts and Other Papers


Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations

H. Research Supervision

1. GRADUATE EDUCATION

2013 Jan - present  
Amir Owrangi, PhD
Assistant Professor, Department of Radiation Oncology
University of Toronto
Medical Physicist, Odette Cancer Centre
Sunnybrook Health Sciences Centre
2075 Bayview Avenue, T wing Rm. TG276
Toronto, Ontario, Canada, M4N 3M5
Tel: 416-480-6100 x 5852
Fax: 416-480-6801
amir.owrangi@sunnybrook.ca

Board Certifications and Licensure

2016                            American Board of Radiology in Therapeutic Medical Physics

EDUCATION & CLINICAL TRAINING

2013-2015                        Clinical Medical Physics Resident
                                  CAMPEP accredited Therapeutic Radiologic Medical Physics Residency
                                  University of Michigan Health System, Ann Arbor, MI

2009-2012                        PhD, Biomedical Engineering
                                  The University of Western Ontario, London, Canada
                                  Dissertation Title: Quantitative Evaluation of Pulmonary Emphysema Using Magnetic Resonance Imaging and x-ray Computed Tomography
                                  Supervisor: Grace Parraga, PhD

2005-2007                        MSc, Radiation-Medicine Engineering
                                  Shiraz University, Shiraz, Iran
                                  Dissertation Title: Monte Carlo Simulation of the Medical Linear Accelerator Photon Beam Using MCNP4C and EGSnrc
                                  Supervisor: Amin Mosleh-Shirazi, PhD

1999-2004                        BSc, Physics
                                  Shiraz University, Shiraz, Iran
                                  Dissertation Title: Dose Measurements using Thermoluminescence in Interventional Radiology
                                  Supervisor: Simin Mehdizadeh, MSc

Grants:

2016 (May- August) $10,000    Harold E. Johns Studentship to hire a summer student to work on developing frameworks necessary for moving toward MR-guidance in radiation oncology
EMPLOYMENT

Current Appointments

ACADEMIC

May 2016 – Present  Assistant Professor, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada

Research Interests:
- Developing platform for MRI only treatment planning
- Developing simulation techniques to perform MRI only brachytherapy

CLINICAL

Oct. 2015 – Present  Medical Physicist, Odette Cancer Centre, Department of Medical Physics, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Clinical Interests:
- MRI guided radiation therapy
- Brachytherapy
- Adaptive radiation therapy

Previous Appointments

CLINICAL

Mar. 2013 - Aug. 2015  Clinical Medical Physics Resident, Department of Radiation Oncology, University of Michigan, Ann Arbor, Michigan

- Leading the effort to commission a new fetal lead shield
- Participated in commissioning of new monitor unit calculation procedure for TBI
- Participated in commissioning and clinical implementation of MR guided cylinder HDR brachytherapy

TEACHING

Sep. 2013 - Apr. 2014  Teaching Assistant for Physics for Radiation Therapy Technicians, (RTT 431/432), University of Michigan, Ann Arbor, Michigan, USA.

- provided one-on-one guidance on problem solving and evaluations of student work

Jan. 2012 – Apr. 2012  Teaching Assistant for Scientific Communications (BIOMED 9504), University of Western Ontario, London, Canada

- provided one-on-one guidance and evaluations of student work
Jan. 2012 – Apr. 2012  Teaching Assistant for Advanced Research & Knowledge Translation (BIOMED 9650), University of Western Ontario, London, Canada
- provided one-on-one guidance and evaluations of student work

Jan. 2010 - Apr. 2010  Teaching Assistant for Scientific Communications (BIOMED 9504), University of Western Ontario, London, Canada

HONOURS AND AWARDS

2009-2012  Western Graduate Research Scholarship
Awarded to graduate students who are enrolled and have a grade point average of 80% or above.
Institutional – Full tuition

2011-2012  Queen Elizabeth II Graduate Scholarship in Science and Technology (QEIIGSST)
Provincial to cover the stipend

2011  JR Cameron and JR Cunningham Young Investigator competition
Finalist(AAPM/COMP Joint Annual Meeting)

2011  Canadian Thoracic Society (CTS)
First Annual Poster Competition -Finalist

2007  The Highest Ranked Graduate in the Radiation-Medicine Engineering program (MSc) Shiraz University, Shiraz, Iran
Institutional

2006  Best Presentation Award -1st International Human, Life and Radiation Conference (HLR 2006) Rafsanjan University of Medical Science, Rafsanjan, Iran - International

TRAINEE and RESEARCH SUPERVISION

Summer student on Harold E. Johns Studentship 2016 (May- August)
Student Name: Levi Burns
Project title: Investigation of a method for generating synthetic CT models from MRI scans of the pelvis for radiation therapy

Undergraduate 4th year thesis 2010-2011
Student Name: Lauren Villemaire
Thesis title: Pulmonary Tumour Measurements from X-Ray Computed Tomography in One-Two- and Three-dimensions

This project results in the following publication:
PROFESSIONAL MEMBERSHIPS

1. Canadian Organization of Physicists in Medicine (since January 2010)
2. American Association of Physicists in Medicine (since October 2011)

PUBLICATIONS

Peer Reviewed Manuscripts

Published and In Press


4. Soliman AS, Elzibak A, Easton H, Kim JY, Han DY, Safigholi H, Mashouf S, **Owrangi A**, Ravi A and Song WY. Quantitative MRI Assessment of a Novel Direction Modulated Brachytherapy Tandem Applicator for Cervical Cancer at 1.5 Tesla. Accepted for publication in the *Radiother Oncol (in press)*


Non-Peer Reviewed Manuscripts


ABSTRACTS AND PRESENTATIONS

A Oral Presentations


4. **Owrangi A**, Wang JX, O'Riordan E, McCormack DG, Parraga G, The relationship of ultra-short time {\textsuperscript{1}}H magnetic resonance imaging and pulmonary function in chronic obstructive pulmonary disease, Biomedical Engineering Society (BMES) Annual meeting, Austin, TX, USA. 2010


7. Mehdizadeh S, **Owrangi A**, Derakhshan S, Thermoluminescence dosimetry of patients in interventional radiology, The 1\textsuperscript{st} International Human, Life and Radiation Conference Rafsanjan, Iran. 2006

8. Mehdizadeh S, **Owrangi A**, Derakhshan S, Thermoluminescence dosimetry of cardiologist's hands in interventional radiology, The 1\textsuperscript{st} International Human, Life and Radiation Conference Rafsanjan, Iran. 2006

B Poster Presentations


25. **Owrangi A**, Wang JX, Wheatley A, McCormack DG and Parraga G, Quantitative analysis of $^1$H magnetic resonance imaging signal intensity in chronic obstructive pulmonary disease and comparison to $^3$He MRI, Canadian Student Conference on Biomedical Computing and Engineering (CSCBCE), London, ON, Canada. May 2011


REFERENCES:

1. Joann I. Prisciandaro, PhD
   Director of Medical Physics Residency Program
   Department of Radiation Oncology, University of Michigan
   1500 East Medical Center Drive
   Ann Arbor, MI 48105
   (734) 936-4309
   Email: joannp@med.umich.edu

2. William Y. Song, PhD
   Head; Dept. Medical Physics, Odette Cancer Centre
   Scientist; Sunnybrook Research Institute, Sunnybrook Health Sciences Centre
   Associate Professor; Dept. Radiation Oncology, University of Toronto
   Odette Cancer Centre
   Sunnybrook Health Sciences Centre
   2075 Bayview Ave., T Wing, Rm. TG 217
   Toronto, ON, M4N 3M5, CANADA
   (416) 480-6100 x 87181
   Email: william.song@sunnybrook.ca

3. James M. Balter, PhD
   Professor and co-Director
   Department of Radiation Oncology, University of Michigan
   Division of Radiation Physics
   1500 East Medical Center Drive
   Ann Arbor, MI 48109
   (734) 936-9486
   Email: jbalter@umich.edu
Curriculum Vitae

Geordi G Pang
PhD, FCCPM

A. Date Curriculum Vitae is Prepared: 2016 August 10

B. Biographical Information

Primary Office
Department of Medical Physics
Odette Cancer Centre
2075 Bayview Ave
Toronto, Ontario, Canada
M4N 3M5

1. EDUCATION

Degrees
1987 PhD, Theoretical Physics, Nanjing University

Postgraduate, Research and Specialty Training
1997 - 1998 Physics Resident, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario
1996 - 1997 Postdoctoral Research Fellow, Imaging Research, Sunnybrook Health Sciences Centre, Toronto, Canada

Qualifications, Certifications and Licenses
2010 RSO, Radiation Safety Officer, Canadian Nuclear Safety Commission, Canada, License / Membership #: 3593804
2008 FCCPM, Fellow in Radiation Oncology Physics, Canadian College of Physicists in Medicine
2008 Peer Review B, Radiation Oncology Physics, Cancer Care Ontario
2000 MCCPM, Certification in Radiation Oncology Physics, Canadian College of Physicists in Medicine
1998 Peer Review A, Radiation Oncology Physics, Cancer Care Ontario

2. EMPLOYMENT

Current Appointments
2015 - present Associate Professor, Department of Radiation Oncology, University of Toronto, Ontario
2015- present Adjunct Professor, Department of Physics, Ryerson University, Ontario
2009 - present Radiation Safety Officer, Odette Cancer Centre, Toronto, Ontario
2008 - present Senior Medical Physicist, Odette Cancer Centre, Toronto, Ontario
2002 - present Associate Member of Graduate School, University of Toronto, Toronto, Ontario
Previous Appointments

HOSPITAL
1998 – 2008  Medical Physicist, Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario

UNIVERSITY
1999-2015  Assistant Professor, Department of Radiation Oncology, University of Toronto, Ontario
2005-2015  Assistant Professor, Department of Medical Biophysics, University of Toronto, Ontario

RESEARCH
2011 - 2015  Affiliate Scientist, Sunnybrook Health Sciences Centre, Toronto, Ontario
  Imaging/Bioengineering Research
1999 - 2011  Associate Scientist, Sunnybrook Health Sciences Centre, Toronto, Ontario
  Imaging/Bioengineering Research

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2007  RIT Award of Excellence for the Best Medical Imaging Article, Senior Responsible Author, The American College of Medical Physics. (Research Award)

2005  Reviewer’s Choice Selections, Principal Author, American Association of Physicists in Medicine (AAPM). (Research Award)

1992 - 1994  Alexander von Humboldt Research Fellow, Alexander von Humboldt Foundation, Germany. (Research Award)


4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2000 - present  Canadian Organization of Medical Physicists
1997 - present  American Association of Physicists in Medicine

Peer Review Activities

GRANT REVIEWS

Reviewer
2015  NSERC Discovery Grant
MANUSCRIPT REVIEWS

Reviewer
2010 - present  Clinical Oncology
2010  Analytical and Quantitative Cytology and Histology
2010  Australasian Physical & Engineering Sciences in Medicine

PRESENTATION REVIEWS

Reviewer
2014  Canadian Organization of Medical Physicists, 2014 COMP Annual Meeting
2010  Canadian Organization of Medical Physicists, 2010 COMP Annual Meeting
2008  American Association of Physicists in Medicine, AAPM 2008 Annual Meetings
2007  American Association of Physicists in Medicine, ICCP and AAPM 2007 Annual Meetings
2006  Canadian Organization of Medical Physicists, 2006 COMP Annual Meeting
2005  American Association of Physicists in Medicine, 2005 AAPM Annual Meetings

MANUSCRIPT REVIEWS AND GUEST ASSOCIATE EDITOR

Reviewer
2005 - present  Medical Physics Journal

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


Geordi G PANG


NON-PEER-REVIEWED GRANTS

FUNDED


Co-Principal Investigator. Imaging with megavoltage beam. Siemens Medical Solutions USA Inc. Oncology Care Systems. PI: Pang G, Rowlands JA, and O’Brien P. 100,000 USD. [Industrial Grants]


Co-Principal Investigator. New imaging technology for monitoring therapy. Siemens Medical Solutions USA Inc. Oncology Care Systems. PI: Pang G, Rowlands JA, Beachey D, and O’Brien P. 55,000 USD. [Industrial Grants]

Co-Principal Investigator. Evaluation of flat panel detectors for portal imaging. Siemens Medical Solutions USA Inc. Oncology Care Systems. PI: Pang G and Rowlands JA. 15,000 USD. [Industrial Grants]

D. Publications (1998-2016 only)

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Abstracts


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


F. Patents and Copyrights


G. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers


2015 Using light output from doped plastic scintillators to resolve the linear energy transfer spectrum of clinical electron beams. AAPM meeting. Anaheim, California. Nusrat H, Pang G, Ahmad S, Keller B, and Sarfehnia A.

Towards the mechanical doping of plastic scintillators. AAPM meeting. Anaheim, California. Nusrat H, Pang G, Au P, and Sarfehnia A.

Could the alpha/beta ratio change in a strong magnetic field? AAPM meeting. Anaheim, California. Pang G

TOWARDS DEVELOPMENT OF A NOVEL LINEAR ENERGY TRANSFER DETECTOR USING DOPED PLASTIC SCINTILLATORS AND MONTE CARLO SIMULATION. World Congress on Medical Physics and Biomedical Engineering. Toronto. Nusrat H, Pang G, Ahmad S, Keller B, and Sarfehnia A.


2013 Monte Carlo simulation of a novel anti-scatter detector for megavoltage x-ray imaging. 2nd Geant4 School and Monte Carlo Workshop, University of Wollongong. Wollongong, Australia. Presenter(s): Pang G and Teymurazyan A.


2008 Condensing external beam radiotherapy to five fractions for low-risk localized prostate cancer: early


2005 Development of a novel high quantum efficiency flat panel detector for image-guided radiotherapy: Construction and evaluation of a prototype detector. BIROW III. Maryland, United States. Pang G and Mei X.


2001 Tracking of Intrafraction Target Motion: A 30 Frames Per Second Megavoltage Fluoroscopic Imaging System. AAPM 43rd Annual Meeting. Salt Lake City, United States. Pang G and Rowlands JA.


2000 Potal imaging with a direct conversion flat panel detector. EPI2K conference. Brussels, Belgium. Pang G
Invited Lectures and Presentations

2007  **Invited Speaker.** Cone-beam digital tomosynthesis: Sunnybrook’s experience. Siemens Oncology Care Systems. Concord, United States.

2003  **Invited Speaker.** Development of direct conversion (a-Se) flat panel detectors for portal imaging. Siemens Oncology Care Systems. Concord, United States.

2003  **Invited Speaker.** Development of megavoltage cone-beam CT with a high quantum efficiency flat panel detector. SIEMENS Collaborator Research Workshop. Salt Lake City, Utah.

2000  **Invited Speaker.** Improvement of BeamviewPlus at Sunnybrook. Siemens Oncology Care System. Concord, United States.

Session Chair/Moderator

2005 Jul 28  **Chair.** TH - C-J-6B - Image-Guided Localization and Intervention. American Association of Physicists in Medicine (AAPM).

2. NATIONAL

Abstracts and Other Papers


2010  Acute and late toxicity of pelvic radiotherapy and concomitant hypofractionated intensity modulated

2010

2010

2009

2009

2008
Just-in-time tomography (JiTT). COMP/CCPM 54th Annual General Meeting. Quebec. Pang G and Rowlands JA.

2007

2007

2006

2005

2005

2004

2004

2004

2004

2002

2002

Invited Lectures and Presentations


3. PROVINCIAL / REGIONAL

Abstracts and Other Papers


4. LOCAL

Invited Lectures and Presentations


H. Teaching and Design

CLASSROOM TEACHING

1. GRADUATE EDUCATION
Courses Taught
Co-taught the course (a required course for MBP graduate students) once a year with Drs. Lilge and Kolios (average number of students in the class was ~ 20). Prepared and delivered 10 hour lectures and 1 hour lab tour. Marked assignments (No TAs).

(2) MSC1500H “Advanced Radiotherapy and Medical Physics” (Course coordinator Dr. J. P. Pignol) 2003-2004, 2005-2006
This was a course offered to the graduate students in Institute of Medical Sciences in U of T (average number of students in the class was ~ 15). Prepared and delivered 1 hour lecture in session six: Imaging in Radiation Therapy.

2. POSTGRADUATE EDUCATION
Courses Taught
(1) U of T Radiation Oncology “Applied Physics” course (Course coordinator Dr. Judith Balogh) 2009-2010, 2010-2011, 2011-2012
This was a course offered to the oncology fellows and residents as well as physics residents in DRO, U of T. Prepared
and delivered 1 hour lecture on verification imaging and MU calculation

3. CONTINUING EDUCATION
(1) Physics resident sessions and rotations
2009-present
Participated in the training of 2-3 physics residents per year on average including: In class-room question and answer sessions and one-to-one lectures (on average ~10 h per year).

(2) Radiation Safety training to new physics and engineering staff at Odette Cancer Centre
2009-present
This training is required as a licence condition issued by CNSC. Prepared and delivered 1 hour lecture to every new physics member and a week-long training for every new engineering member.

I. Research Supervision

1. UNDERGRADUATE EDUCATION

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
<th>Supervisor</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Jan- present</td>
<td>Primary Supervisor</td>
<td>Kevin Wang</td>
<td>High QE MV detectors and MR-compatible radiation survey meters.</td>
</tr>
<tr>
<td>2014 May- 2014 Aug</td>
<td>Primary Supervisor</td>
<td>Sam Peter</td>
<td>Modeling of nanoscale x-ray contrast agents for imaging and treatment</td>
</tr>
<tr>
<td>2012 Jun - 2013 Sep</td>
<td>Co-Supervisor</td>
<td>Tae Sun Yoo</td>
<td>Dual Energy CBCT.</td>
</tr>
<tr>
<td>2012 Jun - 2012 Aug</td>
<td>Primary Supervisor</td>
<td>Franklin Yang</td>
<td>Target motion and CBCT image artifacts.</td>
</tr>
<tr>
<td>2006 May - 2006 Sep</td>
<td>Primary Supervisor</td>
<td>Sheetal Saxena</td>
<td>Measurement of beam focal spot size and motion of Linac machines: Part II.</td>
</tr>
<tr>
<td>2004 May - 2004 Sep</td>
<td>Primary Supervisor</td>
<td>John Challacombe</td>
<td>Beam focal spot size and motion of Linac machines.</td>
</tr>
<tr>
<td>2002 Jul - 2002 Dec</td>
<td>Co-Supervisor</td>
<td>Chung Yip (School of Health Service Management, Faculty of Community Service, Ryerson University).</td>
<td>A comparison of two electronic portal imaging systems in radiation therapy.</td>
</tr>
<tr>
<td>1999 Jun - 1999 Sep</td>
<td>Primary Supervisor</td>
<td>Peter DeMaio, Supervisee Position: Summer student</td>
<td>Evaluation of a Sterling flat panel for portal imaging application.</td>
</tr>
</tbody>
</table>

2. GRADUATE EDUCATION

<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
<th>Student</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015- present</td>
<td>Primary Supervisor</td>
<td>Manmeet Singh, MSc candidate</td>
<td>A prototype anti-scatter detector for megavoltage x-ray imaging.</td>
</tr>
<tr>
<td>2015- present</td>
<td>Thesis Committee Member</td>
<td>Humza Nusrat, MSc candidate</td>
<td>Development of LET detector.</td>
</tr>
<tr>
<td>2012 Sep</td>
<td>Thesis Examiner</td>
<td>Oleksii Semeniuk, MASc, Lead Oxide (PbO) for direct conversion fluoroscopic detectors. Completed 2012.</td>
<td></td>
</tr>
<tr>
<td>2010 Sep</td>
<td>Thesis Committee Member</td>
<td>Shahram Mashouf, PhD</td>
<td>Optimization of breast permanent</td>
</tr>
</tbody>
</table>
seed implant dosimetry incorporating tissue heterogeneity.


2005 Apr - 2006 Dec  **Primary Supervisor**, Dr. Noor Mail. Postdoctoral Fellow. *X-ray phase imaging and digital tomosynthesis.*


**3. OTHER**

2016 Jan - present  **Co-Supervisor**, Dr. Ekat Tchistiakova. *MR-compatible radiation badges and survey meters.*

2009 Sep - 2011  **Primary Supervisor**, Dr. Matt Wronski. *Dose to pacemaker from verification imaging.*


2005 Jan - 2006 Dec  **Primary Supervisor**, Dr. Bryan Schaly. *Evaluation of a prostate phantom for megavoltage cone beam CT.*

2005 Jan - 2005 Sep  **Primary Supervisor**, John Challacombe. *Beam focal spot size and motion of Linac machines.*

2004 Apr - 2006 Dec  **Primary Supervisor**, Philip Au. *Development of megavoltage cone-beam CT.*


2002 Feb - 2003 May  **Primary Supervisor**, Dr. Collins Yeboah. *Application of direct conversion flat panel imagers to dosimetry.*
Curriculum Vitae

Thomas G. Purdie
PhD, MCCPM

A. Date Curriculum Vitae is Prepared: 2016 August 29

Only includes Activities from July 2005 to December 2016

B. Biographical Information

1. EDUCATION

Degrees

1997 Jun - 2002 May PhD, Functional CT Imaging, Medical Biophysics, Western University, London, Ontario, Canada, Supervisor(s): Dr. Ting-Yim Lee
1993 Sep - 1997 Apr BSc, Medical and Health Physics Program, Physics and Astronomy, McMaster University, Hamilton, Ontario, Canada

Postgraduate, Research and Specialty Training

2005 Jun - 2006 Jan Research Fellow, Stereotactic Lung Radiation Therapy, Radiation Physics, Princess Margaret Cancer Centre, Toronto, Ontario, Canada, Supervisor(s): Dr. David Jaffray
2002 Jan - 2005 May Resident, Radiation Physics, Princess Margaret Cancer Centre, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses

2007 Oct - present Certified as Member, Radiation Oncology Physics, Canadian College of Physicist in Medicine (CCPM), Ontario, Canada

2. EMPLOYMENT

Current Appointments

2012 Feb 28 - present Affiliated Faculty, Techna Institute, University Health Network, Toronto, Ontario, Canada
2005 Oct - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2005 Sep - present Medical Radiation Physicist, Radiation Physics, Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada

Previous Appointments

2013 Jan - 2016 Jun Assistant Professor, Mechanical and Industrial Eng. Applied Science and Engineering, University of Toronto, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

LOCAL
Received

2013 Nov  
2012 Innovation Honourable Mention, Cancer Quality Council of Ontario, Toronto, Ontario, Canada. (Distinction)
Quick Start Program: Same-Day Radiotherapy for Early-Stage Breast Cancer.

2013 Jun  
2012 Inventor of the Year, University Health Network, Toronto, Ontario, Canada. (Distinction)
The UHN Inventor of the Year award, sponsored through UHN’s Technology Development and Commercialization (TDC) Office, honours a UHN researcher that has made outstanding and inventive contributions to patient-oriented biomedical research by developing technologies with commercialization potentials.

2012 Sep  
Outstanding Research Potential Award, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada. (Research Award)

2012 May  
Best Rounds Talk (Chair’s Selection), Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Ontario, Canada. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2005 Jan - present  
Member, American Association of Physicists in Medicine (AAPM)
2004 Mar - present  
Member, Canadian Organization of Medical Physicists (COMP)

Administrative Activities

INTERNATIONAL
American Association of Physicists in Medicine
2005 Jun 15 - 2010 Mar 5  
Member, Task Group 101: Stereotactic Body Radiation Therapy Task Group, United States. Leader: Dr. Stanley Benedict.

American Association of Physicists in Medicine (AAPM)
2014 Jul 19 - present  
Member, Task Group 263: Standardizing Nomenclature for Radiation Oncology, United States. Leader: Dr. Charles Mayo.

NATIONAL
NCIC Clinical Trials Group (CTG)
2015 Jan - present  
Member, Radiation Therapy Quality Assurance (QA) Committee, Kingston, Ontario, Canada.

PROVINCIAL / REGIONAL
Cancer Care Ontario
C. Academic Profile

1. RESEARCH STATEMENTS

2005 Oct - present Description of Research Activity.

The focus of my current research activities has been related to automated processes for radiotherapy treatment planning and quality assurance. We have developed a completely automated treatment planning method for tangential breast intensity modulated radiation therapy (IMRT). The work with automation has garnered both a Princess Margaret Foundation grant and external operating Canadian agency grants. In addition, these research efforts have translated directly into the clinic and IMRT breast planning using automated tools is the standard practice for patient receiving tangential breast irradiation at our institution. We are currently investigating the application of these automated tools to new clinical processes. This includes using robust optimization methods to generate cardiac sparing breast IMRT and to use in-treatment room imaging modalities such as CBCT and MR for on-line and adaptive radiation therapy treatment approaches.

More recently, the research focus has been on developing and disseminating a comprehensive web-based application for treatment planning quality assurance. The system developed includes customized machine learning algorithms to automate many steps in the conventional quality control/quality assurance process. The system is being design for applications in the clinical trial environment and for multi-institutional peer review. An extension of the automated quality assurance work is the development of a highly general automated treatment planning methodology that represents a significant shift in which treatment plans are generated. The goal of the automated planning work is provide the radiation oncologist a treatment that can be reviewed within minutes of target delineation. There is tremendous potential to achieve clinical impact and transform the current radiation therapy process with the research developments being undertaken. The research efforts have been focused on improving standardization and adding efficiencies through the use of automation and big data methods. In addition, the research is building a framework to facilitate translation and knowledge dissemination. In this way, we can have a greater clinical impact and reach more patients with advanced technology to ultimately generate highly personalized cancer care.
2. TEACHING PHILOSOPHY

My teaching philosophy has always focused on understanding clinical and technical processes, emphasizing the importance of quality assurance and safety, using the most appropriate technology and enforcing clinical engagement with the radiation medicine disciplines of radiation oncology and radiation therapy.

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

During the last decade, my contribution to medical physics and more broadly radiation oncology, have spanned both clinical and technical domains. My Creative Professional Activities initially focused on the clinical implementation of stereotactic lung radiation therapy and breast radiation therapy treatment planning. More recently, a fundamental component of my activities have been on more generalized automated processes for radiation treatment planning and radiation therapy quality assurance. The automation has relied on more novel, non-traditional medical physics methodologies such as machine learning and optimization. These activities have also provided me the opportunity to engage in multi-disciplinary collaboration at a clinical, academic, education and research level.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWS GRANTS

FUNDED


2010 Oct - 2013 Sep  Principal Investigator. Automating Adjuvant Radiation Therapy in Patients with Breast


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


   This is the first paper to describe a completely automated treatment planning solution using cone-beam computed tomography imaging. The paper shows that high quality and robust automated treatment plans can be generated from cone-beam images that are equivalent to plans generating using standard conventional computed tomography. This paper shows the potential for real-time automated adaptive treatment planning.


   The paper described our large-scale clinical implementation of automated planning for breast RT over a three year period (June 2009-Nov 2012) treating more than 1600 patients. The results demonstrated that we could generate automated plans with fewer errors than more manual approaches. In addition, we demonstrate the method has wide clinical applicability and we can transform our research effort into a clinical viable treatment approach.


   The work described in the paper was the retrospective evaluation of a completely automated treatment planning method for tangential breast radiation therapy. This paper demonstrated that automation can be applied to treatment planning for breast and improve the efficiency and quality of IMRT treatment planning without additional cost or resources. This work is the basis for clinical automated treatment planning which have been implemented at our institution.

This paper was one of the first papers using cone-beam computed tomography (CBCT) imaging for image-guidance in lung stereotactic body radiation therapy (SBRT). The paper highlighted the importance of target visualization in lung SBRT and the requirement for repeat imaging during treatment.


One of the first papers detailing a methodology to acquire four-dimensional imaging from cone-beam computed tomography (CBCT) imaging. The paper demonstrated novelty in not only applying CBCT imaging to stereotactic lung radiation therapy but also demonstrating the importance of measuring target motion for patients undergoing this high-dose per fraction treatment.

2. PEER-REVIEVED PUBLICATIONS

**Journal Articles**


24. Lee MT, **Purdie TG**, Eccles CL, Sharpe MB and Dawson LA. Comparison of simple and complex liver intensity modulated radiotherapy. Radiat Oncol. 5: 115, 2010. **Co-Principal Author.**


**3. NON-PEER-REVIEWED PUBLICATIONS**

**Newspaper Articles**


**Online Resources**

F. Intellectual Property

1. PATENTS


2. LICENSES


RaySearch Laboratories AB (publ.) has entered into an exclusive license agreement with University Health Network’s Princess Margaret Cancer Centre in Toronto, Canada regarding techniques for automated planning of breast cancer treatments.

The Princess Margaret has for a long time developed and refined a technique for automated planning of intensity modulated radiation therapy (IMRT) for breast cancer patients. The technique emulates the often time-consuming steps that are performed during treatment planning including organ segmentation, beam optimization, IMRT optimization and dose calculation. Therefore, dosimetrists can produce complete clinical treatment plans and automated quality assurance reporting in just a few minutes instead of spending up to several hours on each plan. The Princess Margaret has been using this technology clinically for a number of years and validated these techniques in extensive studies demonstrating considerable time saving and also equivalent or better plan quality compared with standard manual planning.


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2007 Jan **Invited Lecturer.** PMH Experience: Intra and Inter-fraction Motion in SBRT Lung. Elekta Synergy Meeting. Nice, France. Presenter(s): *Purdie, Thomas G.*


**Presented Abstracts**


2006 Jul Retrospective Sorting of 4D CT into Breathing Phases based on Imaging Analysis of a Fixed-Geometry


### 2. NATIONAL

#### Invited Lectures and Presentations

**2014 Jan**  **Presenter.** Automated Quality Assurance in Radiation Treatment Planning. Canadian Winter School on Quality and Safety in Radiation Oncology. Quebec City, Quebec, Canada. Presenter(s): **Purdie TG**.

#### Presented Abstracts


#### Presented and Published Abstracts


*Publication Details:*
Mahmoudzadeh, Houra; Chan, Tim YC, **Purdie, Thomas G.** A Robust-CVaR Optimization Approach to Left-Sided Breast IMRT. Medical Physics. 2012. **Senior Responsible Author.**

### 3. PROVINCIAL / REGIONAL

#### Invited Lectures and Presentations

**2011 Jun**  **Invited Speaker.** Automated Breast Treatment Planning. Ontario Consortium for Adaptive Interventions in Radiation Oncology (OCAIRO) Adaptive Session, Princess Margaret Hospital. Toronto, Ontario, Canada. Presenter(s): **Purdie, TG**.

**2011 Feb**  **Invited Speaker.** Automated Tangential Breast IMRT. Juravinski Cancer Centre. Hamilton, Ontario, Canada. Presenter(s): **Purdie TG**.

**2010 Jun**  **Presenter.** IMRT Clinical Trial in Ontario – Automated Breast IMRT. IMRT Insights: Transforming Practice Through Collaboration Meeting. Toronto, Ontario, Canada. Presenter(s): **Purdie TG**.
Presented and Published Abstracts


Publication Details:

Media Appearances


4. LOCAL

Invited Lectures and Presentations

2015 Nov Invited Lecturer. Outcomes – Clinical, Dosimetric & Radiomic Considerations. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Stereotactic Radiation Therapy & Mets - Oligometastases & Beyond. (Continuing Education).


2013 Jun Invited Lecturer. Practice Innovations. Automation: Breast Planning. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Quality and Safety in Radiation Therapy. (Continuing Education).

2012 Dec 20 Presenter. Automated Breast IMRT. Sunnybrook Odette Cancer Centre. Toronto, Ontario, Canada. Presenter(s): Purdie, Thomas G.

2012 Oct  
**Invited Lecturer.** Photon Beam Dose Computations. Ryerson University. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Radiation Therapy (PCS407).

2012 Aug  

2012 Feb  
**Invited Lecturer.** Breast Planning Automation. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Quality and Safety in Radiation Therapy. (Continuing Education).

2011 Dec  
**Presenter.** Automating Breast Radiation Therapy. Ontario Cancer Institute Faculty Meeting, Princess Margaret Hospital. Toronto. Presenter(s): **Purdie, Thomas G.**

2010 Feb  
**Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2010 Feb  
**Invited Lecturer.** Online Breast Radiation Therapy. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2010 Feb  
**Invited Lecturer.** Assessing Tumour Motion using 4DCT Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2009 Nov  
**Presenter.** Clinical Implementation of Automated Breast Radiation Therapy. Ontario Cancer Institute Faculty Meeting, Princess Margaret Hospital. Toronto. Presenter(s): **Purdie, Thomas G.**

2009 Nov  
**Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2009 Nov  
**Invited Lecturer.** Online Breast Radiation Therapy. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2009 Nov  
**Invited Lecturer.** Assessing Tumour Motion using 4DCT Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2009 Sep  
**Invited Lecturer.** IMRT Techniques for the Treatment of Thoracic Malignancies: A Pragmatic Approach Workshop. Canadian Association of Radiation Oncology (CARO). Quebec City, Quebec, Canada. Presenter(s): **Purdie TG.** (Continuing Education).

2009 Jun  
**Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2009 Jun  
**Invited Lecturer.** Online Breast Radiation Therapy. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-
Guided Radiation Therapy. (Continuing Education).

2009 Jun  Invited Lecturer. Assessing Tumour Motion using 4DCT Demonstration. Accelerated Education Program (AEP), Princess Margaret Cancer Centre, Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2009 Apr  Invited Lecturer. Head and Neck Contouring. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Intensity Modulation Radiation Therapy. (Continuing Education).

2009 Apr  Invited Lecturer. Emerging Technical Developments. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Intensity Modulation Radiation Therapy. (Continuing Education).

2009 Feb  Invited Lecturer. Head and Neck Contouring. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Intensity Modulation Radiation Therapy. (Continuing Education).

2008 Nov  Invited Lecturer. IGRT in Lung Cancer. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2008 Nov  Invited Lecturer. Assessing Tumour Motion using 4DCT Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2008 Sep  Invited Lecturer. Lung Stereotactic Radiotherapy. Canadian Association of Radiation Oncology (CARO). Montreal, Quebec, Canada. Presenter(s): Purdie TG. Course: Setting up an SBRT Program Workshop. (Continuing Education).

2008 Jun  Invited Lecturer. IGRT in Lung Cancer. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2008 Jun  Invited Lecturer. Assessing Tumour Motion using 4DCT Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2008 Jun  Invited Lecturer. IMRT Lung Case Presentation. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Intensity Modulation Radiation Therapy. (Continuing Education).

2008 Apr  Invited Lecturer. Introducing IGRT: A Site-Based Approach. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2008 Apr  Invited Lecturer. Assessing Tumour Motion using 4DCT Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Purdie TG. Course: Imaged-Guided Radiation Therapy. (Continuing Education).
2008 Jan  **Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2008 Jan  **Invited Lecturer.** Assessing Tumour Motion using Four Dimensional Computed Tomography (4DCT) Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

2007 Nov  **Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Princess Margaret Cancer Centre, Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Imaged-Guided Radiation Therapy. (Continuing Education).

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2007 Mar  **Invited Lecturer.** Assessing Tumour Motion using 4DCT Demonstration. Accelerated Education Program (AEP), Princess Margaret Cancer Centre, Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Image-Guided Radiation Therapy. (Continuing Education).

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2006 Aug  **Invited Lecturer.** Assessing Tumour Motion using Four Dimensional Computed Tomography (4DCT) Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Image-guided radiation therapy. (Continuing Education).

2006 Aug  **Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Image-guided radiation therapy. (Continuing Education).

2006 May  **Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Image-guided
radiation therapy. (Continuing Education).

2006 May

**Invited Lecturer.** Assessing Tumor Motion using Four Dimensional Computed Tomography (4DCT) Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Image-guided radiation therapy. (Continuing Education).

2006 Mar

**Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Image-guided radiation therapy. (Continuing Education).

2006 Mar

**Invited Lecturer.** Assessing Tumour Motion using Four Dimensional Computed Tomography (4DCT) Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Image-guided radiation therapy. (Continuing Education).

2006 Jan

**Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Princess Margaret Cancer Centre, Dept. of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Canada. Presenter(s): **Purdie TG.** Course: Image-guided radiation therapy. (Continuing Education).

2006 Jan

**Invited Lecturer.** Assessing Tumour Motion using Four Dimensional Computed Tomography (4DCT) Demonstration. Accelerated Education Program (AEP), Radiation Medicine Program, Princess Margaret Cancer Centre, and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Course: Image-guided radiation therapy. (Continuing Education).

2005 Dec

**Invited Lecturer.** Cone-Beam Computed Tomography (CBCT) for Lung SBRT. Accelerated Education Program (AEP), Princess Margaret Cancer Centre, Dept. of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Image-Guided Radiation Therapy Course. (Continuing Education).

2005 Dec

**Invited Lecturer.** IGRT in Lung Cancer. Accelerated Education Program (AEP), Princess Margaret Cancer Centre, Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** Image-Guided Radiation Therapy Course. (Continuing Education).

2005 Nov

**Invited Lecturer.** Image-Guided Radiation Therapy (IGRT) in Lung Cancer. Radiation Medicine Program, Princess Margaret Hospital and Department of Radiation Oncology, Faculty of Medicine, University of Toronto. Toronto, Ontario, Canada. Presenter(s): **Purdie TG.** November IGRT Course - Accelerated Education Program. (Continuing Education).

**Other Lectures and Presentations**

2010 Mar

**Speaker.** The New Cancer Therapy: The Convergence of Biology and Technology. Princess Margaret Hospital Foundation Media Partnership Breakfast, Princess Margaret Hospital. Toronto. Presenter(s): **Purdie TG.**

**H. Teaching and Design**

My teaching and education have focused predominately on continued education and clinical supervision of radiation physics residents. Over the last decade I lectured for a number of courses that comprise our Accelerated Education Program (AEP), in addition to contribute to the design of these courses.
I. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education

2014 Apr - present  Co-Supervisor. PhD. Habibkhani HK, Mechanical and Industrial Engineering. Supervisee Institution: University of Toronto. Supervisor(s): Dr. Dionne Aleman.


Postdoctoral Research Fellow (PhD)

2012 Jan - present  Primary Supervisor. Chris McIntosh. Supervisee Institution: Princess Margaret Cancer Centre.


Research Associate


Clinical Research Fellow (MD)


2013 May - 2014 Jun  Co-Supervisor. Timothy Lymberiou. Supervisor(s): Dr. Anne Koch.


Other


2010 May - 2010 Aug  
**Primary Supervisor.** Summer Student. Nick Carriere. *Quality metrics for intensity modulated radiation therapy.*

2009 May - 2010 May  
**Co-Supervisor.** Radiation Physics Resident. Daria Comsa. *Volumetric Modulated Arc Therapy (VMAT) for lung stereotactic body radiation therapy.*

2009 May - 2009 Aug  
**Primary Supervisor.** Summer Student. Nick Carriere. *Quality assurance tool for automated analysis of image quality from four-dimensional computed tomography imaging.*

2009 May - 2009 Aug  
**Primary Supervisor.** Summer Student. Allen Wang. *Analysis tool for user compliance with a thoracic nomenclature system for radiation therapy treatment planning.*

2009 Jan - 2010 Jan  
**Primary Supervisor.** Radiation Physics Resident. Andrea McNiven. *Assessment of modulation complexity in intensity modulation radiation therapy treatment plans.*

2008 Jan - 2009 Jan  
**Primary Supervisor.** Research Radiation Therapist. Mohammad Rahman. *Clinical implementation of automated treatment planning tools for tangential breast intensity modulated radiation therapy.*

2007 May - 2007 Aug  
**Primary Supervisor.** Summer Student. Christine Hill. *Retrospective evaluation of automated treatment planning tools for tangential breast intensity modulated radiation therapy.*

2007 Jan - 2008 Jan  

2006 May - 2006 Aug  
**Primary Supervisor.** Summer Student. Emilie Hustaix. *Automated treatment planning quality assurance.*

2. OTHER SUPERVISION

**Thesis Examiner**

2015 Jun  
Mahmoudzadeh H. Completed 2015.

2013 Sep  
Ghobadi K. Supervisor(s): Aleman D. Completed 2013.

2013 Aug  
Li H. Supervisor(s): Chan TCY. Completed 2013.

J. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

2010 - present  
Automated quality assurance and treatment planning for radiation therapy. The focus of my more recent work has been developing and clinically validating automated processes in radiation therapy. One aspect of the automation has been disseminating a comprehensive web-based application for treatment planning quality assurance. The system developed includes customized machine learning algorithms to automate many steps in the conventional quality control/quality assurance process. The system is being designed for applications in the clinical trial environment and for multi-institutional peer review and is funded by a joint NSERC/CIHR grant. An extension of the automated quality assurance work is the development of a highly general automated treatment planning methodology that represents a significant shift to the conventional radiation therapy treatment planning process. The goal of the automated planning work is to provide the radiation oncologist a treatment that can be reviewed within minutes of target delineation. There is tremendous potential to achieve clinical impact and transform the current radiation therapy process with the automated developments being undertaken. These activities have been focused on improving standardization and adding efficiencies through the use of automation and by using big data methods. In addition, the research is building a framework to facilitate translation and knowledge dissemination. In this way, we can have a greater
clinical impact and reach more patients with advanced technology to ultimately generate highly personalized cancer care.

2007 - present
Automated breast radiation therapy treatment planning. For the last eight years my creative professional activities have been related to automated processes for breast radiation therapy treatment planning. Through this work, I developed a completely automated treatment planning method for tangential breast intensity modulated radiation therapy (IMRT). The work with automation has garnered both a Princess Margaret Foundation grant, external operating Canadian breast cancer agency grants and the Inventor of the Year Award from the University Health Network (UHN). In addition, the activities have also produced technologies that have been licensed to RaySearch Laboratories AB, a medical technology company, that develops advanced software solutions for improved radiation therapy of cancer. Also based on this work, the developed automated methods have been used to investigate applications to new clinical processes. This includes applying automated approaches to robust optimization to generate cardiac sparing breast IMRT and to use in-treatment room imaging modalities such as CBCT and MR for on-line and adaptive radiation therapy treatment approaches. These activities have translated directly into the clinic and IMRT breast planning using automated tools is the standard practice for patient receiving tangential breast irradiation at our institution. The work demonstrated that automation can be applied to treatment planning for breast and improve the efficiency and quality of IMRT treatment planning without additional cost or resources. Through our licensing agreement, the automated planning software licensed will be incorporated into the RayStation treatment planning system, which integrates all RaySearch’s advanced treatment planning solutions into a flexible treatment planning system. The licensing agreement will allow the widespread dissemination of the software to benefit all breast cancer patients receiving radiation as part of their cancer management.

2005 - 2010
Clinical Implementation of stereotactic lung radiation therapy.
The initial focus of my creative professional activities focused on stereotactic lung radiation therapy. These activities included starting the lung stereotactic program at our institution by performing the technical credentialing for external review for the first formal North America study of stereotactic lung radiation therapy and implementing cone-beam computed tomography image-guidance. I was also on an international task group report and a Canadian consensus practice guidelines report on lung stereotactic radiation therapy as well. The research activities were some of first to use cone-beam computed tomography imaging for image-guidance in stereotactic lung radiation therapy which has become the standard image-guidance approach. The work highlighted the importance of target visualization and the requirement for repeat imaging during treatment.

2. EXEMPLARY PROFESSIONAL PRACTICE
2005 - present
Collaborative research and education to provide technical support to clinical programs. My clinical, academic, education and research contributions have predominately included the treatment site groups: breast, lung and upper gastro-intestinal. For each of these treatment sites my activities have included both clinical and technical development, education via teaching and continuing education and collaborative research. As the physics site lead for the breast site group and physics clinical development lead for breast, lung and upper gastro-intestinal site groups, I have been involved in the technical advancements of the sites including such technologies as volumetric modulated arc therapy (IMRT), intensity modulated radiation therapy (IMRT), cone-beam computed tomography (CBCT) image guidance, and motion management using four-dimensional computed tomography (4DCT) and active breathing control (ABC). More recently, I have been involved as a committee member in the NCIC Clinical Trials Group (CTG) Quality Assurance Division and the physics lead for the NCIC CTG sponsored
HE.1 liver clinical trial. These contributions, in addition to clinical development and multi-disciplinary research activities, further support my effective collaboration in the clinical, academic, education and research domains.
Curriculum Vitae

Ananth Ravi, Ph.D., MCCPM

A. Date Curriculum Vitae is Prepared: 2015 March

B. Biographical Information

Primary Office
Odette Cancer Centre
2075 Bayview Avenue
Toronto, ON Canada
M4N 3M5
Telephone 416-480-6100 ext.1092
Fax 416-480-6801
Email ananth.ravi@sunnybrook.ca

1. EDUCATION

Degrees
2004-2009 Ph.D. Gamma-ray detector guidance of breast cancer therapy, Medical Biophysics, University of Toronto, Toronto, ON Canada Supervisor: Dr. Curtis B. Caldwell
2000-2004 B.A.Sc Honours Engineering Science, University of Toronto, Toronto, ON Canada

Postgraduate, Research and Specialty Training

2008-2010 Radiation Therapy Medical Physics Residency, Evaluation of $^{131}$Cs for permanent breast seed implantation, University of Toronto, Toronto, Ontario, Canada Supervisors: Dr. Melanie Davidson, Dr. Brian Keller
2. EMPLOYMENT

Current Appointments

2014- Present
Deputy Head of Medical Physics, Medical Physics, Odette Cancer Center, Toronto, ON, Canada
Primarily responsible for the clinical operations of the brachytherapy department, capital projects, mechanical engineering and computing services.

2010- Present
Lead Brachytherapy Medical Physicist, Medical Physics, Odette Cancer Center, Toronto, ON, Canada
Primarily responsible for research initiatives and clinical operations in the genito-urinary, gynaecological, breast and lung brachytherapy programs. Responsible for treatment planning, acquisition, quality assurance and commissioning of all treatment planning systems, treatment delivery and imaging equipment used as part of the Odette Cancer Center brachytherapy program. Successfully advocated on behalf of the centre to acquire a dedicated brachytherapy MRI simulator.

Gynecological Brachytherapy
Responsible for the commissioning and development of novel applicators. Lead physicist in an initiative to implement MRI guided gynecological brachytherapy procedures in the province of Ontario. Introduced a novel stereolithography technique as an alternative to conventional gynaecological moulds.

Genito–Urinary Brachytherapy
Developing techniques for guiding intra–prostatic boost HDR brachytherapy, by coregistering trans-rectal ultrasound images with T2-weighted MRI datasets. Developing novel methods to digitize implanted interstitial catheters efficiently and accurately.

2010- Present
Clinical Medical Physicist, Medical Physics, Odette Cancer Center, Toronto, ON, Canada
Implementation/commissioning of MODUS eQA film–less linear accelerator quality assurance program. Member of chart checking rotation, responsible for routine quality control checks on patient treatment charts for 3D conformal, IMRT and SBRT treatment plans. Member of physicist of the week rotation, responsible for troubleshooting unusual clinical situations that may arise during a week of clinical operation of the entire radiation therapy program.
Lead physicist for gynecological cancer site group, and physics member of genito-urinary and head and neck cancer site groups. Involves multidisciplinary discussion and review of patient cases, and development of new clinical protocols.
Previous Appointments

CONSULTING
2013-2014
Medical Physics Consultant, Jamaica Ministry of Health, Kingston, Jamaica
Assisted in the RFP process for creating two cancer centres and an associated
brachytherapy program. Equipment to be purchased were two linear accelerators, CT
simulator and a HDR remote afterloader.

2010-2011
Medical Physics Consultant, Alaraware, Toronto, ON, Canada
Development of a CNSC application for a novel brachytherapy system to be introduced into
Canada. Tasks included filing CNSC application, verification of radiation safety issues, and
verification of conformance with CNSC standards and requirements.

HOSPITAL
2008-2010
Radiation Therapy Medical Physics Resident, Department of Radiation Oncology,
University of Toronto, Toronto, Ontario, Canada
Acceptance and Commissioning
Participated in the acceptance and commissioning of an Elekta Synergy®
and two Elekta Synergy® S linear accelerators with 6, 10, 18 MV photons and kilovoltage
conebeam CT capabilities, predominantly to be used for intensity modulated radiation therapy
(IMRT).
Commissioned a new Pinnacle beam model for an extended SSD (105 cm) electron beam on
a Siemens Primus linear accelerator.
Instrumental in the acceptance and commissioning of a Philips big bore Brilliance CT
simulator.
Assisted in the commissioning of MRI/CT compatible gynaecological applicators. Performed
commissioning measurements to determine the deliverability of Volumetric Modulated Arc
Therapy (VMAT).
Assisted with migration away from Plato Brachy plan to Oncentra Masterplan.

Quality Assurance
Experienced in the use of all conventional quality assurance equipment, including ion
chambers, diodes and diode arrays, thermoluminescent dosimeters, and radiographic film.
Perform routine monthly quality control tests on Siemens, Elekta linear accelerators.
Have performed annual quality control, including the procedures described in TG-51 for
clinical reference dosimetry.
Performed quarterly quality assurance for an HDR afterloader after a 192Ir source change.
Primary responsibility for developing protocols to migrate film based daily and monthly quality
assurance tests to the electronic portal imaging system.

Treatment Planning and Dosimetry
Have received training in 3D conformal, IMRT, Tomotherapy, brachytherapy, and stereotactic
radiosurgery/radiotherapy. Have observed and participated in all steps of the radiation
treatment process, from simulation to final treatment delivery, which involved collaboration
with radiation therapists, dosimetrists, medical physicists, physics associates, and radiation
oncologists.
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received
2007 IEEE Student travel award, Student Presenter, IEEE medical imaging, San Diego, California, USA, travel bursary
Presented research on a novel gamma camera system to intra-operatively localize in 3D brachytherapy seeds implanted during permanent breast seed implantation procedures.
Award Value: 2,000 USD

NATIONAL

Received
2000-2004 University of Toronto National Scholar, Undergraduate student, University of Toronto, Toronto, Ontario, Canada
Awarded to only ten students nationwide covering all undergraduate training expenses.
Award Value: 50,000 CAD

2000-2004 Department of Applied Sciences Entrance Scholarship, Undergraduate student, University of Toronto, Ontario, Canada
Awarded to the top 5% in terms of GPA of the freshmen class of 2000.
Award Value: 1,500 CAD

2000 Achievement in Vocal Carnatic Classical Music, Performer, Thamil Isai Kalaamanram, Toronto, Ontario, Canada
Stood in first place among 200 performers during musical competition.

PROVINCIAL/REGIONAL

Received
2002-2004 Harold E. Johns Summer Studentship, Toronto Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada
Awarded to students interested in pursuing clinical physics in radiation oncology.
Award Value: 9,000 CAD per summer term

LOCAL

Received
2005-2006 Medical Biophysics Research Excellence Award, University of Toronto, Toronto, Ontario, Canada
Award covering tuition expenses for the year.
Award Value: $18,000
4. PROFESSIONAL ASSOCIATIONS

2012 – Present  Member, Canadian College of Physicists in Medicine (Radiation Oncology)
2010 – Present  Member, Canadian Organisation of Medical Physicists, 52358
2010 – Present  Member, American Society of Radiation Oncology Corresponding, 35241357

5. ADMINISTRATIVE ACTIVITIES

REGIONAL & PROVINCIAL

2013- Present  MedicalPhysicist, HDR Brachytherapy Imaging Committee, Cancer Care Ontario, Decide appropriate imaging systems for brachytherapy in the province of Ontario
2011- Present  Member, Gynecology Community of Practice Group, Cancer Care Ontario Develop key goals for community based practice for gynecological radiation therapy.
2011- Present  Working Group Lead, Imaging for Cervix Brachytherapy, Gynecology Community of Practice Group, Cancer Care Ontario Develop strategies to improve access to CT/MRI imaging

LOCAL

2010 – Present  Physics Lead, Brachytherapy Steering Committee, Odette Cancer Centre Responsible for discussing monthly issues related to the delivery of brachytherapy.
2010- Present  Brachytherapy Physics Lead, Capital Equipment Replacement Committee, Odette Cancer Centre Responsible for directing the strategy of major equipment replacement for brachytherapy.
2010- Present  Brachytherapy Physics Lead, Quality Assurance Committee, Odette Cancer Centre Entire radiation therapy program wide quality assurance program.
2008-2010  Member, Department of Radiation Oncology Residency Planning Committee, University of Toronto

Peer Review Activities

GRANT REVIEWS

Reviewer
2011 - 2011  MITACS Grant review, reviewed 1 grant

PAPER REVIEWS

Reviewer
2013 - Present  Brachytherapy
2014 – Present  Medical Physics
2014 – Present  International Journal of Radiation Oncology Biology Physics
C. Academic History

1. RESEARCH STATEMENTS

2004-2008 Novel uses of gamma-ray detecting technology in the image guidance of breast cancer therapy.

2008-2010 Investigating the potential of $^{131}$Cs brachytherapy sources for permanent breast seed implantation.

2010-present Intra-operative histological margin evaluation using a novel beta particle detector Image guided brachytherapy for gynecological, genitor-urinary, and breast carcinomas

2. RESEARCH AWARDS

Grants, Contracts and Clinical Trials

PEER-REVIEWED GRANTS

Funded

2011-2013 Pilot Study of Focal Salvage HDR Prostate Brachytherapy
Sponsor: ACURA granting agency
Principal Investigator: Hans Chung
Co-Investigators: Andrew Loblaw, Gerard Morton, Masoom Haider (Diagnostic Imaging), Ananth Ravi (Physics)
Amount: 40,750 CAD

2014 - 2015 Prostate Specific Quality of Life and Health Preference Values of patients undergoing Two StereoTactic Ablative Adaptive Radiotherapy Treatments for Localized Prostate Cancer (2STAR).
Sponsor: Abbvie-ACURA.
Amount: 30,000 CAD.
Phase 2 study.

2014 - 2015 Prostate Specific Quality of Life and Health Preference Values of patients undergoing Two StereoTactic Ablative Adaptive Radiotherapy Treatments for Localized Prostate Cancer (2STAR).
Sponsor: Ride For Dad, Huronia Chapter.
Amount: 19,943.27 CAD.
Phase 2 study.

Sponsor: Abbvie-ACURA.
Amount: 15,000 CAD.
Phase 2 study.

2011-2017 Electromagnetic tracking for improving image guidance during brachytherapy
Sponsor: OCAIRO
Principal Investigator: Ravi A
Co-Investigators: Morton G, Krueker J
Amount: 140,000 CAD
Sponsor: CCO-CINO
Principal Investigator: Ravi A
Co-Investigators: Caldwell C, Reznik A
Amount: 35 000 CAD

2013-2015 Single fraction HDR prostatic boost in the context of pelvic lymph node SABR (5 fractions) for high risk prostate cancer
Sponsor: Prostate Cancer Canada
Principal Investigator: Loblaw A, Musunuru B
Amount: 159 650 CAD

NON-PEER-REVIEWED GRANTS [Presented in reverse chronological order]
Funded

2011-2017 High-Dose-Rate Prostate Brachytherapy Planning & guidance
Sponsor: Philips Industry grant. Philips Medical Systems
Principal Investigator: Ravi A
Co-Investigators: Morton G, Krueker J
Amount: 94 000 CAD

2010-2012 A novel positron detecting image guidance system for breast conserving surgery
Sponsor: TSRCC PET/CT internal grant. Odette Cancer Center
Principal Investigator: Ravi A
Co-Investigators: Caldwell C
Amount: 20 000 CAD

2015-2017 Magnetic Occult Lesion Localization
Sponsor: Sunnybrook Alternate Funding Plan
Principal Investigators: 98 000 CAD
D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles

A.Ravi, Pignol J.P, Keller B. A comparison of post-implant dosimetry for $^{103}\text{Pd}$ versus $^{131}\text{Cs}$ seeds for Permanent Breast Seed Implantation (PBSI). Medical Physics, 38(11), 6046–6053, 2011. Principal Author


E. Patents


F. Invention Disclosures


Pignol JP, Ravi A, Augmented Reality and Gamma-camera Image Guidance (GIG) for Surgical Ablation, 2013, SB345

Ravi A, Easton H, Endorectal retractor for radiotherapy of the pelvis, 2014, SB359
G. Published Abstracts


Pignol J.P, Keller B., Ravi A. Scatter dose to body organs for various breast irradiation techniques. Canadian
Ananth Ravi


Dillon J, Muhaseen A, Heath E, Ravi A, A needle deflection model for predicting seed misplacement in I-125 permanent prostate brachytherapy. CARO-COMP, 2013, Montreal. Senior Responsible Author


Chung H; Loblaw A, D’Alimonte L, **Ravi A**; Haider M; Morton G, Pilot study of focal salvage high-dose rate (HDR) prostate brachytherapy in patients with local recurrence after definitive external-beam radiotherapy (XRT). ASCO Annual Meeting Proceedings, 32, 4 suppl, 264, 2014. **Co-Author**

Han, D; Webster, M; Scanderbeg, D; Yashar, C; Choi, D; Song, B; Devic, S; **Ravi, A**; Song, W; Direction Modulated Brachytherapy for HDR Treatment of Cervical Cancer. Medical Physics, 41, 6, 90-90, 2014, American Association of Physicists in Medicine. **Co-Author**

Chiang, AS; Loblaw, D; Chu, W; Jain, S; Erler, D; **Ravi, A**; Davidson, M; Korol, R; Chung, H; Vesprini, D; Stereotactic Body Radiation Therapy (SBRT) Boost to Mimic High-Dose-Rate (HDR) Brachytherapy for Intermediate-Risk Prostate Cancer: A Phase 1 Study. International Journal of Radiation Oncology• Biology• Physics, 90, 1, S432, 2014. **Co-Author**

Helou, J; Morton, G; Zhang, L; Deabreu, A; D’Alimonte, L; Alexandre, M; **Ravi, A**; Chung, H; Cheung, P; Loblaw, A; Stereotactic Radiation Therapy Versus External Beam+ High-Dose-Rate Brachytherapy Boost in the Treatment of Localized Prostate Cancer: A Quality of Life Analysis. International Journal of Radiation Oncology• Biology• Physics, 90, 1, S415-S416, 2014. **Co-Author**

Han, D; Webster, MJ; Scanderbeg, DJ; Yashar, C; Choi, D; Song, B; Devic, S; **Ravi, A**; Song, WY; Direction Modulated Brachytherapy (DMBT) for Cervical Cancer. International Journal of Radiation Oncology• Biology• Physics, 90, 1, S932, 2014. **Co-Author**

D’Alimonte, L; Helou, J; **Ravi, A**; Easton, H; Jurincic, L; Morton, G; Customized Surface Moulds for the Treatment of Penile Cancer with High Dose Rate (HDR) Brachytherapy. Journal of Medical Imaging and Radiation Sciences, 46, 1, S4, 2015. **Co-Author**

Cumal, A; D’Alimonte, L; Leung, E; **Ravi, A**; Towards Personalized Medicine: The Early Experience of Image-Guided Interstitial Brachytherapy for Gynecological Recurrence. Journal of Medical Imaging and Radiation Sciences, 46, 1, S4, 2015. **Senior Author**


Ananth Ravi

Life (QOL) and Acute Toxicities of a Pilot Study of Focal Salvage High Dose Rate (HDR) Prostate Brachytherapy in Patients With Local Recurrence After Definitive External-Beam Radiotherapy (XRT). Brachytherapy, 14, S51. Co-Author


H. Presentations and Special Lectures

Invited Lectures and Presentations

1. INTERNATIONAL

April 2014  
Invited Speaker: MR guidance the future of personalized brachytherapy  
Philips MR research headquarters, Helsinki, Finland

July 2013  
Invited Speaker. Image Guided Brachytherapy and Prostate Stereotactic Ablative Radiotherapy  
Queens University Belfast, Ireland.

April 2012  
Invited Speaker. DVC AAPM Spring Symposium. Image Guided Brachytherapy  
Philedelphia, PA, USA.

April 2012  
Invited Speaker. Thomas Jefferson University Hospital, Towards personalized brachytherapy  
Philedelphia, PA, USA.

2. NATIONAL

Invited Lectures and Presentations

Nov 2012  

3. PROVINCIAL/ REGIONAL

Invited Lectures and Presentations

May 2014  
Working Group Lead. MR cost effectiveness for cervix brachytherapy a Communities of Practice initiative.  
Toronto, Ontario, Canada.

June 2013  
Working Group Lead. MR-Guided Cervix brachytherapy a Communities of Practice initiative.  
Toronto, Ontario, Canada.

April 2013  
Invited Speaker. Image Guided Brachytherapy. Grand Rounds  
Kingston, Ontario, Canada.

May 2012  
Invited Speaker. Target Insight VI: Forging the hypoFractionation Frontier: SBRT, HDR Brachytherapy and Beyond, Technical challenges of prostate brachytherapy  
Toronto, Ontario, Canada

July 2012  
Invited Speaker. Advances in Image Guided Brachytherapy. Physics Department, Lakehead University, Thunder Bay Regional Research Institute, Thunderbay
Feb 2012 Invited Speaker. Advances in Image Guided Brachytherapy at the OCC. CCO Physics Winter Workshop. Toronto, Ontario, Canada

4. LOCAL

Invited Lectures and Presentations

Fall 2011 Lecturer. Fundamentals of Brachytherapy. Ryerson University. Toronto, Ontario, Canada

Spring 2010 Lecturer. Introduction to Brachytherapy Ryerson University. Toronto, Ontario, Canada

I. Teaching and Design

2013 – present Lecturer, Medical Imaging (Ultrasound), Department of Radiation Oncology

2010 – present Lecturer, Applied Physics, Department of Radiation Oncology

2011- present Lecturer, Radiation Physics, Michner Institute

Fall 2009 Lab Demonstrator, Radiation Biology and Radiation Protection, Michner Institute

Fall 2008 Lab Demonstrator, Foundations of Physics (1st yr. general sciences course), University of Toronto

Spring 2007 Lab Demonstrator, Foundations of Physics (1st yr. general sciences course), University of Toronto

Fall 2007 Lab Demonstrator, Foundations of Physics (1st yr. general sciences course), University of Toronto

Spring 2007 Lab Demonstrator, Physics Laboratory (2nd yr. engineering science course), University of Toronto

Fall 2006 Lab Demonstrator, Physics Laboratory (2nd yr. engineering science course), University of Toronto
J. Research Supervision

1. UNDERGRADUATE EDUCATION

2012 – present
Supervisor, John Dillon, HE Johns summer student. *Robust treatment planning algorithm that account for permanent seed misplacement in prostate LDR brachytherapy.*

2011 – 2012
Supervisor, John Dillon, HE Johns summer student. *Novel beta probe detector for image guidance of breast conserving surgery*

2010 – 2011
Supervisor, John Dillon, 4th Year undergraduate thesis. Investigating the properties of avalanche photo-diodes for detecting beta particles

2. GRADUATE EDUCATION

2014 -

2012 - 2013
Supervisor. Alexandru-Mihai Nicolae. Radiation Therapy Research Project. PTV Margin analysis for SBRT Boost for Intermediate Risk Prostate Adenocarcinoma. Mr. Nicolae has been accepted for an oral presentation at the 2013 RTi3 conference.

2010 - 2011
Supervisor. Graham Smith. Radiation Therapy Research Project. Feasibility study of using deformable registration to improve the efficiency in adaptive radiation therapy treatment planning. Mr. Smith won the award for research excellence that year the the RTi3 conference.

3. POSTGRADUATE

2011 - present
CURRICULUM VITAE

Name: Alexandra Rink

Business Address: Radiation Medicine Program
UHN – Princess Margaret Cancer Centre
610 University Ave., Rm. 5-914,
Toronto, Ontario, Canada
M5G 2M9

Business Telephone: 416-946-4501 Ext. 4924
FAX: 416-946-6566
E-mail Address: Alexandra.Rink@rmp.uhn.on.ca

Last Update: September 12, 2016

EDUCATION & TRAINING

Leadership and Management Training

05.2013 – 05.2016 Leadership Essentials Certificate, University of Toronto School of Continuing Studies, Toronto, Ontario, Canada
09.2014 – 05.2015 UHN-Rotman Leadership Development Program, University Health Network and Rotman School of Management, University of Toronto, Toronto, Ontario, Canada
09.2013 - 06.2016 UHN Lead Up Leadership Development Program, University Health Network, Toronto, Ontario, Canada

Post-Graduate Training

01.2010 – 03.2012 Clinical Physics Fellow, University of Toronto/Princess Margaret Hospital, Toronto, Ontario, Canada
01.2008 - 12.2009 Physics Residency Program (CAMPEP accredited), University of Toronto, Toronto, Ontario, Canada

Graduate Education

01.2003 - 12.2007 Ph.D., Medical Biophysics, University of Toronto, Toronto, Ontario, Canada

Undergraduate Education

09.1998 – 12.2002 Bachelor of Science, Honours, Chemical Physics, University of Guelph, Guelph, Ontario, Canada
Scholarships and Awards

2007        J.R. Cunningham Young Investigator Award (2nd place), CARO-COMP 2007
2005-2007   Terry Fox Foundation Research Studentship Award through the National Cancer Institute of Canada
2005-2006   Scace Graduate Fellowship in Prostate Cancer Research
2001-2001   NSERC Undergraduate Student Research Award
2000        NSERC Industrial Undergraduate Student Research Award
2000        Copernicus Physics Scholarship, Department of Physics, University of Guelph
1999-1999   Departmental Scholarship Summer Placement, Department of Physics, University of Guelph
1998-2002   Honours Physics Scholarship, Department of Physics, University of Guelph
1998        Silver Jubilee Award, Mon Sheong Foundation
1998        Padgett Business Services Award

BIOGRAPHICAL INFORMATION:

Certification and Licensures

08.2011     Certified by the Canadian College of Physicists in Medicine (CCPM)

Hospital Employment

04.2013 – present **Brachytherapy Lead Physicist, Radiation Physics, Princess Margaret Cancer Centre**, Toronto, Ontario, Canada
  - Supervise other Brachytherapy Physicists on day-to-day basis
  - Provide leadership in development and implementation of new techniques
  - Oversee commissioning of new applicators, treatment planning techniques, and other software as required
  - Maintain a Brachytherapy QA program by reviewing and updating protocols, as required
  - Lead selection of equipment and software for Brachytherapy
  - Support Brachytherapy operations through treatment planning and QA in HDR gynae, prostate, lung and esophagus treatments, and in permanent seed prostate treatments.
  - Act as Rotation Supervisor for Physics Residents undergoing Brachytherapy Clinical rotation
  - Participate in teaching and training Brachytherapy physics to Radiation Oncology and Physics residents during didactic sessions and practice labs
- Ensure adequate clinical support by scheduling staffing levels throughout the year.
- Chair bi-weekly Brachytherapy Operations and Brachy Physics meetings

04.2012 – 03.2013  **Radiation Physicist, Radiation Physics, Princess Margaret Hospital, Toronto, Ontario, Canada**

**Position:**
- Monitoring of assigned LINAC (Varian) performance on daily and monthly QA tests; annual QA and calibration
- Physics support for permanent seed prostate implant program, including seed calibration QA, chart checking pre- and post-implant, intra-operative planning, OR support, update of clinical protocols
- Physics support for HDR gynaecological and prostate brachytherapy, including QA of Nucletron microSelectron on daily, quarterly and annual basis, chart checking, planning (Oncentra MasterPlan), update of clinical and safety protocols
- Physics support for Team 3
- Research in the field of MR-guided HDR brachytherapy for prostate patients and MR-compatible *in vivo* real-time radiation dosimetry
- Lead on establishing HDR QA compliance program to be integrated with the external beam QA compliance program
- Lead commissioning project for HDR MRgRT

05.2003 – 12.2007  **Quality Assurance Technician, Accelerator Services, Princess Margaret Hospital, Toronto, Ontario, Canada**

- QA of Elekta and Varian LINACs (daily safety and beam QA, monthly QA)

**Academic Appointment**

09.2012 – current  **Assistant Professor, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada**

11.2012 – current  **Affiliated Faculty, Techna Institute for the Advancement of Technology for Health, Toronto, Ontario, Canada**

**Academic Employment**

2002  **Undergraduate Teacher’s Assistant, Physics Department, University of Guelph, Guelph, Ontario, Canada**
Other Employment

2002 **Summer Assistant**, *Chemistry Section, Centre of Forensic Sciences*, Toronto, Ontario, Canada

2001 **Assistant**, *NMR Centre, University of Guelph*, Guelph, Ontario, Canada

2001 **Research Assistant**, *Physics Department, University of Guelph*, Guelph, Ontario, Canada

2000 **Junior Analytical Technician**, *Torcan Chemical Ltd.*, Aurora, Ontario, Canada

2000 **Research Assistant**, *Sudbury Neutrino Observatory*, Sudbury, Ontario, Canada

1999 **Student Services Assistant**, *Physics Department, University of Guelph*, Guelph, Ontario, Canada

1999 **Research Assistant**, *Physics Department, University of Guelph*, Guelph, Ontario, Canada

1997-1999 **Telephone Interviewer**, *Canadian View Point*, Richmond Hill, Ontario, Canada

Professional Affiliations

2015-present American Brachytherapy Society

2004-present Canadian Organization of Medical Physicists

2003-present American Association of Physicists in Medicine

Commercialization Activities


Patents


2014 Co-Inventor - *Fiber Optic Radiochromic Dosimeter Probe And Method To Make The Same*, Canadian Patent 2,803,827 (granted April 8, 2014)

2011 Co-Inventor - *Fiber Optic Radiochromic Dosimeter Probe And Method To Make The Same*, PCT application, PCT/IB2011/053006 (filed 07.06.2011)

Peer-Review Responsibilities

2009-present Medical Physics
2008-present Australasian Physical & Engineering Sciences in Medicine
2008-present Journal of Applied Clinical Medical Physics
2006-present Physics in Medicine and Biology
2006-present Applied Radiation and Isotopes

PUBLICATIONS

Book Chapters


Peer-Reviewed Publications

1. A. Rink, D.A. Jaffray, C. Ménard : Needle Implant Strategy for HDR Treatment of Prostate Carcinoma With and Without GTV Boost, in progress


3. A. Hosni, A. Bezjak, A. Rink, K. Czarnecka, A. McPartlin, S. Patterson, E. Saibishkumar: High Dose Rate Brachytherapy as a Treatment Option in Endobronchial Tumors, Lung Cancer Int. 2016:3086148, 2016 Jul 14


5


**Presentation Abstracts**

1. A. McPartlin, C. Ménard, T. Craig, J. Lee, **A. Rink** et al., Dosimetric and Early Outcome Data Following an Integrated VMAT or HDR Brachytherapy Boost with External Beam Radiotherapy for Localized Prostate Cancer, Brachytherapy 15: S52-53, 2016

2. M. Carlone, **A. Rink** et al., MR-Guided High-Dose-Rate (HDR) Brachytherapy: Simultaneous Integrated Focal Boost to Intra-Prostatic GTV(s), Brachytherapy 15: S51-52, 2016


5. P. Chung, A. Berlin, **A. Rink** et al., Preliminary Results of MR-Guided Focal Salvage HDR Brachytherapy for Locally Recurrent Prostate Cancer after Primary Radiotherapy, Brachytherapy 15: S200, 2016


20. A. Rink, A. Vitkin, D. Jaffray: Comparison of Change in Optical Density Between Three Radiochromic Films Due to 100 cGy Dose-To-Water Delivered by X-Rays in the 75 kVp to 18 MV Range, Med Phys 33: 2080, 2006. American Association of Physicists in Medicine Annual Meeting, Orlando, FL, USA (PA)


Non Peer-Reviewed Publications


PRESENTATIONS

Invited Presentations

2016  A. Rink: In-Room Image Based Verification Using Fluoroscopy, World Congress of Brachytherapy, San Francisco, USA

2014  A. Rink: Development of Real-Time in vivo Dosimeters Using Radiochromic Material and Optical Fibers, GEC-ESTRO Seminar on Online Treatment Verification for Brachytherapy, Brussels, Belgium

2006  A. Rink: Developments in Optical Ionizing Radiation Dosimetry in Radiotherapy, All Indian Institute of Medical Sciences, New Delhi, India

Proffered Presentations

2016  A. Rink, et al., Intra-Fraction Volumetric Changes and Dosimetric Impact in MR-Guided Prostate HDR Brachytherapy, World Congress of Brachytherapy, San Francisco, USA (poster)

2016  A. Rink, et al., Intra-Fraction Volumetric Changes and Dosimetric Impact in MR-Guided Prostate HDR Brachytherapy, 4th MR in Radiotherapy Symposium, Ann Arbor, USA (oral presentation)

2015  A. Rink, A. Croteau, S. Caron, O. Mermut, D.A. Jaffray: Real-Time In Vivo Dosimeters Using LiPCDA and Optical Fibers, Annual Meeting of the American Association of Physicists in Medicine, Anaheim, USA (poster)


2012  S. Caron, A. Croteau, A. Rink, D. Jaffray, O. Mermut: Selecting the Appropriate Splitter for a Reflective Optical Fiber Dosimeter Probe, Photonics North 2012, Montreal, Canada (oral presentation)

of Photo-Optical Instrumentation Engineers, European Conferences on Biomedical Optics, Munich, Germany (oral presentation)


2010  A. Croteau, S. Caron, F. Roy-Moisson, **A. Rink**, D. Jaffray, O. Mermut: Real-Time Optical Fiber Dosimeter Probe, Biophotonics Week meeting, Quebec, QC (oral presentation)

2009  **A. Rink**, M. Ruschin, D.A. Jaffray, P.E. Lindsay: Investigation of Discrepancy in Reports on GafChromic EBT Energy Dependence, American Association of Physicists in Medicine, Anaheim, CA, USA (moderated poster)

2007  **A. Rink**, A. Vitkin, D. Jaffray: A mathematical model of radiochromic film response to ionizing radiation, Canadian Association of Radiation Oncology and Canadian Organization of Medical Physicists Annual Scientific Meeting, Toronto, Canada (Young Investigators Symposium, J.R. Cunningham Young Investigator Award, 2nd place)
2007  **A. Rink, A. Vitkin, D. Jaffray:** Mathematical model of radiochromic film response to ionizing radiation, European Society on Therapeutic Radiology and Oncology 9th Biennial Meeting on Physics and Radiation Technology for Clinical Radiotherapy, Barcelona, Spain, (oral presentation)

2007  **A. Rink, A. Vitkin, D. Jaffray:** Real-Time Point-Based *in vivo* Dosimetry Using Radiochromic Materials and Remote Optical Fiber System, American Association of Physicists in Medicine Annual Meeting, Minneapolis, MN, USA (poster)

2006  **A. Rink, A. Vitkin, D. Jaffray:** Comparison of Change in Optical Density Between Three Radiochromic Films Due to 100 CGy Dose-To-Water Delivered by X-Rays in the 75 KVp to 18 MV Range, American Association of Physicists in Medicine Annual Meeting, Orlando, FL, USA (poster)

2006  **A. Rink, A. Vitkin, D. Jaffray:** Characterization and Real-Time Measurements of Optical Density with GafChromic EBT film, American Association of Physicists in Medicine Annual Meeting, Orlando, FL, USA (poster)

2006  **A. Rink, A. Vitkin, D. Jaffray:** Characterization and Real-Time Measurements of Optical Density with GafChromic EBT film, Canadian Organization of Medical Physicists Annual Scientific Meeting, Saskatoon, Canada (poster)


2004  **A. Rink, A. Vitkin, D. Jaffray:** Fast Kinetics Change of Radiochromic Film in Point-Based Ionizing Radiation Dosimetry System, American Association of Physicists in Medicine Annual Meeting, Pittsburgh, USA (oral presentation)
TEACHING DOSSIER:

Undergraduate Courses Taught (as TA)

2002
- PHYS1020: Introductory Physics
- PHYS1070: Introductory Physics for the Life Sciences I
- PHYS1080: Physics for the Life Sciences II
- PHYS1130: Physics with Applications I

Department of Physics, University of Guelph, Guelph, ON
Total hours of teaching: 140

Graduate and Post-Graduate Lectures

2016
- Brachytherapy Planning Lab (3-hour hands on training course)
2013
- Brachytherapy Introduction (two 3-hour didactic courses)
2013
- Brachytherapy Planning Lab (two 3-hour hands on training courses)
2013
- Dosimetry and QA in Brachytherapy (3-hour didactic course)
2012
- Intro to Physics Part 1 and 2 (6 hours didactic course)
2008-2009
- Physics Residency Tutorial lectures (alternating with other residents, 12 sessions)
2009
- Excellence in Radiation Research for the 21st Century (EIRR21) Lecture on Role of Medical Physicists (one session)
2009
- PGY1 Radiation Physics for Radiation Oncologists (3 review sessions)

Research Supervision

2013
- University of Waterloo Co-op student (project involved dynamic range extension for LiPCDA optical dosimetry probes)
2008
- Summer student (co-supervision on a project involving Optimization of a Computation Algorithm Predicting Response of Radiographic Material to Ionizing Radiation in Real-Time)

Physics Residency Clinical Rotation Supervision

2013-2016
- Six (6) physics residents, each at 12 week rotation

REFERENCES:
Available upon request.
Curriculum Vitae

Mark Ruschin

A. Date Curriculum Vitae is Prepared: 2016 August 12

Only includes Activities from January 2012 to August 2016

B. Biographical Information

Primary Office 
Odette Cancer Centre
Department of Medical Physics
2075 Bayview Avenue
Toronto, Ontario, Canada
M4N 3M5
Telephone 416-480-5000 ext. 85380
Fax 416-480-6801
Email mark.ruschin@sunnybrook.ca

1. EDUCATION

Degrees

2006 PhD, Medical Radiation Physics, Lunds Universitet, Sweden
2002 MSc, Medical Biophysics, University of Toronto
1998 BSc, Medical and Health Physics, McMaster University

Postgraduate, Research and Specialty Training

2009 - 2010 Residency, Medical Physics, Princess Margaret Hospital, Toronto, Canada

Qualifications, Certifications and Licenses

2011 Aug - present Member of Canadian College of Physicists in Medicine (MCCPM), Canadian College of Physicists in Medicine, Canada

2. EMPLOYMENT

Current Appointments

2012 - present Medical Physicist, Department of Medical Physics, Odette Cancer Centre, Toronto, Ontario
2011 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario

Previous Appointments

CLINICAL
2010 - 2012 Medical Physicist, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario, Canada
3. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Administrative Activities

LOCAL

University of Toronto

2012 May 1 - 2013 May 1  Council Member, DRO Executive Committee, Faculty of Medicine, Dept of Radiation Oncology, Ontario, Canada.

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer

2007 - present  International Journal of Radiation Oncology Biology Physics
2003 - present  Medical Physics

C. Academic Profile

1. RESEARCH STATEMENTS

2012 Jan 30 - present  Treatment of brain metastases. This research involves implementation of effective methods for delivering fractionated radiosurgery for brain metastases using techniques such as VMAT and Perfexion.

2012 Jan 30 - present  Development of dual-energy imaging for online image-guided radiotherapy.

2012 Jan 30 - present  Radiation oncology database development. This area involves developing tools for tracking patient outcomes as well as the complete patient treatment plan in a consolidated and easily accessible database. Applications for this database include, but are not limited to, clinical trials, process monitoring/improvement, and automated quality assurance.

2007 Sep 1 - 2012 Jan 30  Fractionate Gamma Knife Perfexion Program. Development and implementation of fractionated radiotherapy on gamma knife Perfexion. This involved designing protocols and clinical workflows, as well as quantifying geometric setup accuracy and dose delivery performance.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

Mark RUSCHIN


NON-PEER-REVIEWED GRANTS

Funded

2008 - present  Co-Investigator. Hypofractionated and Adaptive Stereotactic Radiotherapy (HFA-SRT) for Large-Volume Brain Metastases. 08-0602-C. PI: Ménard, C. Collaborator(s): Chung C (Study Chair), Cho Y (Co-I), Edelstein K (Co-I), Jaffray D (Co-I), Laperriere N (Co-I), Millar BA (Co-I), Sahgal A (Co-I), Tamerou M (Co-I), Zadeh G (Co-I). [Clinical Trials]


2014 May - 2016 Aug  Co-Principal Investigator. Investigation of plan quality for spine SBRT and brain SRT using the Monaco treatment planning system. Elekta Oncology Systems. PI: Ruschin, Mark. Collaborator(s): Lee, Young. 80,000 CAD. [Industrial Grants]


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


2. NON-PEER-REVIEWED PUBLICATIONS

Books

3. SUBMITTED PUBLICATIONS

Book Chapters

F. Intellectual Property

1. PATENTS


G. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


Presented and Published Abstracts

2016 Jul Doses to Organs-At-Risk in the presence and absence of a 1.5T magnetic field for NSCLC patients undergoing SABR. American Association of Physicists in Medicine. Washington, United States. Presenter(s): Al-Ward S. (Trainee Presentation)

Publication Details:


Publication Details:
Simulated Tumor Tracking in an MRI Linac for Lung Tumor Lesions Using the Monaco Treatment Planning System. Coauthor or Collaborator.

Publication Details:

2015 May Presenter. INVESTIGATION OF ADAPTING BRAIN GLIOMA PLANS FOR RIGID TRANSLATION IN A 1.5T MR-LINAC. 3rd MR in RT Symposium. Lund, Sweden. Presenter(s): Ruschin, M.

Publication Details: 


Publication Details:


Publication Details: 
Cone-beam CT (CBCT) Based Evaluation of a Non-Invasive Stereotactic Head Frame Equipped with a Vacuum Fixation Bite-Block for Radiosurgery. Coauthor or Collaborator.


Publication Details: 

2. NATIONAL

Invited Lectures and Presentations
2013 May Speaker. Radiosurgery for Brain Metastases: Physics. Target Insight. Toronto, Ontario, Canada. Presenter(s): Ruschin, M.

3. LOCAL

Presented Abstracts

4. OTHER

Presented and Published Abstracts
American Association of Physicists in Medicine Annual Meeting. United States. Presenter(s): Ghobadi K.

Publication Details:
Ghobadi K, Aleman D, Jaffray D, Ruschin M. Continuous Path Radiation Therapy Treatment Planning for Gamma Knife Perfexion. Coauthor or Collaborator.

H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2012 May - 2013 Aug **Primary Supervisor.** Tae-Sun yoo, Medical Biophysics. Supervisee Position: Undergraduate Student.

Graduate Education

2015 Sep - present **Primary Supervisor.** MSc. Vladimir Grouza, Medical Biophysics. *Investigation of dual-energy imaging for a CBCT image-guided brain radiosurgery system.*

Research Associate

2015 Nov - present **Primary Supervisor.** Iram Munawar, Medical Biophysics. Supervisee Position: Research Associate. *Investigation of treatment planning for brain and spine SBRT using the Monaco treatment planning system.* Supervisor(s): Lee Y and Ruschin M.

2015 Apr - present **Primary Supervisor.** Masoud Hashemi, Medical Biophysics. Supervisee Position: Research Associate, Supervisee Institution: Sunnybrook Research Institute. *Direct Tumor Visualization on cone-beam CT for Gamma Knife Perfexion Radiosurgery.*

Curriculum Vitae

Ms Raxa Sankreacha
FCCPM, DABR

A. Date Curriculum Vitae is Prepared: 2012 July 30 (updated)

B. Biographical Information

Primary Office
The Carlo Fidani Peel Regional Cancer Centre
Credit Valley Site
Credit Valley Hospital and Trillium Health Centre
2200 Eglinton Ave West
Mississauga, Ontario
L5M 7A4

Telephone 905-813-1100 x 5075
Cell phone
Fax 905-813-4452
Email RSankreacha@cvh.on.ca

1. EDUCATION

Degrees
1989 - 1992 M.Sc. Medical Radiation Physics, Physics Department, Brunel University, Uxbridge, Berkshire (U.K.) Supervisor(s): Dr Roger Dale / Mr David Doughty
1985 - 1988 B.Sc. (Hons) Physics with Medical Applications, Physics Department, King's College University of London, London (U.K.)

Qualifications, Certifications and Licenses

2008 Fellow of the Canadian College of Physicists in Medicine (FCCPM), Canada.

2. EMPLOYMENT

Current Appointments

Aug 2010 - Present Senior Medical Physicist, Department of Medical Physics, Carlo Fidani Peel Regional Cancer Centre, Mississauga, Ontario, Canada

Previous Appointments

CLINICAL
Sept 2008 - July 2010 Medical Physicist, Department of Medical Physics, Carlo Fidani Peel Regional Cancer Centre, Mississauga, Ontario, Canada
July 1999 - Aug 2008 Medical Physicist, Department of Radiation Oncology, Odette Regional Cancer Centre,
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
NATIONAL
PROVINCIAL/REGIONAL
LOCAL

Teaching Awards

INTERNATIONAL
NATIONAL
PROVINCIAL/REGIONAL
LOCAL

Student/Trainee Awards

INTERNATIONAL
NATIONAL
PROVINCIAL/REGIONAL
LOCAL

Professional Associations

2012 – to date  Member, European Society of Therapeutic Radiation Oncology (ESTRO), M2012-02296
2010 – to date  Member, American Society of Therapeutic Radiation Oncology (ASTRO), 35242878
2005 – to date  Member, American Brachytherapy Society (ABS), 364355
1995 – to date  Member, American Association of Physicians in Medicine (AAPM), 4413
1995 – to date  Member, Canadian Organization of Medical Physicists (COMP)
Administrative Activities

INTERNATIONAL

June 2009  Moderator, Physics Proffered Papers II, Annual Conference (American Brachytherapy Society, ABS)

NATIONAL

2012 July  Abstract Reviewer, Annual Conference (Canadian Organisation of Medical Physicists, COMP)
- Reviewed 7 abstracts submitted for the annual COMP conference

2012 January  Moderator, Canadian Organization of Medical Physicists COMP Winter School

2010 October  Application Reviewer for Re-Certification (Canadian College of Physicists in Medicine, CCPM)
- Reviewed and assessed 11 applicants credentials to re-certify with CCPM

2010 June  Abstract Reviewer, Annual Conference (Canadian Organization of Medical Physicists, COMP)
- Reviewed 8 abstracts submitted for the annual COMP conference.

2010 February  Application Reviewer, Membership and Fellowship Application Committee (Canadian College of Physicists in Medicine, CCPM)
- Reviewed 14 candidate applications for membership and fellowship exams for the College.

REGIONAL & PROVINCIAL

2012 June to date  Working Group Lead – Topic: Current Practice of External Beam and Brachytherapy for Gynaecology  Cancer Care Ontario Gynaecology Community of Practice

LOCAL

2011 September to date  Site Coordinator (PRCC) - University of Toronto CAMPEP Medical Physics Residency

Peer Review Activities

ASSOCIATE OR SECTION EDITING

EDITORIAL BOARDS

GRANT REVIEWS

MANUSCRIPT REVIEWS

2009  American Brachytherapy Society, Brachytherapy Journal, 1 Review
2007  American Brachytherapy Society, Brachytherapy Journal, 1 Review

PRESENTATION REVIEWS
Other Research and Professional Activities

Innovations and Development in Teaching and Education

C. Academic History

1. RESEARCH STATEMENTS

2. RESEARCH AWARDS

Grants, Contracts and Clinical Trials

PEER-REVIEWED GRANTS

2007 - 2012 A Multicentre Registry Study of Permanent Breast Seed Implant (PBSI) for Early Stage Breast Cancers. Funded by Sunnybrook Health Sciences Centre Foundation. Total $450,000,

2005 – 2008 A Phase I/II Study of Single Fraction High Dose-Rate (HDR) Brachytherapy and Hypofractionated External Beam Radiotherapy in Intermediate Risk Carcinoma of the Prostate. Funded by CARO-ACURA 2004 Award ($60,000) and “Motorcycle Ride for Dad” Royal Victoria Hospital, 2007 ($26,404). Total $86,404 Principal Investigator: Morton G Co-Investigators: Loblaw A, Sankreacha R, Keller B


Raxa Sankreacha

Salary Support and Other Funding
PERSONAL SALARY SUPPORT [FUNDING TYPE]
TRAINEE SALARY SUPPORT
OTHER FUNDING

3. PATENTS

D. Publications

1. MOST SIGNIFICANT PUBLICATIONS

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Abstracts


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Case Reports

Abstracts

1) Sankreacha R, M. Lehman, N. Makhani, E. Franssen, G. Thomas. Dose volume analysis of the upper vaginal wall for two different LDR intracavitary brachytherapy techniques used in the management of cervical cancer. 10th International Brachytherapy Conference (Nucletron), Madrid, Spain, November 11-14, 2000. Principal Author


3) Sankreacha R, E. Barnes, B. Schultz, D. Breen. HDR skin brachytherapy using a commercial surface applicator: Image based treatment planning and dose optimization. 12th International Brachytherapy Conference (Nucletron), June 20th –23rd 2007, Rome, Italy. Senior Responsible Author


**Books**

Books Edited

Book Chapters

Manuals

Editorials

Commentaries

Letters to Editor

Monographs

Multimedia

Other Publications

**4. SUBMITTED PUBLICATIONS**

Journal Articles

Case Reports

Abstracts

Books

Books Edited

Book Chapters

Manuals

Editorials

Commentaries

Letters to Editor

Monographs

Multimedia Other Publications
E. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers


Invited Lectures and Presentations

1) Sankreacha R, Lehman W, Makhani N, Franssen E, Thomas G. Dose volume analysis of the upper vaginal wall for two different LDR intracavitary brachytherapy techniques. 10th International Brachytherapy Conference (Nucletron), Madrid, Spain. November 11-14 2000


Media Appearances

Other Presentations


2. NATIONAL

Abstracts and Other Papers


Invited Lectures and Presentations

3. PROVINCIAL/ REGIONAL

Abstracts and Other Papers

Invited Lectures and Presentations

09/2009  Presenter  Physics Special Seminar: "Brachytherapy at the Odette Cancer Centre". Kingston Regional Cancer Centre

Media Appearances

Other Presentations

4. LOCAL

Abstracts and Other Papers


Invited Lectures and Presentations

05/2001  Presenter.  "Low Dose Rate Intracavitary Brachytherapy Techniques". Ontario Association of Medical Radiation Therapists (OAMRT), Toronto, Ontario.


06/2010  Presenter.  "Brachytherapy: Beyond the Glow of Radium". Oncology Rounds, Credit Valley Hospital.

11/2010  Co-Presenter.  "Breast Radiation Treatment for the Last 25 years". Senthelal S, Sankreacha R. Oncology Rounds, Credit Valley Hospital

Media Appearances

Other Presentations

1) Lehman M, Sankreacha R, Do V, Makhani N, Franssen E, Thomas G. Dose-volume analysis of the upper vaginal wall for two different LDR intracavitary brachytherapy techniques used in the management of cervical cancer. Division of Radiation Oncology Research Rounds, Toronto, Canada. 2001


F. Teaching and Design
Please see the Teaching and Educational Report for details.

G. Research Supervision

1. UNDERGRADUATE EDUCATION

Project Students

Summer Students

May 2012 to date  Co-Supervisor. Stacy Annis (University of Toronto Graduate 2011) Collate and draft radiation safety policies and procedures for new Brachytherapy Program. Co-Supervisor: Nielsen M

May-Sept 2005  Principal Supervisor. Patrick Halina (University of Toronto Undergraduate), H.E. Johns Student Project Title: Comparison of graphical optimisation to inverse planning simulated annealing for prostate HDR brachytherapy (Odette Cancer Centre). Collaborators: Morton G

May-Sept 1995  Principal Supervisor. Tim Rutkevich (University of Waterloo Undergraduate) Project Title: TLD surface dose measurement for tangential breast treatment using 6 and 4MV photons. (Kingston Regional Cancer Centre)

May-Sept 1998  Principal Supervisor. David Hertzman (Queen’s University Undergraduate) Project Title: PC based monitor unit calculation program using Excel and Visual Basic. (Kingston Regional Cancer Centre)

2. GRADUATE EDUCATION

3. UNDERGRADUATE MD

4. POSTGRADUATE MD

5. CONTINUING EDUCATION

6. OTHER


CURRICULUM VITAE

ARMAN SARFEHNIA, Ph.D., MCCPM

Department of Medical Physics, McGill University Health Centre
1650 avenue Cedar, Montreal, Quebec H3G-1A4

TEL: 514-934-8052       FAX: 514-934-8229       EMAIL: asarfehnia@medphys.mcgill.ca

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<td>Volunteer Activities</td>
<td>59</td>
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</table>
EDUCATION and APPOINTMENTS

PRESENT APPOINTMENTS:
Assistant Professor, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario
Adjunct Professor, Department of Oncology, Faculty of Medicine, McGill University, Montreal, Quebec
Adjunct Professor, Department of Physics, Faculty of Science, Ryerson University, Toronto, Ontario
Medical Physicist, Sunnybrook Health Sciences Centre, Toronto, Ontario
Affiliate Scientist, Sunnybrook Research Institute, Toronto, Ontario
Associate Member, Medical Physics Unit, McGill University, Montreal, Quebec

Professional Membership:
Member, Canadian College of Physicists in Medicine (CCPM)
Member, Canadian Organization of Medical Physicists (COMP)
Member, American Association of Physicists in Medicine (AAPM)
Member, Ontario Association of Medical Physicists (OAMP)
(Old) Member, L’Association Québécoise des Physicien(ne)s médicaux du Cliniques (AQPMC)

EDUCATION:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Institution</th>
<th>Year</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residency</td>
<td>Montreal General Hospital (MUHC)</td>
<td>2012</td>
<td>W. Parker</td>
</tr>
<tr>
<td>Ph.D. (Medical Physics)</td>
<td>McGill University</td>
<td>2010</td>
<td>J. Seuntjens</td>
</tr>
<tr>
<td>M.Sc. (Medical Physics)</td>
<td>McGill University</td>
<td>2006</td>
<td>E. Podgorsak</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>J. Seuntjens</td>
</tr>
<tr>
<td>B.Sc. (Honors Biophysics)</td>
<td>University of BC</td>
<td>2004</td>
<td>B. Gill</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B. G. Clark</td>
</tr>
</tbody>
</table>

Updated June 2016
Previous Appointments

Adjunct Professor, Jan 2014-Jun 2017
Department of Physics, Faculty of Science, Ryerson University, Toronto, Ontario

Adjunct Professor, Oct 2013-Oct 2016
Department of Oncology, Faculty of Medicine, McGill University, Montreal, Quebec

Assistant Professor, Sep 2012-Sep 2013*
Department of Oncology, Faculty of Medicine, McGill University, Montreal, Quebec

Medical Physicist, Sep 2012-Aug 2013*
McGill University Health Centre (MUHC), Montreal, Quebec

Faculty Lecturer, Sep 2012-Sep 2013*
Medical Physics Unit, McGill University, Montreal, Quebec

Member, Sep 2012-Aug 2013*
Medical Physics Unit, McGill University, Montreal, Quebec

*Resigned from position due to departure.
HONOURS, AWARDS, and GRANTS

2016
Med Phys Impact Paper
On water calorimetry article

McGill Dobson Cup
Awarded to best startup $15000 05/2016

2015
NSERC ENGAGE Grant $25000 12/2015
Matched funding from Synaptive Medical $14682 12/2015

H.E. Johns CCPM Travel Award $2250 05/2015

J. R. Cunningham Young Investigator 3rd place 06/2015
(By my MSc Student, James Renaud)
IUPESM World Congress, International Organization for Medical Physics (IOMP)

2014
Sylvia Fedoruk Prize 07/2014
Best Paper of the year on a subject falling within the field of medical physics.
Awarded to “Development of a graphite probe calorimeter for absolute clinical dosimetry”

Reginald Fessenden Prize in Science Innovation, McGill ($3500) 08/2014
(By my MSc Student, James Renaud)

H.E. Johns Student Award Support Fund $8150 04/2014
Funding to employ an Undergrad Student for Summer Research

R&D grant, Sun Nuclear Corporation $46000 04/2014
(for work in Graphite Probe Calorimeter, over 2 years)

2013
NSERC Discovery Grant $160000 04/2013
Research Grant (over 5 years)

2012
Student Travel Award  ($1000)  09/2012
(By my MSc Student, James Renaud)
Council on Ionizing Radiation Measurements and Standards (CIRMS)

J. R. Cunningham Young Investigator 3rd place  ($200)  07/2012
(By my MSc Student, James Renaud)
Canadian Organization of Medical Physicists (COMP)

MedTech Challenge, Finalist  ($1000)  07/2012
(By my MSc Student, James Renaud)

2010
COMP Best Poster Presentation Award 1st place  $300  06/2010
Canadian Organization of Medical Physicists (COMP)

2009
COMP Oral Presentation Award  Nominated
Canadian Organization of Medical Physicists (COMP)

2008
Canadian Institutes of Health Research
Doctoral Research Award (over 3 years)  $66000  05/2008

COMP Oral Presentation Award  $200  06/2008
Canadian Organization of Medical Physicists (COMP)

2007
ACMP Young Investigator Award, 1st place  $250 (US)  05/2007
American College of Medical Physicists

Graduate Student Accomplishment Award  $1000 (US)  05/2007
American College of Medical Physicists

MUHC Research Institute Student Award  $7500  09/2007
McGill University Health Centre

Figure from article selected for front cover image of Medical Physics  N/A  09/2007

Student Travel Award  $1000 (US)  05/2007
Council on Ionizing Radiation Measurements and Standards (CIRMS)

2006

Updated June 2016
J. R. Cunningham Young Investigator Award, 1st place  
Canadian Organization of Medical Physicists  $500  06/2006

J. R. Cameron Young Investigator Award, 1st place  
American Association of Physicists in Medicine  $300 (US)  08/2006

AAPM Travel Grant  
American Association of Physicists in Medicine  $250 (US)  06/2006

Alma Mater Student Travel Grant  
McGill University  $750  06/2006

**Prior to 2005**

Dean’s Honour List  
University of British Columbia  2000-04

Major Entrance Scholarship  
University of British Columbia  $20000  09/2000

Bronze Academic Medal Of Excellence  
Governor General of Canada, Canadian Honour (www.gg.ca)  05/2000
Patents

US 14/403,416, “Method And System For Calorimetry And Clinical Dosimetry”

CA 2,913,350, “Method and System for Calorimetry Probe”

EP 13796823.6, “Method And System For Calorimetry And Clinical Dosimetry”
PEER-REVIEWED PUBLICATIONS

2016

M. R. Paudel, A. Kim, A. Sarfehnia, S. Ahmad, D. J. Beachey, A. Sahgal, B. Keller, *Experimental evaluation of a commercial GPU-based Monte Carlo dose calculation algorithm in Monaco TPS* (Accepted with Revisions Required)


G. Aldosary, H. Safigholi, W. Song, J. Seuntjens, A. Sarfehnia, *Influence of ionization chamber wall material on polarity correction and collection efficiency in continuous and pulsed beams*, physica medica (Under review )


2015


2014


2013


2011


A. Alexander, E. Soisson, T. Hijal, A. Sarfehnia, J. Seuntjens, *Comparison of modulated electron radiotherapy to conventional electron boost irradiation and volumetric modulated photon arc therapy for treatment of tumour bed boost in breast cancer*, Radiother Oncol, 100 (2), 253-258

2010


2007


OTHER SCIENTIFIC PUBLICATIONS / BOOKS

2016
“Precision Radiation Oncology” by Rutgers University Press, Edited by Sharad Goyal, MD
Chapter XX: Current State of the Art in Intra-cranian Stereotactic Radiosurgery Technology: Accuracy, Precision, and Clinical Impact by M. Ruschin, A. Sahgal, A. Sarfehnia, etc.

2010

2007

2006

2004
2015

2014

2012


2010

electron beams, scanned proton beams, and 192Ir brachytherapy, Proceedings of the International Symposium on Standard, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS), IAEA-CN-182, Vienna, Austria, 9-12 November 2010; pp 5-7

2009

A. Sarfehnia, and J. Seuntjens, Realizing absorbed dose directly for HDR 192Ir brachytherapy: Water Calorimetry and comparison to ion chamber, Gafchromic film, and TG-43, Proceedings of the 55th Annual Scientific Meeting of the Canadian Organization of Medical Physicists (COMP), Victoria, British Columbia; 22 July – 24 July, 2009; pp. 73.

2008


2006

A. Sarfehnia, K. Jabbari, J. Seuntjens, E. Podgorsak, High Contrast Imaging Using Orthogonal Bremsstrahlung Beams: An Experimental Study of Radiation Quality, Proceedings of the 52nd Annual Scientific Meeting of the Canadian Organization of Medical Physicists (COMP), Saskatoon, Saskatchewan; 31 May – 2 June, 2006; pp. 170-172.
2016

COMP
H Nusrat, G Pang, SB Ahmed, B Keller, A Sarfehnia, Towards LET detection: A Study on effects of scintillator doping (ORAL)

J. Renaud, A. Sarfehnia, J. Seuntjens, Energy dependence of a clinical probe format calorimeter and its pertinence to absolute dosimetry (ORAL)

AAPM


H. Nusrat, G. Pang, A. Sarfehnia, Evaluation of plastic scintillator light output for various lead doping concentrations: Towards LET detection (POSTER)

M. Wronski, S. Ahmad, A. Sarfehnia, A. Sahgal, B. Keller, Dosimetric Effects of Irradiation Through a Bilateral Hip Prosthesis in a MRI Linac (POSTER)

G-Y Kim, B Muir, W. Culberson, S Davis, Y Huang, S-W Lee, J Lowenstein, A Sarfehnia, N Tolani, J Siebers, Results of a survey on the implementation of the TG-51 protocol and associated addendum on reference dosimetry of external beams, (ORAL)


S. B. Ahmad, A. Sarfehnia, A. Sahgal and B. M. Keller, Backscatter dose factors re-evaluated for inhomogeneities in the presence of a 1.5 T magnetic field using the GPUMCD Monte Carlo Algorithm (ORAL)
CRPA (Canadian Radiation Protection Association)
H. Nusrat, A. Sarfehnia, *Varying the stopping power dependence on plastic scintillator response via mechanical doping* (Poster)

ASTRO
Ruschin, *A universal predictive model for dose fall-off in MLC-based stereotactic brain radiosurgery*, (Submitted) ASTRO

ESTRO

2015

AAPM


Updated June 2016

**COMP/World Congress:**

N. Entezari, D. Ly, J. Renaud, A. Sarfehnia, *Design of an MRI-compatible water calorimeter for use in an integrated MRI-Linac and Gamma-Knife* (Accepted for Oral)

H. Nusrat, G. Pang, S.B. Ahmad, B. Keller, A. Sarfehnia, *Development of a novel linear energy transfer detector using doped plastic scintillators and Monte Carlo simulation*, (Accepted for Oral)

J. Renaud, A. Sarfehnia, J. Seuntjens, *On the practical use of calorimetry for routine absolute dosimetry in the radiotherapy clinic*, (Accepted for Oral)


**BHPA:**


**2014**

**PTCOG:**


**AAPM:**


**ESTRO**

COMP


CIRMS


2013

COMP:

G. Aldosary, J. Seuntjens, A. Sarfehnia, Effect of ionization chamber wall material on collection efficiency and polarity effect in pulsed beams (Poster)

AAPM:


G. Aldosary, J. Seuntjens, A. Sarfehnia, Influence of chamber wall material on ionization chamber absorbed dose energy response: a numerical and experimental study, Med. Phys. 40 (6), 220

G. Twork, A. Sarfehnia, Evaluation of the dose-rate dependency of GAFCHROMIC® EBT3, Med. Phys. 40 (6), 223

2012

CIRMS:


AAPM:


COMP:


Updated June 2016
M. Serban, R. Ruo, A. Sarfehnia, W. Parker, M. Evans, *Commissioning of the Varian ECLIPSE eMC algorithm for clinical electron treatment planning*

2011

AAPM:


CARO:
M. Azoulay, A. Sarfehnia, C. Maietta, C. Lambert, N. Kopek, M. David, T. Hijal, *The accuracy of ultrasound compared to computed tomography in the planning of the tumor bed boost in breast cancer*, Rad. & Oncol, **100** Supplement 1, S29-30

ECCO:

RSNA:
2010


2009

A. Sarfelnia, and J. Seuntjens, *A robust water calorimeter-based technique to determine absorbed dose from high dose rate brachytherapy sources*, 5e Journée Scientifique de l’Association québécoise des physician(ne)s médicaux cliniques (AQPMC), Quebec City, Quebec; 17 April, 2009; pg. 19


2008


Updated June 2016
**2007**


**2006**


**2005**

POSTER PRESENTATIONS

2016
AAPM (American Association of Physicists in Medicine):


H. Nusrat, G. Pang, A. Sarfehnia, *Evaluation of plastic scintillator light output for various lead doping concentrations: Towards LET detection*

M. Wronski, S. Ahmad, A. Sarfehnia, A. Sahgal, B. Keller, *Dosimetric Effects of Irradiation Through a Bilateral Hip Prosthesis in a MRI Linac*

CRPA (Canadian Radiation Protection Association)

H. Nusrat, A. Sarfehnia, *Varying the stopping power dependence on plastic scintillator response via mechanical doping*

ASTRO

Ruschin, *A universal predictive model for dose fall-off in MLC-based stereotactic brain radiosurgery*

2015

AAPM

A Fatemi-Ardekani, M Wronski, A Kim, G Stanisz, A Sarfehnia, B Keller, *Geometric Distortion at 3T in a Commercial 4D MRI-Compatible Phantom*

H Nusrat, G Pang, S Ahmad, B Keller, A Sarfehnia *Using Light Output From Doped Plastic Scintillators to Resolve the Linear Energy Transfer Spectrum of Clinical Electron Beams*

H Nusrat, G Pang, P Au, A Sarfehnia *Towards the Mechanical Doping of Plastic Scintillators*

N Entezari, J Renaud, D Ly, A Sarfehnia *Design of a Water Calorimeter for Dual Use in An Integrated MRI-Linac and Gamma-Knife*

M. Paudel, A. Kim, D. Beachey, S. Ahmad, A. Sarfehnia, A. Sahgal, B. Keller *Experimental Evaluation of a Commercial GPU-Based Monte Carlo Dose Calculation Algorithm*

S Ahmad, A Sarfehnia, M Paudel, A Sahgal, S Hissoiny, B Keller *07/2014*
Comparison of a Commercial MRI-Linear Accelerator Based Monte Carlo Dose Calculation Algorithm and Geant4

2014

PTCOG 06/2014
Shanghai, China
First direct comparison between a graphite calorimeter and a water calorimeter in a 60 MeV proton beam

AAPM 07/2014
Austin, TX
Determination of kQ,Q0-factors from water and graphite calorimetry in a 60 MeV proton beam

ESTRO 04/2014
Vienna, Austria
J Renaud, A Sarfehnia, K Marchant, M McEwen, C Ross, J Seuntjens,
Experimental determination of megavoltage electron beam k’R50 factors using water calorimetry

COMP 07/2014
Banff, Alberta
J Renaud, S Rossomme, A Sarfehnia, S. Vynckier, J Seuntjens,
A water calorimeter for low-energy carbon ions and other short-range aprticle beams

CIRMS 03/2014
Gaithersburg, MD
Development of calorimeters for primary dosimetry in hadron-therapy

2013

COMP/CARO 09/2013
Montreal, Quebec
G. Aldosary, J. Seuntjens, A. Sarfehnia
Effect of ionization chamber wall material on collection efficiency and polarity effect in pulsed beams

AAPM
Indianapolis, Indiana
G. Aldosary, J. Seuntjens, A. Sarfehnia
Change of Ionization Chamber Correction Factors (Ppol, Pion, Kwall) With Walls of Different Materials in Continuous and Pulsed Beams

AAPM
Indianapolis, Indiana
G. Aldosary, J. Seuntjens, A. Sarfehnia
Influence of chamber wall material on ionization chamber absorbed dose energy response: a numerical and experimental study

AAPM
Indianapolis, Indiana
G. Twork, A. Sarfehnia
Evaluation of the dose-rate dependency of GAFCHROMIC® EBT3

2012

CIRMS
Gaithersburg, MD
J. Renaud, D. Marchington, J. Seuntjens, A. Sarfehnia,
Developing a Graphite Probe Calorimeter for Accurate Clinical Dosimetry, 21st Annual CIRMS Meeting

Canadian Organization of Medical Physicists (COMP)
Halifax, Nova Scotia
M. Serban, R. Ruo, A. Sarfehnia, W. Parker, M. Evans
Commissioning of the Varian ECLIPSE eMC algorithm for clinical electron treatment planning

2011

International Workshop on Recent Advances in Monte Carlo
Techniques for Radiation Therapy
Montreal, Quebec
A. Alexander, E. Soisson, T. Hijal, A. Sarfehnia, J. Seuntjens
Plan comparison of modulated electron radiotherapy to conventional electron boost irradiation and volumetric modulated photon arc therapy for treatment of tumour bed boost in breast cancer
Canadian Association of Radiation Oncologists (CARO) 09/2011
Winnipeg, Manitoba
M. Azoulay, A. Sarfehnia, C. Maietta, C. Lambert, N. Kopec, M. David, T. Hijal
The accuracy of ultrasound compared to computed tomography in the planning of the tumor bed boost in breast cancer

European CanCer Organization Annual Meeting (ECCO) 09/2011
Stockholm, Sweden
M. Azoulay, A. Sarfehnia, C. Maietta, C. Lambert, N. Kopec, M. David, T. Hijal
The accuracy of ultrasound in planning of the tumour bed boost in breast cancer (2nd author)

Joint Meeting American Association of Physicists in Medicine (AAPM) and Canadian Organization of Medical Physicists (COMP) 08/2011
Vancouver, British Columbia
A. Alexander, E. Soisson, A. Sarfehnia, T. Hijal, F. Deblois, J. Seuntjens
The Development of Intensity and Energy Modulated Electron Radiotherapy; An Alternative to Photon Volumetric Modulated Arc Therapy

Joint Meeting American Association of Physicists in Medicine (AAPM) and Canadian Organization of Medical Physicists (COMP) 08/2011
Vancouver, British Columbia
S. Aldelaijan, H. Mohammed, N. Tomic, L-H Liang, F. Deblois, A. Sarfehnia, W. Abdel-Rahaman, J. Seuntjens, S. Devic
Radiochromic Film Based Dosimetry System for Ir-192 Brachytherapy Sources

Association of Radiation Oncologists (CARO) 08/2011
Vancouver, British Columbia
S. Aldelaijan, H. Mohammed, N. Tomic, L-H Liang, F. Deblois, A. Sarfehnia, W. Abdel-Rahaman, J. Seuntjens, S. Devic
Radiochromic Film Based Dosimetry System for Ir-192 Brachytherapy Sources (6th author)

Canadian Organization of Medical Physicists (COMP) 06/2010
Ottawa, Ontario
A. Sarfehnia, and J. Seuntjens
A novel water calorimetry-based dosimetry standard for direct measurement of absolute absorbed dose in scanning proton beam delivery.

Updated June 2016
American Association of Physicists in Medicine (AAPM) 07/2010
Philadelphia, Pennsylvania
A. Sarfehnia, I. Kawrakow, J. Seuntjens
Evaluating AAPM TG-43 in-water HDR 192Ir brachytherapy reference dosimetry: A comparison study. {Moderated Poster}

American Association of Physicists in Medicine (AAPM) 07/2010
Philadelphia, Pennsylvania
Direct measurement of absolute absorbed dose in scanning proton beams based on water calorimetry. {Moderated Poster}

Canadian Association of Radiation Oncologists (CARO) 09/2010
Vancouver, British Columbia
A. Dal Pra, A. Sarfehnia, H. Patrocinio, F. Cury
Inter-observer variability using ultrasound-based image guidance of the prostate.

2007

Gaithersburg, Maryland
A. Sarfehnia, K. Stewart, J. Seuntjens
Numerical and Experimental Feasibility Study of ¹⁹²Ir HDR Brachytherapy Water Calorimetry.

2005

American Association of Physicists in Medicine (AAPM) 08/2006
Seattle, Washington
K. Jabbari, A. Sarfehnia, E. Podgorsak, J. Seuntjens
Feasibility study of orthogonal bremsstrahlung beam for improved radiation therapy imaging.

Updated June 2016
ORAL PRESENTATIONS (First Author)
(* indicates invited presentation)

2015

AAPM SAM SESSIONS *
Anaheim, California
“Absorbed dose standards for brachytherapy” sub-session under SAM session entitled: “Reference Dosimetry for Beam Modalities Other Than MV Photons”

MUHC Weekly Seminar *
McGill University Health Center, Montreal, Quebec
Dosimetry in MRI-Linac

2014

Elekta MRL User Meeting *
Utrecht Medical Sciences Centre, Utrecht, Netherlands
Criteria for Accurate Matching of Linear Accelerators

Elekta MRL User Meeting *
Utrecht Medical Sciences Centre, Utrecht, Netherlands
A Novel Small-Size Clinical Dose Meter

2013

Sunnybrook Physics Seminar
Sunnybrook Health Sciences Centre, Toronto, Ontario
Innovations in Calorimetry at McGill: Towards a clinical dose detector

2011

MUHC Radiation Oncology Therapist Seminar Series*
McGill University Health Center, Montreal, Quebec
Heterotopic Bone Formation: Evolution of treatment technique and verification at McGill.

American Association of Physicists in Medicine (AAPM)
And Canadian Organization of Medical Physicists (COMP)
Vancouver, British Columbia, Canada
Monte Carlo Optimized Composition and Structure of a Novel Energy-Independent Radiochromic Film

International Workshop on Recent Advances in Monte Carlo
Techniques for Radiation Therapy
Montreal, Quebec
*Monte Carlo optimized absorbed dose energy response of a novel energy-independent radiochromic film*

McGill University Outreach Lecture*
Redpath Museum, Montreal, Quebec
*Radiation as a weapon of mass benefaction*

McGill University Health Centers Friday Morning Seminars
Montreal, Quebec
*A decade worth of water calorimetry measurements at McGill.*

2010

Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS)
Vienna, Austria
*Primary water calorimetry for clinical electron beams, scanned proton beams, and $^{192}\text{Ir}$ brachytherapy*

2009

Association québécoise des physician(ne)s médicaux cliniques (AQPMC)
Québec City, Quebec
*A robust water calorimeter-based technique to determine absorbed dose from high dose rate brachytherapy sources.*

Canadian Organization of Medical Physicists (COMP)
Victoria, British Columbia
*Realizing absorbed dose directly for HDR $^{192}\text{Ir}$ brachytherapy: Water Calorimetry and comparison to ion chamber, Gafchromic film, and TG-43*

American Association of Physicists in Medicine (AAPM)
Anaheim, California
*Towards an absorbed dose-based calibration for Ir-$^{192}$ brachytherapy dosimetry--development of a primary standard water calorimeter.*
Particle Therapy Co-Operative Group (PTCOG)  
48th Annual Meeting  
(presented by Ben Clasie)  
Heidelberg, Germany  
*Towards a water calorimetry-based standard for active scanning proton dosimetry*

McGill University Health Centers Friday Noon Seminars  
Montreal, Quebec  
*Water calorimetry-based radiation dosimetry in HDR $^{192}$Ir brachytherapy and proton therapy*

2008

McGill Radiation Oncology Annual Retreat*  
Montreal, Quebec  
*A Novel Absorbed Dose to Water Standard for HDR Ir-192 Brachytherapy.*

Canadian Organization of Medical Physicists (COMP)  
54th Annual Meeting,  
Quebec City, Quebec  
*A Novel HDR Ir-192 Brachytherapy Water Calorimeter Standard.*

American Association of Physicists in Medicine (AAPM)  
50th Annual Meeting  
Houston, Texas  
*Development of a Novel Absorbed Dose to Water Calorimeter-Based Standard for HDR Ir-192 Brachytherapy.*

McGill University Friday Morning Series  
34th Annual Series  
Montreal, Quebec  
*Realizing absorbed dose directly for high dose-rate brachytherapy: design and testing of a high-accuracy water calorimeter*

University of Wisconsin *  
(presented by Jan Seuntjens)  
Madison, Wisconsin  
*Novel Absolute Dosimetry Techniques for Accurate Absorbed Dose to Water Determination in $^{192}$Ir HDR Brachytherapy.*
2007

Journée scientifique de Association Québécoise des Physicien(ne)s Médicaux Cliniques Montreal, Quebec
Use of orthogonal bremsstrahlung beams from low atomic number targets for imaging in radiotherapy.

American College of Medical Physicists (ACMP) MAY 28, 2007
24th Annual Meeting, ACMP Young Investigator Symposium Baltimore, Maryland
High Contrast Imaging With Orthogonal Bremsstrahlung Beams: A Novel Technique

American Association of Physicists in Medicine (AAPM) JUL 26, 2007
49th Annual Meeting Minneapolis, Minnesota
Numerical feasibility study of a novel absorbed dose to water calorimeter-based standard for Ir-192 HDR brachytherapy.

McGill University Friday Morning Series SEP 21, 2007
33rd Annual Series Montreal Quebec
Novel Absolute Dosimetry Techniques for Accurate Absorbed Dose to Water Determination in 192Ir HDR Brachytherapy.

Council on Ionizing Radiation Measurements and Standards (CIRMS) OCT 22, 2007
16th Annual Meeting Gaithersburg, Maryland
Numerical and Experimental Feasibility Study of 192Ir HDR Brachytherapy Water Calorimetry.

BC Cancer Agency* DEC 14, 2007
Vancouver, British Columbia
Water calorimetry-based absorbed dose to water standard for 192Ir HDR brachytherapy: Numerical and experimental feasibility study.

BC Cancer Agency* DEC 14, 2007
Vancouver, British Columbia

*High contrast imaging with orthogonal bremsstrahlung beams: A novel technique.*

**2006**

McGill University Friday Morning Series  
32\textsuperscript{nd} Annual Series  
Montreal, Quebec  
*Novel Techniques of High Contrast Imaging in Radiation Therapy*

Canadian Organization of Medical Physicists (COMP)  
52\textsuperscript{nd} Annual Meeting, J. R. Cunningham Young Investigator Symposium  
Saskatoon, Saskatchewan  
*Radiation quality in high contrast imaging with orthogonal bremsstrahlung beams*

American Association of Physicists in Medicine (AAPM)  
48\textsuperscript{th} Annual Meeting, J. R. Cameron Young Investigator Symposium  
Orlando, Florida  
*High Contrast Imaging Using Orthogonal Bremsstrahlung Beams: An Experimental Study of Radiation Quality,*

**2004**

University of British Columbia  
Physics and Astronomy Seminars  
Vancouver, British Columbia  
*Applications of intensity modulated radiation therapy and a critical study of the Victoria phantom.*

Updated June 2016
ORAL PRESENTATIONS (By Students)

2016
COMP, St. Johns, NF, Canada, July 2016
H Nusrat, G Pang, SB Ahmed, B Keller, A Sarfehnia, Towards LET detection: A Study on effects of scintillator doping

J. Renaud, A. Sarfehnia, J. Seuntjens, Energy dependence of a clinical probe format calorimeter and its pertinence to absolute dosimetry

AAPM, Washington D.C., August 2016


S. B. Ahmad, A. Sarfehnia, A. Sahgal and B. M. Keller, Backscatter dose factors re-evaluated for inhomogeneities in the presence of a 1.5 T magnetic field using the GPUMCD Monte Carlo Algorithm

ESTRO, Turin, Italy, May 2016
J Renaud, A Sarfehnia, J Seuntjens, Experimental benchmarking of a probe-format calorimeter for practical use as an absolute clinical dosimeter; {selected for ESTRO 35 Congress Report}

2015
AAPM, Anaheim, CA, July 2015:


IUPESM COMP/World Congress, Toronto, Canada, July 2015:

Updated June 2016
N. Entezari, D. Ly, J. Renaud, A. Sarfehnia, *Design of an MRI-compatible water calorimeter for use in an integrated MRI-Linac and Gamma-Knife*

H. Nusrat, G. Pang, S.B. Ahmad, B. Keller, A. Sarfehnia, Development of a novel linear energy transfer detector using doped plastic scintillators and Monte Carlo simulation

J. Renaud, A. Sarfehnia, J. Seuntjens, On the practical use of calorimetry for routine absolute dosimetry in the radiotherapy clinic, (Young Investigator + Plenary Session)

M Paudel, A Kim, S Ahmad, A Sarfehnia, S Lim-Reinders, S Hissoiny, M Moreau, A Sahgal, B Keller, Validation of a Commercial GPU-Based Monte Carlo Dose Calculation Algorithm for use with an Elekta MRI-Linear Accelerator

**2014**

1) J. Renaud, A. Sarfehnia, J. Seuntjens, *Characterization of an actively controlled graphite probe calorimeter*, 56th Annual meeting of American Association of Physicists in Medicine (AAPM), Austin, TX, July 2014

**2013**


**2012**


<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Role</th>
<th>Work Title</th>
<th>Institution/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saad Aldulaijan</td>
<td>MSc</td>
<td>Co-Supervisor</td>
<td>EBT and EBT2 Gafchromic film energy response and dosimetry</td>
<td>Biomed Engineering Officer at Saudi Food &amp; Drugs Authority</td>
</tr>
<tr>
<td>Khushdeep Singh</td>
<td>MSc</td>
<td>Co-Supervisor</td>
<td>Development of a novel energy-independent radiochromic film</td>
<td>Residency, McGill University Health Centre</td>
</tr>
<tr>
<td>Robert Maglieri</td>
<td>BSc</td>
<td>Co-Supervisor</td>
<td>McGill Monte-Carlo Treatment Planning System for Tomotherapy</td>
<td>MSc Student, Medical Physics McGill University</td>
</tr>
<tr>
<td>James Renaud</td>
<td>MSc</td>
<td>Supervisor</td>
<td>A probe-type graphite calorimeter for routine clinical dosimetry</td>
<td>PhD Student, Medical Physics McGill University</td>
</tr>
<tr>
<td>Hamed Bekerat</td>
<td>MSc</td>
<td>Co-Supervisor</td>
<td>Toward Developing an energy-independent radiographic film</td>
<td>Residency, Montreal Jewish General Hospital</td>
</tr>
<tr>
<td>Ghada Aldosary</td>
<td>MSc</td>
<td>Supervisor</td>
<td>The Measurement of the Linear Energy Transfer of Various Radiotherapeutic Beams in the Clinic: A Feasibility Study</td>
<td>Residency, McGill University Health Centre</td>
</tr>
<tr>
<td>James Renaud</td>
<td>PhD</td>
<td>Co-Supervisor</td>
<td>Water calorimeter in medium to high LET radiation beams</td>
<td>PhD Student</td>
</tr>
<tr>
<td>Ozgur Soydan</td>
<td>BSc</td>
<td>Supervisor</td>
<td>Commissioning and Evaluation of RadCalc: A secondary Treatment planning system Verification Software</td>
<td>BSc Student</td>
</tr>
<tr>
<td>Davis Ly</td>
<td>BSc</td>
<td>Supervisor</td>
<td>Design and Development of an MR Compatible Water Calorimeter</td>
<td>Coop Student at waterloo</td>
</tr>
<tr>
<td>Humza Nusrat</td>
<td>MSc</td>
<td>Supervisor</td>
<td>Development of a clinical beam quality meter based on fiber dosimetry</td>
<td>PhD Student</td>
</tr>
<tr>
<td>Niloufar Entezari</td>
<td>MSc</td>
<td>Supervisor</td>
<td>Development of an MRI-compatible water calorimeter for MRI-linac and Gamma Knife®</td>
<td>MSc Student</td>
</tr>
<tr>
<td>Name</td>
<td>Degree</td>
<td>Role</td>
<td>Research Area</td>
<td>Position</td>
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<td>-----------------------</td>
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<td>-------------------</td>
</tr>
<tr>
<td>Humza Nusrat</td>
<td>PhD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syed Bilal Ahmad</td>
<td>Post doc</td>
<td>Co-Supervisor (2015-2016)</td>
<td>Validation of a commercial MR-linac MC based Treatment planning software against GEANT4</td>
<td>Postdoc</td>
</tr>
<tr>
<td>Rafael Janik</td>
<td>RA</td>
<td>Co-Supervisor (2016)</td>
<td>Investigation of nerve fibre imaging in radiosurgery</td>
<td>Research Associate</td>
</tr>
<tr>
<td>Hassan Ali Nedaie</td>
<td>Post doc observer</td>
<td>Co-Supervisor</td>
<td>MiniBeam Radiotherapy</td>
<td>Professor</td>
</tr>
</tbody>
</table>

McGill
Waterloo
Ryerson
University of Toronto
TEACHING EXPERIENCE

Ryerson Medical Physics
  • Instructor: Radiation Therapy (BP8104), Graduate course 2013-present
    o Instructor for Part I of the course + Lab Coordinator/Instructor
  • Instructor: Radiation Therapy (PCS407), 1 lecture 2013-present

McGill Medical Physics Unit Teaching Activities:
  • Instructor: Applied Dosimetry (MDPH 602) 2012
  • Instructor and Coordinator: Lab. in Radiation Physics (MDPH 603) 2012
  • Teaching Assistant: Lab. in Radiation Physics (MDPH 603) 2010-2012
    o TG-51 reference dosimetry; IMRT planning; 3D Planning; Machine QA; Small field dosimetry
  • Teaching Assistant: Lab. in Diag. Radiol. & Nuc. Med. (MDPH 608) 2007-2010
    o CT laboratory

McGill Radiation Oncology, Radiology, & Dawson Radiation Therapy Teaching Activities:
  • Instructor: Dawson Dosimetry I (142-BWF-03) 2012
  • Instructor: Radiology Resident (Physics of x-ray generation, 2 lectures) 08/2010

McGill Education Department, Integrated Sciences Division 09/2007-12/2007
  • Instructor and Coordinator: Lab. in General Sciences (EDE 270)
## WORK EXPERIENCE

<table>
<thead>
<tr>
<th>Position</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunnybrook Health Sciences Centre</td>
<td>2013-present</td>
</tr>
<tr>
<td>• Full time Medical Physician</td>
<td></td>
</tr>
<tr>
<td>McGill University Health Center (Montreal General Hospital)</td>
<td>2010-2013 (July)</td>
</tr>
<tr>
<td>• Full time Medical Physician</td>
<td></td>
</tr>
<tr>
<td>• Research assistant (M.Sc. and Ph.D. work)</td>
<td></td>
</tr>
<tr>
<td>• Water calorimetry</td>
<td></td>
</tr>
<tr>
<td>• HDR brachytherapy, Proton Dosimetry</td>
<td></td>
</tr>
<tr>
<td>• Experience in Monte Carlo (EGSnrcMP code)</td>
<td></td>
</tr>
<tr>
<td>• Clinical experience in film dosimetry, spectrometry, and various beam quality measurement techniques</td>
<td></td>
</tr>
<tr>
<td>BC Cancer Research Centre Research Activities:</td>
<td>05/2004-09/2004</td>
</tr>
<tr>
<td>• Experience in high throughput screening, cytometry and various endometrial cancer imaging techniques.</td>
<td></td>
</tr>
<tr>
<td>• Involved in development of a fully automated microarray spotting device (US patent # 6,794,658)</td>
<td></td>
</tr>
<tr>
<td>• Research assistant (B.Sc. work)</td>
<td></td>
</tr>
<tr>
<td>• Experience in IMRT QA</td>
<td></td>
</tr>
<tr>
<td>UBC Mathematics Department</td>
<td>05/2001-04/2004</td>
</tr>
<tr>
<td>• Workshop coordinator for Math 101</td>
<td></td>
</tr>
<tr>
<td>• Teaching assistant for various 1st-3rd year math classes</td>
<td></td>
</tr>
<tr>
<td>Science 101 Adult Education Program</td>
<td>05/2000-09/2000</td>
</tr>
<tr>
<td>• Workshop coordinator</td>
<td></td>
</tr>
</tbody>
</table>

Updated June 2016
<table>
<thead>
<tr>
<th><strong>Description</strong></th>
<th><strong>Year</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Member, CLA Committee, American Association of Physicists in Medicine (AAPM)</td>
<td>2015-2018</td>
</tr>
<tr>
<td>Member, TG51 Working Group, American Association of Physicists in Medicine (AAPM)</td>
<td>2015-2018</td>
</tr>
<tr>
<td>Session Chair, two dosimetry sessions at World Congress IUPESM Validation and Verification of Therapy Dose Delivery: Part 2 Patient and Occupational Dose Assessment</td>
<td>June 2015</td>
</tr>
<tr>
<td>Co-lead in Elekta MRL TPS commissioning SOW</td>
<td>2014-2016</td>
</tr>
<tr>
<td>Lead, Elekta Linac U04 Commissioning Team</td>
<td>2014</td>
</tr>
<tr>
<td>Member, Central Nervous System Site Group</td>
<td>2014-present</td>
</tr>
<tr>
<td>McGill Medical Physics Unit</td>
<td></td>
</tr>
<tr>
<td>Machine Quality Assurance Committee, Vice Chair</td>
<td>2012-2013</td>
</tr>
<tr>
<td>McGill Noon Seminar Series Coordinator, Co-Chair</td>
<td>2010-2013</td>
</tr>
<tr>
<td>Pacemaker Workgroup, Member</td>
<td>2012-2013</td>
</tr>
<tr>
<td>Association of Iranian Physicists in Medicine (AIPM)</td>
<td></td>
</tr>
<tr>
<td>Secretary General</td>
<td>2006-present</td>
</tr>
<tr>
<td>American Association of Medical Physicists (AAPM)</td>
<td></td>
</tr>
<tr>
<td>Student Association Subcommittee Board; Communication coordinator</td>
<td>2008-2010</td>
</tr>
<tr>
<td>Student Association Subcommittee Board; Member at large</td>
<td>2006-2008</td>
</tr>
<tr>
<td>McGill Medical Physics Unit</td>
<td></td>
</tr>
<tr>
<td>McGill Medical Physics Students Seminar Coordinator</td>
<td>2007-2010</td>
</tr>
<tr>
<td>American College of Medical Physicists (ACMP)</td>
<td>2005-2007</td>
</tr>
<tr>
<td>Canadian Organization of Medical Physicists (COMP)</td>
<td>2005-present</td>
</tr>
<tr>
<td>American Association of Physicists in Medicine (AAPM)</td>
<td>2005-2013</td>
</tr>
</tbody>
</table>
Curriculum Vitae

Michael Bryan Sharpe
PhD, DABMP

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

Primary Office: Radiation Medicine Program
UHN-Princess Margaret Cancer Centre
610 University Avenue, Rm 5-962
Toronto, Ontario, Canada
MSG 2M9

Telephone: 416 946 4501 Ext. 5025
Fax: 416 946 6566
Email: michael.sharpe@rmp.unh.on.ca

1. EDUCATION

Degrees
1997 PhD, Medical Biophysics, Western University, London, Ontario, Canada
1987 BSc, Physics, Western University, London, Ontario, Canada

Qualifications, Certifications and Licenses
2000 Certification, American Board of Medical Physics (ABMP)

2. EMPLOYMENT

Current Appointments
2010 - present Radiation Physics Quality Lead, Radiation Treatment Program, Cancer Care Ontario, Ontario, Canada
2010 - present Associate Professor, Mechanical and Industrial Eng. University of Toronto, Toronto, Ontario, Canada
2009 - present Associate Professor, Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2007 - present Associate Head of Radiation Physics, Princess Margaret Hospital, Toronto, Ontario, Canada
2007 - present Associate Professor (Adjunct), School of Computational Engineering and Science, McMaster University, Toronto, Ontario, Canada

Previous Appointments
HOSPITAL
2002 - 2007 Senior Physicist, Princess Margaret Hospital, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2013 Jul

The Editor in Chief Award of Excellence, AAPM, Journal of Applied Clinical Medical Physics. (Distinction)
For Outstanding General Medical Physics Article in 2012.

2005

Top Scientific Abstracts, American Society for Therapeutic Radiology and Oncology.
(Distinction)
Plenary Presentation.

1994

Helax Award. (Distinction)

NATIONAL

Received

2005

Basic Science Travel Grant, American Society for Therapeutic Radiology and Oncology.
(Research Award)
Senior Investigator, 47th Annual Meeting, October 16-20th, 2005.

2003

Helax Award, Canadian Association of Radiation Oncologists. (Distinction)

PROVINCIAL / REGIONAL

Received

2007

Innovation Team Award, Canadian Cancer Society, Cancer Care Ontario, and Cancer Quality Council of Ontario. (Distinction)
Award Co-recipient - Cancer Care Ontario and Cancer Quality Council of Ontario, in partnership with the Canadian Cancer Society: Quality and Innovation Awards, recognizing Web Publishing’s innovative electronic management of the review and approval process for Radiation Therapy Treatment Planning.

1986

The Harold E. Johns Summer Scholarship. (Distinction, Specialty: Medical Physics)
LOCAL
Received
2009 Inventor of the Year, University Health Network. (Distinction)
2008 Best Rounds - Chief's Choice, Radiation Medicine Program, Princess Margaret Hospital. (Distinction)
2005 Best Rounds - Chief's Choice, Radiation Medicine Program, Princess Margaret Hospital. (Distinction)
1992 - 1994 Graduate Scholarship, Western University. (Distinction)
1989 Strik-Couprie Inch prize. (Distinction, Specialty: Radiobiology)

Teaching and Education Awards

NATIONAL
Received
2004 Teaching Recognition Award, Radiation Medicine Program, Princess Margaret Hospital, Dept of Radiation Oncology, Faculty of Medicine, Canadian Association of Radiation Oncologists

LOCAL
Received
2011 Teaching Recognition Award, Dept of Radiation Oncology, Faculty of Medicine, Radiation Medicine Program, Princess Margaret Hospital
Distinguished Service in Continuing Education (IMRT).
2011 Teaching Recognition Award, Dept of Radiation Oncology, Faculty of Medicine, Radiation Medicine Program, Princess Margaret Hospital
Highest Teaching Effectiveness Score in Continuing Education (honorable mention).

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2010 Member, American Society for Quality
2005 Member, American Society for Therapeutic Radiology and Oncology
2005 Member, Canadian Association of Radiation Oncology
1990 Member, Canadian Organization of Medical Physicists
1989 Member, American Association of Physicists in Medicine

Administrative Activities

INTERNATIONAL
15th International Conference on the use of Computers in Radiotherapy
Michael Bryan SHARPE

2010 Abstract Reviewer, Amsterdam, Netherlands.

15th International Meeting on the Use of Computers in Radiation Therapy
2007 Scientific Co-Chair, Organizing Committee

American Association of Physicists in Medicine
1998 - present Abstract Reviewer
2005 - 2009 Member, Imaging for Treatment Verification Work Group
2005 Reviewer and Judge, Young Investigator’s Symposium Annual Meeting
2003 Reviewer and Judge, Young Investigator’s Symposium Annual Meeting
2002 - 2009 Member, Task Group 74
Head scatter measurements and modelling.
2001 - 2004 Member, Subcommittee on Intensity Modulated Radiation Therapy
1998 - 2003 Member, Task Group 65
Tissue inhomogeneity corrections for photon beam dose calculations.

American Society for Radiation Oncology (ASTRO)
2009 - present Abstract Reviewer, Chicago, Illinois, United States.
Annual Meeting.

Institute of Cancer Research
2006 - present Member, Section of Clinical Trials-Data Monitoring and Ethics Committee, Sutton, United Kingdom.
IMPORT (Intensity Modulated and Partial Organ RadioTherapy) High and Low Trials.

Testicular Cancer Resource Centre
2000 Member, Medical Advisory Board
an Internet resource for patient information and support.

World Congress on Medical Physics and Biomedical Engineering - Sponsorship Co-Chair

NATIONAL
Canadian Association of Radiation Oncologists
2003 Abstract Reviewer

Canadian Association of Radiation Oncology
2007 - present Abstract Reviewer
Annual Meeting.
2006 Member, National Radiation Therapy Equipment Survey

Canadian Organization of Medical Physicists
2005 Reviewer and Judge, Young Investigator’s Symposium Annual Meeting

Canadian Partnership for Quality Radiotherapy (CPQR)
2010 - present Member, Advisory Panel
PROVINCIAL / REGIONAL

Cancer Care Ontario

2012  Program Chair, Provincial Radiation Treatment Program Radiation- Winter Physics Symposium on imaging for high-precision radiotherapy

2011  Program Chair, Provincial Radiation Treatment Program Radiation - Winter Physics Symposium on Rotational IMRT

2010  Program Chair, Provincial Radiation Treatment Program Radiation - Winter Physics Symposium on IMRT

2010  Technical Reviewer, Technical Evaluation Team

For process to establish vendors of record for radiation treatment machines for the Province of Ontario.

2008 - 2010  Member, Program in Evidence-Based Care - Expert Panel on IMRT Indications

2006 - 2008  Member, South Lake Regional Cancer Centre- Radiation Equipment Selection Committee

2006 - 2008  Member, Program in Evidence-Based Care - Expert Panel on IMRT Professional Organization and Standards

Western University


LOCAL

Cancer Care Ontario

2012 - present  Proton Therapy Advisory Group, Co-Chair of Advisory Group reviewing current status of particle therapy and developing recommendations for the Province of Ontario, Toronto, Ontario, Canada.

Princess Margaret Hospital

2011 - present  Member, Radiation Medicine Program - RMP Information and Data Committee

2002 - present  Member, Radiation Medicine Program -- Clinical Processes (External Beam) Committee

2002 - present  Member, Radiation Medicine Program --- Physics Steering Committee

2008  Member, PMH 50th Anniversary Conference Organizing Committee

2007 - 2011  Member, Radiation Medicine Program - Research Committee

2002 - 2008  Member, Radiation Medicine Program - Clinical Operations Committee

University Health Network

2011 - present  Member, Oncology Program – Clinical Delegation to Kuwait Cancer Control Center, Shuwaikh Health Area, Kuwait City, Kuwait.

University of Toronto

2008 - present  Member, Continuing Education Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

2013  Target Insight Symposium, Program Committee Co-Chair, Toronto, Ontario, Canada.

2012  Member, Target Insight Symposium, Program Committee

2011  Member, Target Insight Symposium, Program Committee

2010  Program Co-Chair, IMRT Insight Symposium

2007  Member, Medical Radiation Sciences, Physics Advisory Board
C. Academic Profile

1. RESEARCH STATEMENTS

GENERAL.
Ionizing radiation is a proven therapeutic agent for the local and regional control of many forms of cancer. In the last decade, technological advances have challenged radiation therapy conventions by creating opportunities to tailor, or “personalize” new high-precision strategies. These strategies exploit exquisite medical imaging, innovations in computer-aided treatment planning, and automation to control treatment delivery. Advances in computing, engineered control systems, physics, and mathematics have created opportunities to improve the control of disease, to reduce toxicity, and to reduce the financial burden of cancer therapy.

My scholarly interests have focused on advancing practice through the development, validation, and application of radiotherapy and imaging technologies. My early experience highlighted the need to span the distance between clinical medicine and the physics/engineering sciences in order to optimize technology adoption. Technological progress requires attention to the perceptions and skills of practitioners, as well as to the devices and systems that support patient care. I have helped to develop effective clinical implementation strategies, continuing education programs, and robust processes that lead to increased safety and treatment quality. By collaborating, publishing, participating in expert panels, industry collaboration, and continuing education forums, I have converted technical knowledge and academic activity into clinical skills and practice guidelines.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded

2012 - 2015  **Co-Investigator.** Robust Breast Radiation Treatment Planning to Improve Efficiency and Reduce Treatment Related Cardiac Toxicity. Canadian Breast Cancer Foundation (CBCF). PI: Purdie TG. Collaborator(s): Purdie TG, Chan TC, **Sharpe MB**, Brock KK, Dinniwell R, Fyles A. 380,186 CAD. [Grants]


Collaborator(s): Brock KK, Jaffray DA, Dawson LA. 355,091. [Grants]


NON-PEER-REVIEWED GRANTS

FUNDED
2008 - 2012


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

Journal Articles


5. Sharpe, MB; Moore, KL; Orton, CG. Within the next ten years treatment planning will become fully automated without the need for human intervention. Medical Physics. 2014;41(12):120601. Principal Author.


**Books**


**3. NON-PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


**Book Chapters**


**Letters to Editor**

4. SUBMITTED PUBLICATIONS

Journal Articles

F. Intellectual Property

1. PATENTS


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


Manchester, United Kingdom.

2013 **Invited Speaker.** ESTRO School Course in Advanced Treatment Planning. Utrecht, Netherlands.

2012 **Invited Faculty.** Course in Advanced Treatment Planning. ESTRO School. Prague, Czech Republic.

2011 **Invited Faculty.** Course in Advanced Treatment Planning. ESTRO School. Genoa, Italy.


2010 **Invited Faculty.** Advances in Technology: Practical Aspects of IMRT, IGRT, SBRT Symposium. 2010 American Society for Radiation Oncology (ASTRO). Dallas, Texas, United States.

2010 **Invited Faculty.** Course in Adaptive Radiation Therapy. ESTRO. Barcelona, Spain.


2008 **Invited Faculty.** Implementing IMRT in Clinical Practice. 2008 American Society for Therapeutic Radiology and Oncology Practicum. Orlando, Florida, United States.


2007 **Invited Faculty and IGRT Panelist.** Implementing IMRT in Clinical Practice. American Society for Therapeutic Radiology and Oncology Practicum. San Francisco, California, United States.


2006 Imaging Capabilities at Delivery: kVCT. American Society for Therapeutic Radiology and Oncology Image Guided Radiation Therapy (IGRT) Symposium. Las Vegas, Nevada, United States.


2006 CT-guided radiation therapy using the Elekta Synergy linac. Academische zitting – Department of
Radiotherapy, University Hospital. Ghent, Belgium.

2006
Image-Guided Radiation Therapy: Clinical Experience and Implications for Treatment Plan Optimization. IGRT Symposium – Philips Medical Systems. Emeryville, California, United States.

2006

2006

2005 Nov 28

2005
Target Localization Systems for Radiation Therapy Treatment. A Continuing Education Symposium at the American Society for Therapeutic Radiology and Oncology 46th Annual Meeting. Atlanta, Georgia, United States. (Continuing Education).

2005

2005

2004
A System for Distribution and Approval of Treatment Planning Documentation. Philips Radiation Oncology Systems, 11th Annual Oncology Users Symposium (American Society for Therapeutic Radiology and Oncology). Atlanta, Georgia, United States.

2003

2003
Forward IMRT Planning. The IMRT Practicum at Sea. Chaired by Robert Amdur and Jatinder Palta, University of Florida.

2003

2003

2003

2003

2003

2003

2002
Clinical Implementation of IMRT for Breast and Lung Disease. Physics and Oncology Seminar, Ottawa Regional Cancer Centre. Ottawa, Ontario, Canada.

2002 Treatment of Breast Cancer with IMRT. 27th Annual Meeting of the AAMD. Dearborn, Michigan, United States.


2001 Training Course on the Clinical Implementation of IMRT. Department of Radiotherapy and Nuclear Medicine, University Hospital. Ghent, Belgium.

2001 Treatment of Breast Cancer With Intensity Modulated Radiation Therapy. Department of Radiation Oncology, University Hospital. Tuebingen, Germany.


Presented Abstracts


2010 Phase II Study of Preoperative Intensity Modulated Radiation Therapy for Lower Limb Soft Tissue


2009 "Interdisciplinary Health Research Teams in Sarcoma: Experience in Toronto". Royal Australia New Zealand College of Radiologists 60th Annual Scientific Meeting. O’Sullivan B, Dickie CI, **Sharpe MB**, Ferguson P.


1998 Reproducibility of lung position for gating radiation therapy using active breathing control. American
2. NATIONAL

Invited Lectures and Presentations


2007 Image-Guided Radiation Therapy: Implications for Treatment Planning. Department of Oncology, Cancer Research Institute, Queen’s University. Kingston, Ontario, Canada.

2006 Image-guided Radiation Therapy. McMaster University, Department of Computing and Software, Faculty of Engineering. Hamilton, Ontario, Canada.


Presented Abstracts

Sharpe MB, Yu CX, Edmunson GK. Proceedings.

Media Appearances

2008  Canadian Germ Cell Consensus Meeting: Late Toxicity and Survivorship Issues from a Patient's Perspective. Canadian National Germ Cell Tumour Consensus Group. King City, Ontario, Canada. sponsored by the Canadian Partnership Against Cancer (CPAC), CCO and CIHR.

3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts


4. LOCAL

Invited Lectures and Presentations

2006  Adaptive Planning and Delivery to Account for Anatomical Changes Induced by Radiation Therapy. Target Insight II, University of Toronto, Department of Radiation Oncology. Toronto, Ontario, Canada.

Media Appearances


5. OTHER

Invited Lectures and Presentations

2012 Jun 1  Presenter. Advance Treatment Planning Course. ESTRO. Prague, Czech Republic.

Presented Abstracts

2013  Presenter. Predicting Objective Function Weights for IMRT Prostate Treatment Planning Using Patient Anatomy. Presenter(s): Lee, T., Hammad, M., Chan, T., Craig, T., Sharpe, MB. Med Phys 40 (6), 356-


2013 **Presenter.** Clinical Implementation of Automated Tangential Breast Intensity Modulated Radiation Therapy. Presenter(s): Purdie, T.G., Jaffray, D.A., Dinniwell, R.E., **Sharpe, MB.** Int J Radiat Oncol Biol Phys 87(2), S708-S708.

2012 **Presenter.** Automation in Beam Modeling and Quality Control. Presenter(s): Letourneau, D., **Sharpe, MB.**, Jaffray, D. Radiotherapy and Oncology 102, Supplement 1, S186-S186.
Curriculum Vitae

Dr. Katharina Sixel
Medical Physicist

A. Date Curriculum Vitae is Prepared: 2017 01 06

B. Biographical Information

Primary Office Lakeridge Health
1 Hospital Court
Oshawa, Ontario, Canada
L1G 2B9
Telephone 905-576-8711 x5086
Cellphone 905-391-3488
Fax 905-721-6102
Email ksixel@lakeridgehealth.on.ca

1. EDUCATION

Degrees
1990 - 1993 PhD, Medical Physics, Physics, McGill University, Montreal, Quebec, Canada. Supervisor: Dr EB Podgorsak.
1988 – 1990 MSc, Medical Physics, Physics, McGill University, Montreal, Quebec, Canada. Supervisor: Dr EB Podgorsak.
1984 – 1988 BSc, Honours Physics, Physics, McGill University, Montreal, Quebec, Canada.

Postgraduate, Research and Specialty Training
1993 - 1994 Physics Resident, Department of Medical Physics, Toronto Sunnybrook Regional Cancer Centre, Toronto, Ontario Canada. Supervisor(s): Dr. B Faddegon.

Qualifications, Certifications and Licenses
1999 Fellow, Radiation Oncology Physics, Canadian College of Physicists in Medicine, Ottawa, Ontario Canada.
1996 Member, Radiation Oncology Physics, Canadian College of Physicists in Medicine, Ottawa, Ontario, Canada.

2. EMPLOYMENT

Current Appointments
2006 to present Chief, Medical Physics, Durham Regional Cancer Centre, Lakeridge Health, Oshawa, Ontario, Canada.

Responsible for clinical, administration and radiation safety matters for the achievement of
the goals and strategic direction of the Medical Physics function of the DRCC in keeping with the vision, mission, values and strategic objectives of Lakeridge Health and Cancer Care Ontario. Budgetary accountability for $3 million in operating funds and $28 million in major capital equipment. Supervision of 17.5 FTE direct report staff. Accountability for quality, safety and operational performance targets set internally and by Cancer Care Ontario.

Previous Appointments

CLINICAL
1999-2006 Senior Medical Physicist, Toronto-Sunnybrook Regional Cancer Centre. Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada.

Operational responsibility for all technical matters related to treatment plan preparation and the operation of treatment planning computers. Responsibility for quality assurance program for the treatment planning process.


Commissioning of Siemens and Philips linear accelerators; Theraplan Plus 3D treatment planning system; Leader of Breast Technical Site Team; Resource physicist for dosimetry; General treatment planning physics support.

UNIVERSITY
2009-present Assistant Professor, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
2002-2006 Assistant Professor, Institute of Medical Sciences, University of Toronto, Toronto, Ontario, Canada.
1998-2006 Assistant Professor, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada.

UNIVERSITY – CROSS APPOINTMENT
2000-2006 Assistant Professor Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada.

3. HONOURS AND CAREER AWARDS

NATIONAL
Received

2016 Fellow of COMP, Canadian Organization of Medical Physics, Ottawa, Ontario, Canada. Honourary Award.

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

[Presented in reverse chronological order]
1989 - present Member, American Association of Physicists in Medicine (AAPM). 3225.
1990 – present Member, Canadian Organization of Medical Physicists (COMP).
2003 – present  Associate Member, Canadian Association of Radiation Oncologists (CARO).

**Administrative Activities**

**NATIONAL**

2002 – 2006  Chief Examiner, Canadian College of Physicists in Medicine, Canada.  
*Chief Examiner for national college for certification of Medical Physicists. Organized and oversaw examination process.*

1999 - 2002  Board Member, Canadian College of Physicists in Medicine, Canada.  
*Participated in national certification process of Medical Physicists and in the activities of the College.*

**PROVINCIAL / REGIONAL**

2015 – present  Chair of Radiation Safety Officers Community of Practice for Cancer Care Ontario, Toronto, Ontario, Canada.  
*Group exists to exchange best practices in radiation safety across Ontario Cancer Centres.*

2011 – present  Member, Cancer Care Ontario Provincial Radiation Treatment Program Committee, Toronto, Ontario, Canada.  
*Medical Physics representative on provincial program group for quality radiation treatment services.*

2011 – 2014  Chair, Physics Professional Advisory Committee of Cancer Care Ontario, Toronto, Ontario, Canada.  
*Committee of Chiefs of Physics across Ontario Cancer Centres.*

2006 – present  Member, Physics Professional Advisory Committee of Cancer Care Ontario, Toronto, Ontario, Canada.  
*Committee of Chiefs of Physics across Ontario Cancer Centres.*

**LOCAL**

2009 - present  Site Coordinator, Medical Physics Residency Program, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada.  
*Coordinator for Durham Regional Cancer Centre/Lakeridge Health as affiliated site for UofT Medical Physics Residency program.*

**Peer Review Activities**

**MANUSCRIPT REVIEWS**

2004 – 2006  Radiotherapy and Oncology, Number of Reviews: 2

2004 – 2008  Journal of Applied Clinical Medical Physics, Number of Reviews: 2

2001 – 2010  International Journal of Radiation Oncology, Biology, Physics, Number of Reviews: 12

C. Academic Profile

1. RESEARCH STATEMENTS

NA

2. TEACHING PHILOSOPHY

NA

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

I believe that by combining the facets of scholarly interest, professional activities and leadership, I can continue to make an impact on the field of Medical Physics.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDDED


Trial to assess the impact of an e-learning tool on understanding of linear accelerator servicing.


Evaluation of IMRT for pelvic nodal irradiation.


Clinical trial to assess skin toxicity for a new radiation treatment technique.


Project to incorporate digital fluoroscopy into CT simulation for radiation therapy patients.
1999 - 2000  
*Use of CT density to assess bone density for breast cancer patients.*

1999 - 2000  
*Use of CT density to assess bone density for breast cancer patients.*

**NON-PEER-REVIEWED GRANTS**

**FUNDED**

2002 - 2003  
*Evaluation of planning target volumes for prostate cancer with on line imaging and hypofractionation.*

1997 - 1998  
**Investigator.** Optimizing locoregional radiation therapy with the use of electron arc therapy in post-mastectomy breast cancer patients. Sunnybrook Trust for Medical Research. Principal Investigator: Ung, Yee. Collaborators: **Sixel KE**, Ege G. $27,500, cash. 
*Planning study to evaluate the use of electron arc therapy for radiation of breast cancer patients.*

**E. Publications**

**2. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


Katharina SIXEL


**Abstracts**


Katharina SIXEL


Book Chapters


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations
2004 Presenter. CT Simulation. Delaware Valley Chapter of the American Association of Physicists in Medicine Symposium: Image-Guided Radiation Therapy, Philadelphia, PA, USA. Presenter: Sixel, K

2000 Presenter. CT simulation: clinical techniques, Great Lakes Chapter of the American Association of Physicists in Medicine symposium: CT Sim – What you need to know before you give up your conventional simulator, Novi, Michigan. USA. Presenter: Sixel, K

2000 Presenter. CT simulation: process and clinical implementation, Great Lakes Chapter of the American Association of Physicists in Medicine symposium: CT Sim – What you need to know before you give up your conventional simulator, Novi, Michigan. USA. Presenter: Sixel, K

1999 Presenter. CT simulation: What the physicist needs to know. 16th Annual Meeting, Workshop and Refresher Courses, American College of Medical Physics (ACMP), Aspen, Colorado, USA. Presenter: Sixel, K

1998 Presenter. Advanced uses of AcQSim – the Toronto-Sunnybrook experience. Fifth annual Picker oncology symposium, Phoenix, Arizona. USA. Presenter: Sixel, K

2. NATIONAL

Invited Lectures and Presentations
2003 Presenter. The Rocky Road to IMRT: The Physics Perspective. CARO IMRT Workshop. Annual
meeting of the Canadian Association of Radiation Oncology (CARO), Montreal. Quebec. Presenter: Sixel, K

2001 Presenter. Multi-modality image based treatment planning. Keynote address, WesCan (Western Canada) 2001 annual meeting, New Westminster. BC. Presenter: Sixel, K

2001 Presenter Quantification and reduction of planning target volume in lung cancer treatment. Medical Physics Unit Seminar Series, McGill University, Montreal, Quebec. Presenter: Sixel, K

2001 Presenter Quantification and reduction of planning target volume in lung cancer treatment. Medical Physics Unit Seminar Series, McGill University, Montreal, Quebec. Presenter: Sixel, K

2001 Presenter Cancer services in Ontario. Department of Medical Physics Seminar Series, Montreal General Hospital, Montreal. Quebec. Presenter: Sixel, K

3. PROVINCIAL/ REGIONAL

Invited Lectures and Presentations

2003 Presenter. The Rocky Road to IMRT: The Physics Perspective. CARO IMRT Workshop. Annual meeting of the Canadian Association of Radiation Oncology (CARO), Montreal. Quebec. Presenter: Sixel, K


2002 Presenter. CT simulation of TSRCC breast techniques. 2nd Annual CCO CT SIMposium, Toronto Ontario. Presenter: Sixel, K


1998 Presenter. 3D treatment planning systems. 62nd Annual General Conference of the Ontario Association of Medical Radiation Technologists (OAMRT), Port Severn, Ontario. Presenter: Sixel, K


4. LOCAL

Invited Lectures and Presentations


1996 Presenter. An isocentric four field breast irradiation technique using four independent jaws, Translating physics into clinical practice. Department of Radiation Oncology, University of Toronto Continuing Medical Education Course, Toronto. Presenter: Sixel, K
H. Teaching and Design

NA

I. Research Supervision

1. MULTILEVEL EDUCATION


3. GRADUATE EDUCATION


5. POSTGRADUATE (MEDICAL PHYSICS RESIDENTS)


J. Creative Professional Activities

NA
CURRICULUM VITAE
William Y. Song, PhD, DABR

A. Date Curriculum Vitae is Prepared
July 28, 2016

B. Biographical Information
Primary Office
Head; Dept. of Medical Physics
Scientist; Sunnybrook Research Institute
Associate Professor; Dept. of Radiation Oncology

Odette Cancer Centre, Sunnybrook Health Sciences Centre, University of Toronto
2075 Bayview Ave., T Wing, Rm. TG 217
Toronto, ON, M4N 3M5
CANADA
P. 416-480-6100 x.87181 / F. 416-480-6801
Email: william.song@sunnybrook.ca

1. EDUCATION

Degrees (3)
1996-2001 BSc
Physics
University of Calgary, Calgary, Alberta, Canada
2001-2003 MSc
Medical Physics
University of Calgary, Calgary, Alberta, Canada
Supervisor(s): Dr. Peter Dunscombe
2003-2006 PhD
Medical Biophysics
University of Western Ontario, London, Ontario, Canada
Supervisor(s): Dr. Jake Van Dyk, Dr. Jerry Battista

Postgraduate, Research, and Specialty Training (1)
2006-2008 Residency, Medical Physics (CAMPEP-Accredited)
Department of Radiation Oncology
University of Florida, Gainesville, Florida, USA

Qualifications, Certifications, and Licenses (1)
2010-2020 Diplomat, American Board of Radiology (ABR)
Therapeutic Radiologic Physics, ID:P5066
2. EMPLOYMENT

Current Appointments (7)

2014-Present  
**Head**  
Department of Medical Physics, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Canada  
-Responsible for overseeing 70+ staff and students in the department (50+ regular-payroll staff & 20+ researchers and students)

2014-Present  
**Scientist**  
Sunnybrook Research Institute (SRI), Sunnybrook Health Sciences Centre, Toronto, Canada

2014-Present  
**Associate Professor**  
Department of Radiation Oncology, University of Toronto, Toronto, Canada

2014-Present  
**Adjunct Faculty**  
Institute of Biomaterials and Biomedical Engineering (IBBME), University of Toronto

2014-Present  
**Adjunct Faculty**  
Institute of Medical Sciences (IMS), University of Toronto

2015-Present  
**Adjunct Faculty**  
Department of Mechanical and Industrial Engineering, University of Toronto

2015-Present  
**Adjunct Faculty**  
Department of Physics, Ryerson University, Toronto, Canada

Previous Appointments (6)

2008-2012  
**Assistant Professor**  
Department of Radiation Medicine and Applied Sciences, University of California San Diego

2009-2014  
**Adjunct Faculty**  
Department of Physics, San Diego State University

2012-2014  
**Associate Professor**  
-Accelerated Promotion: Typically takes 6 years, accomplished in 3.8 years  
Department of Radiation Medicine and Applied Sciences, University of California San Diego

2012-2014  
**Chief of Physics in IGRT and Motion Management Technologies**  
Department of Radiation Medicine and Applied Sciences, University of California San Diego

2012-2014  
**Chief of Physics in GI Tumors**  
Department of Radiation Medicine and Applied Sciences, University of California San Diego

2013-2014  
**Co-Director**  
Research Arm, Department of Radiation Medicine and Applied Sciences,
3. HONOURS AND CAREER AWARDS


2001 May MSc Graduate Research Scholarship (GRS), $2,000 one time, Departmental Award for Academic Excellence. University of Calgary.

2003 Jan-2003 Aug Alberta Cancer Board (ACB) Graduate Scholarship, $12,000 over 2 academic terms, Institutional Award for Academic Excellence. University of Calgary.

2003 Province of Alberta Graduate Scholarship, $2,000 one time, Provincial Award for best three MSc students in the Department for Academic Excellence. University of Calgary.

2003 Faculty of Graduate Studies Scholarship, $500 one time, Institutional Award for Academic Excellence. University of Calgary.

2003 Honorable Mention Abstract – Annual Canadian Organization of Medical Physics (COMP) conference held in Edmonton, Alberta, National Award for Research Excellence. University of Calgary.

2004 May-2005 Apr Ontario Graduate Scholarship in Science and Technology (OGSST), $15,000/year, Provincial Award for Academic Excellence. University of Western Ontario.


2004 Young Investigators’ Symposium (YIS), 3rd place, Annual Canadian Organization of Medical Physics (COMP) conference held in Winnipeg, Manitoba, National Award for Research Excellence. University of Western Ontario.

2005 May-2006 Apr Ontario Graduate Scholarship (OGS), $15,000/year, Provincial Award for Academic Excellence. University of Western Ontario.

2005 May-2006 Apr Western Graduate Research Scholarship (WGRS), $1,500/year, Departmental Award for OGS winners. University of Western Ontario.

2005 Chosen as the CIHR strategic training program PhD trainee to represent the London Regional Cancer Program to give oral presentation at the National CIHR/NCIC meeting in Mont Tremblant, Quebec. University of Western Ontario.


4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations (8)

2001-Present Member Canadian Organization of Medical Physicists (COMP)

2007-Present Member American Association of Physicists in Medicine (AAPM)

2007-Present Member Korean-American Medical Physicists in North America (KAMPiNA)

2008-2014 Member Southern California Chapter, American Association of Physicists in Medicine (SCC-AAPM)

2009-Present Member American Society of Therapeutic Radiology and Oncology (ASTRO)

2010-2011 Member Radiological Society of North America (RSNA)

2012-2014 Member Korean Scientists and Engineers Association (KSEA)

2012-2014 Member European Society for Radiotherapy & Oncology (ESTRO)

Journal Reviewer (19)

2006-Present Reviewer International Journal of Radiation Oncology, Biology, and Physics

2006-Present Reviewer Medical Physics

2008-Present Reviewer Radiotherapy and Oncology

2009-Present Reviewer Journal of Applied Clinical Medical Physics

2009-Present Reviewer Physics in Medicine and Biology

2010-Present Reviewer Practical Radiation Oncology

2010-Present Reviewer Sensors

2012-Present Reviewer IEEE Biomedical Engineering
2012-Present  
**Reviewer**  
Technology in Cancer Research and Treatment

2012-Present  
**Reviewer**  
Journal of X-Ray Science and Technology

2012-Present  
**Reviewer**  
Transactions on Biomedical Engineering

2012-Present  
**Reviewer**  
International Journal of Physical Sciences

2012-Present  
**Reviewer**  
Oncology

2014-Present  
**Reviewer**  
Physica Medica

2014-Present  
**Reviewer**  
Journal of Contemporary Brachytherapy

2014-Present  
**Reviewer**  
Journal of the Korean Physical Society

2016-Present  
**Reviewer**  
BioMedical Engineering OnLine (BMEO)

2016-Present  
**Reviewer**  
Review of Scientific Instruments

2016-Present  
**Reviewer**  
Biomedical Physics & Engineering Express

**Associate Editor (1)**

2013-Present  
**Associate Editor**  
Member of Board of Associate Editors

**Medical Physics**

**Meeting Abstract Reviewer (5)**

2012-Present  
**Abstract Reviewer**  
Annual Meeting, American Society of Therapeutic Radiology and Oncology (ASTRO)

2012-Present  
**Abstracts Reviewer**  
Annual Meeting, American Association of Physicists in Medicine (AAPM)

2015  
**Abstracts Reviewer**  
Annual Meeting, World Congress on Medical Physics and Biomedical Engineering, Toronto, ON, Canada

2016  
**Abstracts Reviewer**  
14th Annual Meeting, Imaging Network of Ontario (ImNO), Toronto, ON, Canada

2016  
**Abstracts Reviewer**  
Annual Meeting, World Congress of Brachytherapy, San Francisco, CA

**C. Academic Profile**

1. **RESEARCH INTERESTS**
2001-Present  Adaptive radiation therapy
2008-Present  Image guided radiation therapy, cone beam CT, image reconstruction, 4DCT, motion management
2010-Present  Intensity modulated brachytherapy, direction modulated brachytherapy, image guided brachytherapy, MRI guided brachytherapy

D. Research Funding

1. GRANTS, CONTRACTS, AND CLINICAL TRIALS

Peer Reviewed Grants (6)

2011 May-2012 Mar  Principal Investigator - Development of novel 4D imaging framework for liver cancer radiation therapy. Clinical and Translational Research Institute (CTRI) – Pilot Innovative Technology Grant. $40,000 USD.
2010 Jun-2011 May  Collaborator - Four-dimensional liver imaging verification for external-beam radiotherapy (4D-LIVER): Phase I study. Varian Medical Systems Inc. Research Grant. $82,941 USD.
2012 Jul-2013 Mar  Principal Investigator - Novel system development of intra-cavitary brachytherapy for cancer treatment. Collaborative Research Opportunities Program (CRO), San Diego Super Computer Center (SDSC) mini-proposal to advance SDSC research and funding opportunities. $20,000 USD.
2013 Feb-2014 Jan  Principal Investigator - Novel System Development of Intra-Cavitary Brachytherapy for Cancer Treatment. CRO Program at San Diego Supercomputer Center (Award Number: CRO04). 200,000 CPU hours.

Non Peer Reviewed Grants (7)

2008 Nov-2011 Oct  Principal Investigator - Dynamic modulated brachytherapy (DMBT) system design for breast, GYN, and rectal cancers. UCSD Faculty Startup Grant. $75,000 USD.
2011 Mar-2012 Feb  Principal Investigator - Development of general 4DCT based treatment planning techniques. Catholic University of Korea Research Institute Collaborative Grant. $40,000 USD.
E. Publications

1. FIVE-MOST SIGNIFICANT PUBLICATIONS


2) Park JC, Song B, Kim JS, Park SH, Kim HK, Liu Z, Suh T, **Song WY**. Fast compressed sensing-based CBCT reconstruction using Barzilai-Borwein formulation for application to on-line IGRT. *Med Phys* 2012;39(3):1207-1217. **Senior Corresponding Author.**

3) Webster M, Devic S, Vuong T, Han D, Park JC, Scanderbeg D, Lawson J, Song B, Watkins WT, Pawlicki T, **Song WY**. Dynamic modulated brachytherapy (DMBT) for rectal cancer. *Med Phys* 2013;40(1):011718. **Senior Corresponding Author.**

4) Park JC, Kim JS, Park SH, Liu Z, Song B, **Song WY**. Motion-map constrained image reconstruction (MCIR): Application to four-dimensional cone-beam computed tomography. *Med Phys* 2013;40(12):121710. **Senior Corresponding Author.**

5) Han D, Webster MJ, Scanderbeg D, Yashar C, Choi D, Song B, Devic S, Ravi A, **Song WY**. Direction Modulated Brachytherapy (DMBT) for HDR Treatment of Cervical Cancer (I): Theoretical Design. *Int J Radiat Oncol Biol Phys* 2014;89(3):666-673. **Senior Corresponding Author.**

2. PEER REVIEWED PUBLICATIONS

**Journal Articles (52)**

1) **Song WY** and Dunscombe P. EUD based margin selection in the presence of set-up uncertainties. *Med Phys* 2004;31(4):849-859. **Principal Author.**


12) Watkins WT, Li R, Lewis J, Park JC, Sandhu A, Jiang SB, **Song WY**. Patient-specific motion artifacts in 4DCT. *Med Phys* 2010;37(6):2855-2861. **Senior Corresponding Author.**

13) Youn HB, Kim JS, Cho MK, Jang SY, **Song WY**, Kim HK. Optimizing imaging conditions in digital tomosynthesis for image-guided radiation therapy. *Prog Med Phys* 2010;21(3):281-290. **Co Author.**


16) Nath SK, Sandhu AP, Jensen L, Kim D, Bharne A, Nobiensky PD, Lawson JD, Fuster MM, Bazhenova L, **Song WY**, Mundt AJ. Frameless Image-Guided Stereotactic Body Radiation Therapy for Lung Tumors with 4-dimensional computed
tomography or 4-dimensional positron emission tomography/computed tomography. 


44) Song B, Park JC, Song WY. A low-complexity 2-point step size gradient projection method with selective function evaluations for smoothed total variation based CBCT
reconstructions. *Phys Med Biol* 2014;59(21):6565-6582. **Senior Corresponding Author.**

45) Park JC, Kim JS, Park SH, Webster MJ, Lee S, **Song WY**, Han Y. Four dimensional digital Tomosynthesis using on-board imager for the verification of respiratory motion. *PLoS ONE* 2014;9(12):e115795. **Co Author.**


47) Owrangi AM, Prisciandaro JI, Soliman AS, Ravi A, **Song WY**. Magnetic resonance imaging-guided brachytherapy for cervical cancer: initiating a program. *J Contemp Brachytherapy* 2015;7(5):417-422. **Senior Corresponding Author.**


50) Soliman AS, Owrangi A, Ravi A, **Song WY**. Metal artefacts in MRI-guided brachytherapy of cervical cancer. *J Contemp Brachytherapy* 2016 (in press). **Senior Corresponding Author.**


52) Mashouf S, Safigholi H, Merino T, Soliman AS, Ravi A, Morton G, **Song WY**. Sensitivity of clinically relevant dosimetric parameters to contouring uncertainty in post implant dosimetry of prostate permanent seed implants. *Brachytherapy* 2016 (submitted-in revision). **Senior Corresponding Author.**

Abstracts (128)


2) Wu J, Breitman K, **Song WY**. Estimation of dose constraints using biologically-normalized dose-volume histograms (BN-DVH) for hypofractionated radiotherapy in the treatment of prostate cancer. ESTRO/ECCO, Copenhagen (2003). **Co Author.**


5) **Song WY**, Battista J, Van Dyk J. Limitations of a convolution method for modeling geometric uncertainties in radiotherapy: the biological dose-per-fraction effect. 3rd place finish in the Young Investigators’ Symposium (YIS): COMP, Winnipeg (2004). **Principal Author.**


21) **Song WY**, Wong E, Bauman G, Battista J, Van Dyk J. Dosimetric evaluation of daily rigid and non-rigid geometric correction strategies during on-line image-guided radiation therapy (IGRT) of prostate cancer. AAPM, Minneapolis, USA (2007). **Principal Author.**

22) Ozawa S, **Song WY**, Alani S, Liu C, Karasawa K, Palta J, Li J. Compatibility of IMRT plans for the matched beam linear accelerators. AAPM, Minneapolis, USA (2007). **Co Author.**


25) Bhandare N, **Song WY**, Malyapa R, Bhatti MT, Mendenhall WM. Evaluation of effect of fractionation in radiation-induced optic neuropathy and retinopathy after external-beam radiation therapy for head and neck cancers. ASTRO, Los Angeles, USA (2007). **Co Author.**

26) Ozawa S, **Song WY**, Alani S, Liu C, Li J. Evaluation of inter-fractional setup reproducibility based on skin markers for the treatment of prostate cancer. ASTRO, Los Angeles, USA (2007). **Co Author.**

27) **Song WY**, Bhandare N, Moiseenko V. Dose response analysis of radiation-induced optic neuropathy (RION) single-institution data using the Lyman NTCP model. AAPM, Houston, USA (2008). **Principal Author.**

28) **Song WY**, Bhandare N, Moiseenko V. Dose response analysis of radiation-induced retinopathy (RIRP) single-institution data using the Lyman NTCP model. AAPM, Houston, USA (2008). **Principal Author.**

29) Kamath S, **Song WY**, Chvetsov A, Ozawa S, Liu C, Li J, Palta J. An image quality comparison study between XVI® and OBI® CBCT systems. AAPM, Houston, USA (2008). **Co Author.**


32) Bhandare N, **Song WY**, Moiseenko V, Malyapa R, Morris CG, Mendenhall W. Radiation-induced optic neuropathy: dose response and modeling total dose and fractionation. ASTRO, Boston, USA (2008). **Co Author.**

33) Cerviño L, **Song WY**, Wang J, Lawson J, Pawlicki T, Jiang S. Feasibility study of frame-less mask-less bite-block-less stereotactic radiosurgery treatment with real-time surface imaging. AAPM, Anaheim, USA (2009). **Co Author.**


35) Gu J, **Song WY**, Xu XG. Monte Carlo Based kV CBCT Modeling and Dose Calculations Involving Anatomical Phantom. AAPM, Anaheim, USA (2009). **Co Author.**


52) Watkins WT, Lewis JH, Park JC, Li R, Jiang SB, Song WY. Tumor specific reconstruction of motion probability density function from 4DCT. (Oral presentation) AAPM, Philadelphia, USA (2010). Senior Corresponding Author.


68) **Song WY**, Webster M, Han D, Enick J, Scanderbeg D, Vuong T, Devic S. Dynamic modulated brachytherapy (DMBT): concept, design, and simulations. ESTRO World Congress of Brachytherapy, Barcelona, Spain (2012). **Principal Author.**

69) Park JC, Park SH, Song B, **Song WY**. Liver motion during CBCT-guided SBRT. AAPM, Charlotte, NC (2012). **Senior Corresponding Author.**

70) Webster M, Devic S, Vuong D, Scanderbeg D, **Song WY**. Dynamic Modulated Brachytherapy (DMBT). AAPM, Charlotte, NC (2012). **Senior Corresponding Author.**

71) Kauweloa K, Park JC, **Song WY**. Dependence of imaging dose on image quality of free-breathing 3DCBCT of moving tumors. AAPM, Charlotte, NC (2012). **Senior Corresponding Author.**

72) Han D, Webster M, Devic S, Vuong D, Scanderbeg D, **Song WY**. Dynamic Modulated Brachytherapy (DMBT): Robotic Applicator Design. AAPM, Charlotte, NC (2012). **Senior Corresponding Author.**

73) Bergamo A, Sandhu A, Rahn D, **Song WY**. Utility of 4D-PET/CT for ITV definition. AAPM, Charlotte, NC (2012). **Senior Corresponding Author.**

74) Song B, Park JC, **Song WY**. A novel 2-point step size gradient method for regularized Total Variation based CBCT reconstructions. AAPM, Charlotte, NC (2012). **Senior Corresponding Author.**

75) Bhandare N, Moiseenko V, **Song WY**, Antonelli P, Mendenhall WM. Post radiation Otitis media with effusion: modeling complication probability and determinations of parameters of clinical significance. ASTRO, Boston, MA (2012). **Co Author.**

76) Bhandare N, Moiseenko V, **Song WY**, Morris CG, Antonelli P, Mendenhall WM. Evaluation of association between pre and post radiation therapy otitis media with effusion and incidence of sensory neural hearing loss in head & neck cancer patients. ASTRO, Boston, MA (2012). **Co Author.**

77) Pearson C, **Song WY**, Kim G. Influence of Patient Weight and Couch Rotation on the Accuracy of a Surface Tracking System for Stereotactic Radiosurgery. AAPM, Indianapolis, IN (2013). **Senior Corresponding Author.**

78) Loughery B, **Song WY**. A comparison of deformable image registration algorithms and their applicability to 4DCT DICOM lung images. AAPM, Indianapolis, IN (2013). **Senior Corresponding Author.**

79) Bhandare N, Moiseenko V, **Song WY**, Morris CG, Mendenhall WM. The effect of pre-existing hypertension on parameters for radiation-induced optic neuropathy. ASTRO, Atlanta, GA (2013). **Co Author.**

80) Watkins WT, **Song WY**, Hugo GD, Weiss E, Siebers JV. The effects of interplay on accumulated dose in high-dose rate stereotactic body radiotherapy of lung cancer. ASTRO, Atlanta, GA (2013). **Co Author.**

81) Watkins WT, **Song WY**, Merrick JR, Weiss E, Hugo GD, Siebers JV. Multi-criteria optimization for real-time planning of lung cancer radiotherapy. AAPM, Indianapolis, IN (2013). **Co Author.**

82) Park JC, Kim JS, Song B, **Song WY**. Motion-Map Constrained Image Reconstruction for 4DCBCT Reconstruction in IGRT. AAPM, Indianapolis, IN (2013). **Senior Corresponding Author.**

83) Han D, Webster MJ, Scanderbeg D, Han Y, Yashar C, **Song WY**. Dynamic Modulated Brachytherapy For Cervical Cancer. AAPM, Indianapolis, IN (2013). **Senior Corresponding Author.**

84) Webster MJ, Scanderbeg D, Yashar C, Han D, **Song WY**. Dynamic Modulated Brachytherapy For Accelerated Partial Breast Irradiation. AAPM, Indianapolis, IN (2013). **Senior Corresponding Author.**
and breast brachytherapy implant dosimetry. AAPM, Anaheim, CA (2015). **Senior Corresponding Author.**

100) Safigholi H, Meigooni A, Han D, Soliman AS, **Song WY.** Evaluation of an analytical model for the inter-seed attenuation effect in 103-Pd multi-seed implant brachytherapy. AAPM, Anaheim, CA (2015). **Senior Corresponding Author.**

101) Safigholi H, Han D, Soliman AS, Meigooni A, **Song WY.** Utility of the two candidate 192-Ir and 169-Yb HDR sources for use with a novel direction modulated brachytherapy tandem applicator for cervical cancer treatment. AAPM, Anaheim, CA (2015). **Senior Corresponding Author.**

102) Safigholi H, Han D, Soliman AS, Meigooni A, Scanderbeg D, **Song WY.** Utility of the combined use of two types of HDR sources with the direction modulation brachytherapy (DMBT) tandem applicator for cervical cancer treatment. AAPM, Anaheim, CA (2015). **Senior Corresponding Author.**

103) Safigholi H, Han D, Soliman AS, Meigooni A, Scanderbeg D, **Song WY.** Investigation of various MR-compatible shielding materials for direction modulated brachytherapy (DMBT) tandem applicator for cervical cancer treatment. AAPM, Anaheim, CA (2015). **Senior Corresponding Author.**

104) Han D, Tanderup K, Safigholi H, Soliman AS, Scanderbeg D, Liu Z, **Song WY.** A comprehensive planning comparison study between a novel direction modulated brachytherapy tandem applicator and conventional T&R applicator for image guided cervical cancer brachytherapy. AAPM, Anaheim, CA (2015). **Senior Corresponding Author.**

105) Han D, Safigholi H, Soliman AS, Scanderbeg D, Liu Z, **Song WY.** Utility of gold wires to optimize intensity modulation capacity of a novel directional modulated brachytherapy tandem applicator for image guided cervical cancer brachytherapy. AAPM, Anaheim, CA (2015). **Senior Corresponding Author.**

106) Hashemi SM, Lee Y, Eriksson M, Nordstrom H, Song B, Nam W, Sahgal A, **Song WY,** Ruschin M. Deblurring in iterative reconstruction of half CBCT for image guided brain radiosurgery. SPIE Medical Imaging, San Diego, CA (2016). **Co Author.**

107) Soultan D, Yock A, Cornell M, Murphy J, Gill B, **Song WY,** Moiseenko V, Cervino L. A novel phantom for dosimetric verification of gated SIB radiotherapy treatment plans. ESTRO, Turin, Italy (2016). **Co Author.**


110) Paudel MR, Elzibak AH, Han DY, Ravi AR, **Song WY.** Evaluation of two CT metal artifact correction algorithms for a novel direction modulated brachytherapy tandem applicator. American Brachytherapy Society (ABS) Meeting, San Francisco, CA (2016). **Senior Corresponding Author.**

111) Safigholi H, Han DY, Mashouf S, Soliman AS, Beaulieu L, Owrangi A, **Song WY.** A modified TG-43 dose calculation formalism for direction modulated brachytherapy (DMBT) tandem applicator. American Brachytherapy Society (ABS) Meeting, San Francisco, CA (2016). **Senior Corresponding Author.**

112) Safigholi H, Han DY, Mashouf S, Soliman AS, Meigooni AS, Owrangi A, **Song WY.** Direction modulated brachytherapy (DMBT) tandem generated plan quality with


and Hough transform. AAPM, Washington DC (2016). **Senior Corresponding Author.**

125) Chung R, Safigholi H, Nocolae A, Davidson M, Shaeer A, Ravi A, Aleman D, **Song WY.** Evaluation of 192Ir, 60Co, and 169Yb sources for high dose rate prostate brachytherapy inverse planning using an interior point constraint generation algorithm. AAPM, Washington DC (2016). **Senior Corresponding Author.**

126) Chugh BP, Soliman AS, Lee Y, Yu H, Owrami A, Karotki A, Mehrabian H, Thomason LAM, Tseng E, **Song WY.** Sahgal A, Stanisz G. Development of a realistic phantom for MR-only treatment planning in the brain. 4th MR in RT Symposium, Ann Arbor, MI. **Co Author.**

127) Chugh BP, Owrami A, Yu H, Lee Y, Soliman AS, Karotki A, Tseng E, **Song WY,** Sahgal A, Stanisz G. Development of a tool to test and compare MR-only segmentation algorithms. 4th MR in RT Symposium, Ann Arbor, MI. **Co Author.**

128) Hashemi SM, Lee Y, Eriksson M, Nordstrom H, Mainprize J, Grouza V, Huynh C, Sahgal A, **Song WY,** Ruschin M. Cone-beam CT image contrast and attenuation-map linearity improvement (CALI) for brain stereotactic radiosurgery procedures. SPIE Medical Imaging, Orlando, FL (2017). **Co Author.**

**Books (2)**

1) **Song WY.** Image-Guided Radiation Therapy of Prostate Cancer. VDM Publishings, Germany (2009). **Principal Author.**

2) **Song WY,** Tanderup K, and Pieters BR (Editors). Emerging Technologies in Brachytherapy. CRC Press: Taylor & Francis Group (In Press - Projected: 2016). **Primary Editor.**

**Book Chapters (5)**

1) **Song WY** and Bissonnette JP. Chapter: MV and kV in-room imagers. In: Quality & Safety in Radiotherapy. Pawlicki T and Dunscombe P (Editors). Taylor & Francis, USA (2011). **Principal Author.**


**F. Patents and Copyrights – Active, Lapsed, and Under Evaluation**

2012 **Song WY,** Park C, Song B. Image reconstruction using gradient projection for medical imaging applications.

2013

2015

G. Presentations and Special Lectures

Invited Lectures and Presentations (46)

2005
Invited Speaker
Title: IGRT of prostate cancer: The state of the art
Department of Oncology
London Regional Cancer Program, London Health Sciences Centre
University of Western Ontario, Canada

2006
Invited Speaker
Title: IGRT of prostate cancer
Department of Radiation Oncology
University of Florida, Gainesville, FL

2007
Invited Speaker
Title: CBCT daily dose during IGRT
Department of Radiation Oncology
University of California San Diego, San Diego, CA

2008
Invited Speaker
Title: University of Florida Clinical Program
Department of Radiation Oncology
University of California San Diego, San Diego, CA

2008
Invited Speaker
Title: University of Florida Clinical Program
Department of Nuclear and Quantum Engineering
Korea Advanced Institute of Science and Technology (KAIST), S. Korea

2008
Invited Speaker
Title: University of Florida Clinical Program
Department of Radiation Oncology
Kyung Buk University, S. Korea

2009
Invited Speaker
Title: Radiation Oncology Physics: Current State-of-the-Art
Department of Physics
2009

**Invited Speaker**
Title: Radiation Oncology Physics: The Current State of the Art
Department of Radiologic Sciences
Korea National University, S. Korea

**Invited Speaker**
Title: CBCT Technology for IGRT: Present and Future
Department of Radiation Oncology
Sam Sung Medical Center, S. Korea

**Invited Speaker**
Title: Image-guided radiation therapy
Department of Radiology
University of California San Diego, San Diego, CA

**Invited Symposia Speaker**
Title: Cone-Beam CT in radiotherapy
Annual Meeting, Anaheim, CA
Radiotherapy Service Engineer Association (RSEA)

**Invited Speaker**
Title: Computer Applications in Radiation Therapy
Department of Computer Science and Engineering
University of California San Diego, San Diego, CA

**Invited Speaker**
Title: Physics and engineering of image-guided radiation therapy
Department of Mechanical Engineering
Pusan National University, S. Korea

**Invited Speaker**
Title: Image guided radiation therapy of prostate cancer
Department of Radiation Oncology
Asan Medical Center, S. Korea

2010

**Invited Speaker**
Title: Current state of the art in cancer radiation therapy
Department of Physics
California State University Los Angeles, Los Angeles, CA

**Invited Symposia Speaker**
Title: Respiratory signal reconstruction from fiducial markers for 4D image guidance of liver SBRT
Annual Meeting, Philadelphia, PA
KSMP-KAMPiNA Joint Meeting

**Invited Speaker**
Title: Optimizing SBRT planning and delivery
Annual Meeting, Seoul, S. Korea
The International Symposium on Medical Physics
20th Anniversary KSMP Annual Meeting

**Invited Symposia Speaker**
Title: Dynamic Modulated Brachytherapy
Annual Meeting, Seoul, S. Korea
The International Symposium on Medical Physics
20th Anniversary KSMP Annual Meeting

2010
Invited Speaker
Title: The State of the Art in Cancer Radiation Therapy
Department of Aerospace Engineering
Korea Advanced Institute of Science and Technology (KAIST), S. Korea

2011
Invited Symposia Speaker
Title: Dynamic Modulated Brachytherapy (DMBT)
Annual Winter Meeting, Los Angeles, CA
Southern California Chapter American Association of Physicists in Medicine (SCC-AAPM)

2011
Invited Symposia Speaker & Joint Organizing Chair
Title: Physics of Liver SBRT
1st AMC–UCSD Joint SBRT Symposium
Asan Medical Center, S. Korea

2011
Invited Speaker
Title: Past, Present, and Future of Radiation Oncology
Department of Radiologic Sciences
Korea National University, S. Korea

2011
Invited Speaker
Title: Dynamic Modulated Brachytherapy: Concept, Design, and Applications
Department of Radiation Oncology
McGill University, Montreal, Canada

2011
Invited Speaker
Title: IGRT, SBRT, and DMBT: state-of-the-art updates
Department of Radiation Oncology
Seoul National University, S. Korea

2012
Keynote Speaker
Title: Electron beam MU calculations
Symposium on Physics of MU Calculations
Juntendo University, Tokyo, Japan

2012
Invited Symposia Speaker
Title: Dynamic Modulated Brachytherapy of Rectal, Breast, and GYN Cancers
Workshop: Integration of new radiation technologies in the multi-modality treatment approaches in cancer therapy
McGill University, Montreal, Canada

2012
Invited Symposia Speaker
Title: TrueBeam: Clinical experience at UCSD
Workshop: Integration of new radiation technologies in the multi-modality treatment approaches in cancer therapy
McGill University, Montreal, Canada

2013
Invited Speaker
Title: 4D Motion Management & SBRT Planning
Workshop: Implementing SBRT in communal setting
Pacific Cancer Institute, Wailuku, HI

2013
Invited Symposia Speaker
Title: Dynamic Modulated Brachytherapy for Cancer Treatment
The 23rd KSEA Southern California Regional Conference, Carlsbad, CA

2013
Invited Symposia Speaker
Title: IGRT QA
The QA & Dosimetry Symposium: Exploring the future of QA and Dosimetry
Sun Nuclear Corporation, Orlando, FL

2013
Invited Speaker
Title: IGRT, SBRT, and DMBT
Department of Physics Seminar Series
San Diego State University, San Diego, CA

2013
Invited Speaker (On-Line)
Title: 4D Motion Management & SBRT Planning
Department of Radiation Oncology
Hospital Sirio Libanes, Brazil

2013
Invited Speaker
Title: 4D Motion Management in RT
Continuing Education (CE) Seminar Series, Moores Cancer Center
University of California San Diego, San Diego, CA

2013
Invited Speaker
Title: Dynamic Modulated Brachytherapy (DMBT)
Department of Radiation Oncology
University of Iowa, Iowa City, IA

2013
Invited Speaker
Title: Medical Physics: The Next 10 Years
Department of Radiation Oncology, Sunnybrook Health Sciences Centre
University of Toronto, Toronto, Canada

2013
Invited Speaker
Title: IGRT, SBRT, and 4D Motion Management
Workshop: ProKnife SRS/SBRT
Scripps Proton Therapy Center, San Diego, CA

2013
Invited Speaker
Title: Use of Imaging and New Opportunities in External-Beam RT & Brachytherapy
Department of Radiation Oncology, Sunnybrook Health Sciences Centre
University of Toronto, Toronto, Canada

2014
Invited Speaker (3)
Title (1): SBRT Planning with 4D Imaging
Title (2): IGRT Technology and Workflow with 4D Motion Management
Title (3): CBCT in RT: Technical Review
Workshop: Advanced Radiation Techniques – Planning & Delivery (IMRT, IGRT, VMAT, and SBRT)
Postgraduate Institute of Medical Education & Research, Chandigarh, India

2014
Invited Speaker
Title: Direction Modulated Brachytherapy (DMBT)
Oncology Grand Rounds
University of Western Ontario, London, Canada

2014
Invited Speaker
Title: Direction Modulated Brachytherapy (DMBT)
Department of Radiation Oncology
University of Washington, Seattle, WA

2014
Invited Speaker
Title: Direction Modulated Brachytherapy
Institute of Biomaterials and Biomedical Engineering (IBBME) Grand Rounds
University of Toronto, Toronto, Canada

2015
Invited Speaker
Title: Direction Modulated Brachytherapy (DMBT)
3rd World Rectal Conference on Organ Preserving Perspectives
McGill University, Montreal, Canada

2015
Invited Speaker
Title: OncoSpace at Sunnybrook
1st OncoSpace Consortium
Johns Hopkins University, Baltimore, USA

2016
Invited Speaker
Title: Applicator development for intraluminal techniques: Role of shielding
Educational Symposium - GI Tract
ABS-World Congress of Brachytherapy Annual Meeting, San Francisco, CA, USA

Session Chair/Moderator (3)

2014
Session Chair, Annual Meeting, American Association of Physicists in Medicine (AAPM), Austin, USA

2015
Session Chair, Annual Meeting, World Congress on Medical Physics and Biomedical Engineering, Toronto, Canada

2015
Session Chair, Annual Meeting, American Association of Physicists in Medicine (AAPM), Anaheim, USA

2016
Session Chair, Annual Meeting, American Association of Physicists in Medicine (AAPM), Washington DC, USA

H. Teaching and Design

2010-2012
Director, Resident Seminar Series
Department of Radiation Medicine and Applied Sciences
University of California San Diego

2011-2014
Instructor
Physics Didactic Course (CAMPEP-Accredited)
Department of Radiation Medicine and Applied Sciences
University of California San Diego

2011-2014
Instructor
Learning Center – SBRT Course
WILLIAM Y. SONG, PHD, DABR

Department of Radiation Medicine and Applied Sciences
University of California San Diego

2011-2014
Instructor
PHYS 298 – Directed Study in Physics
Department of Physics,
University of California San Diego

2012
Instructor
PHYS 670A - Physics of Radiation Therapy (CAMPEP-Accredited)
Department of Physics,
San Diego State University

2013-2014
Instructor
PHYS 797 – Directed Study in Physics (CAMPEP-Accredited)
Department of Physics,
San Diego State University

2013-2014
Advisor
QI-Calit2 Summer Undergraduate Research Scholarship in Bioengineering
University of California San Diego

2013
Instructor
Workshop – 4D Motion Management & SBRT Planning
Pacific Cancer Institute, Wailuku, HI

2014
Instructor
Workshop – 4D Motion Management & SBRT Planning
Post Graduate Institute of Medical Education and Research, Chandigarh, India

2013
Instructor
ECE 187 – Introduction to Biomedical Imaging & Sensing
Department of Electrical & Computer Engineering,
University of California San Diego

I. Research Supervision

Undergraduate Students (3)

2013 Jun-2013 Aug
Primary Supervisor, Christopher Yang
2013 UCSD Calit2 Summer Undergraduate Research Scholarship Winner,
Bioengineering, University of California San Diego
Project: Influence of dose rates on survival in respiratory-induced mobile liver tumor cells during stereotactic body radiation therapy

2013 Jun-2013 Aug
Primary Supervisor, Dong Jin Ko
2013 UCSD Calit2 Summer Undergraduate Research Scholarship Winner,
Mechanical Engineering, Kumoh National Institute of Technology (KfT) Summer Exchange Program with UCSD
Project: Influence of dose rates on survival in respiratory-induced mobile liver tumor cells during stereotactic body radiation therapy
2015 May-2015 Aug  **Primary Supervisor**, Youn Hwan Kim  
Summer Research Student  
University of Waterloo, Waterloo  
Project: MRI, CT, and US image quality assessment and compatibility testing of a novel DMBT tandem applicator for cervical cancer brachytherapy

**Graduate Students (22)**

2009 Jan-2010 Jun  **Primary Supervisor**, Tyler Watkins  
Research Fellow  
Radiation Medicine and Applied Sciences, University of California San Diego  
Project: 4DCT uncertainties in lung cancer target definition

2009 Oct-2013 May  **Primary Supervisor**, Chunjoo Park  
PhD Thesis Research  
Electrical and Computer Engineering, University of California San Diego  
Project: CBCT image reconstruction using iterative algorithms

2009 Jun-2011 Jun  **Primary Supervisor**, Ammar Durghalli  
MSc Thesis Research  
Medical Physics, San Diego State University  
Project: Four-dimensional treatment planning of lung cancer using Demons & optical flow deformable image registration algorithms

2009 Oct-2012 May  **Primary Supervisor**, Kevin Kauweloa  
MSc Thesis Research  
Medical Physics, San Diego State University  
Project: Profile of moving tumors in free-breathing CBCT

2010 May-2014 May  **Primary Supervisor**, Matt Webster  
PhD Thesis Research  
Medical Physics, University of California San Diego  
Project: Development of a robotics-guided dynamic modulated brachytherapy (DMBT) system for rectal, breast cancers

2011 Sep-2015 Jun  **Primary Supervisor**, Dae Yup Han  
PhD Thesis Research  
Electrical and Computer Engineering, University of California San Diego  
Project: Development of direction modulated brachytherapy (DMBT) system for GYN cancers

2011 Feb-2012 Mar  **Primary Supervisor**, Brian Loughery  
MSc Thesis Research  
Medical Physics, San Diego State University  
Project: Deformable image registration algorithms for CT-CBCT registration

2011 Apr-2012 Apr  **Primary Supervisor**, Angelo Bergamo  
Research Fellow  
Medical Physics, San Diego State University  
Project: Utility of 4DPETCT for mobile tumors
2012 Mar-2013 Apr  **Joint Primary Supervisor**, Chelsea Pearson  
MSc Thesis Research  
Medical Physics, San Diego State University  
Project: Accuracy of surface tracking system for Brain SRS

2012 Apr-2013 May  **Primary Supervisor**, Jonathan Casey  
MSc Thesis Research  
Medical Physics, San Diego State University  
Project: CAPRI applicator-based rectal HDR treatment

2012 Sep-2013 Dec  **Primary Supervisor**, Eddie Marshall  
MSc Thesis Research  
Medical Physics, San Diego State University  
Project: Audiovisual system design and setup for patient guidance during 4DCT simulation of dynamic tumors

2012 Oct-2013 Feb  **Primary Supervisor**, Trey Slauter  
MSc Thesis Research  
Medical Physics, San Diego State University  
Project: Evaluation of the efficacy of audiovisual system in 4DCT image quality

2013 Jul-2013 Aug  **Primary Supervisor**, Chad Nakagawa  
Research Fellow  
Radiation Medicine and Applied Sciences, University of California San Diego  
Project: Literature survey of radiation dose rate dependence on general cell survival

2014 Oct-Present  **Primary Supervisor**, Elodie Rachel Mok Tsze Chung  
MSc Thesis Research  
Industrial Engineering, University of Toronto  
Project: Development of optimization framework for direction modulated brachytherapy (DMBT)

2015 Jan-Present  **Primary Supervisor**, Habib Safigholi  
Post Doctoral Fellow  
Medical Biophysics, University of Toronto  
Project: Designing optimal brachytherapy applicators

2015 Jan-2015 Feb  **Primary Supervisor**, Nelly Kager  
Research Fellow  
Medical Physics, Sunnybrook Health Sciences Centre  
Project: Impact of DMBT brachytherapy tandem applicator on CT image quality

2015 Feb-Present  **Primary Supervisor**, Abraam Soliman  
Post Doctoral Fellow  
Sunnybrook Research Institute, Sunnybrook Health Sciences Centre, Toronto  
Project: Translation of MRI simulation into clinical brachytherapy workflow

2015 Apr-Present  **Joint Primary Supervisor**, Masoud Hashemi  
Post Doctoral Fellow  
Sunnybrook Research Institute, Sunnybrook Health Sciences Centre, Toronto  
Project: GPU-accelerated iterative CBCT reconstruction for image guided and frameless radiosurgery using the GammaKnife Perfexion system
2015 Sep-Present  **Primary Supervisor**, Christopher Huynh
MSc Thesis Research
Medical Physics, Ryerson University, Toronto
Project: CBCT image reconstruction using iterative algorithms for GammaKnife brain SRS treatment guidance

2015 Sep-Present  **Primary Supervisor**, Julia Pearse
MSc Thesis Research
Medical Physics, Ryerson University, Toronto
Project: Direction modulated brachytherapy concept applicator design for image guided vaginal cuff brachytherapy

2015 Sep-Present  **Primary Supervisor**, Reyhaneh Nosrati
PhD Thesis Research
Medical Physics, Ryerson University, Toronto
Project: Development of MRI-only workflow for permanent prostate seed implantation brachytherapy

2016 Jan-Present  **Primary Supervisor**, Amani Shaaer
PhD Thesis Research
Medical Physics, Ryerson University, Toronto
Project: Direction modulated brachytherapy concept application in image guided cervical cancer brachytherapy

**External MSc/PhD Thesis Committee Memberships (5)**

2013 Mar  **External Committee**, Tyler Watkins
PhD Thesis External Committee Member
Thesis: Optimization of Radiation Therapy in Time-Dependent Anatomy
Virginia Commonwealth University, Richmond, VA, USA

2014 Aug  **External Committee**, Amani Shaaer
MSc Thesis External Committee Member
Thesis: Image Quality and Dose of an Accelerator-Integrated kV CBCT Systems
Laurentian University, Sudbury, ON, Canada

2015 Apr  **External Committee**, Kevin Kauweloa
PhD Thesis External Committee Member
Thesis: Practical aspects and applications of the three-dimensional biological effective dose in multi-phase radiotherapy treatment plans
The University of Texas Health Science Center at San Antonio, TX, USA

2015 Jul  **External Committee**, Angelo Bergamo
PhD Thesis External Committee Member
Thesis: Possibilities and implications of biological dose evaluation
The University of Texas Health Science Center at San Antonio, TX, USA

2016 Jul  **External Committee**, Ilma Xhaferlliari
PhD Thesis External Committee Member
Thesis: Optimizing respiratory gated intensity modulated radiation therapy planning and delivery of early-stage non-small cell lung cancer
The University of Western Ontario, London, ON, Canada

J. Professional Activities

2009 Aug-2013 Dec Secretary of Academic Affairs
Korean American Medical Physicists in North America (KAMPiNA)

2010 Jun-2013 Oct Academic Member
University of California San Diego
Academic Senate Committee: Human Exposure Review Committee (HERC), a sub-committee of Radiation Safety and Surveillance Committee (RSSC)

2011 Sep-2014 Apr Young Generation (YG) Director
San Diego Chapter
Korean Scientists and Engineers Association (KSEA)

2011-2012 Chair
MC2 Research Award Committee
Korean American Medical Physicists in North America (KAMPiNA)

2012 Aug-2014 Apr Member
National Scholarship Committee
Korean Scientists and Engineers Association (KSEA)

2012-2013 Member
Vendor Relations and Product Usability Subcommittee, Brachytherapy Devices Subgroup
American Association of Physicists in Medicine (AAPM)

2012 Oct-Present Member
Placement Services Subcommittee
American Association of Physicists in Medicine (AAPM)

2013 Member
Organizing Committee for the Norm Bailey Awards Meeting
Southern California Chapter, AAPM

2013-2014 Co-Chair, Research Committee
Department of Radiation Medicine and Applied Sciences
University of California San Diego

2013-2014 Member, Merits and Promotions Committee
Department of Radiation Medicine and Applied Sciences
University of California San Diego

2013-2015 Member, Emerging Technology Monitoring Subcommittee
American Society of Therapeutic Radiology and Oncology (ASTRO)

2013-2014 Member, Faculty Recruitment Search Committee
Department of Radiation Medicine and Applied Sciences
University of California San Diego

2013-2014 Member, UCSD Academic Senate
University of California San Diego
<table>
<thead>
<tr>
<th>Year</th>
<th>Role</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-Present</td>
<td>Member, Radiation Therapy Program (RTP) Steering Committee</td>
<td>Odette Cancer Centre, Sunnybrook Health Sciences Centre</td>
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<td>2014-Present</td>
<td>Member, Physics Professional Advisory Committee (PPAC)</td>
<td>Cancer Care Ontario, Ontario, Canada</td>
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<td>2014-Present</td>
<td>Member, UTDRO Executive Committee</td>
<td>University of Toronto, Dept. Radiation Oncology (UTDRO)</td>
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<td>2014-Present</td>
<td>Member, UTDRO Departmental Promotion Committee</td>
<td>University of Toronto, Dept. Radiation Oncology (UTDRO)</td>
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<tr>
<td>2015</td>
<td>Member, Head of Medical Physics Search Committee</td>
<td>Carlo Fidani Cancer Centre, Credit Valley Hospital, Mississauga, ON</td>
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<td>University of Toronto, Dept. Radiation Oncology (UTDRO)</td>
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<tr>
<td>2015</td>
<td>Member, Head of Radiation Therapy Search Committee</td>
<td>Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, ON</td>
</tr>
<tr>
<td>2015 Aug</td>
<td>Member, NSERC Site Visit Committee</td>
<td>Review of the Industrial Research Chairs – Regular (IRC) application, Canada</td>
</tr>
<tr>
<td>2015</td>
<td>Member, UTDRO Collaborative Grant Review Committee</td>
<td>University of Toronto, Dept. Radiation Oncology (UTDRO)</td>
</tr>
<tr>
<td>2015</td>
<td>Member, Director of UTDRO Physics Residency Search Committee</td>
<td>University of Toronto, Dept. Radiation Oncology (UTDRO)</td>
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<tr>
<td>2015-Present</td>
<td>Radiation Safety Committee</td>
<td>Oversees all corporate radiation safety policies</td>
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<td>Sunnybrook Health Sciences Centre, Toronto, ON</td>
</tr>
<tr>
<td>2016</td>
<td>Member, GI-Tract Committee</td>
<td>Setup an educational program for the GI-tract sites</td>
</tr>
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<td>ABS-ESTRO 6th World Congress of Brachytherapy</td>
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<td>San Francisco, CA</td>
</tr>
<tr>
<td>2016-Present</td>
<td>Member, Capital Replacement Committee</td>
<td>Cancer Care Ontario, Ontario, Canada</td>
</tr>
</tbody>
</table>
Curriculum Vitae

Teodor Stanescu
PhD, MCCPM

A. Date Curriculum Vitae is Prepared: 2013 July 9

B. Biographical Information

Primary Office
Princess Margaret Hospital
Radiation Medicine Program
Radiation Physics
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-4501 ext. 5071
Fax 416-946-6566
Email teodor.stanescu@rmp.uhn.on.ca

1. EDUCATION

Degrees
2008 PhD, Medical Physics, University of Alberta, Edmonton, Alberta, Canada
2004 MSc, Medical Physics, University of Alberta, Edmonton, Alberta, Canada
1999 BSc, Nuclear Physics, University of Bucharest, Romania

Postgraduate, Research and Specialty Training
2011 Entrepreneurship 101, MaRS Discovery District, Toronto, Ontario
2011 IDEA MRI pulse sequence design, Siemens, Toronto, Ontario
2009 The Fundamentals of a Business Plan, TEC Edmonton, Edmonton, Alberta
2008 - 2010 Residency, Medical Physics, Department of Oncology, University of Alberta
2008 Science and Society Business Basics Workshop, THECIS The Centre For Innovation Studies, Banff, Alberta

2. EMPLOYMENT

Current Appointments
2012 Jan - present Scientist, Techna Institute, University Health Network & University of Toronto, Toronto, Ontario, Canada
2010 - present Radiation Physicist, Princess Margaret Hospital, Toronto, Ontario
2010 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario
Teodor STANESCU

Previous Appointments

CLINICAL
2008 - 2010 Associate Medical Physicist, Medical Physics, Cross Cancer Institute, Edmonton, Alberta
2004 - 2008 Physicist Assistant, Medical Physics, Cross Cancer Institute, Edmonton, Alberta

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Nominated
2011 Young Scientists ESTRO Poster Session, ESTRO meeting, European Society for Therapeutic Radiology and Oncology (ESTRO). (Research Award)
2002 Young Investigator Competition, AAPM & COMP Joint Meeting. (Research Award)

NATIONAL
Received
2009 Sylvia Fedoruk Prize, Co-author, Canadian Organization of Medical Physicists (COMP). (Research Award)
For best paper in medical physics.

Nominated
2007 Young Investigator Paper Competition, CARO & COMP Joint Meeting. (Research Award)

LOCAL
Received
2005 J. Gordon Kaplan Graduate Student Award, University of Alberta. (Distinction)
2002 Louise Imrie Graduate Student Award, University of Alberta. (Distinction)
2000 - 2003 Graduate Teaching Assistantship, University of Alberta. (Distinction)
2000 - 2001 Graduate Intern Tuition Supplement, University of Alberta. (Distinction)
1994 - 1999 Study Scholarship, University of Bucharest, Romania. (Distinction)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Member, American Association of Physicists in Medicine (AAPM)
Member, Canadian College of Medical Physicists (MCCPM)
Member, Canadian Organization of Medical Physicists (COMP)
Teodor STANESCU

Administrative Activities

NATIONAL

Canadian Organization of Medical Physicists (COMP)

Member, COMP Communication Committee

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer

Physics in Medicine and Biology
Medical Physics
Journal of Physics D: Applied Physics
International Journal of Radiation Oncology Biology Physics
Journal of Applied Clinical Medical Physics
Journal of Physics A: Mathematical and Theoretical

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


NON-PEER-REVIEWED GRANTS

FUNDED


D. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


Abstracts


Conference Publications


2. SUBMITTED PUBLICATIONS

Journal Articles


E. Patents and Copyrights

- Patient alignment in MRI guided radiation therapy, Patent, Applied
- Radiotherapy system integrating a radiation source with a magnetic resonance imaging apparatus, Patent, Provisional application in preparation

F. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers

2012 MRigRT: characterization of the composite MR image distortion field associated with organ motion. European Society for Therapeutic Radiology and Oncology (ESTRO). Barcelona, Spain. Stanescu T, Jaffray D.

2012 Development of a 4D-MRI technique for MRgRT. American Association of Physicists in Medicine (AAPM), Annual Scientific Meeting. Charlotte, North Carolina. Stanescu T, Tadic T, Moseley D, Jaffray D.


2011 Quantification of MR image susceptibility distortions for IGRT. European Society for Therapeutic Radiology and Oncology (ESTRO) 11th Biennial Meeting. London, United Kingdom. Stanescu T, Wachowicz K, Jaffray DJ.


Invited Lectures and Presentations

2012 MRgRT: characterization of the composite MR image distortion field associated with organ motion. European Society for Therapeutic Radiology and Oncology (ESTRO). Barcelona, Spain. Stanescu T, Jaffray D.

2012 Development of a 4D-MRI technique for MRgRT. American Association of Physicists in Medicine (AAPM), Annual Scientific Meeting. Charlotte, North Carolina. Stanescu T, Tadic T, Moseley D, Jaffray D.


2011 Quantification of MR image susceptibility distortions for IGRT. European Society for Therapeutic Radiology and Oncology (ESTRO) 11th Biennial Meeting. London, United Kingdom. Stanescu T, Wachowicz K, Jaffray DJ.


Media Appearances

2012 Interview, Radio Romania International.

2. NATIONAL

Abstracts and Other Papers


2007 Comparison of 1.5 T versus 3 T MRI of Brain for Target Delineation in Glioblastoma Multiforme (GBM) patients. Canadian Association of Radiation Oncology – Canadian Organization of Medical Physicists (CARO-COMP), Joint Annual Scientific Meeting. Toronto, Ontario. Pervez N, Al-Dhaibani N, Stanescu T,
Teodor STANESCU

Fallone BG.


2006 Investigation of a 3D MR Distortion Correction Protocol. Canadian Organization of Medical Physicists (COMP), Annual Scientific Meeting. Saskatoon, Saskatchewan. Stanescu T, Jans HS, Fallone BG.


Invited Lectures and Presentations


2006 Investigation of a 3D MR Distortion Correction Protocol. Canadian Organization of Medical Physicists (COMP), Annual Scientific Meeting. Saskatoon, Saskatchewan. Stanescu T, Jans HS, Fallone BG.


Invited Lectures and Presentations

G. Research Supervision

1. GRADUATE EDUCATION

Dr. Alex Vitkin
Correspondence language: English
Sex: Male
Date of Birth: 1/15
Canadian Residency Status: Canadian Citizen
Country of Citizenship: Canada

Contact Information
The primary information is denoted by (*)

Address

<table>
<thead>
<tr>
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<tr>
<td>Alex Vitkin</td>
<td>Alex Vitkin</td>
</tr>
<tr>
<td>MaRS Centre, TMDT 15-313</td>
<td>MaRS Building, TMDT 15-313</td>
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Telephone

| Fax                      | 416-946-6529 |
| Work (*)                 | 416-634-8727 |

Email

| Work (*)                  | alex.vitkin@rmp.uhn.on.ca |

Website

| Corporate                 | http://medbio.utoronto.ca/faculty/vitkin.html |
Dr. Alex Vitkin

Language Skills

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Degrees

1994/12 - 1996/5 Post-doctorate, Clinical Physics Residency, (Radiation Oncology Specialty), Ontario Cancer Institute
Degree Status: Completed
Thesis Title: Clinical Physics Residency (Radiation Oncology Specialty)
Areas of Research: Optics and Photonics
Research Disciplines: Physics
Fields of Application: Industrial Manufacturing and Production

1990/9 - 1994/11 Doctorate, (Medical) Physics, McMaster University
Degree Status: Completed
Thesis Title: Biophysical Studies of Pulsed Photothermal Radiometry in Tissues
Areas of Research: Optics and Photonics
Research Disciplines: Physics
Supervisors: Dr. Brian Wilson
Fields of Application: Industrial Manufacturing and Production

Degree Status: Completed
Thesis Title: Laser Characterization of semi and superconductor materials.
Areas of Research: Laser
Research Disciplines: Physics
Supervisors: Dr. Andreas Mandelis
Fields of Application: Industrial Manufacturing and Production
1981/9 - 1985/5
Bachelor's, B.A.Sc. Engineering Physics, Queen's University at Kingston
Degree Status: Completed
Thesis Title: Solar Energy Conversion via an MHD Generator.
Areas of Research: Laser
Research Disciplines: Physics
Fields of Application: Industrial Manufacturing and Production

Credits

2011/5
P01 Site Visitor and External Advisor, UBC / BCCA Molecular Imaging program, Vancouver, BC

2011/1
Conference Chair, European Conferences on Biomedical Optics (ECBO), Novel Biomedical Techniques & Applications, Munich

2011/1
Site Visitor, NIH P41 Program - Laser Biomedical Research Center, MIT, Boston

2010/1
Site Visitor, Dutch Health R&D Council ZonMW, the Hague

2009/7
SPIE and OSA International Visiting Lecturer, Optical Society of America and Society of Photo-Optical Instrumentation Engineers

2009/1
Visiting Professorship, Department of Physics, University of Cyprus, Nicosia
Biomedical Engineering / Biophotonics

2009/1
Travelling Lecturer Program, Optical Society of America (OSA - Washington, DC)
Ukraine, New Zealand

2008/1
NIH Study Section Member (NCI, NIBIB, NIDDK), ~25 panels since 2003, National Institutes of Health
NCI/NIBIB/NIDDK/NCRR (RO1, R21/R33, SBIR/STTR)

2008/1
Topical Editor, Optics Letters (OSA-Washington, DC)
Biomedical Optics - topical editor since 2007

2007/1
Guest Editor, Journal of Applied Physics (AIP - College Park, MD)
Special Issue on Biophysics (Fall, 2008)

Fields of Application: Biomedical Aspects of Human Health
Areas of Research: Optics and Photonics
Research Disciplines: Optometry

2007/1
The Intl Society for Optical Engineering, SPIE - Visiting Lecturer
Brazil, Russia, Mexico, Taiwan, Cyprus, Germany

Fields of Application: Biomedical Aspects of Human Health
Areas of Research: Optics and Photonics
Research Disciplines: Optometry

2007/1
CIHR Medical Physics & Imaging, Panel Member (2007-present), Canadian Institutes of Health Research
Panel Member, Natural Sciences and Engineering Research Council of Canada
Global Partnerships Program
Fields of Application: Biomedical Aspects of Human Health
Areas of Research: Optics and Photonics
Research Disciplines: Physics

5th International Photonics Summer School, Instituto Nacional de Astrofísica, Óptica y Electrónica
Guest Faculty
Fields of Application: Biomedical Aspects of Human Health
Areas of Research: Optics and Photonics
Research Disciplines: Physics

Annual Site Visitor and Panellist, Center for Integration of Medicine & Innovative Technology (CIMIT), Boston, MA
Annual Site Visitor

CCPM Medical Physics Board Certification (2000 - present), Canadian College of Physicists in Medicine
Radiation Oncology Physics

Conf on Biomedical Optics, Saratov
Guest Faculty, SFM
Fields of Application: Industrial Manufacturing and Production
Areas of Research: Optics and Photonics
Research Disciplines: Physics

CePOF Biophotonics Summer School, Universidade de Sao Paolo
Guest Faculty
Fields of Application: Pathogenesis and Treatment of Diseases
Areas of Research: Optics and Photonics
Research Disciplines: Physics

Task group member on Future of Radiation Medicine, Ministry of Health, Ontario
Radiation Oncology Physics
Fields of Application: Pathogenesis and Treatment of Diseases
Areas of Research: Laser
Research Disciplines: Radiology

Centennial Scholarship, McMaster University
Biophotonics
Fields of Application: Biomedical Aspects of Human Health
Areas of Research: Optics and Photonics
Research Disciplines: Physics

Recognitions

Princess Margaret Cancer Centre
Prize / Award
2012/1 Fellow
Society for Photo-optical Instrumentation Engineers (SPIE)
Distinction

2012/1 Fellow of SPIE and OSA
Optical Society of America and Society of Photo-Optical Instrumentation Engineers
Distinction

2011/11 Conference Chair
European Conferences on Biomedical Optics (ECBO), Novel Biomedical Techniques &
Applications, Munich
Distinction

2011/8 Site Visitor
NIH P41 Program - Laser Biomedical, Research Center, MIT, Boston, United States
Distinction

2010/11 Site Visitor
Dutch Health R&D Council ZonMw, the Hague, Netherlands
Distinction

2009/3 Visiting Professorship
Department of Physics, University of Cyprus, Nicosia, Cyprus
Distinction

2009/1 Conference Chair: Novel Biophotonic Techniques and Applications, Munich, Germany
European Conference on Biomedical Optics ECBO
Distinction

2008/8 Medical Physics & Imaging Panel
Canadian Institutes of Health Research
Distinction

2008/5 Study Section Member, ~25 panels since 2003
National Institutes of Health, United States
Distinction

2008/2 Topical Editor
Optics Letters (OSA-Washington, DC), United States
Distinction

2007/10 The Intl Society for Optical Engineering
SPIE - Visiting Lecturer, United States
Distinction

2007/9 - 2007/10 Conf on Biomedical Optics
Saratov, Russia
Distinction

2007/4 Visiting Lecturer
Society for Photo-optical Instrumentation Engineers (SPIE), Bellingham, USA
Distinction

2007/4 - 2007/5 CePOF Biophotonics Summer School
Universidade de Sao Paolo, Brazil
Distinction

2007/3 Guest Editor
Journal of Applied Physics (AIP - College mark, MD), United States
Distinction
Canadian College of Physicists in Medicine
Distinction

2005/1  5th International Photonics Summer School
Instituto Nacional de Astrofísica, Óptica y Electrónica, Mexico
Distinction

2004/2  Site Reviewer
Center for Integration of Medicine & Innovative Technologies (Boston, MA), United States
Distinction

2003/4 - 2008/4  Premier's Research Excellence Award
Province of Ontario
Prize / Award

2002/10 - 2003/10  Task group member on Future of Radiation Medicine (Ontario)
Ministry of Health, Ontario, Canada
Distinction

1992/3 - 1994/3  Steve Fonyo Ph.D. Studentship - 36,000 (Canadian dollar)
National Cancer Institute of Canada
Prize / Award

User Profile

Engaged in Clinical Research?: No
Research Interests: Biophysics; radiology/radiation biology/nuclear medicine; bioengineering; instrumentation; oncology; photonics; lasers; photobiology
Fields of Application: Biomedical Aspects of Human Health, Pathogenesis and Treatment of Diseases
Disciplines Trained In: Biomedical Engineering and Biochemical Engineering, Physics
Technological Applications: Medical equipment, Radiology / Imaging, Research equipment
Areas of Research: Cancer Diagnosis and Detection, Laser, Optics and Photonics, Radiotherapy
Research Specialization Keywords: biophotonics, functional imaging, medical physics, optical biophysics, optical coherence imaging, optical fiber sensors, optical polarization, photo-thermal therapy, radiation biophysics, radiation therapy
Research Disciplines: Biomedical Engineering and Biochemical Engineering, Physics, Radiology

Employment

Research Disciplines: Physics
Areas of Research: X-Rays
Fields of Application: Biomedical Aspects of Human Health

2007/4  Full Professor
Medical Biophysics & Radiation Oncology, University of Toronto, University of Toronto

2004/6  Senior Scientist
Ontario Cancer Institute

1997/1  Radiation Physicist
Princess Margaret Cancer Centre
2002/6 - 2007/4  Associate Professor  
Medical Biophysics & Radiation Oncology, University of Toronto, University of Toronto

1996/1 - 2004/6  Staff Scientist  
Ontario Cancer Institute

1997/3 - 2002/9  Director  
Radiation Physics Residency Program, Princess Margaret Cancer Centre

1998/1 - 2002/5  Assistant Professor  
Radiation Oncology, University of Toronto, University of Toronto

1994/1 - 1996/12  Resident  
Princess Margaret Cancer Centre

1990/1 - 1994/12  Visiting Researcher  
Massachusetts General Hospital

1985/1 - 1988/12  Scientist  
Xerox Research Centre of Canada

Affiliations
The primary affiliation is denoted by (*)

(*) 2004/6  Senior Scientist, University Health Network

Research Funding History

Awarded [n=5]

2012/11 - 2017/11  Principal Investigator  
Polarimetric Mueller Matrix Imaging in Multiply Scattering Inhomogeneous Birefringent Media

Funding Sources:
2012/11 - 2017/11  Natural Sciences and Engineering Research Council of Canada (NSERC)  
Discovery Grant (Individual)  
Total Funding - 204,000 (Canadian dollar)  
Funding Competitive?: Yes

2013/7 - 2017/7  Principal Investigator  
Development of Novel Optical Coherence Tomography Technologies for Personalized Cancer Medicine

Funding Sources:
2013/7 - 2017/7  Ministry of Education and Science, Russian Federation  
Leading Scientist Mega-Grant  
Total Funding - 3,000,000 (United States dollar)  
Funding Competitive?: Yes

Co-investigator: Gladkova, Natalia; Zagaynova, Elena

2012/5 - 2017/5  Principal Investigator  
Spectroscopic and Textural Optical Coherence Tomography for Structural and Functional Monitoring of Radiation Therapy Effects

Funding Sources:
2012/9 - 2017/9  Canadian Institutes of Health Research (CIHR)  
Operating Grant  
Total Funding - 500,960 (Canadian dollar)  
Funding Competitive?: Yes
Co-investigator: DaCosta, Ralph; Flueraru, Costel

2009/9 - 2012/8  Principal Investigator
Optical Coherence Tomographic Imaging for Monitoring Radiotherapy Complications in the Colon and Rectum

**Funding Sources:**
- 2009/9 - 2012/8  Natural Sciences and Engineering Research Council of Canada (NSERC)
-  Operating Grant Collaborative Health Research Program (CHRP)
-  Total Funding: 457,486 (Canadian dollar)
-  Funding Competitive?: Yes

Co-investigator: Bizheva, Kostadinka; Levin, Wilfred; Yang, Victor

2009/7 - 2012/7  Co-investigator
The Photo-acoustic Radar: Photo-thermo-acoustic Scanning Tomography (PHAST) for Early Assessment of Breast Cancer

**Funding Sources:**
- 2009/7 - 2012/7  Natural Sciences and Engineering Research Council of Canada (NSERC)
-  Operating Grant - Collaborative Health Research Program (CHRP)
-  Total Funding: 407,316 (Canadian dollar)
-  Funding Competitive?: Yes

Principal Investigator: MANDELIS, Andreas

**Completed [n=23]**

2007/4 - 2012/4  Principal Investigator
Spectral Turbid Polarimetry in Birefringent Multiply Scattering Chiral Media

**Project Description:** This research develops experimental and theoretical tools using polarized light to study random disordered media such as biological tissues with structural (birefringent) anisotropy, with potential applications to detection of chiral molecules such as glucose.

**Research Disciplines:** Physics

**Areas of Research:** Laser

**Fields of Application:** Biomedical Aspects of Human Health

**Funding Sources:**
- 2007/4 - 2012/4  Natural Sciences and Engineering Research Council of Canada (NSERC)
-  Operating Grant
-  Total Funding: 203,270 (Canadian dollar)
-  Funding Competitive?: Yes

2007/4 - 2012/3  Co-investigator
CIHR Team in Occlusive Vascular Disease

**Project Description:** The goal is to apply a variety of medical imaging technologies for characterization and intravascular therapeutic guidance of chronic total occlusions (CTO). If successful, patients with cardiovascular CTOs won't have to undergo open-heart bypass surgery, but may be treated with percutaneous angioplastic techniques.

**Research Disciplines:** Physics

**Areas of Research:** Laser

**Fields of Application:** Biomedical Aspects of Human Health
Funding Sources:
2007/4 - 2012/3 Canadian Institutes of Health Research (CIHR)
Operating (team) Grant
Total Funding - 6,809,920 (Canadian dollar)
Funding Competitive?: Yes

Principal Investigator : WRIGHT, Graham

2009/2 - 2012/1 Co-investigator
Probing the Temporal Dynamics of Tumor Cell Kill and Vascular Damage in Radiation Therapy using Optical Molecular Imaging Techniques
Project Description: The goal is the development of radiation therapy techniques for investigating tumor and vascular damage.
Research Disciplines: Radiology
Areas of Research: Optics and Photonics
Fields of Application: Pathogenesis and Treatment of Diseases
Funding Sources:
2009/2 - 2012/1 Canadian Institutes of Health Research (CIHR)
Operating Grant
Total Funding - 351,000 (Canadian dollar)
Funding Competitive?: Yes

Principal Investigator : DACOSTA, Ralph

2007/1 - 2011/12 Co-investigator
Facility for Advanced Bioacoustophotonics
Project Description: This facility will advance novel optical and acousto/electro-optical approaches for oncologic and microfluidic applications.
Research Disciplines: Optometry
Areas of Research: Optical Components, Optical Fibre
Fields of Application: Biomedical Aspects of Human Health
Funding Sources:
2007/1 - 2011/12 Canada Foundation for Innovation (CFI)
Infrastructure
Total Funding - 1,682,421 (Canadian dollar)
Funding Competitive?: Yes

Principal Investigator : MANDELIS, Andreas

2007/1 - 2010/12 Co-investigator
The Regenerative Medicine Project (REMDI)
Funding Sources:
2007/1 - 2010/12 Canada Foundation for Innovation (CFI)
Infrastructure
Total Funding - 7,200,000 (Canadian dollar)
Funding Competitive?: Yes

Principal Investigator : WEISEL, Richard

2005/3 - 2010/3 Principal Investigator
Endoscopic Doppler Optical Coherence Tomography for Gastrointestinal Imaging
Project Description: The goal is to measure and quantify simultaneous blood flow and microstructure of gastrointestinal tissues during human endoscopy. Research projects include incorporation of MEMS devices into a Doppler OCT system at the endoscope tip, and clinical studies in Barrett’s Esophagus patients.
Research Disciplines: Physics
Areas of Research: Laser
Fields of Application: Biomedical Aspects of Human Health

**Funding Sources:**

2005/3 - 2010/3  
Canadian Institutes of Health Research (CIHR)  
Operating Grant  
Total Funding - 575,500 (Canadian dollar)  
Funding Competitive?: Yes

### 2007/1 - 2010/1  
**Principal Investigator**

Optical Monitoring and Control of Focal Laser Thermal Therapy of Prostate Cancer

**Project Description:** The goal is to develop feedback control, based on interstitial optical measurements, for optimization, delivery, and verification of focal interstitial laser thermal therapy of prostate cancer.

**Research Disciplines:** Physics

**Areas of Research:** Prostate Cancer

**Fields of Application:** Pathogenesis and Treatment of Diseases

### 2003/4 - 2008/4  
**Principal Investigator**

Towards Cellular and Microvascular Subsurface Tissue Imaging Using Optical Coherence Tomography

**Project Description:** This research improves the science and engineering of optical coherence tomography (OCT), in order to increase its spatial and flow resolutions for in-vivo biomedical imaging.

**Research Disciplines:** Physics

**Areas of Research:** Laser

**Fields of Application:** Biomedical Aspects of Human Health

**Funding Sources:**

2003/4 - 2008/4  
Government of Ontario (Ottawa, ON)  
Operating Grant - Premier's Research Excellence Award  
Total Funding - 150,000 (Canadian dollar)  
Funding Competitive?: Yes

### 2005/5 - 2007/9  
**Principal Investigator**

Development and Applications of in vivo Doppler Optical Coherence Tomography

**Project Description:** The goal is core technology development of Doppler OCT and proof-of-principle demonstrations in interstitial, intravascular and ophthalmic scenarios.

**Research Disciplines:** Physics

**Areas of Research:** Optics and Photonics

**Fields of Application:** Biomedical Aspects of Human Health

**Funding Sources:**

2005/5 - 2007/9  
Ontario Center of Excellence (OCE)  
Operating Grant  
Total Funding - 200,000 (Canadian dollar)  
Funding Competitive?: Yes

### 2006/6 - 2007/6  
**Co-investigator**

Shared Spectroscopy Instrumentation for Biophotonics Research and Beyond

**Project Description:** This money will be used to purchase state-of-the-art absorption spectrometer / fluorimeter, with further in-house developments to enable enhanced polarimetry/integrating sphere measurements suitable for tissue optics.
Research Disciplines: Physics
Areas of Research: Laser
Fields of Application: Pathogenesis and Treatment of Diseases

Funding Sources:
2006/6 - 2007/6 Natural Sciences and Engineering Research Council of Canada (NSERC)
   Equipment Grant
   Total Funding - 65,000 (Canadian dollar)
   Funding Competitive?: Yes

Principal Investigator : LILGE, Lothar

2001/1 - 2006/12 Ontario Consortium for Image Guided Therapy and Surgery
Co-investigator
Project Description: The research goal of this large provincial consortium, with a
significant national/international industry matching component (33%), is to integrate novel
technological approaches into the current and upcoming therapeutic interventions.

Research Disciplines: Biology and Related Sciences
Areas of Research: Optics and Photonics
Fields of Application: Biomedical Aspects of Human Health

Funding Sources:
2001/1 - 2006/12 Ontario Research Development Challenge Fund (ORDCF)
   Operating (team) Grant
   Total Funding - 16,000,000 (Canadian dollar)
   Funding Competitive?: Yes

Principal Investigator : SHERAR, Michael

2002/4 - 2006/3 Spectral Polarization Studies in Multiply Scattering Chiral Media
Principal Investigator
Project Description: This research develops experimental and theoretical tools using
polarized light to study random disordered media such as biological tissues, with potential
applications to detection of chiral molecules such as glucose.

Research Disciplines: Physics
Areas of Research: Laser
Fields of Application: Pathogenesis and Treatment of Diseases

Funding Sources:
2002/4 - 2006/3 Natural Sciences and Engineering Research Council of Canada (NSERC)
   Operating Grant
   Total Funding - 145,600 (Canadian dollar)

Principal Investigator : Vitkin, Alex

2003/1 - 2005/12 Optical Monitoring and Control of Thermal Therapy for Recurrent Prostate Cancer
Co-investigator
Project Description: The goal is to develop feedback control, based on interstitial optical
measurements, for optimization, delivery, and verification of focal interstitial laser thermal
therapy of prostate cancer.

Research Disciplines: Physics
Areas of Research: Optics and Photonics
Fields of Application: Biomedical Aspects of Human Health
Funding Sources:
2003/1 - 2005/12 National Cancer Institute of Canada (NCIC)
Operating Grant
Total Funding - 225,500 (Canadian dollar)

Principal Investigator: WHELAN, W.M.; Vitkin, Alex

2003/12 - 2005/12
Broadband Tunable Optical Source for Biomedical Imaging using Optical Coherence Tomography
Project Description: The goal is to develop a practical, tunable broadband CW optical source for high-resolution OCT imaging.
Research Disciplines: Physics
Areas of Research: Laser
Fields of Application: Biomedical Aspects of Human Health

Funding Sources:
2003/12 - 2005/12 Natural Sciences and Engineering Research Council of Canada (NSERC)
Operating Grant - Collaborative Health Research Program
Total Funding - 336,000 (Canadian dollar)

Principal Investigator: TIEDJE, T; Vitkin, Alex

2002/4 - 2005/3
Optical Monitoring and Control of Thermal Therapy for Recurrent Prostate Cancer
Project Description: The goal is the development of a monitoring technology (based on interstitial optical measurements) and control strategy (based on fuzzy logic controller) to optimize the delivery of thermal therapy in prostate.
Research Disciplines: Physics
Areas of Research: Prostate Cancer
Fields of Application: Pathogenesis and Treatment of Diseases

Funding Sources:
2002/4 - 2005/3 National Cancer Institute of Canada (NCIC)
Operating Grant
Total Funding - 286,419 (Canadian dollar)

Principal Investigator: WHELAN, W.M.; Vitkin, Alex

2003/4 - 2005/3
Technologies and Applications for in-vivo Optical Diagnostics: Surgical Fluorescence Guidance and Endoscopic Optical Coherence Tomography
Project Description: Develop technologies and application for in vivo optical diagnosis, use of fluorescence guidance and endoscopic optical tomography in surgery.
Research Disciplines: Physics
Areas of Research: Optics and Photonics
Fields of Application: Pathogenesis and Treatment of Diseases

Funding Sources:
2003/4 - 2005/3 Ontario Center of Excellence (OCE)
Operating Grant
Total Funding - 239,200 (Canadian dollar)

Principal Investigator: WILSON, Brian C.; Vitkin, Alex

2001/4 - 2004/3
Optical Coherence Microscopy for in-vivo Skin and Endoscopic Gastrointestinal Imaging

Principal Investigator
Project Description: The goal of this work was to build a clinical OCT imaging system and perform dermatological and GI endoscopic studies, for disease characterization and treatment response monitoring.

Research Disciplines: Physics

Areas of Research: X-Rays

Fields of Application: Pathogenesis and Treatment of Diseases

**Funding Sources:**

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<td>Canadian Institutes of Health Research (CIHR) Operating Grant</td>
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<td>Total Funding - 310,398 (Canadian dollar)</td>
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Principal Investigator: Vitkin, Alex

**Co-investigator**

**2002/4 - 2004/3**

Opto-Acoustic Imaging in Turbid Biological Media

Project Description: This work deals with the biomedical applications of frequency-domain photo-acoustic imaging, specifically technique development to enable detection of deep-seated tumours and to monitor treatment progression.

Research Disciplines: Physics

Areas of Research: Laser

Fields of Application: Pathogenesis and Treatment of Diseases

**Funding Sources:**

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<td>Total Funding - 329,554 (Canadian dollar)</td>
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Principal Investigator: MANDELIS, Andreas; Vitkin, Alex

**Co-investigator**

**2001/4 - 2003/3**

Technologies and Applications for in-vivo Clinical Diagnostics

Project Description: The goal of this research is to bring several biophotonics technologies into the clinic, focussing on the development of fluorescence, Raman, and optical coherence tomography endoscopic systems for GI studies.

Research Disciplines: Physics

Areas of Research: Cancer Diagnosis and Detection

Fields of Application: Pathogenesis and Treatment of Diseases

**Funding Sources:**

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<td>Ontario Center of Excellence (OCE) Operating Grant</td>
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<td>Total Funding - 301,500 (Canadian dollar)</td>
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Principal Investigator: WILSON, Brian C.; Vitkin, Alex

**Co-investigator**

**2002/1 - 2002/12**

Facility for Fundamental Biophysics Research and Development of Minimally Invasive Therapies

Project Description: This facility will house state-of-the-art technologies to monitor, guide, and control cancer thermal therapies such as opto-acoustic imager, interstitial fluence/radiance monitoring system, and fuzzy logic controller.

Research Disciplines: Physics

Areas of Research: Cancer Diagnosis and Detection

Fields of Application: Pathogenesis and Treatment of Diseases
Funding Sources:
2002/1 - 2002/12  Canada Foundation for Innovation (CFI)
Infrastructure Grant
Total Funding - 612,416 (Canadian dollar)

Principal Investigator : WHELAN, W.M.; Vitkin, Alex

1999/4 - 2001/3
Treatment Optimization and Control of Interstitial Thermal Therapy for Prostate Cancer
Co-investigator

Project Description: The goal of this work was to compare and optimize the different modalities for interstitial thermal coagulation, including laser, microwave, and ultrasound applicators.

Research Disciplines: Radiology
Areas of Research: Prostate Cancer
Fields of Application: Pathogenesis and Treatment of Diseases

Funding Sources:
1999/4 - 2001/3  National Cancer Institute of Canada (NCIC)
Operating Grant
Total Funding - 305,500 (Canadian dollar)

Principal Investigator : SHERAR, M.D.; Vitkin, Alex

1997/4 - 2001/3
Optical Polarization Studies in Multiply Scattering Chiral Media
Principal Investigator

Project Description: This research aims to understand the fundamental physics and biophysics of polarized light interaction with scattering media with and/or without chiral molecules such as glucose.

Research Disciplines: Physics
Areas of Research: Optics and Photonics
Fields of Application: Biomedical Aspects of Human Health

Funding Sources:
1997/4 - 2001/3  Natural Sciences and Engineering Research Council of Canada (NSERC)
Operating Grant
Total Funding - 92,400 (Canadian dollar)

Principal Investigator : Vitkin, Alex

2000/1 - 2000/12
High-Resolution Optical Coherence Microscopy System
Principal Investigator

Project Description: The goal of this work was to design, build, and characterize the biomedical performance of a high-resolution, multiple-channel optical coherence tomography (OCT) system suitable for subsurface tissue imaging.

Research Disciplines: Physics
Areas of Research: Optics and Photonics
Fields of Application: Biomedical Aspects of Human Health

Funding Sources:
2000/1 - 2000/12  Natural Sciences and Engineering Research Council of Canada (NSERC)
Equipment Grant
Total Funding - 106,692 (Canadian dollar)

Principal Investigator : Vitkin, Alex
Early Diagnosis and Targeted Therapies of Lung Cancer

Project Description: The goals of this project grant are to discover novel, lung-cancer-specific biomarkers and novel therapeutic targets, while simultaneously developing noninvasive early diagnostic tools and targeted therapies to impact on the lung cancer burden.

Research Disciplines: Radiology

Areas of Research: Lung Cancer

Fields of Application: Industrial Manufacturing and Production

Funding Sources:

2010/2 - 2013/1 National Cancer Institute of Canada (NCIC)
Operating (team) Grant
Total Funding - 4,411,930 (Canadian dollar)
Funding Competitive?: Yes

Principal Applicant : TSAO, Ming

Biophysical Studies of Microwave-, Ultrasound-, and Laser-induced Thermal Lesions: Application to Minimally Invasive Thermal Therapy

Project Description: The goal of this grant was to investigate the biophysics of thermal lesion formation as induced by different energy sources.

Research Disciplines: Physics

Areas of Research: Laser

Fields of Application: Biomedical Aspects of Human Health

Funding Sources:

1996/4 - 1999/3 National Cancer Institute of Canada (NCIC)
Operating Grant
Total Funding - 157,500 (Canadian dollar)

Principal Investigator : SHERAR, M.D.; Vitkin, Alex

Optical Coherence Reflectometry Development for Gastrointestinal Endoscopic Imaging

Project Description: The goal of this work was to design a bench-top free space OCT imaging system.

Research Disciplines: Physics

Areas of Research: Laser

Fields of Application: Biomedical Aspects of Human Health

Funding Sources:

1998/1 - 1998/12 University of Toronto
Connaught New Staff Matching Grants
Total Funding - 30,000 (Canadian dollar)
Principal Investigator : Vitkin, Alex

1992/1 - 1994/1, Fellowship

**Funding Sources:**

- 1992/1 - 1994/1 National Cancer Institute of Canada
- Steve Fonyo Ph.D. Studentship
- Total Funding - 36,000

1990/1 - 1992/1, Fellowship

**Funding Sources:**

- 1990/1 - 1992/1 NSERC
- Post Graduate
- Total Funding - 32,000

1988/1 - 1989/1, Fellowship

**Funding Sources:**

- 1988/1 - 1989/1 Ontario Laser & Lightwave Research Centre
- Total Funding - 30,000

---

**Student/Postdoctoral Supervision**

**Master’s Thesis [n=7]**

**Co-Supervisor** Burgess, Laura (In Progress) , University of Toronto
- Student Degree Start Date: 2012/9
- Project Description: OCT imaging of oral cancer PDT treatments
- Present Position: MSc Student

**Co-Supervisor** Lloyd, Brendan (Completed) , Odette Cancer Centre
- Student Degree Start Date: 2005/9
- Student Degree Received Date: 2008/1
- Project Description: Optical fiber sensors for laser thermal therapy monitoring
- Present Position: Research Associate

**Principal Supervisor** Sarah Forward (In Progress) , University of Toronto
- Student Degree Start Date: 2015/9
- Thesis/Project Title: “Tissue polarimetry for fast in-vivo tissue measurements”
- Present Position: MSc Student

**Principal Supervisor** Weatherbee, Andrew (In Progress) , University of Toronto
- Student Degree Start Date: 2012/9
- Thesis/Project Title: “M-mode OCT for blood viscosity quantification and glucose monitoring”
- Project Description: M-mode OCT for blood viscosity quantification and glucose monitoring
- Present Position: MSc Student

**Principal Supervisor** Lindenmaier, Andras (In Progress) , University of Toronto
- Student Degree Start Date: 2011/9
- Thesis/Project Title: Spectroscopic and textural optical coherence tomography for early radiobiological effects detection in irradiated tissues
- Project Description: Spectroscopic and textural optical coherence tomography for early radiobiological effects detection in irradiated tissues
- Present Position: MSc Student
2010/9 - 2012/8
Leigh Conroy (Completed), University of Toronto
Principal Supervisor
Thesis/Project Title: Shedding light on radiotherapy: optical coherence and fluorescence monitoring of early radiobiological vascular effects in irradiated tissues
Present Position: Graduated

2008/9 - 2010/8
Archambault-Wallenburg, Marika (Completed), McGill University
Principal Supervisor
Student Degree Start Date: 2008/9
Student Degree Received Date: 2010/9
Thesis/Project Title: Turbid polarimetry and 2nd harmonic generation microscopy for measuring tissue anisotropy
Project Description: Turbid polarimetry and 2nd harmonic generation microscopy for measuring tissue anisotropy
Present Position: PhD

Doctorate [n=14]
Ashraf, Sumara (In Progress)
Principal Supervisor
Student Degree Start Date: 2013/9
Project Description: Speckle-variance OCT for viscosity contrast enhancement and glucose quantification

Damodaran, Vani (Completed)
Principal Supervisor
Student Degree Start Date: 2012/9
Student Degree Received Date: 2013/3
Project Description: Microvascular analysis of OCT images from late radiation toxicity patients

Ullah, Hafeez (Completed), Islamabad, Pakistan
Principal Supervisor
Student Degree Start Date: 2010/9
Student Degree Received Date: 2011/3
Project Description: Speckle-variance OCT for viscosity-based contrast enhancement and tissue microvascular imaging
Present Position: PhD Student

Ahmad, Manzoor (Completed), Islamabad, Pakistan
Principal Supervisor
Student Degree Start Date: 2010/9
Student Degree Received Date: 2011/3
Project Description: Refractive index profiles of multiply scattering media: effects on polarimetric investigations of tissue
Present Position: PhD Student

Munce, Nigel (Completed), McMaster University
Principal Supervisor
Student Degree Start Date: 2002/1
Student Degree Received Date: 2009/1
Project Description: OCT and MR for vascular imaging
Present Position: Medical School

Demidov, Valentin (In Progress), University of Toronto
Principal Supervisor
Student Degree Start Date: 2013/9
Thesis/Project Title: “Vascular OCT for radiotherapeutic quantification”
Project Description: Vascular OCT for radiotherapeutic quantification
Present Position: PhD Student

Gribble, Adam (In Progress), University of Toronto
Principal Supervisor
Student Degree Start Date: 2012/9
Thesis/Project Title: “Tissue polarimetry for extracellular matrix anisotropy measurements”
Project Description: Tissue polarimetry for extracellular matrix anisotropy measurements.
Present Position: PhD Student
<table>
<thead>
<tr>
<th>Year Range</th>
<th>Name</th>
<th>University</th>
<th>Degree Start Date</th>
<th>Degree Received Date</th>
<th>Thesis/Project Title</th>
<th>Project Description</th>
<th>Present Position</th>
<th>Areas of Research</th>
<th>Research Disciplines</th>
<th>Fields of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/9 - 2014/12</td>
<td>Alali, Sanaz (Completed)</td>
<td>University of Toronto</td>
<td>2011/1</td>
<td>2014/12</td>
<td>“Tissue birefringence probed with polarized light: technology development and biomedical applications”</td>
<td>Tissue birefringence probed with polarized light: technology development and biomedical applications in urology.</td>
<td>Post-doc, Harvard University</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009/9 - 2014/12</td>
<td>Davoudi, Bahar (In Progress)</td>
<td>University of Toronto</td>
<td>2009/9</td>
<td></td>
<td>&quot;Structural, Doppler and speckle-variance OCT for monitoring late radiotherapy complications in upper and lower GI&quot;</td>
<td>Structural, Doppler and speckle-variance OCT for monitoring late radiotherapy complications in the rectum and colon</td>
<td>PhD Student</td>
<td></td>
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<tr>
<td>2004/9 - 2010/8</td>
<td>Mariampillai, Adrian (Completed)</td>
<td>University of Toronto</td>
<td>2005/9</td>
<td>2010/8</td>
<td>“High resolution microvascular imaging with OCT: applications to photodynamic therapy and beyond”</td>
<td>Speckle variance and Doppler OCT for sensitive imaging of tissue microvasculature</td>
<td>Post-doc, Ryerson University</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004/9 - 2010/8</td>
<td>Wood, Mike (Completed)</td>
<td>University of Toronto</td>
<td>2004/9</td>
<td>2011/3</td>
<td>“Spectral polarimetry in turbid chiral media in the presence of birefringence”</td>
<td>Spectral polarimetry in turbid chiral media in the presence of birefringence</td>
<td>Program Manager at Synaptive Medical, Toronto</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000/9 - 2004/8</td>
<td>Yang, Victor (Completed)</td>
<td>University of Toronto</td>
<td>2000/9</td>
<td>2004/8</td>
<td>&quot;Development and applications of Doppler OCT&quot;</td>
<td>&quot;Development and applications of Doppler OCT&quot;</td>
<td>Neurosurgeon, Sunnybrook Hospital</td>
<td></td>
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</tbody>
</table>
1999/9 - 2008/8

Chin, Lee (Completed) , Odette Cancer Centre
Student Degree Start Date: 1999/9
Student Degree Received Date: 2008/10
Thesis/Project Title: "Optical fluence and radiance measurements for prostate laser photo-coagulation: treatment monitoring and control"
Project Description: Optical fluence measurements for prostate laser photo-coagulation: treatment monitoring and control
Present Position: Radiation Physicist, Odette Cancer Centre, Toronto

Post-doctorate [n=8]

Principally Sponsored: Yu (George) Liu, (Completed), Gen Photonics Corp
Student Degree Start Date: 2006/3
Student Degree Received Date: 2008/1
Project Description: Development of a frequency-swept Doppler OCT system for bioimaging
Present Position: Scientist

Principally Sponsored: Jafari Shapoorabadi Reza (Completed), Tehran University
Student Degree Start Date: 2004/9
Student Degree Received Date: 2005/9
Project Description: MEMS/Doppler OCT tip design
Present Position: Faculty

Principally Sponsored: Mao Linda (Completed), NRC, Ottawa
Student Degree Start Date: 2003/9
Student Degree Received Date: 2006/8
Project Description: Optical fiber sensors and probes for interstitial Doppler OCT
Present Position: Research Scientist

Principally Sponsored: Qi Bing (Completed), U of Toronto
Student Degree Start Date: 2002/9
Student Degree Received Date: 2004/3
Project Description: High-resolution Optical Coherence Tomography (OCT) system: MEMS-enabled dynamic focus tracking
Present Position: Junior Faculty

Principally Sponsored: Katz Sharon (Completed), U of Windsor
Student Degree Start Date: 1999/9
Student Degree Received Date: 2001/8
Project Description: OCT characteristics in model systems: spheroid and cell suspension studies
Present Position: Junior Faculty

2015/6

Mitsuro Sugita (In Progress), University of Toronto
Student Degree Start Date: 2015/8
Thesis/Project Title: "OCT speckle statistics, flow and Brownian motion parameters"
Present Position: Postdoctoral Fellow

2007/10

Ghosh, Nirmalya (Completed), University of Toronto
Student Degree Start Date: 2007/1
Student Degree Received Date: 2010/1
Thesis/Project Title: "Mueller matrix polarimetry in bulk biological tissues"
Project Description: Mueller matrix decomposition for extracting intrinsic biophysical parameters from tissue polarimetry
Present Position: Professor, Calcutta, India
2002/9 - 2004/8
Principal Supervisor
Cote, Daniel (Completed), University of Toronto
Student Degree Start Date: 2002/9
Student Degree Received Date: 2004/9
Thesis/Project Title: "Modeling and measurements of polarized light propagation in turbid media"
Project Description: Modeling and measurements of polarized light propagation in turbid media
Present Position: Associate Professor, University of Laval (Canada Research Chair)

Level Not Specified [n=8]
- 2007/2
Principal Supervisor
Guo, Xin Xin (Completed)
Student Degree Start Date: 2005/9
Student Degree Received Date: 2007/2
Thesis/Project Title: Optical polarization effects in biomedicine-measuring scattered light effects for tissue characterization
Areas of Research: Laser
Research Disciplines: Physics
Fields of Application: Industrial Manufacturing and Production
Co-Supervisor
Lloyd, Brendan (In Progress)
Student Degree Start Date: 2005/9
Thesis/Project Title: Optical fiber sensors for laser thermal therapy monitoring
Areas of Research: Laser
Research Disciplines: Physics
Fields of Application: Industrial Manufacturing and Production
Principal Supervisor
Mariampillai, Adrian (In Progress)
Student Degree Start Date: 2005/9
Thesis/Project Title: Frequency domain Doppler optical coherence tomography for bioimaging
Areas of Research: Laser
Research Disciplines: Physics
Fields of Application: Industrial Manufacturing and Production
- 2005/9
Principal Supervisor
Shapoorabadi, Reza Jafari (Completed)
Student Degree Start Date: 2004/9
Student Degree Received Date: 2005/9
Thesis/Project Title: MEMS/Doppler OCT tip design
Areas of Research: Laser
Research Disciplines: Physics
Fields of Application: Industrial Manufacturing and Production
Co-Supervisor  Rink, Alexandra (In Progress)
Student Degree Start Date: 2003/1
Thesis/Project Title: Radiation dosimeters using fiber optic read-out
Project Funding Sources: National Cancer Institute of Canada (NCIC)
Areas of Research: Laser
Research Disciplines: Physics
Fields of Application: Industrial Manufacturing and Production

Principal Supervisor  Spirou Gloria (Completed), Detroit, USA
Student Degree Start Date: 2002/9
Student Degree Received Date: 2005/9
Project Description: Monitoring changes in tissue opto-acoustic properties during and following thermal therapies
Present Position: Medical Physicist

Principal Supervisor  Gordon Maggie (Completed), Ottawa
Student Degree Start Date: 1999/9
Student Degree Received Date: 2004/9
Project Description: OCT and Doppler OCT: compensation methods for high-resolution imaging, treatment monitoring of radiation therapy
Present Position: Medical Student

Co-Supervisor  Iizuka Megumi (Completed), U of Toronto
Student Degree Start Date: 1996/9
Student Degree Received Date: 1998/6
Project Description: Optical & thermal modelling for laser thermo-therapy
Present Position: MSc student

Presentations

1. (2014). Diagnostic Photomedicine: Light for Biomedical Uses. National University of Ireland, Galway, Ireland
   Main Audience: Researcher
   Invited?: Yes

   Main Audience: Researcher
   Invited?: Yes

3. (2014). Plenary address. OSA Europe Annual Congress, Prague, Czech Republic
   Main Audience: Researcher
   Invited?: Yes

   Main Audience: Researcher
   Invited?: Yes

   International Symposium on Topical Problems in Biophotonics, Nizhny Novgorod, Russian Federation
   Main Audience: Researcher
   Invited?: Yes
Main Audience: Researcher
Invited?: Yes

7. (2013). OCT functional monitoring of photodynamic therapy progress. National Taiwan University,
Biomedical Engineering rounds, Taipei, Taiwan, Province of China
Main Audience: Researcher
Invited?: Yes

Main Audience: Researcher
Invited?: Yes

of Otago LART Symposium, Dunedin, New Zealand
Main Audience: Researcher
Invited?: Yes

10. (2013). Imaging tissue microvasculature with Doppler and speckle variance OCT. National Cheng-Kung
University, Physics seminar series, Tainan, Taiwan, Province of China
Main Audience: Researcher
Invited?: Yes

11. (2013). Design and feasibility of a fiber-based multichannel optical coherence tomography system. Russian
Academy of Sciences, Institute of Applied Physics SPIE Student chapter invited lecturer, Nizhny Novgorod,
Russian Federation
Main Audience: Researcher
Invited?: Yes

12. (2013). National Taiwan University. Biomedical Engineering Rounds, Taiwan, Province of China
Main Audience: Researcher
Invited?: Yes

13. (2013). The effects of tissue on light – an introduction to optical diagnostics in medicine. Institute of Bio-
Organic Chemistry rounds, Moscow, Russian Federation
Main Audience: Researcher
Invited?: Yes

microvascular applications. TBRRR Medical Imaging Summer School, Thunder Bay, Canada
Main Audience: Researcher

15. (2012). Functional optical coherence tomography for tissue microvascular studies: beyond Doppler
imaging?. SPIE Photonics Europe: Biophotonic Solutions for Better Health Care, Belgium
Main Audience: Researcher

changes in irradiated tissues. McGill University, OSA Student chapter invited lecturer, Montreal, Canada
Main Audience: Researcher

17. (2012). Wreaking havoc with polarized light: probing tissue structure and composition. McMaster University,
SPIE Student chapter invited lecturer, Hamilton, Canada
Main Audience: Researcher

Photonics North, Bio-Medical-Infection conference, Montreal, Canada
Main Audience: Researcher

19. (2011). Shedding light on radiotherapy. Albert Einstein College of Medicine, Bronx, United States
Main Audience: Researcher
   Main Audience: Researcher
   Main Audience: Researcher
22. (2011). Optical polarization studies in random media: applications to biological tissue analysis. Young Scientist’s Conference on Radiophysics, Electronics, Photonics and Biophysics, Kharkov, Ukraine
   Main Audience: Researcher
   Main Audience: Researcher
24. (2011). Photonics for medicine: phototherapeutics and photodiagnostics. Information Photonics, Ottawa, Canada
   Main Audience: Researcher
   Main Audience: Researcher
26. (2010). Biophotonic imaging of tissue structure and vasculature using optical coherence tomography. University of Wisconsin, SPIE Student chapter invited lecturer, Madison, United States
   Main Audience: Researcher
27. (2010). Biophotonic imaging of tissue structure and vasculature using optical coherence tomography. Johns Hopkins joint ECE+BME departmental seminar, Baltimore, United States
   Main Audience: Researcher
   Main Audience: Researcher
29. (2010). The effects of tissue on light – an introduction to optical diagnostics in medicine. Tumour Microenvironment Symposium, Toronto, Canada
   Main Audience: Researcher
30. (2010). Using wave properties of laser light to assess biological tissues. CREOL LaserFest symposium, University of Central Florida - plenary, Orlando, United States
   Main Audience: Researcher
   Main Audience: Researcher
32. (2010). Imaging tissue microvasculature with Doppler and speckle variance OCT. Biomedical Engineering Rounds, Oregon Health Sciences University, Portland, United States
   Main Audience: Researcher
33. (2010). Biomedical optics – the why, the how, and the wow. University of Prince Edward Island, Physics rounds, Charlottetown, Canada
   Main Audience: Researcher
34. (2010). Optics in medicine and biology: using light to see fine detail inside the human body. Ohio State University, SPIE Student chapter invited lecturer, Columbus, United States
   Main Audience: Researcher
35. (2010). Sub-surface tissue imaging with optical coherence tomography - basics, applications, instrumentation. Canadian Association of Physicists Annual Meeting, Toronto, Canada
   Main Audience: Researcher

36. (2009). Lasers in medicine: effects of light on tissue (therapy) and of tissue of light (diagnosis). Biophotonics Lecture Series, Faculty of Science, University of Cyprus, Nicosia, Cyprus
   Main Audience: Researcher

   Main Audience: Researcher

   Main Audience: Researcher

39. (2009). Doppler optical coherence tomography for monitoring changes during and following photodynamic therapy. Brody School of Medicine Grand Rounds, Greenville, United States
   Main Audience: Researcher

40. (2009). Biomedical optics – the why, the how, and the wow. Canada-USA-Mexico Physics Conference, Acapulco, Mexico
   Main Audience: Researcher

   Main Audience: Researcher

42. (2009). Doppler OCT for functional tissue assessment: a light at the end of the tunnel?. SAOT International Workshop on Clinical Photonics, Erlangen, Germany
   Main Audience: Researcher

43. (2009). Polarized light for photo-diagnosis, with potential glucose monitoring applications. Waterloo Lecture Series in Medical Physics, Waterloo, Canada
   Main Audience: Researcher

44. (2009). Imaging tissue microstructure and blood perfusion: what’s light got to do with it?. Lester Wolfe Biophotonics Workshop, Boston, United States
   Main Audience: Researcher

45. (2008). Design and feasibility of a fiber-based multichannel optical coherence tomography system. University of Houston, Biomedical Engineering seminar, Houston, United States
   Main Audience: Researcher

46. (2008). Photonics for medicine: phototherapeutics and photodiagnostics. Center for Optics, Photonics, and Lasers rounds, Universite Laval, Quebec City, Canada
   Main Audience: Researcher

   Main Audience: Researcher

   Main Audience: Researcher

   Main Audience: Researcher
Main Audience: Researcher

51. (2008). The effects of tissue on light – an introduction to optical diagnostics in medicine. SPIE Visiting Lectureship Series, National Taiwan University, Taiwan, Province of China
Main Audience: Researcher

52. (2008). Photon mayhem: polarized light for photo-diagnosis?. Laser Applications in Life Sciences, Taiwan, Province of China
Main Audience: Researcher

53. (2008). Biophotonics: a general overview with specific (OCT, polarimetry) examples. Harvard Medical School / Mass General Hospital Photomedicine, Boston, United States
Main Audience: Researcher

54. (2008). Doppler OCT in GI endoscopy. Image-Guided Therapeutics colloquium, University Health Network, Toronto, Canada
Main Audience: Researcher

Publications

Journal Articles

Published,

Published,

Published,

Submitted,

Published,


Published,

Published,


Book Chapters


5. Depeursinge CD, Vikin IA. (2010). Novel Optical Instrumentation for Biomedical Applications IV. Depeursinge CD and Vitkin IA (editors). Progress in Biomedical Optics and Imaging SPIE-OSA. (7371) Co-Author Published,


Intellectual Property

Patents


Curriculum Vitae

Robert A. Weersink
PhD, MCCPM

A. Date Curriculum Vitae is Prepared: 2016 August 26

B. Biographical Information

Primary Office
Radiation Medicine Program, Princess Margaret Cancer Centre, University Health Network
610 University Ave
Toronto, Ontario, Canada
M5G 2M9
Telephone 416 946 4501 x5740
Fax 416 946 6529
Email robert.weersink@rmp.uhn.on.ca

1. EDUCATION

Degrees
1988 - 1994 PhD, Chemical Physics, Chemistry, University of Toronto, Supervisor(s): Dr. S.C. Wallace
1984 - 1988 BSc, Chemistry, Western University

Postgraduate, Research and Specialty Training
2009 - 2011 Resident, Physics, Clinical Physics Residency Program, Department of Radiation Oncology, University of Toronto

Qualifications, Certifications and Licenses
2012 - present Member (CCPM certification), Radiation Oncology, Canadian College of Physicists in Medicine, Montreal, Canada

2. EMPLOYMENT

Current Appointments
2012 - present Affiliated Faculty, Techna Institute, University Health Network, Toronto
2008 - present Adjunct Professor, Department of Physics, Ryerson University, Toronto, Ontario

Previous Appointments
RESEARCH
2004 - 2006 Director of Operations, Laboratory for Applied Biophotonics, Ontario Cancer Institute, University Health Network
Robert A. WEERSINK

2002 - 2004  Director of Operations, Biophotonics Facility, Photonics Research Ontario, Ontario Cancer Institute
1997 - 2002  Senior Staff Scientist, Biophotonics Facility, Photonics Research Ontario, Ontario Cancer Institute
1996 - 1998  Research Associate/Lab Manager, Department of Medical Biophysics, Hamilton Regional Cancer Centre, Hamilton

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

1988 - 1993  Postgraduate Scholarship, Natural Sciences and Engineering Research Council of Canada (NSERC). (Distinction)
1987  Summer Research Award, Natural Research Council, Steacie Institute. (Research Award)

LOCAL

Received

2010  J.R. Cunningham Award for Academic Excellence in Research by a Physics Trainee, Department of Radiation Oncology, University of Toronto. (Research Award)

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2011 - present  Member, Canadian Organization of Physics in Medicine

Peer Review Activities

MANUSCRIPT REVIEWS

Reviewer
2013  International Journal of Computer Assisted Radiology and Surgery, Number of Reviews: 1
2013  International Journal of Radiation Biology, Number of Reviews: 1
2012 - 2014  Medical Physics, Number of Reviews: 4
2004 - 2013  Physics in Medicine and Biology, Number of Reviews: 5
2004 - 2012  Journal of Biomedical Optics, Number of Reviews: 3
2004 - 2012  Optics Letters, Number of Reviews: 6
2004 - 2008  Photochemistry and Photobiology, Number of Reviews: 3
   Journal of Photochemistry and Photobiology
C. Academic Profile

1. RESEARCH STATEMENTS

2010 - present Integration of non-volumetric spatially localized information with volumetric imaging. Radiological imaging is the primary dataset used in planning and guiding procedures in image-guided surgery, radiation therapy and interventional radiology, providing exact spatial information of disease location. Non-volumetric information, such as endoscopy and pathology also provide important clinical information that is typically disconnected from the spatial mapping provided by the radiological imaging. We are developing methods of spatially mapping and integrating this non-volumetric information with the standard radiological imaging as an aid in image-guided surgery and radiation treatment planning and response monitoring.

2009 - present Integrating Functional Optical Imaging with a Small Animal Imaging Irradiation Device. We have integrated optical imaging with an existing image-guided small animal irradiator system, for the acquisition of planar and tomographic optical data. This integration enables accurate registration of high resolution anatomical imaging provided by the on-board cone-beam computed tomography and functional imaging provided by the optical imaging. The registration provides improved targeting of the radiation treatment and offers longitudinal tracking of tumor response of small animal models treated using the system. Future developments include the addition of fluorescence imaging and inter-fraction response monitoring using the optical imaging.

2001 - present Treatment Planning and Response monitoring of locally ablative therapies. Focal treatments localized to a visible tumour site through image-guided procedures have been developed for indications varying from prostate (photothermal and photodynamic), liver (radio frequency ablation) and lung (photothermal and radiofrequency). Successful application of these therapies requires improved methods of treatment planning (to ensure accurate targeting of the target volume) and response monitoring (to ensure complete treatment). We have been developing advanced methods of treatment planning for these therapies, using techniques and approaches applied in radiation therapy. We have developed image-guided delivery methods for prostate (using ultrasound and MRI) and lung (based on CT imaging and co-registered endoscopic navigation). We are also developing optically-based methods for response monitoring in these indications, including the use of diffuse optical tomography and photoacoustic methods.
D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


NON-PEER-REVIEWED GRANTS

FUNDED


2006 - 2008  Whole mouth illumination device for periodontal PDT. Pharos, Guelph, ON. [Industrial Grants]

2005  Specification tests on prototype device for treating acne bacteria. Pharos, Guelph, ON. [Industrial Grants]


1999 - 2000  Prototyping of next generation research instrument. Fona Canada ULC. [Industrial Grants]


E. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

Journal Articles


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


Book Chapters


F. Intellectual Property

1. PATENTS


G. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2002 Determination of the peak absorption wavelength and disaggregation kinetics of TOOKAD in vivo using dynamic, spatially resolved diffuse reflectance spectroscopy in a rabbit model. SPIE Photonics West. San Jose.


1997 Accuracy of spatially resolved diffuse reflectance spectroscopy for measurement of in-vivo photosensitizer concentration. SPIE. San Jose.

Presented Abstracts


2013 Sep Freehand Navigated Pelvic Bone Cuts Using an Osteotome and an Oscillating Saw: A sawbones and cadaver study assessing accuracy and reproducibility of resection plane. International Society of Limb


Presented and Published Abstracts


Publication Details:


Publication Details:

2. NATIONAL

Invited Lectures and Presentations

2005 Clinical Experience of Photodynamic Therapy for Recurrent Prostate Cancer. PROSTAID Calgary.

Presented Abstracts


Presented and Published Abstracts


Publication Details:

2013 Integration of Bioluminescence Imaging and Cone-Beam CT for Image-Guided Small Animal Irradiation. CARO-COMP. Montreal.

Publication Details:
and Oncology. 2013;108(S1):34.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


2001 Photonics for Clinical Therapeutics and Diagnostics. CITO Knowledge Network Conference.


4. LOCAL

Invited Lectures and Presentations


2008 Image Guided Photothermal Therapy for Focal Prostate Cancer. Department of Physics, Ryerson University. Toronto.

2008 Integrating optical information with volumetric imaging. The 8th Princess Margaret Hospital Conference: Developments in Cancer Management. Toronto.
H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Graduate Education


Research Associate


2. OTHER SUPERVISION

Undergraduate Education


<table>
<thead>
<tr>
<th>Year</th>
<th>Supervisor</th>
<th>Institution</th>
<th>Project Title</th>
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</thead>
<tbody>
<tr>
<td>2009</td>
<td>J. Eubank</td>
<td>University of Waterloo, Nanotechnology</td>
<td>Registration of video images with 3D volumetric data, Non-thesis Project.</td>
</tr>
<tr>
<td>2009</td>
<td>A. Kashagar</td>
<td>University of Waterloo, Computer Science</td>
<td>Registration of video images with 3D volumetric data, Non-thesis Project.</td>
</tr>
<tr>
<td>2008</td>
<td>H. Braisch</td>
<td>University of Waterloo, Mechanical Engineering</td>
<td>Testing of electromagnetic tracking tools for endoscopic tracking applications, Non-thesis Project.</td>
</tr>
<tr>
<td>2006</td>
<td>R. Rush</td>
<td>University of Waterloo</td>
<td>Image registration of Pre-treatment and post treatment MR images of prostate, Non-thesis Project.</td>
</tr>
<tr>
<td>2006</td>
<td>M. Boesen</td>
<td>University of Victoria, Physics</td>
<td>Treatment planning of photodynamic therapy and photothermal therapy of the prostate, Non-thesis Project.</td>
</tr>
<tr>
<td>2004</td>
<td>K. Shad</td>
<td>McMaster University, Physics</td>
<td>Measurement of optical properties of tissue, Non-thesis Project.</td>
</tr>
<tr>
<td>2001</td>
<td>C. Whyman</td>
<td>University of Waterloo</td>
<td>In vivo fluorescence measurements, Non-thesis Project.</td>
</tr>
<tr>
<td>2001</td>
<td>J. Forbes</td>
<td>University of Waterloo</td>
<td>Liver Threshold of TOOKAD in Rat and Pig Models, Non-thesis Project.</td>
</tr>
<tr>
<td>2000</td>
<td>A. Bose</td>
<td>University of Waterloo, Electrical Engineering</td>
<td>Various optical technology development projects, Non-thesis Project.</td>
</tr>
<tr>
<td>1997</td>
<td>L. Chin</td>
<td>McMaster University, Medical Physics</td>
<td>Spatially-resolved frequency-domain reflectance measurements on layered tissue phantoms, Non-thesis Project.</td>
</tr>
</tbody>
</table>
Curriculum Vitae - Milton Woo

Contact Information

- Name: Milton K Woo
- Business Address: Division of Medical Physics, Odette Cancer Centre, 2075 Bayview Avenue, North York, Ontario, Canada M4N 3M5
- Business Telephone: (416) 480-5853
- Business Fax: (416) 480-6801
- E-mail Address: milton.woo@sunnybrook.ca
- Date Curriculum Vitae was Last Updated: May 27, 2011

Education

- University Education
  - B.Sc. in Physics, Washington University, St. Louis, USA, 1973
  - B.Sc. in Electrical Engineering, Washington University, St. Louis, USA, 1973
- Post-Graduate and Medical Training
  - Ph.D. in Medical Biophysics, University of Toronto, Toronto, Canada, 1989
  - M.Sc. in Applied Physics, Stanford University, Palo Alto, USA, 1975
- Continuing Education: n/a
- Scholarships and Awards: n/a

Biographical Information

- Degrees: see above
- Hospital/Staff Appointments
  - Affiliate in the Department of Oncology/Radiation Oncology, Sunnybrook Health Science Centre, North York, Ontario, Canada (1993)
- Academic Appointments
  - Assistant Professor, Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada (1995)
  - Assistant Professor, Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada (1999)
  - Adjunct Professor, Faculty of Engineering, Architecture and Science, Ryerson University, Toronto, Ontario, Canada (2008)
- Professional Affiliations and Activities e.g. Editor of journal, academic organizations
- Certifications and Licensures
  - Full Member, American Association of Physicists in Medicine (AAPM)
  - Fellow, Canadian College of Physicists in Medicine (FCCPM) (1993)
  - Certification in Radiation Oncology, American Board of Medical Physicists (ABMP) (1994)
  - Professional Engineer (P.Eng.), Association of Professional Engineers in Ontario (PEO)
Local Committees
   RPEAC - member, Radiation Program Education Advisory Committee

International Committees
   Chair, Exchange Scientist Program Subcommittee, AAPM
   Member, International Affairs Committee, AAPM
   Member, Task Group 131, AAPM

Editorial and Peer-Reviewed Responsibilities
   ii. Manuscript Peer-Reviewer for:
      (i) Medical Physics

Statement of Scholarly and Professional Activity
My research interest is in the area of improving the accuracy of radiation delivery. My academic interest is in the area of remote education, particularly in the area of promoting education and training efforts for developing countries using the Internet.

Research Grants
   n/a

Clinical Trials
   n/a

Publications
3. P. Basran and M.Woo
4. M. Woo and K.H. Ng
5. M. Woo and R.Nordal

Presentations
1. Promoting Remote Real-time Education in Medical Physics. 10th Asia-Oceania Congress of Medical Physics, Taipei, Taiwan. 2010
2. Invited Speaker: "Training of Medical Physicists by Remote Learning"
   8th Asia-Oceania Congress of Medical Physics and 6th South-East Asian Congress of Medical Physics, Ho Chi Minh City, Vietnam, Oct 30-31, 2008
3. Invited Speaker: "Delivery Quality Assurance - Are we doing the right thing?"
   QA & Dosimetry Symposium, Orlando, USA, May 15-16, 2008
Curriculum Vitae

Ivan W.T. Yeung
PhD, FCCPM

A. Date Curriculum Vitae is Prepared: 2016 August 11

B. Biographical Information

Primary Office
Department of Radiation Physics
Princess Margaret Cancer Centre
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9
Telephone (416) 946-4501 ext 5353
Fax (416) 946-6566
Email ivan.yeung@rmp.uhn.on.ca

1. EDUCATION

Degrees
1993 PhD, Medical Biophysics, Western University, Canada
1988 MSc, Physics, The University of Manitoba, Canada
1985 BSc, (Hon), Geophysics, The University of Manitoba, Canada

Postgraduate, Research and Specialty Training
1993 Jul - 1995 Nov Clinical Physics/ Medical Physics Residency, Princess Margaret Hospital

Qualifications, Certifications and Licenses
2012 Jul Fellowship, Canadian College of Physicists in Medicine
2007 Certificate, UNH-Rotman Leadership Program, University of Toronto, Canada
2006 Jun - 2012 Jul Membership, Canadian College of Physicists in Medicine
1996 Feb Ontario Medical Physicist Peer Review A passed, Cancer Care Ontario, Ontario, Canada

2. EMPLOYMENT

Current Appointments
2010 - present Associate Head, Princess Margaret Cancer Centre, Toronto
2010 - present Radiation Safety Officer, Stronach Regional Cancer Centre
2008 - present Head of Medical Physics, Dept of Medical Physics, Stronach Regional Cancer Centre
-Led a team of physic to commission and maintain the a new radiation therapy facility (Stronach Regional Cancer Centre or SRCC) at Southlake Regional Health Centre
Newmarket

2007 - present  Adjunct Professor, Department of Physics, Ryerson University, Canada
1998 - present  Assistant Professor, Radiation Oncology, University of Toronto, Canada

Previous Appointments

HOSPITAL

2006 - 2010  Senior Physicist, Dept of Radiation Physics, Princess Margaret Hospital, Toronto
2000 - 2008  Lead Physicist, Brachytherapy Program, Radiation Medicine Program, Princess Margaret Hospital, Toronto
   - Led a team of 7 professionals (including 3 physicists, 5 therapists, and 2 physics associate)
   in the Brachytherapy program which includes LDR, HDR, PDR, Prostate Implants, Eye Plaque Implants Treatment and Intravascular Brachytherapy

1999 - 2000  Brachytherapy Physics Group Leader, Dept. of Radiation Physics, Princess Margaret Hospital, Toronto
   - Led a team of 3 physicists in the Brachytherapy program which includes LDR, HDR, PDR, Prostate Implants and Eye Plaque Implants Treatment

1996 - 1999  Staff Physicist, Dept. of Clinical Physics, Princess Margaret Hospital, Toronto
   - In charge of the three electronic portal imaging units. They are Philips, Varian and Infimed, 1995-1999.

UNIVERSITY

1991 - 1993  Computer Application Tutor (part-time), Computer Based Learning Centre, Western University
1988 - 1993  Teaching Assistant (part-time), Dept. of Physics, Western University
1985 - 1988  Teaching Assistant (part-time), Physics, The University of Manitoba
1983 - 1984  Research Assistant (part-time), Geological Sciences, The University of Manitoba
1983        Research Assistant, Geological Sciences, The University of Manitoba

OTHER

1985  Summer Student Geophysicist, Texaco Canada, Calgary
1984  Summer Student Geophysicist, Texaco Canada, Calgary

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2007 Jul  The John S. Laughlin Science Council Research Symposium Presentation, American Association of Medical Physicists. (Distinction)
2000 May  Clifford C. Snyder Research Award, Plastic Surgery Research Council Annual Meeting, Seattle, Washington. (Research Award)
   (O'Donovan D.A et al.).
2000 May  The Shenaq International Research Award, Plastic Surgery Research Council Annual Meeting, Seattle, Washington. (Research Award)
   (O'Donovan D.A et al.).
1984 - 1985  Scholarship, Society of Exploration Geophysicist. (Distinction)
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2006 - present  American Association of Physicists in Medicine
2005 - present  American Brachytherapy Society
1990 - present  Canadian Organization of Medical Physicists
1989 - 2001  American Association of Physicists in Medicine

Administrative Activities

NATIONAL

Canadian Organization of Medical Physicists
2001 - 2006  Member, Communications Committee
1994  Member, Annual Meeting, Local Organizing Committee
PROVINCIAL / REGIONAL

Cancer Care Ontario
2013 Nov - present Capital Replacement Evaluation Committee, Ontario, Canada.
2009 Sep - present Provincial Physics Advisory Committee, Ontario, Canada.
1997 Member, Biennial Cancer Research Conference, Medical Physics Session Organizing Committee

LOCAL

Dept of Radiation Oncology, University of Toronto
2012 Jan 1 - present Physics Residency Committee, Faculty of Medicine, Dept of Radiation Oncology, Toronto, Ontario, Canada.

Princess Margaret Hospital
2007 - present Member, Radiation Physics Leadership Committee, Radiation Medicine Program
2007 - 2010 Member, Radiation Physics Operation Committee, RMP
2003 - 2007 Member, Radiation Physics Steering Committee, RMP
2002 - 2005 Member, Radiation Physics Operation Committee, RMP
2000 - 2008 Member, Radiation Safety – Radiation Treatment Committee
2000 - 2008 Member, Brachytherapy Radiation Safety Committee, RMP
2000 - 2002 Member, Radiation Physics Management Committee, RMP
1999 - 2000 Member, LDR Purchase Committee, RMP
1998 - 1999 Member, Research Planning Committee, Radiation Services
1998 - 1999 Member, CT Simulator Search Committee, RMP
1997 Member, Strategic Planning Research Committee, Radiation Services

Stronach Regional Cancer Centre
2008 - present Member, RMP Steering Committee

University of Toronto
2006 May - 2008 Oct Member, Advisory Committee for Andrea Para, M.Sc. Candidate
2003 Mar - 2005 Sep Member, Advisory Committee for Aimee Langan, M.Sc. Candidate

Peer Review Activities

GRANT REVIEWS

External Grant Reviewer
2008 Canadian Breast Cancer Foundation, Research Grant
2006 Canadian Institutes of Health Research, Operating Grant
2005 Alberta Cancer Board, grant
2003 Natural Sciences and Engineering Research Council of Canada (NSERC), NSERC Grant
2002 Natural Sciences and Engineering Research Council of Canada (NSERC), NSERC Grant
MANUSCRIPT REVIEWS

Editor
2004 - 2008  Medical Physics Journal, Ad hoc Associate editor

Reviewer
2003 - 2005  Medical Physics Journal

PRESENTATION REVIEWS

Reviewer
2008 May  American Brachytherapy Society Annual Meeting, Abstract
2008  Canadian Organization of Medical Physicists Annual Meeting, J.R. Cunningham Young Investigators’ Competition, Quebec City
2007  Canadian Organization of Medical Physicists Annual Meeting, Best Poster Competition Judge
2007  ICCR meeting, Abstract
2005  AAPM Annual Meeting, Abstract
2005  Canadian Organization of Medical Physicists Annual Meeting, Young Investigator Competition Judge

Other Research and Professional Activities


C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2009  Principal Investigator. Equipment Funding. Ontario Institute for Cancer Research. 7,500 CAD. [Grants]
2008 - 2010  **Co-Principal Investigator.** Tumor Perfusion Assessment Tool. Ontario Institute for Cancer Research. Clinical Trials Platform. 262,300 CAD. [Grants]
*Co-Principal Investigator of subproject.*

2008 - 2009  **Principal Investigator.** Dynamic Contrast Enhanced Breast CBCT. Ontario Institute for Cancer Research. 1 mm Challenge. 25,000 CAD. [Grants]
*Principal Investigator of subproject.*


*PI of Project 4 - $605,150.*

2002 - 2005  **Co-Investigator.** Flat-Panel Cone-Beam CT for Image-Guided Radiotherapy. National Institutes of Health (NIH) (USA). 575,000 USD. [Grants]


2002 - 2004  **Co-Investigator.** To Investigate The Role Of MR Spectroscopy In Prostate Brachytherapy In Terms Of Optimization Of Implant Planning And Follow-Up Of Prostate Cancer Resolution Over Time. Canadian Association of Radiation Oncologists (CARO). ACURA. 26,000 CAD. [Grants]

**NON-PEER-REVIEWED GRANTS**

**Funded**


2007  **Principal Investigator.** Dynamic Contrast Enhanced Cone-Beam CT Imaging for the Breast. Princess Margaret Hospital Foundation (The). Weekend Walkers Breast Cancer Innovation Fund Grant. 72,250. [Grants]

2006 - 2007  **Co-Investigator.** Study of edema and dosimetry post prostate brachytherapy with stranded seeds. BrachySciences (USA). 55,000. [Grants]

2002 - 2004  American College of Surgeons Oncology Group. Z0070. [Clinical Trials]
*Radiation Physicist.*

2001 - 2004  **Principal Investigator.** Intraoperative Dosimetry System for Prostate Seed Implant. Amersham Health Corp. 60,000. [Grants]
*Amount awarded for subproject “Functional CT Development” – Principle Investigator of this subproject.*

2000 - 2002  Radiation Therapy Oncology Group. P0019. [Clinical Trials]
*Radiation Physicist.*

1996 - 1998  Collaborative Ocular Melanoma Study. [Clinical Trials]
*Radiation Physicist.*

**D. Publications**

**1. PEER-REVIEWED PUBLICATIONS**

**Journal Articles**


2. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


E. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations

2012 Aug 3  Invited Speaker. Evolving Technologies in Radiation Therapy. Department of Physics, Chinese University of Hong Kong. Hong Kong.


2008 May  Session Moderator. World Congress of Brachytherapy. Boston.

2007 Jan 4  Functional CT in Cancer Therapies. Tuen Mun Hospital. Hong Kong.
2007 Jan 2  LDR Prostate Brachytherapy Program at Princess Margaret Hospital. Queen Elizabeth Hospital. Hong Kong.

Presented Abstracts


2007 Jul  The John S. Laughlin-Science Council Research Symposium, 49th Annual Meeting of the AAPM. Minneapolis, United States.


2. NATIONAL

Invited Lectures and Presentations


Presented Abstracts


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


Presented Abstracts

2012 Hypoxia Imaging in Cervix Carcinoma with PET-FAZA. ImNO. Ivan Yeung, Sunmo Kim, Nicolas Gonzalez, David Green, Doug Vines, Stephen Breen, David Jaffray and Michael Milosevic.


4. LOCAL

Invited Lectures and Presentations


2006 May Imaging Hypoxia- Functional CT. Target Insight II Symposium, Dept of Radiation Oncology, University of Toronto. Toronto.

Presented Abstracts


F. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Postdoctoral Research Fellow (PhD)

2007 May - 2010 Mar
Primary Supervisor. Q. Tang.
2007 May - 2009 Sep
Primary Supervisor. R. Clarkson.
2005 Sep - 2007 Aug
Primary Supervisor. B. Qian.
2005 Jan - 2005 Oct
Primary Supervisor. S. Zhang.
2002 Oct - 2007 Aug
Primary Supervisor. B. Lim.
2002 Oct - 2004 Sep
Primary Supervisor. D. Chen.
2000 Oct - 2003 Mar
Primary Supervisor. J. Darko.
1999 Oct - 2000 Aug
Primary Supervisor. V. Zeman.
1999 May - 2000 Jun
Primary Supervisor. T. S. Koh.

Other
2008 May - 2008 Aug
Primary Supervisor. Mariam Syed.
2007 Jun - 2007 Aug
Primary Supervisor. Sam Chen.
2007 May - 2007 Aug
Primary Supervisor. Jonathan Zhao.
2007 May - 2007 Jul
Primary Supervisor. Martin Esche.
2006 Jun - 2006 Aug
Primary Supervisor. Martin Esche.
2006 May - 2007 Aug
Primary Supervisor. Wendy Lin.
2006 May - 2006 Aug
Primary Supervisor. Sam Chen.
2005 Jul - 2005 Aug
Primary Supervisor. B. Lee.
2005 Jun - 2005 Aug
Primary Supervisor. Sam Chen.
2004 May - 2004 Aug
Primary Supervisor. Angela Ng.
2003 May - 2003 Aug
Primary Supervisor. Badrinath Narayan.
2000 May - 2000 Dec
Primary Supervisor. Thao Tran.
1999 Jan - 1999 Apr
Primary Supervisor. G. Sanmugasuntharam.
1998 Sep - 1998 Dec
Primary Supervisor. David Chorney.
Curriculum Vitae
Grace Zeng, Ph.D
Medical Physicist

A. Date Curriculum Vitae is Prepared: 2012, Oct. 1st

B. Biographical Information
Primary Office
Department of Medical Physics,
Carlo Fidani Peel Regional Cancer Center
The Credit Valley Hospital and Trillium Health Center
2200 Eglinton Ave. W
Mississauga, ON, Canada
L5N 2N1
Telephone 905-813-1100X5074
Cell phone [Cell Phone Number]
Fax 905-813-4452
Email gzeng@cvh.on.ca

1. EDUCATION

Degrees
Sep.1997 – July,2001 Ph.D, Medical Physics, Tuebingen University, Germany/Sichuan University, China
Supervisor(s): Prof. Dr. Fridjof Nuesslin & Prof. Zhengming. Luo

Postgraduate, Research and Specialty Training
Supervisor(s): Dr. Norman Klassen & Dr. Dave Rogers

Qualifications, Certifications and Licenses
Certifications: CCPM

2. EMPLOYMENT

Current Appointments
Nov. 2006– Medical Physicist, the Credit Valley Hospital and Trillium Health Center, Mississauga, ON Canada

Previous Appointments
May 2004– Nov.2006 Clinical Physicist resident, PMH, UHN, Toronto, ON Canada
Dec 2003– May 2004 Research Associate, National Research Council of Canada, Ottawa, Canada
3. HONOURS AND CAREER AWARDS

Student/Trainee Awards

Dec 2001 – Dec 2003 NSERC postdoc. fellowship, Canada
Mar. 1999 – Mar. 2001 fortuene scholarship, Germany

Professional Associations

July 2002 – AAPM full member #22923
July 2010 – COMP member

Peer Review Activities

MANUSCRIPT REVIEWS

2011– Journal of Applied clinical Medical Physics
2009– Radiotherapy and Oncology
2008– Journal of Medical Dosimetry

C. Academic History

1. RESEARCH STATEMENTS

Dec. 2010 – Rectal toxicity control in GU treatment planning and delivery
Sept. 2009 – Automation of VMAT treatment planning and systematic quality control
July 2004 – IMRT and IGRT
Dec. 2001 – Radiation dosimetry

2. RESEARCH AWARDS

GRANTS IN APPLICATION PROCESS

Varian Research collaboration grants: Systematic quality control in treatment planning using dose-volume review program
Principal investigator: Grace Zeng, Collaborators: Miller MacPherson, Xia Wu, Tom McGowan,

D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


Most significant publication details. This paper is the first to report prostate calcifications are natural landmark for prostate localization in prostate IGRT and was published as Rapid Communication in IJROBP
2. PEER-REVIEWED PUBLICATIONS

Journal Articles


3. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Abstracts and Other Papers


5. Zeng GG, Heaton R, Catton C, Chung P and Jaffray D. Two iso-center IMRT with controlled junction dose for long volume sarcomas. AAPM 2006, Orlando, USA. Principal Investigator

6. Zeng GG, Breen S, Bayley A, White E, Dawson L, Keller H and Jaffray D. Using cone beam CT to investigate the local geometrical uncertainties during the head and neck radiation therapy. WC2006, Seoul, South Korea. Principal Investigator


9. G. Zeng, M. Fippel, and F. Nuesslin Film dosimetry for verification of dose distributions for electron beams in a cylindrical phantom compared with a fast Monte Carlo calculation. Congress of DEGRO, OEGRO & DGMP2000, Munich, Germany. Principal Investigator

2. NATIONAL

Abstracts and Other Papers


F. Teaching and design

1. UNDERGRADUATES

Sept. 2010 – Mohawk and Michener therapy students: Intensive modulated radiation therapy and IGRT
2. RESIDENTS

Sept. 2011 – Weekly physics resident tutorial at CVH
Aug. 2012 – Supervisor: Advanced treatment planning

3. GRADUATES


4. CONTINUE EDUCATION


G. Research Supervision

1. RESIDENT EDUCATION


2. UNDERGRADUATE EDUCATION

References

1. **Miller MacPherson, Ph.D**
   Head, Medical Physics
   Carlo Fidani Peel Regional Cancer Center
   The Credit Valley Hospital and Trillium Health Center
   Tel: 905-813-1100x5064; Fax: 905-813-4452
   Princess Margaret Hospital, UHN
   Tel. (416) 946-4501 x2409
   Assistant Professor, Department of radiation oncology, University of Toronto

2. **Tom McGowan, MD**
   Chief, Radiation Oncology
   Carlo Fidani Peel Regional Cancer Center
   The Credit Valley Hospital and Trillium Health Center
   Tel: 905-813-1100x5347; Fax: 905-813-3962
   Adjunct Assistant Professor, Department of radiation oncology, University of Toronto

3. **Marco Carlone, Ph.D**
   Princess Margaret Hospital, UHN
   610 University Avenue
   Toronto, ON M5G 2M9
   Tel. (416) 946-4501x2409; Fax (416) 946-6566
   Assistant Professor, Department of radiation oncology, University of Toronto

4. **David W. O. Rogers, Ph.D**
   Professor, Physics Department
   Carleton University
   1125 Colonel By Drive, Ottawa, ON K1S 5B6
   Tel: 613-520-2600x4374
Curriculum Vitae

Beibei Zhang

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
Toronto, Ontario, Canada
Telephone 416-946-4501 x 4709
Email Beibei.Zhang@rmp.uhn.on.ca

1. EDUCATION

Degrees
1998 - 2003 PhD, Electrical Engineering, Western University, Ontario, Canada
1996 - 1998 MSc, Electrical Engineering, Electrical and Computer Engineering, Western University, Ontario, Canada
1992 - 1996 BSc, Electronic Engineering (Hons.), Shanghai Jiao Tong University, China

Postgraduate, Research and Specialty Training
2003 - 2005 Clinical Physics Residency, Medical Physics Department, Sunnybrook Health Science Centre, Toronto, Ontario, Canada

Qualifications, Certifications and Licenses
2008 - present Member, Canadian College of Physicists in Medicine (MCCPM), Canada

2. EMPLOYMENT

Current Appointments
2010 - present Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
2009 - present Staff Physicist - Treatment Planning Lead, Radiation Medicine Program, Stronach Regional Cancer Centre, Newmarket, Ontario, Canada
2006 - present Staff Physicist, Radiation Medicine Program, Radiation Physics Department, Princess Margaret Hospital, Toronto, Ontario, Canada
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL
Received

2010  
One of the 10 finalists in the best paper competition (Roberts prize), Physics in Medicine and Biology Journal, Canada. (Distinction)

2010  
Physics in Medicine and Biology highlights of 2010, Canada. (Distinction)  
(selected for presentation of outstanding new research, receipt of the highest praise from the journal's international referees and the highest number of downloads).

PROVINCIAL / REGIONAL
Received

2001 - 2003  
Ontario Graduate Scholarship (OGS), Canada. (Distinction)

2000 - 2001  
Ontario Graduate Scholarship in Science and Technology (OGSST), Canada. (Distinction)

1999 - 2000  
Ontario Graduate Scholarship (OGS), Canada. (Distinction)

LOCAL
Received

2007  
Best People Award, Physicist Category, Radiation Medicine Program, Princess Margaret Hospital, Canada. (Distinction)

2005  
J. R. Cunningham Award for Academic Excellence in Research by a Physics Trainee, Department of Radiation Oncology, University of Toronto, Canada. (Distinction)

2000  
Best Oral Presentation award, Electrical and Computer Engineering Mini Symposium (ECEMS), Canada. (Distinction)

1998 - 2000  
International Graduate Student Scholarship (IGSS), Western University, Ontario, Canada. (Distinction)

1998  
Best Poster award, Electrical and Computer Engineering Mini Symposium (ECEMS), Canada. (Distinction)

1997 - 1998  
Special University Scholarship (SUS), Western University, Canada. (Distinction)

1995  
People's Scholarship, Shanghai Jiao Tong University, China. (Distinction)

1993  
People's Scholarship, Shanghai Jiao Tong University, China. (Distinction)

Teaching and Education Awards

LOCAL
Received

1998  
Best Teaching Assistant award, second place, Dept of Radiation Oncology, Faculty of Medicine, Department of Electrical and Computer Engineering, The University of Western Ontario, Canada

Nominated
Student/Trainee Awards

INTERNATIONAL

Received

2000 - 2002 Student Stipend. International Society for Magnetic Resonance in Medicine (ISMRM), Canada

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2016 - present Associate Member, Canadian Association of Radiation Oncology
2012 Jul - present Corresponding Member, American Society for Radiation Oncology, 135190753
2006 - present Member, International Society of Magnetic Resonance in Medicine
2005 - present Member, American Association of Physicists in Medicine
2005 - present Member, Canadian Organization of Medical Physicists
2000 - 2003 Student Member, International Society for Magnetic Resonance in Medicine
1997 - 2003 Student Member, The Institute of Electrical and Electronics Engineering, Inc. (IEEE)

Administrative Activities

NATIONAL

Canadian Association of Radiation Oncologists
2013 Nov - present CARO Education Committee, Canada.

LOCAL

Robarts Research Institute
2001 - 2003 Member, Recruitment Committee, Network of Imaging Students E (NOISE)

Stronach Regional Cancer Centre
2013 Jan - 2014 Social Committee, Newmarket, Ontario, Canada.
2009 - 2012 Member, External Beam Process Committee, Radiation Medicine Program, Newmarket, Ontario, Canada.
Peer Review Activities

MANUSCRIPT REVIEWS
Reviewer
2015 Nov - present Journal of Applied Clinical Medical Physics, Number of Reviews: 1
2012 Apr - present Medical Physics, Number of Reviews: 6

PRESENTATION REVIEWS
Reviewer
2013 Mar - present CARO-COMP annual meeting, Number of Reviews: 29
2012 Apr - present COMP annual meeting, Number of Reviews: 8
2012 May U of T DRO annual research day poster presentation, Number of Reviews: 25

C. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

Funded
2015 Oct - 2016 Oct Principal Investigator. Adaptive Radiotherapy in Head and Neck Cancer: Personalizing Therapy in the HPV Era for Enhanced Response and Reduced Toxicity. Radiation Medicine Program, Princess Margaret Cancer Centre. RMP Adaptive Radiotherapy IDEAS Grant Application. Collaborator(s): Lindsay, Patricia; McNiven, Andrea; Bissonnette, Jean-Pierre; Waldron, John; Chan. Biu. 49,745 CAD. [Grants]

2013 Oct - 2014 Oct Co-Principal Investigator. PROSPECTIVE COLLECTION OF TOLERANCE OUTCOMES IN WOMEN RECEIVING BREAST CANCER RADIOThERAPY: A MULTl-INSTITUTIONAL INITIATIVE. University of Toronto Department of Radiation Oncology. UTDRO Seed Funding Initiative. 410002151. PI: Ruschin, Mark; Purdie, Tom. Collaborator(s): Vesprini, Danny; Pignol, Jean-Philippe; McCann, Claire; Fyles, Anthony; Fenkell, Louis. 61,000 CAD. [Grants]

The goal of the present proposal is to develop, implement and validate an efficient computer-based process to collect outcomes data for all patients receiving adjuvant breast IMRT at all three institutions within UT-DRO. Under REB approval, these data will be incorporated into an existing mathematical learning framework to develop a preliminary model of RT-induced toxicity. Moreover, this process will serve as the source of a future grant application to perform a large-scale multi-institutional prospective study to develop a predictive model for
acute, and eventually late, toxicity.


D. Publications

1. MOST SIGNIFICANT PUBLICATIONS


2. PEER-REVIEWED PUBLICATIONS

Journal Articles


10. Du X, Du L, Zhang B. Implementation of Ping Software Based on ICMP. Journal of Shanghai Jiao Tong University. 31: 117-119, 1997 (Trainee publication). **Coauthor or Collaborator.**

3. NON-PEER-REVIEWED PUBLICATIONS

Book Chapters


Special Reports


4. SUBMITTED PUBLICATIONS

Journal Articles


E. Presentations and Special Lectures

1. INTERNATIONAL

Presented Abstracts


<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Conference/Meeting Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 Jul</td>
<td>Individual Target Volume Definition in NSCLC Using PET.</td>
<td>American Association of Physicists in Medicine 47th annual meeting. Seattle, United States.</td>
</tr>
</tbody>
</table>
2. NATIONAL

Presented Abstracts


2016 Jul Retrospective Dose Accumulation Workflow in Head and Neck Cancer Patients Using RayStation 4.5.2. Canadian Organization of Medical Physicists Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Olive Wong, Biu Chan, Joanne Moseley, Andrea McNiven, Patricia Lindsay, Jean-Pierre Bissonnette, John Waldron, Meredith Giuliani, Beibei Zhang.


3. PROVINCIAL / REGIONAL

Presented Abstracts

4. LOCAL

Invited Lectures and Presentations

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Image Guided Radiation Therapy (IGRT) Course. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).</td>
</tr>
<tr>
<td>2009</td>
<td>Intensity Modulated Radiation Therapy (IMRT) Course. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).</td>
</tr>
<tr>
<td>2008</td>
<td>Intensity Modulated Radiation Therapy (IMRT) Course. Princess Margaret Hospital. Toronto, Ontario, Canada. (Continuing Education).</td>
</tr>
</tbody>
</table>

5. OTHER

Presented and Published Abstracts

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Guidelines for Normal Brain Tissue Tolerance for Multiple Brain Tumor Targets Treated with Stereotactic Radiosurgery (SRS).</td>
</tr>
</tbody>
</table>

Publication Details:

2008  | Clinical Validity of 3T MRI in Gamma Knife® Stereotactic Radiosurgery. |

Publication Details:

2007  | Addressing the Geometric Integrity of 3T MRI for Gamma Knife Stereotactic Radiosurgery. |

Publication Details:

2007  | MRI Quality Assurance for Gamma Knife Stereotactic Radiosurgery. |

Publication Details:

2005  | Individual Target Volume Definition in NSCLC Using PET. |

Publication Details:

2005  | Individualized Tumor Motion from PET for Radiation Therapy Targeting. |
Publication Details:

2004 Can Positron Emission Tomography (PET) Provide Individualized Internal Target Volumes (ITV)? A Physiological Phantom Study and Clinical Validation.

Publication Details:

F. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2015 Nov - 2016 Jul Chair and Continuing Education Course Director for the 62nd COMP Annual Scientific Meeting, Continuing Education, Canadian Organization of Medical Physicists

2013 May - 2014 Feb Chair and Course Director for the 5th Annual Canadian Winter School, Continuing Education, Canadian Organization of Medical Physicists

The Winter School is a four-day workshop on quality and safety in radiation oncology.

2012 Jun - 2013 Jan Editor of the program for the 4th Annual Canadian Winter School, Continuing Education, Canadian Organization of Medical Physicists

The Winter School was a four-day workshop on quality and safety in radiation oncology.

G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2016 May - present Primary Supervisor. B. Sc. Cijian (George) Ren.

Research Associate

2016 Jan - present Primary Supervisor. Olive Wong.

2. OTHER SUPERVISION

Undergraduate Education

Secondary Supervisor

2002 B. Sc. James Odegaard.
## Table of Contents

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CURRICULUM VITAE

Contact information:

Richard Peter Hill
51 Shaftesbury Ave
Toronto, ON M4T 3B3
Ontario Cancer Institute / Princess Margaret Cancer Centre
610 University Avenue Rm 9-415
Toronto, Ontario M5G 2M9
hill@uhnres.utoronto.ca
tel: 416-946-2979
fax: 416-946-2984
last updated: Aug 2016

Education:

1967 - 1970 Postdoctoral Research Fellow with Dr. R.S. Bush. Physics Division, Ontario Cancer Institute, and Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada.

Scholarships and Awards:

2002 John Yuhas Award; (for Distinguished Research in Radiation Biology), Dept of Radiation Oncology, University of Pennsylvania, Philadelphia, PA.
2006 Robert Kallman Memorial Lectureship. Dept. of Radiation Oncology, Stanford University School of Medicine, Stanford, CA.
2007 National Cancer Institute of Canada’s Robert L. Noble Prize, Sponsored by the Canadian Cancer Society (for Outstanding Achievements in Cancer Research)
2009 2009 Failla Award and Lectureship from the Radiation Research Society
2010 Outstanding Research Award – 12th International Tumor Microenvironment Workshop, Toronto, ON
2010 Award for Excellence - International Conference on Radiation Biology, Nanotechnology, Imaging, Stem Cell Research and Radiation Oncology, Chennai, India.
2011 HS Kaplan Distinguished Scientist Award, International Association for Radiation Research.
2013 RS Bush Memorial Lecturer, Dept of Radiation Oncology, Univ of Toronto. Toronto, ON.
Biographical Information:

Degrees


Hospital Staff Appointments:

1973 Senior Scientific Research Assistant, Biophysics Department, Institute for Cancer Research, Clifton Avenue, Belmont, Sutton, Surrey, England.
1973 - 2012 Senior Scientific Staff, Ontario Cancer Institute, Princess Margaret Cancer Centre.
2013 – present Senior Scientist Emeritus, Ontario Cancer Institute, Princess Margaret Cancer Centre.

Academic Appointments:

1973 - 1979 Assistant Professor, Department of Medical Biophysics, University of Toronto.
1979 - 1987 Associate Professor, Department of Medical Biophysics, University of Toronto.
1987 – 2015 Professor, Department of Medical Biophysics, University of Toronto.
1995 – 2015 Professor (cross-appointed), Department of Radiation Oncology, University of Toronto.
2015- present Professor Emeritus, Depts of Medical Biophysics and Radiation Oncology, University of Toronto.

Professional Affiliations

1967 - 1993 Member British Institute of Radiology
1969 - present Member Radiation Research Society
1987 - 2009 Member Metastasis Research Society
1988 - present Member American Association for Cancer Research
1997 - present Member European Society for Therapeutic Radiology and Oncology
2000 – present Member American Society for Therapeutic Radiology and Oncology
2005 – present Member Canadian Association of Radiation Oncologists
Administration and Committee Appointments:

Local committees

1986 - 1998 Animal Care Committee
1989 - 1995 Chair - Research Move Planning Committee
1989 - 1995 Graduate Secretary, Dept of Medical Biophysics, Univ of Toronto.
1992 – 2002 Member, DMBP Student Affairs Committee
1997 – 2002 Graduate Secretary, DMBP, University of Toronto.
1999 - 2000 HIPACT Program Planning Committee
2000 - 2002 Advanced Diagnostics Centre Planning Committee
2001 - present Member: Human Tissue Committee
2002 - 2005 Chair- Common Equipment Committee
2003 – present Co- chair, Animal Care Committee
2007 – 2008 Member, DMBP Executive Committee.

National and International committees

1995 Consultant to Imutec Corporation.
1998 - present Member Evaluation Committee, Aventis (formerly Connaught) Student Biotechnology Competition
1999 – 2005 Member - Finance Committee, Radiation Research Society
1999 - 2004 Member - External Advisory Committee for NIH/NCI program grant to Dr J Williams, Johns Hopkins Univ., Baltimore, MD USA.
2002 - 2005 Chair- Finance Committee, Radiation Research Society
2004 - present Member – External Advisory Committee, NIH Breast Cancer spore Grant, Dr. Lyerly, Duke University, durham, NC< USA.
2005 - 2008 Secretary- Treasurer, Radiation Research Society.
2005 - 2007 Member NCRP committee 1-15 on Radiation Safety in NASA Lunar Missions
2005 Acting Chair, CIHR CPT Grant Panel
2005 - 2009 Member Board of ASTRO- Chair Research Council
2007 - 2008 Member Panel E. Biophysics, Imaging and Radiobiology, NCIC
2007 – 2014 Member – External Advisory Committee for NIH/NCI program grant to Dr Giaccia, Stanford University Medical School, Stanford, CA USA.
2008- 2013 Member of Advisory Board – Molecular Radiation Therapeutics Branch / Radiation Research Program, NCI/NIH Bethesda, MA
2010-2015 Chair – External Advisory Committee NIH/NIAID CMCR U19 program grant to Dr J Williams University of Rochester, Rochester NY USA.

EDITORIAL BOARDS:
2007 – present Editorial Board – Tumour Microenvironment
2008 – 2009 Guest Editor, Seminars in Radiation Oncology, Stem Cells and the radiation treatment of cancer

NATIONAL / INTERNATIONAL
1998 - present Member - Evaluation Committee, Aventis (formerly Connaught) Student Biotechnology Competition
1999 - present Member - Finance Committee, Radiation Research Society
2004 – 2008 Secretary-Treasurer, Radiation Research Society
2004 – 2009 Member – External Advisory Committee, NIH Breast Cancer Spore Grant, Dr. Lyerly, Duke University, Durham, NC, USA
2005 - 2009 Member Board of ASTRO- Chair Research Council
2008 - present Member of Advisory Board – Molecular Radiation Therapeutics Branch / Radiation Research Program, NCI/NIH Bethesda, MA

ONTARIO CANCER INSTITUTE / PRINCESS MARGARET HOSPITAL:
2001 - 2008 Member: Human Tissue Committee
2003 – present Co- chair, Animal Care Committee
2006 – 2009 Member – CREDIT Advisory Committee
2014 – 2015 Member, Appointments Committee, OCI.

GRANT REVIEW PANELS:
1989 1993 Member NIH- DRG (US) Radiation Study Section.
1998 - 2000 Joint Chair- NCIC Grant Review Panel E.
2000 -2001 Member - NCIC Grant Review Panel E.
2000 Ad hoc member NIH-DRG (US) Special Study Section.
2008 Member - NCIC Grants Panel E.
2000-2010 Member: College of Reviewers of the Canada Research Chairs program
2003-2004 Acting Chair: CPT panel, CIHR
EXTERNAL GRANT REVIEWER:

Alberta Heritage Fund
American Cancer Society, U.S.A.
British Columbia Health Research Council
Canadian Institutes of Health Research
Canadian Cancer Society Research Institute
Cancer Research Society
Cancer Research United Kingdom
Manitoba Health Research Council
Medical Research Council of Canada
National Institute of Health/National Cancer Institute, U.S.A.
National Cancer Institute of Canada
NATO Scientific Exchange Program
Ottawa General Hospital Research Board
Quebec Lung Association
Stichting-Koningin Wilhelmina Fonds, Netherlands
Swiss National Science Foundation, Switzerland

RESEARCH AWARDS:

Active Grants: (Principal Investigator)


Previous Grants: (Co-Principal Investigator)

1974 - 1977 National Cancer Institute of Canada (NCIC) Block grant to Physics Division of Ontario Cancer Institute: my section "Radiobiology and Tumour Biology"
1977 - 1980 National Cancer Institute of Canada (NCIC) Block grant to Physics Division of Ontario Cancer Institute: my section "Radiobiology and Tumour Biology"
1980 - 1983 National Cancer Institute of Canada (NCIC) Block grant to Physics Division of Ontario Cancer Institute: my section "Radiobiology and Tumour Biology"
1981 - 1983 Medical Research Council of Canada (MRC) "Studies of metastatic ability of tumour cells" $31,500/year
1983 - 1986 Medical Research Council of Canada (MRC) "Studies of metastatic ability of tumour cells" $40,000/year
1983 - 1986 National Cancer Institute of Canada (NCIC) Block grant to Physics Division of Ontario Cancer Institute: my section "Radiobiology and Tumour Biology"
1986 - 1988 Medical Research Council of Canada (MRC) "Studies of metastatic ability of
tumour cells" $55,775/year

1986 - 1991 National Cancer Institute of Canada (NCIC) Block grant to Physics Division of Ontario Cancer Institute: my section "Radiobiology and Tumour Biology" $108,000/year

1988 - 1991 Medical Research Council of Canada (MRC) "Studies of metastatic ability of tumour cells" $61,533/year

1991 - 1995 Medical Research Council of Canada (MRC) "Studies of metastatic ability of tumour cells" $79,717/year

1991 - 1995 National Cancer Institute of Canada (NCIC) Coordinator, Terry Fox Programme Project Grant "Experimental Radiotherapeutics and Hyperthermia". Total award $491,381/year of which $211,277/year was for my own research

1995 - 1996 National Cancer Institute of Canada (NCIC) "Measuring Hypoxia in Tumours" $74,635

1996 -1997 Department of Radiation Oncology, Agnico Eagle Fund - Start-up funds: "Studies of the radiosensitivity of human fibroblasts" $40,000/year.

1996 - 1999 National Cancer Institute of Canada (NCIC) Coordinator - Terry Fox Programme Project Grant "Measuring Hypoxia in Tumours: Experimental and Clinical Studies" $412,600/year

1999 - 2004 National Cancer Institute of Canada (NCIC) Co-ordinator - Terry Fox Programme Project Grant A Hypoxia in Tumours: Clinical and Experimental Studies, $627,973 1st year.

2004-2009 National Cancer Institute of Canada (NCIC) Co-ordinator - Terry Fox Programme Project Grant A Hypoxia in Tumours: Clinical and Experimental Studies, $627,973 1st year.


2005-2010 Canadian Institutes of Health Research (CIHR) “Radiation-Induced Lung Damage: Volume-effects & Mitigation” P.I. (co-applicants Drs W-C Yeh/I W Yeung/J Van Dyk) $69,530/per year

2005-2010 National Institute of Allergy and Infectious Diseases (NIAID) Centers for Medical Measures against Radiation “Mitigating and Treating the Effects of Radiation in Lung Tissue” Co-applicant on Project 4 Program Grant with
2005-2010  Dr. W-C Yeh (PI-Dr. J. Moulder) $1,259,165/per year
National Institute of Allergy and Infectious Diseases (NIAID)
Centers for Medical Measures against Radiation “Assessing Skin Exposure by Measuring DNA Damage in Skin Cells” Co-applicant on Project 5 Program Grant with Dr. R G Bristow – other members are US based (PI-Dr. P. Okunieff) $1,240,210/per year

2008-2011  National Cancer Institute of Canada (NCIC) Co-Applicant with Andrew Hope, “Improved radiation induced lung toxicity prediction with linked pre-clinical/clinical models and biomarkers” $430,913/yr

2009-2012 Canadian Institutes of Health Research (CIHR) Ralph Da Costa, Canadian Institutes of Health Research “Probing the Temporal Dynamics of Tumor Cell Kill and Vascular Damage in Radiation Therapy using Optical Molecular Techniques” Co-applicant, $145,200/yr.

2009-2012  Ralph Da Costa, Ontario Cancer Research Network “Probing the Temporal Dynamics of Tumor Cell Kill and Vascular Damage in Radiation Therapy using Optical Molecular Techniques” Co-applicant $350,000. total

2009-2014  Bradly Wouters, National Cancer Institute of Canada “Terry Fox Project Grant Hypoxia in Tumours: Clinical and Experimental Studies” Co-applicant $4,986,535. Total


Previous Grants: (Co-Principal Investigator)

1986 - 1988  Ontario Ministry of Colleges and Universities, University Research Initiative Fund - "Bacteriocin - targeted drugs for cancer therapy" (Co-applicant with Dr. H. Farkas-Himsley) $78,500/year of which $31,000/year was for my part of the studies.

1987 - 1989  Medical Research Council of Canada (MRC) "Development of local deep-heating techniques using strongly-focussed ultrasound" (Co-applicant with Dr. J.W. Hunt) $65,000/year

1989 - 1991  Medical Research Council of Canada (MRC) "Basic Studies of Hyperthermia" (Co-applicant with Dr. J.W. Hunt) $73,380/year

1990 - 1992  Medical Research Council of Canada (MRC) "Hyperthermia with Vascular Occlusion" (Co-applicant with Drs. Liu, Hunt and Levin) $30,100/year

1992 - 1996  Medical Research Council of Canada (MRC) "Dose Time and Volume Effects in Radiation-Induced Lung Damage" (Co-applicant with Dr. J. Van Dyk) $67,000/year

1997 - 2000  Medical Research Council of Canada (MRC) "Studies of the radiosensitivity of fibroblasts from patients with unusual radiation reactions" (Co-applicant with Dr. J. Waldron) $76,200/year.

1998- 2001  Medical Research Council of Canada (MRC) "Dose Time and Volume Effects in Radiation-Induced Lung Damage" (Co-applicant with Dr. J. Van Dyk) $81,500/year.


2003-2006 Canadian Institutes of Health Research (CIHR) New Measures for Quantifying Soft Tissue Fibrosis Co-applicant with Drs. A Davis (principal applicant), R. Bell, B O’Sullivan, P. Lee.


PHARMACEUTICAL COMPANIES:


1993 - 1995 Apotex Corporation "Studies of the radiosensitizing properties of 5-Bromo-3 Cyclocytidine" $48,000/year.


1997 - 1998 Faulding Canada Inc - Testing the radiosensitizing properties of catalase. $18,000/year.

2001-2002 Lorus Therapeutics: _ Testing of the radiosensitizing properties of certain drugs. $18000


PATENTS:


REFEREED ARTICLES:


127. Haughland HK, Vukovic V, Pintilie M, Fyles AW, Milosevic M, Hill RP, Hedley DW


207. Dal Pra A, Milosevic M, Hill R, Wouters B, Warde P, Bristow RG. Hypoxia,


NON REFEREED PUBLICATIONS:


BOOKS AND/OR CHAPTERS IN BOOKS:


BOOKS EDITED:
   Chapter 1, Hill, R.P., Tannock, I.F. Cancer as a Cellular Disease
   Chapter 10, Hill, R.P. Metastasis
   Chapter 15, Hill, R.P. Cellular Basis of Radiotherapy
   Chapter 16, Hill, R.P. Experimental Radiotherapy
   Chapter 21, Hill, R.P., Hunt, J.W. Hyperthermia
   Chapter 1, Hill, R.P., Tannock, I.F. Cancer as a Cellular Disease
Chapter 11, Hill, R.P. Metastasis
Chapter 15, Hill, R.P. Cellular Basis of Radiotherapy
Chapter 16, Hill, R.P. Experimental Radiotherapy
Chapter 20, Hill, R.P. Hyperthermia and Photodynamic Therapy

   Chapter 1, Hill, R.P., Tannock, I.F. Cancer as a Cellular Disease
   Chapter 8, Okey, A.B., Harper, B.A., Grant, D.M., and Hill, R.P. Chemical and Radiation Carcinogenesis
   Chapter 10, Chambers, A.F., Hill, R.P. Tumour Progression and Metastasis
   Chapter 13, Bristow, R.S., Hill, R.P. Cellular Basis of Radiotherapy
   Chapter 14, Wong, C.S., Hill, R.P. Experimental Radiotherapy

   Chapter 1, Harrington L., Bristow R.G., Hill, R.P., Tannock, I.F. Cancer as a Cellular Disease
   Chapter 11, Khokha R., Voura E., Hill, R.P. Tumour Progression and Metastasis: Cellular, Molecular and Environmental Factors
   Chapter 13, Bristow, R.S., Hill, R.P. Molecular and Cellular Basis of Radiotherapy
   Chapter 14, Hill, R.P., Bristow R.G. The Scientific Basis of Experimental Radiotherapy

   Chapter 1, Harrington L., Bristow R.G., Hill, R.P., Tannock, I.F. Cancer as a Cellular Disease
   Chapter 10, Shao Y.W, Khokha R., Hill, R.P. Tumour Progression and Metastasis.
   Chapter 15, Harding S.M, Hill, R.P., Bristow, R.S. Molecular and Cellular Basis of Radiotherapy
   Chapter 14, Hill, R.P., Bristow R.G. Tumor and Normal Tissue Response to Radiotherapy

*POSTERS AND ABSTRACTS NOT INCLUDED*

SCHOLARLY WORK AND CREATIVE PROFESSIONAL ACTIVITY:

INVITED LECTURES (1995 - present):

1995

- Invited speaker in the workshop on "Polarographic measurements of tissue pO₂", Radiation Research Society Meeting, San José, April, 1995.

1996
- Invited speaker - New Zealand Society of Oncology Jubilee Meeting, Auckland New Zealand, February, 1996.
- Chairperson of the workshop "Predictive Assays: Measuring Multiple Parameters on the Same Tumor", 44th Annual Meeting of the Radiation Research Society, April, 1996.
- Invited speaker in panel discussion on "Locally Advanced Cervix Carcinoma - Innovation in Combined Modality Therapy", 38th Annual Meeting of the American Society for Therapeutic Radiology and Oncology, Los Angeles, CA, October, 1996.

1997
- Member of organizing committee and speaker: International Workshop on "The Tumor Microenvironment: An important paradigm in cancer etiology and treatment." Martha's Vineyard, MA. May 1997.

1998
- Invited speaker Rad Res Soc workshop on A Tumor hypoxia: Markers, Microenvironment and Gene Expression@ Louisville Kentucky April 1998.

1999
- Speaker at Univ of Toronto Dept of Radiation Oncology Continuing Education Course - A Future Directions in Radiation Oncology@ Toronto May 1999.
- Speaker at AACR Special Conference - A Molecular Aspects of Metastases@ Snowmass Colorado Sept 1999.
- Invited Speaker - Conference - A Prediction of Tumour Response to Therapy: Molecular Markers and the Tumour Microenvironment@ Montreal, Quebec Oct 1999.

2000
- Member of Organizing Committee and Invited Speaker - International Conference on Translational Research and Pre-Clinical Strategies in Radio-Oncology 2000. Lugano, Switzerland. March, 2000.
- Invited Speaker - Grand Rounds, Henry Ford Hospital A The Tumour Microenvironment and Metastasis, Detroit, MI, April 2000.
- Invited Speaker - Radiation Research Society Symposium on AHypoxia and Gene Expression, Radiation Research 2000, Albuquerque, New Mexico, April, 2000
• Invited Speaker NCI/NIH workshop A Modifying normal tissue damage post irradiation, Bethesda MD, Sept 6-8th 2000.

2001
• Co-Chair /Organizer, Radiation Research Society Symposium on Tumor Hypoxia, San Juan, Puerto Rico, April 2001.
• Invited Speaker, “7th International Meeting of the Tumor Microenvironment”, Atlanta, Georgia. April 2001.

2002
• “Oxic stress in tumor progression and metastasis” 1st Annual Conference on Redox Modulators in Cancer Therapy (RMCT), Maui. Hawaii, USA Jan 2002
  Conference postponed in wake of 9/11.
• “The importance of microenvironment on tumor therapy” 6th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology. Ermatingen, Switzerland. June 2002
• “Repopulation and hypoxia/reoxygenation” Int. Symposium on Repopulation during Radiotherapy: Biological Basis, Clinical Significance and Interventions. Dresden, Germany, September 2002
• Yuhas Memorial Lecture, “Radiation-induced damage in lung tissue: in and out of the treatment field.” University of Pennsylvania Medical Center, Dept of Radiation Oncology. Pennsylvania USA, Oct 2002
• Invited participant NCI/NIH workshop on “Testing drugs in combination with Radiation” “ Washington, DC, USA, Nov 2002

2003
• “Individualizing Cancer Treatment; Biomarkers for normal tissue response” “ 2nd International Conference on Translational Research in Radiation Oncology, Lugano Switzerland, 2003.
• “The tumour microenvironment and tumour progression” North Eastern Ontario Regional Cancer Centre, Sudbury Ontario, May 2003.
• “DNA damage in lung fibroblasts following irradiation in vivo” Workshop on Radiobiology applied to therapy, Nijmegen, The Netherlands, June 2003.

2004
• Invited mentor, grant writing workshop, AACR meeting, Orlando, Florida, March 2004
• Invited speaker, Workshop on “Hypoxia Imaging Techniques”. Phoenix, Arizona, April 2004
• Invited Speaker, LENT V conference on Adverse effects of Cancer Treatment, Rochester, NY May 2004
• Invited Participant, 8th International Wolfsberg Meeting on Molecular radiobiology/Oncology. Ermatingen, Switzerland, June 2004.
• Invited speaker, Canadian Association of Radiation Oncology, Halifax, Nova Scotia, Sept 2004

2005
• Invited chair “Role of endothelial cells in tumor response to irradiation” Gordon Conference on Radiotherapy, Ventura, California. Feb 2005
• Invited Speaker; NIH Metastasis Group, Bethesda MY, USA Feb, 2005.
• Invited Mentor, grant writing workshop, AACR meeting, Anaheim CA, USA April 2005
• Invited Speaker, University of Toronto, Dept of Radiation Oncology “The multidisciplinary management of radiation therapy induced acute effects, King City, Ontario, April 2005.
• Invited Lecturer, University of Maryland, Dept of Radiation Oncology, “Radiation Biology Refresher Course for Residents in Radiation Oncology”. Baltimore, Maryland, USA, April 2005.
• Invited lecturer: Cross Cancer Institute, Western Radiobiology Review Course, Edmonton, Alberta May 2005.
• Invited Reviewer, NIH Grant Panel, Washington, USA, May 2005.
• Invited Chair, CIHR CPT Grants Panel, Ottawa, September 2005.
- U19 Grant Retreat, Rochester, USA, October 2005.
- Invited Speaker, RSNA Oncology Panel, Chicago, November 2005.
- Invited Speaker; 3rd International Conference on Translational Research and preclinical strategies in Radiation Oncology. Lugano, Switzerland, March 2006.
- Invited Speaker, CMCR meeting, Rochester NY. March 2006.
- Invited Mentor, grant writing workshop, AACR meeting, Washington, DC, USA April 2006.
- Invited Speaker, ASTRO/RRS annual meeting, Philadelphia PA, November, 2006.
- Invited Speaker, 5th international LOWRAD meeting and 8th meeting of the Indian Society for Radiation Biology, Varanasi, India, November, 2006.
- Invited Speaker, Breast Cancer Symposium, Milan, Italy Dec 2006.
- Invited Consultant on Preparation of CRP on radiobiological studies of normal tissue effects in the 1-10 Sv range and higher, relevant to nuclear accidents and other radiation incidents in conjunction with Ka &n H. Vienna, Austria. May 2007.

2008

- Invited speaker – CMCR Animal Models Meeting San Antonia TX, Jan 2008
- Invited speaker – RTOG Course in Stem Cells, San Diego CA, Jan 2008
- Invited participant – Gordon Conference on Radiation Oncology, Ventura CA, Jan 2008
- Invited speaker – OICR Retreat, Alliston, ONT, Feb 2008
- Invited speaker – CBARMFI Spring Retreat, Pittsford NY, Mar 2008
- Invited speaker – CENTRII Spring Retreat, Milwaukee WS, Apr 2008
- Invited speaker – AACR meeting, San Diego CA, Apr 2008
- Invited speaker – FOREM meeting, Madison WS, Apr 2008
- Invited speaker – Biodosimetry meeting, Bethesda MD, May 2008
- Invited speaker – Field’s Institute symposium Toronto, ONT, July 2008
- Invited participant – CMCR Lung Focus group meeting, Baltimore, MD, July 2008
- Invited speaker - VICBC Workshop on Mathematical and Quantitative Biology, Toronto, ONT, Aug 2008
- Invited speaker – CARO Annual meeting, Montreal PQ, Sept 2008
- Invited speaker – ESTRO Annual meeting, Goteborg, Sweden, Sept 2008
- Invited speaker – ASTRO/RRS Annual meeting, Boston MA, Sept 2008
- Joint organizer and Chair – OCI 50th Anniversary, Toronto, ONT, Oct 2008

2009

- Invited Chair: MBP 50th Anniversary Mtg. Toronto Ont May 2009
- Invited Speaker: Geneva Pk MBP conference, Lake Couchiching, Ont Oct 2009
- Invited Speaker: Radiation Research Society Meeting Savannah GA Oct 2009
- Failla Lecturer: Radiation Research Society Meeting Savannah GA Oct 2009

2010

- Invited Speaker and Chair - “Oncology at the Limits” Cape Town, South Africa January
- Invited Speaker - Radiation Lung Meeting Bethesda, MA , April
- Invited Speaker - Tumour Microenvironment Meeting , Toronto, ON May
- Invited Speaker - Terry Fox Research Institute, Annual Scientific Meeting, Vancouver, BC May
- Invited Speaker - Medical Scan Workshop , Ottawa, ON May
- Invited Speaker - OICR Cancer Stem Cell Program Toronto, ON May
- Invited Speaker - Countermeasures Development for Radiation Induced Skin Injury, Bethesda, MA June
- Participant - Center for Biophysical Assessment & Risk Management Following Irradiation Retreat, Rochester NY  July
- Invited Speaker - Manitoba Institute of Cell Biology, Cancer Care Manitoba  MAN Aug
- External PhD examiner - Mehgan Azad, University of Manitoba, Winnipeg, MAN. Aug.
- Invited Speaker - 3rd International Meeting of Investigative Pathology, San Paulo Brazil Aug.
- Invited Speaker - Molecular Bases of Radiation Resistance of Human Cancers, Bethesda, MA  Sept
- Invited Speaker - Radiation Research Society Annual Meeting, Maui, Hawaii Sept/Oct
- U of Toronto Dept of Medical BioPhysics Annual Meeting Geneva Park, ON Oct
- Poster presenter - ASTRO Annual Mtg  San Diego, CA Oct/Nov
- International Conference on Radiation Biology – Nanotechnology, Imaging and Stem Cell Research in Radiation Oncology, Chennai, INDIA Nov (Overseas member program committee; Invited symposium organizer and speaker – unable to attend)

2011
- Invited speaker - “Tumour hypoxia, radiation response and metastasis: a perspective and recent progress” McGill Annual Oncology training program meeting, Montreal, PQ March
- 3 poster presentations (with trainees) - American Association for Cancer Research (AACR), Orlando, FL April
- Invited Participant - Adrian Begg and Bert van der Kogel Farewell Conference, Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands April
- Invited Participant - Poster, 11th Annual Wolfsberg Mtg., Ermatigen, Switzerland June
- Invited Speaker - “Radiation-Induced Inflammatory Responses in Lung and Skin” NIH Clinical Radiotherapy Group, Bethesda, MD Aug
- Invited Speaker - “The varied faces of hypoxia in cancer: from radiation resistance to metastasis to stem cell niche” H.S. Kaplan Memorial lecture, ICRR (International Congress of Radiation Research), Warsaw, Poland Aug
- Invited Speaker – “Why is dosimetry important: Biological Framework?NIH Workshop on Radiation Dosimetry”, Rockville MD Sept
- Invited Speaker – “Progression in cervix cancers: Role of the microenvironment” Ontario Veterinary College. Guelph ON Nov
- Invited Discussant – “Optimum animal tumor models for obtaining preclinical data” NCI Clinical Trials Workshop Rockville MD Dec

2012
- Invited Participant - Workshop on Mathematical Oncology IV: Integrative Cancer Biology. Fields Institute, Toronto, March.
- Two Poster presentations - AACR Mtg. Chicago, IL April.
- Invited Speaker - University of Waterloo, Waterloo ON. April
- Invited Speaker – Hamilton ON April.
- Invited Speaker - ESTRO Mtg. Barcelona Spain May.
- Invited Speaker - MOBS Mtg. Niagara Falls ON. July.
• Invited Speaker - Henry Ford Hospital, Detroit MI USA. Aug.
• Invited Speaker - SNO Mtg Washington DC USA. Nov.

2013
• Invited Speaker – SMART Symposium on small animal irradiators, Maastrict, Netherlands Mar.
• Invited Speaker – Target Insight Course, Toronto, May.
• Invited Speaker – Univ of Toronto Dept of Radiation Oncology, Annual Mtg, Toronto, May
• Invited Speaker – 13th International Wolfsberg Mtg, Ermatigen, Switzerland. June.
• External PhD examiner. Annika Foehrenbacker, University of Auckland, Auckland, New Zealand, Aug.
• Invited Speaker - Mtg on Tumor Stem Cells, Dresden, Germany, Sept.
• Invited Speaker - Dept of Medical Biophysics staff/student retreat, Rama, ON, Oct
• Invited Participant – poster. Canadian Cancer Conference, Toronto, ON, Nov.

2014
• Invited Speaker – ESTRO Mtg. Vienna, Austria, Mar
• Invited Speaker – Maths Oncology Workshop, Toronto, ON, Mar.
• Invited Participant – TFRI Annual Mtg, Montreal, PQ. May.
• Invited Speaker – Small animal radiotherapy (SMART 2), Vancouver, BC, August.

2015
• Invited Speaker – AACR Rad Onc Think Tank, Fort Myers, USA, Jan.
• Invited Speaker – 3rd ESTRO Forum, Barcelaona Spain, April.
• Invited Speaker – 15th ICRR, Kyoto, Japan, May.
• Invited Speaker - BIGART 2015, Aarhus, Denmark, June.

2016
• Invited speaker – ICRR HHE-2016, Mumbai, India Feb
• Invited speaker - 3rd SMART Symposium, Ghent, Belgium Mar

MASTER STUDENTS SUPERVISED:
1973 - 1974 D.S. Siemann (jointly with Dr. M. Bronskill), The relationship between mouse arterial partial pressure of oxygen (PaO₂) and the effectiveness of
localized tumour irradiation.


1978 - 1981  P. Munro (jointly with Dr. J.W. Hunt), Hyperthermia induced by ultrasound: Rationale and experimental development.

1982 - 1986  S.D. Young, Quantitation of the unstable expression of a metastatic phenotype in murine tumour cells.


1988 - 1991  X. Li, Microenvironmental influences on the response of tumour cells to hyperthermia.


2000- 2002  M.Sc. T. Kalliomaki, Hypoxia and tumor progression

2000- 2002  M.Sc. L. Zhang, Hypoxia and apoptosis

1998- 2000  R.Cairns, Role of Hypoxia in metastasis formation

2002 - 2004  A. Langan, Radiation-induced inflammatory response in lung

2005 – 2008  A. Para, Mitigating the effects of fractionated irradiation on lung tissue

2008 – 2011  Eric Leung, PMH Residency Program

DOCTORAL STUDENTS SUPERVISED:


1999 – 2007 P Subarsky. Changes in gene expression in hypoxic tumours
2002 - 2007 Z Li. Hypoxia and apoptosis

POST-DOCTORAL FELLOWS SUPERVISED:

2002- 2004 J. Akudugu. Radiosensitivity and tissue fibrosis
2004 –2007 S J Lunt. Role of IFP in tumor progression and metastasis
2006-2007 L Zhang: Hypoxia, apoptosis and metastasis
2006 - 2007 C. Laurent: pH and radiation effects in tumours
2007 – 2014 A. Zaidi: Mitigation of radiation induced lung damage in mice
2007 – 2011 J. Mahmood: Mitigation of radiation induced lung damage in rats
2007 – 2013 T. Marie-Egyptienne; Hypoxia and stem cells
2008 - 2011 T Kalliomaki: Role of IFP and hypoxia in tumour progression

SUMMER STUDENTS SUPERVISED (since 1990)

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Year</th>
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<tbody>
<tr>
<td>1990</td>
<td>Natasha Leihrl</td>
<td>1999</td>
<td>Susan Crampton</td>
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<tr>
<td>1992</td>
<td>Caroline KARGEL</td>
<td>2000</td>
<td>Tuula Kalliomaki</td>
</tr>
<tr>
<td>1993</td>
<td>Caroline KARGEL</td>
<td>2001</td>
<td>Nicole Kolosevari</td>
</tr>
<tr>
<td>1997</td>
<td>Leslie Wild</td>
<td>2002-2004</td>
<td>Julia Skliarenko</td>
</tr>
<tr>
<td>1998</td>
<td>Venita Tsang</td>
<td>2003</td>
<td>Victoria Calveley</td>
</tr>
<tr>
<td>1998</td>
<td>Denise Tam</td>
<td>2005-2006</td>
<td>Angela Yuen</td>
</tr>
<tr>
<td>1999</td>
<td>Alex Greenberg</td>
<td>2008</td>
<td>Tamara Krneta</td>
</tr>
</tbody>
</table>
HIGH SCHOOL STUDENTS SUPERVISED (Co-op program)

1996-1997  Agnes Von Hagen, Northern Secondary School, Toronto
1998-1999  Jesse Olmstead, Ontario Science School, Toronto
1999     Magdalena Lysenko, Father Henry Carr Secondary School, Toronto
2002     Emma Cole, Northern Secondary School
2002     Nicola Carey, Tonbridge School, UK

MENTORING

2007-2012  Dr Andrew Hope  Assistance with grant applications & general discussions
2008-2013  Dr Ralph DaCosta  Assistance with grant applications & general discussions
2008-2013  Dr Gelareh Zadeh  Senior Advisor for CIHR clinical fellowship – Meetings and assistance with grant applications and publications
2009-2012  Dr Devika Chithrani  Meetings and assistance with grant applications and publications.
2014-2016  Dr Scott Bratman  Assistance with grant applications & general discussions

TEACHING (1990 - present):

GRADUATE COURSES:

1981-1990  Oncology course (MBP 1018) - organized jointly with Dr. I.F. Tannock. Course had 2 sections, a Clinical Section and a Basic Science Section. The former section was designed for graduate students. The latter section was in segments and designed for residents training in Oncology and graduate students.
1981-present  Radiobiology Course for residents training in Radiation Oncology. Department of Radiation Oncology, University of Toronto.
1987-1995  Invited Lecturer - Osler Institute Radiation Oncology Boards Review Course: Radiobiology Section. Louisville, KY.
1990     Invited Lecturer - Surgical Oncology Teaching course in "Tumor Biology", Canadian Federation of Royal Colleges of Medicine Meeting, Edmonton, Alberta.
1990-1992  Tutor in Advanced Cell Biology course -Department of Medical Biophysics, University of Toronto.
1991     Radiobiology Course to Residents, Aukland, New Zealand
1991-1998  Individual lecture on radiation biology and radiation therapy in Cancer Biology seminar series for residents - University of Toronto
1992-1994  Coordinator for Advanced Cell Biology course - Department of Medical Biophysics, University of Toronto.
1994-1998  Invited Lecturer - Oncology Course, The Ohio State University, Columbus, Ohio.
2001-present  Radiobiology Course for Radiation Oncology Residents, University of Toronto.
2002-2012  Individual lecture on “Metastasis” in Advanced Cell Biology Course, Medical Biophysics, University of Toronto.
2008-present  MOBS course – Lectures on 1) Mechanism of Metastasis and 2) Cancer stem cells in solid tumours. Niagara on the Lake, ONT.
2008  Lecturer: ESTRO Course on Cancer stem cells, Goteborg, Sweden.
2008  Lecturer: ISMRME Course - Tumour Biology for Imagers, Toronto, ONT.
Curriculum Vitae

Christine Anne Koch

A. Date Curriculum Vitae is Prepared: 2016 August 12

B. Biographical Information

Primary Office
Princess Margaret Hospital
Department of Radiation Oncology
610 University Avenue
Toronto, Ontario, Canada
M5G 2M9

Telephone 416-946-4662
Fax 416-946-2111
Email anne.koch@rmpuhn.on.ca

1. EDUCATION

Postgraduate, Research and Specialty Training

2001 Chief Resident, Department of Radiation Oncology, University of Toronto

Qualifications, Certifications and Licenses

2002 F.R.C.P.C. Radiation Oncology, Royal College of Physicians, Canada
1997 Licentiate (L.M.C.C.), Medical Council of Canada

2. EMPLOYMENT

Current Appointments

2014 Apr 9 - present Leader, Breast Radiation Oncology Site Group, Princess Margaret Cancer Centre
2014 - present Affiliate Scientist, Ontario Cancer Institute, University Health Network, Toronto, Ontario
2007 - present Assistant Professor, School of Graduate Studies, Medical Biophysics, University of Toronto, Toronto, Ontario
2004 - present Scientist, Division of Signaling Biology, Ontario Cancer Institute, Toronto, Ontario
2002 - present Assistant Professor, Radiation Oncology, University of Toronto, Toronto, Ontario
2002 - present Clinician Scientist, Radiation Medicine Program, Princess Margaret Hospital, Toronto, Ontario

Previous Appointments

HOSPITAL

2014 Jan 6 - 2014 Apr 8 Interim Leader, Breast Radiation Oncology Site Group, Princess Margaret Cancer Centre
2004 - 2013 Scientist, Signalling Biology, Ontario Cancer Institute, University Health Network, Toronto, Ontario
Christine Anne KOCH

UNIVERSITY
2004 - 2007 Associate Member, School of Graduate Studies, Medical Biophysics, University of Toronto, Toronto, Ontario

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

NATIONAL

Received

2004 Young Investigator/Travel Award, 8th International Workshop on Radiation Damage to DNA, Banff, Alberta. (Research Award)

1998 - 1999 Postdoctoral Fellowship, Leukemia Research Fund of Canada. (Research Award)

1987 - 1991 Postgraduate Scholarship Studentship Award, Medical Research Council of Canada. (Distinction)

1986 Chemical Institute of Canada Silver Medal, McGill University, Montreal, Quebec. (Distinction)

1986 Summer Undergraduate Research Award, Natural Sciences and Engineering Research Council of Canada (NSERC). (Research Award)

LOCAL

Received

2013 - present Leader, Regenerative Medicine Program, Radiation Medicine Program, Princess Margaret Cancer Centre. (Distinction)

1999 W.J. Simpson Award, University of Toronto. (Research Award)
For academic excellence in research by a resident, Department of Radiation Oncology.

1998 - 1999 Charles H. Best Postdoctoral Fellowship, University of Toronto. (Research Award)

1998 Chisholm Memorial Fellowship, University of Toronto. (Research Award)
For postgraduate research.

1998 Starr Medal, University of Toronto. (Research Award)
For outstanding scholarship and postgraduate research.

1998 Third prize, University of Toronto. (Research Award)
For Radiation Oncology resident research presentation.

1994 Ivan H. Smith Memorial Studentship (Adult Oncology), University of Toronto. (Distinction)

1992 T Holder Academic Excellence Award, University of Toronto. (Distinction)
For academic excellence of a varsity athlete.

1990 - 1991 Graduate Fellowship, University of Toronto. (Research Award)
Trinity College.

1987 - 1991 Junior Fellowship, University of Toronto. (Research Award)
Massey College.

1986 Moe J. Polisuk Memorial Prize, McGill University, Montreal, Quebec. (Distinction)
For academic excellence in biochemistry.

1984 - 1987 J.W. McConnell Scholarship, McGill University, Montreal, Quebec. (Distinction)
For outstanding academic merit combined with leadership and participation in community affairs, student government or athletics.

1984 - 1987 University Scholar, McGill University, Montreal, Quebec. (Distinction)

1984 Outstanding Academic Achievement Award for Varsity Athlete, John Abbott College, Montreal, Quebec. (Distinction)
Nominated

2013  **Gerald Kirsh Humanitarian Award**, Princess Margaret Cancer Centre. (Distinction) *(twice).*

**Student/Trainee Awards**

**LOCAL**

**Received**

2009 May  **First Prize for Best Abstract (PhD students)**, Awardee Name: Kellie Jacks. University of Toronto  
*Department of Medical Biophysics Annual Research Day - May 15, 2009.*

2009 May  **First Prize for Best Poster Presentation**, Awardee Name: Kellie Jacks. University of Toronto  
*Department of Medical Biophysics Annual Research Day - May 15, 2009.*

2006 May  **First Prize for Best Poster Presentation**, Awardee Name: Kellie Jacks. University of Toronto  
*Department of Medical Biophysics Annual Research Day - May 18, 2006.*

2006 May  **Second Prize for Best Poster Presentation**, Awardee Name: Chloe Macrae. University of Toronto  
*Department of Medical Biophysics Annual Research Day - May 18, 2006.*

**4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES**

**Professional Associations**

- 2014 - present  American Society for Radiation Oncology (ASTRO)
- 2013 - present  American Society for Biochemistry and Molecular Biology (ASBMB)
- 2010 - present  **Member**, International Radiogenomic Consortium
- 2008 - present  American Association for Cancer Research (AACR)
- 1996 - present  Canadian Association of Radiation Oncologists (CARO)

**Administrative Activities**

**NATIONAL**

**Canadian Association of Radiation Oncologists**

- 2003 - present  **Member**, Translational Research Advisory Group

**Canadian Institutes of Health Research**

- 2013 - present  **Member and co-leader**, Canadian Cancer Strategic Training in Health Research Working Group
- 2012 Aug 1 - present  **Co-Director**, The Terry Fox Foundation Strategic Training Initiative for Excellence in Radiation Research for the 21st Century (EIRR21)
- 2009 May - present  **Reviewer**, Peer Review Committee, Cancer Biology and Therapeutics  
*Invited member.*
Christine Anne KOCH

PROVINCIAL / REGIONAL
Ontario Cancer Institute
2011 - present  Member, Equipment Committee
2008  Coordinator, Signaling Biology Retreat

LOCAL
Dept. of Radiation Oncology, University of Toronto
2009 Jan 26  Examiner, PGY4 and PGY5 Planning Exam

Princess Margaret Hospital
2013 - present  Leader, Regenerative Medicine Research, Radiation Medicine Program
2006 - present  Member, Tumor Bank Committee (Breast Site Group)
2006 - present  Member, RMP Research Committee
2014 - 2017  Secretary, Partnership Executive, Radiation Medicine Program
2009 - 2010  Secretary, Partnership Executive, Radiation Medicine Program
2005 - 2006  Member, Conference Organizing Committee

University Health Network
2013 - present  Princess Margaret Hospital/UHN Site PI, MA-33 clinical trial
2012  Radiation Oncology representative, Immediate breast reconstruction working group
2012  Chair, UHN Breast Cancer Research Day, PMH/UHN

University of Toronto
2013 - present  Member, Clinician-Scientist working group, UT-DRO representative
2014 May 10  Session Moderator, Department of Radiation Oncology Annual Research Day
2014 Feb 28  Member, UT-DRO Strategic Planning Education Workshop
2014 Feb 20  Member, UT-DRO Strategic Planning Research Workshop
2012 Dec 6  Examiner, PGY4 Preparatory Exam
Dept. of Radiation Oncology.
2012 Jun 14  Reviewer, James Lepock Memorial Symposium, Department of Medical Biophysics
2012 Feb  Examiner, PGY4 Preparatory Exam
Dr. L. Kahn, Dept. of Radiation Oncology.
2011 Apr 29  Examiner, OSCE PGY2
Dept. of Radiation Oncology.
2011 Feb 24  Examiner, PGY4 and PGY5 Planning Exam
Dept. of Radiation Oncology.
2010  Chair, Dept. Medical Biophysics Annual Retreat, Geneva Park, Ontario.
2009 Jan 26  Examiner, PGY4 and PGY5 Planning Exam
Dept. of Radiation Oncology.
2009  Reviewer, Department of Radiation Oncology Annual Research Day
2005 - 2006  Reviewer, Department of Radiation Oncology Annual Research Day
2002  Reviewer, Department of Medical Biophysics Annual Research Day
2002  Member, CaRMS Interview Team for Radiation Oncology
2001 - 2002  Member, Medical Education Committee, Faculty of Medicine, Dept of Radiation Oncology
2000  Member, Search Committee for Radiation Oncology Chair
**Peer Review Activities**

**GRANT REVIEWS**

**External Grant Reviewer**
- 2012 Oct: CCSRI, Innovation Grants

**Internal Grant Reviewer**
- 2011 May: Nova Scotia Health Research Foundation
- 2013 Jul: Cancer Research UK
- 2013 Jul: University of Toronto, Grant Miller Cancer research grant competition

**MANUSCRIPT REVIEWS**

**Reviewer**
- Future Oncology
- International Journal of Radiation Biology
- International Journal of Radiation Oncology, Biology, Physics
- Journal of Biochemistry and Biophysical Methods
- Molecular and Cellular Biology
- Molecular Cell Research
- Mutation Research

**PRESENTATION REVIEWS**

**Reviewer**
- 2011 Jun 2: University of Toronto, MSc presentations, Dept. Medical Biophysics Research Day

**Other Research and Professional Activities**

**RESEARCH PROJECT**
- **2005**: McLaughlin Centre for Molecular Medicine Project: Enhancing the Teaching of Molecular Medicine. University of Toronto. 
  *A University of Toronto/Stanford University Collaborative Project. Member of the Molecular Medicine Working Group, Basic Sciences Sector.*

**COURSE CONTENT DEVELOPMENT**
- **2013 Sep - 2014 May**: Developer and co-director. IMS module. Dept. Institute of Medical Sciences (IMS), University of Toronto. 
  *"Trans-disciplinary and Translational Research in Oncology and Radiation Medicine".*

**COURSES TAUGHT**
- **2014 Jan - 2014 Apr**: Course coordinator. Frontiers of Radiation Medicine Research (MSC-1501H). Dept. Institute of Medical Sciences (IMS), University of Toronto.
- **2014**: MBP 1018Y: Oncology. Dept. Medical Biophysics, University of Toronto. 
  *Lecture: “PARP inhibitors and PAR signaling: from molecular actions to clinical relevance”.*
- **2013**: MBP 1018Y: Oncology. Dept. Medical Biophysics, University of Toronto. 
  *Lecture: “Breast Cancer oncogenesis and new targets”.*
- **2012 Jan - 2012 Apr**: Course coordinator. Frontiers of Radiation Medicine Research (MSC-1501H). Dept. Institute of Medical Sciences (IMS), University of Toronto.
C. Academic Profile

1. RESEARCH STATEMENTS

Research Endeavors.
My laboratory has a strong research focus in the area of DNA damage signaling and repair, with particular emphasis on the mammalian nonhomologous end joining (NHEJ) DNA double-strand break repair pathway. Our specific research interests include the utilization of proteomic approaches to identify novel NHEJ components involved in the molecular response to ionizing radiation-induced DNA damage, and examination of DNA damage signaling pathways in breast cancer.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED

This peer-reviewed award provides personal salary support for research to offset clinical activity. $85,000 annually for 3 years.


2010 - 2013  Principal Investigator. Characterization of APLF (C2orf13) in DNA double-strand break repair and in the maintenance of genome stability. Canadian Institutes of Health Research
Christine Anne KOCH

(CIHR). Collaborator(s): Dr. M. Ikura. [Grants]
$108,000 per yr.


2004 - 2009  Principal Investigator. Functional characterization of Xrcc4 phosphorylation in nonhomologous end joining. University of Toronto. Dean’s Fund, Faculty of Medicine. 7,950 CAD. [Grants]

Principal Investigator. A Randomized Phase III study of Radiation Doses and Fractionation Schedules for Ductal Carcinoma in Situ (DCIS) of the Breast. NCIC-CTG. Ma-33. [Clinical Trials]


Aarhus University Hospital, Denmark.

German Cancer Research Centre, Heidelberg.

PM Site Co-Investigator. Neo-adjuvant Locally Advanced Breast Cancer Monitoring Study. [Clinical Trials]

Breast Site Co-Investigator. A Phase II STudy on the Toxicity and Efficacy of a Normal Tissue Tolerance Adapted, 5 Fraction Stereotactic Body Radiation Therapy (SBRT) Regimen, for Extra-Cranial Oligometastases. [Clinical Trials]
2. SALARY SUPPORT AND OTHER FUNDING

Personal Salary Support


Trainee Salary Support

2014 - present Regenerative Medicine Program research (0.25 FTE). Trainee Name: Grace Lee. CSRT, RMP.


E. Publications

1. PEER-REVIEWED PUBLICATIONS

Journal Articles


**Letters to Editor**


**In Preparation**


**Journal Articles, Multicenter Study, Randomized Controlled Trial**

F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2014 53BP1 facilitates the ATM-dependent phosphorylation of APLF in the DNA damage response (Poster presentation). AACR Annual Meeting. San Diego, California. Fenton AF, Tran D, Koch CA.


Christine Anne KOCH


1990  Binding of tyrosine phosphorylated proteins to the Src homology domains of GAP and Crk. Sixth Annual Meeting on Oncogenes. Frederick, Maryland. Anderson D, Koch CA, Pawson T.


1988  The phosphotransfer motif and autoregulation within the kinase domain of p130gag-fps. Fourth Annual Meeting on Oncogenes. Frederick, Maryland. Moran MF, Koch CA, Pawson T.

2. NATIONAL

Invited Lectures and Presentations

2014 Aug  Role of the 53BP1-APLF interaction in the DNA damage response. CARO meeting. St. John’s, Newfoundland and Labrador, Canada. Tran D, Koch CA.


2009 Jul  Role of APLF in DNA repair and DNA damage signaling. Department of Biochemistry, University of Alberta. Edmonton, Alberta.

2008 Apr  Genetic polymorphisms and radiation sensitivity in breast cancer patients. CBCRA Reasons for Hope
CONFIDENTIAL DOCUMENT

Christine Anne KOCH


1999  Regulation of Ras Signaling – Biological Implications (Poster presentation). CARO Annual Meeting. Montreal, Quebec. Koch CA, de Hoog C, Fan WT, Moran MF.


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


4. LOCAL

Invited Lectures and Presentations


2008 Feb  Panelist. Women as Clinician Scientists: An interactive discussion panel. Clinician Investigator Program,
Research training program accredited by the Royal College of Physicians and Surgeons of Canada, University of Toronto, Toronto, Ontario.


2007 Jan The Role of a Novel FHA-containing Protein in the Nonhomologous End-Joining Pathway. Signaling Biology Divisional Retreat, Hart House, University of Toronto (Oral Presentation). Macrae C, Koch A.

2007 Jan Investigating CK2β regulation of S1PL. Signaling Biology Divisional Retreat, Hart House, University of Toronto (Oral Presentation). Jacks K, Koch A.


2004 Nov Regulation of mammalian DNA double-strand break repair (Poster presentation). University of Toronto Medical Biophysics Open House, Ontario Cancer Institute. Koch CA.


Presented Abstracts


G. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education

2014 Primary Supervisor. Summer Student. Mariah Colussi, University of Toronto 2nd year student, EIRR21 Program Coordinator.


2013 Primary Supervisor. Summer Student. Nora Emad, University of Toronto Dept Pharmacy, Data manager for ARLEC.

2011 Primary Supervisor. Summer Student. Anne Simpson-Porco. Awards: Medical Biophysics Studentship Award.

2011 Primary Supervisor. Summer Student. Hanbert Chen, University of Toronto Medical School Summer Research Studentship.

2006  Primary Supervisor. Summer Student. Laura Gilbert. Awards: Medical Biophysics Studentship Award.

Graduate Education


Undergraduate MD

2014 Jan  Primary Supervisor. 4th Year Medical Student. Mary Hanna. Supervisee Institution: University of Ottawa.
2013 Jul  Primary Supervisor. MSc MBP, Observship. Jenny Hong.
2013 Jul  Primary Supervisor. Summer student, Observership. Margaret Irwin.
2012 Feb  Primary Supervisor. 3rd Year Medical Student. Shlok Gupta.
2010 Jul  Primary Supervisor. 3rd Year Medical Student. Elizabeth Yeboah.
2010 Feb - 2010 Mar  Primary Supervisor. 4th Year Medical Student. Hyder-Al Attar.
2009 Nov  Primary Supervisor. 4th Year Medical Student. Vikram Velker. Supervisee Institution: Western University. Awards: Ivan Smith Award.
2009 Jun  Primary Supervisor. 2nd Year Medical Student. Nafisha Lalani.
2009 May  Primary Supervisor. Medical Student. Andrea Walsh. Supervisee Institution: Saba University School of Medicine.
2009 Jan  Primary Supervisor. 4th Year Medical Student. Huy Nguyen. Supervisee Institution: Ross University.

Postgraduate MD

Christine Anne KOCH

2013 Jan  Primary Supervisor. PGY4 Radiation Oncology Resident. Fatimah Alfaraj.
2012 Apr - 2012 Jun  Primary Supervisor. PGY5 Radiation Oncology Resident. Fazilat Mohammed.
2009 Jun  Primary Supervisor. PGY5 Radiation Oncology Resident. Iwa Kong.
2009 May  Primary Supervisor. PGY5 Radiation Oncology Resident. Sara Rauth.
2009 Apr - 2009 May  Primary Supervisor. Surgical Oncology Fellow, Radiation Oncology Rotation. Eran Sharon.
2009 Apr  Primary Supervisor. Staff Radiation Oncologist from Egypt, Observership. Soha Atallah.
2009 Mar  Primary Supervisor. PGY5 Radiation Oncology Resident. Louis Fenkell.
2009 Jan  Primary Supervisor. PGY2 Radiation Oncology Resident. Meredith Giuliani.

Postdoctoral Research Fellow (PhD)
2011 - 2012  Primary Supervisor. Dr. Yu-Jen Chen.
2010 - 2014  Co-Supervisor. Dr. Sunggeon Ko. Collaborator(s): Dr. M. Ikura.
2007 - 2008  Primary Supervisor. Dr. Samuel Lacoche.

Clinical Research Fellow (MD)

Other
2014 - present  Primary Supervisor. Grace Lee, CSRT/RMP, Regenerative Medicine Program, and QuickStart Program expansion.
2008 - 2012  Primary Supervisor. MSc. Lily Meng, Research Technician II.

2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member
2013 - present  MSc candidate. Kiran Beera. Supervisor(s): Dr. Brian Nieman.
2007 - 2014 May  PhD. Hartland Jackson. TIMPs in Mammary Stem Cell Homeostasis and Breast Cancer Progression. Supervisor(s): Dr. R. Khokha.
2007 - 2010  MSc. Le Zheng. Structural and Biophysical Studies of the Role of Stromal Interaction
Molecules STIM1 and STIM2 in Initiating Store-operated Calcium Entry. Supervisor(s): Dr. M. Ikura.

2007 - 2009  
**MSc.** Miranda Tomenson. *A functional role for PDCD4 in oral squamous cell carcinoma.* Supervisor(s): Dr. S. Kamel-Reid.

2006 - 2010  
**PhD.** Emma Ito. *High-throughput screening for novel anti-cancer radiosensitizers for head and neck cancer.* Supervisor(s): Dr. FF Liu.

2005 - 2008  
**MSc.** Ramya Kumareswaran. *Hypoxia mediated genetic instability and DNA double strand break sensing.* Supervisor(s): Dr. R. Bristow.

**Thesis Examiner**

2014 Sep  
**PhD.** Meghan Larin, Pharmacology and Toxicology. *TIMPs in Mammary Stem Cell Homeostasis and Breast Cancer Progression.* Supervisor(s): Dr. Peter McPherson.

2014 May  
**PhD.** Hartland Jackson. *TIMPs in Mammary Stem Cell Homeostasis and Breast Cancer Progression.* Supervisor(s): Dr. Rama Khokha.

2014 Mar  
**PhD.** Jeff Bruce. *The role of microRNAs in human nasopharyngeal carcinoma.* Supervisor(s): Dr. FF Liu.

2013 Aug  
**PhD.** Amanda Fenton. Supervisor(s): Dr. A. Koch.

2012 Sep  
**MSc.** Diana Train. Supervisor(s): Dr. A. Koch.

2011 Jan  
**MSc.** Purnata Shirodkar. Supervisor(s): Dr. A. Koch.

2010 Aug  
**PhD.** Kellie Jacks.

2010 Jul  
**PhD.** Emma Ito. Supervisor(s): Dr. Fei-Fei Liu.

2010 Mar  
**MSc.** Le Zheng. Supervisor(s): Dr. M. Ikura.

2009 Aug  
**MSc.** Miranda Tomenson. Supervisor(s): Dr. S. Kamel-Reid.

2009 Jun  
**MSc.** Kelly Thickett. *Downregulation of cohesion activity prior to anaphase onset.* Supervisor(s): Dr. B. Lavoie.

2009 Jan  
**MSc.** Ahmad Zaheen. *AID Constrains Germinal Center Size by Rendering B cells Susceptible to Apoptosis.* Supervisor(s): Dr. Alberto Martin.

2008 Aug  
**MSc.** Ramya Kumareswaran. Supervisor(s): Dr. R. Bristow.

2008 Jun  
**PhD.** Niket Shah. Supervisor(s): Dr. David Rose.

2008 Jan  
**MSc.** Chloe Macrae.

2006  
**MSc.** Kristy Bailey. Supervisor(s): Dr. K. Vallis.

**Qualifying/Reclass Examiner**

2010 Sep  
**PhD.** Xianon Wang. Supervisor(s): Dr. B. Neel.

2009 Jun  
**PhD.** Amanda Fenton.

2009 May  
**PhD.** Shaliny Ramachandran. Supervisor(s): Dr. Alberto Martin.

2008 Sep  
**PhD.** Dr. Neesha Dhani. Supervisor(s): Dr. David Hedley.

2008 Jul  
**PhD.** Hartland Jackson. Supervisor(s): Dr. Rama Khokha.

2008 Apr  
**PhD.** Apurva Shirodkar. Supervisor(s): Dr. Philip Marsden.

**Chair for PhD Defense**

2013 Sep  

2010 Jul  
**PhD.** Diana Choi. *Erythropoietin Signaling in Pancreatic Cells in Homeostasis and in Models of Type 1 and Type 2 Diabetes.* Supervisor(s): Dr. Minna Woo.

**MSc Oral Exam**

2012 Jun  
**MSc.** Nathalie Moatti. *Identification and characterization of small molecule inhibitors of polynucleotide kinase 3’-phosphatase.* Supervisor(s): Dr. Daniel Durocher.
CURRICULUM VITAE

Name: Marianne Koritzinsky
E-mail: mkoritzi@uhnresearch.ca

Education
2003: PhD in Biophysics (Doctor Scientarium), Institute of Physics, University of Oslo
1996: MSc in Biophysics (Sivilingeniør), Norwegian University of Science and Technology, Faculty of Physics, Informatics and Mathematics.

Academic appointments
2015 – present: Member, Institute of Medical Science, University of Toronto
2008 – present: Assistant Professor, Department of Radiation Oncology, University of Toronto
2010 – 2015: Associate member, Institute of Medical Science, University of Toronto

Work Experience
2014 – present: Scientist
Princess Margaret Cancer Centre, University Health Network
2008 – 2014: Scientific Associate IV
Princess Margaret Cancer Centre, University Health Network
2003 – 2007: Postdoctoral fellow / Researcher
Maastricht Radiation Oncology, University Hospital Maastricht (azM)
2000: Visiting Scientist – McGill University, Department of Biochemistry
Prof. Nahum Sonenberg Laboratory
1999 – 2003: Graduate Student
University of Oslo, Institute of Physics and University Hospital Maastricht (azM), Maastricht Radiation Oncology
1996 – 1999: Department engineer
The Norwegian Cancer Society, The Norwegian Radium Hospital

Teaching
2016 – present: “Radiobiology and DNA Repair”, Medical BioPhysics, University of Toronto, topic coordinator
2013 – present: “Student seminars in translational research” MSC1010Y/1011Y, Institute of Medical Science, University of Toronto. Facilitator.
2010 – present: “Clinical decision making”, Institute of Medical Sciences, University of Toronto. Guest lecturer.
2007 - present: ESTRO teaching course “Basic Clinical Radiobiology”. International week intensive. Faculty.
2011 “Cancer Biology and Radioresistance” guest lecturer in EIRR21 Program.
2011 “Optical, thermal and radiation biophysics”, Molecular Biophysics, University of Toronto. Guest lecturer.
2010 “Radiobiology”, Institute of Medical Sciences, University of Toronto. Project facilitator.

Supervision - current
Postdocs: Dr. Michael Cohen 2015-present
Dr. Luana Schito 2013-present
Graduate students: Christine Strelchuk, University of Toronto 2016-present
Marmendia Meester, University of Toronto 2015-present
Medical Students: Diana Sun, University of Toronto - MD 2015-present
Undergraduate: Michael Xie, University of Toronto 2015-present

Supervision - graduated trainees (28):

Postdocs:  
Dr. ManTek Yeung 2014-2015  
Dr. Fiana Levitin 2012-2015

Medical students:  
Hala Muaddi, University of Toronto 2012-2013

MSc students:  
Erik Mollen, University of Maastricht 2015-2016  
Amy Wong, University of Toronto 2013-2015  
Sanjana Chowdhury, University of Toronto 2012-2014  
Manlio Fusciello, Maastricht University 2013-2014  
Ryan Rumantir, University of Toronto 2011-2013  
Vanessa Zannelia, University of Toronto 2010-2012

Selim Chaib, Maastricht University 2012  
Anne van Brussel, Maastricht University 2011

Susan Hilgendorf, Maastricht University 2010-2011  
Anna Hagenkort, Maastricht University 2010  
Yvette Paulis, Maastricht University 2007-2008  
Hilda Mujcic, Maastricht University 2007

Undergraduate students:  
Chantal van Heugten, Zuyd Hogeschool 2015-2016  
Parth Vora, High School 2014-2016  
Wenqiao Jia, University of Toronto 2015  
Pranathi Ari, University of Toronto 2014  
Eric Yung, University of Toronto 2013-2014  
Brandon Sit, University of Toronto 2012  
Paul Zamiara, University of Toronto 2011-2012  
Melanie Kalbfleisch, University of Toronto 2011

Co-supervisor, postdocs:  
Twan van den Beucken, Ontario Cancer Institute 2008-2013  
Mei Ding, Ontario Cancer Institute 2010-2013

Co-supervisor, PhD students:  
Hilda Mujcic, Maastricht University 2008-2013  
Twan van den Beucken, Maastricht University 2004-2008  
Michael Magagnin, Maastricht University 2004-2008

Membership in organisations
2002 – present: American Association for Cancer Research (AACR)
2001 – present: European Society for Therapeutic Radiology and Oncology (ESTRO)
2000 – present: Radiation Research Society (RRS)
2006 – 2011: The RNA Society

Conference Organization:
2011 – present: Chair, Clinical and Experimental Research in Radiation Oncology (CERRO) – yearly
2012 - present: Department of Radiation Oncology (UT) research day, scientific committee – yearly
2016: 35th ESTRO, Abstract Review Committee
2015: 15th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, scientific committee
2014: 5th TFRI, organizing committee
2014: 33rd ESTRO, scientific committee
2013: 17th ECCO / 38th ESMO / 32nd ESTRO, scientific committee
2013: 13th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, scientific committee
2012: 104th AACR, program committee
2008: 27th ESTRO, program committee
Academic Committees:

2012 – present **Co-Director**, STARS21 training program (formerly Excellence in Radiation Research for the 21st Century (EIRR21) training program) TFRI-co-funded ~300K CAD/year.

2014 – present Member, Institute of Medical Science (University of Toronto) Graduate Admissions Committee

2014 – present Member, Project Advisory Committee, Ms. Michelle Mayer, University of Toronto

2015 – present Member, Project Advisory Committee, Dr. Magali Lecavalier-Barsoum, University of Toronto

2016 – present Member, Project Advisory Committee, Vinayak Bhandari, University of Toronto

2016 – present Member, Project Advisory Committee, Samir Barghout, University of Toronto

2016 – present Member, Project Advisory Committee, Mariusz Shrestha, University of Toronto

2016 – present **Co-Chair**, Princess Margaret Cancer Centre Animal Care Committee

2014 – 2016 Member, Princess Margaret Cancer Centre Animal Care Committee

2016: Internal Appraiser and examiner, MSc exam of Ms. Fatima Jessa, University of Toronto

2015: Examiner, MSc exam of Seo Jung Hong, University of Toronto

2015: Examiner, MSc exam of Karolyn Au, University of Toronto

2015: Examiner, MSc exam of Matthew Wu, University of Toronto

2015: Chair, PhD transfer exam of Dr. Xiao Zhao, University of Toronto

2014: Chair, MSc exam of Ms. Laura Finkelberg, University of Toronto

2014: Participant, UT DRO Education Strategic Planning Workshop

2014: Participant, UT DRO Strategic Planning Committee Workshop

2014: Chair, PhD transfer exam of Mr Matkar, University of Toronto

2012: External examiner PhD of Ms Roe, University of Oslo

2012: External examiner PhD transfer exam of Ms Maeda, University of Toronto

2013: External examiner PhD transfer exam of Ms Kazazian, University of Toronto

Academic Editor for scientific journals:

PLoS ONE

Grant and award reviews:

- 2016: Radiation Medicine Program, Radiogenomics competition
- 2016: Kom op tegen Kanker (Flemish Cancer Society)
- 2015: IMS Scientific Day poster award
- 2012-2016: CCSRI Innovation panel Imaging and Technology Development (6x)
- 2014: Chief Scientific Office (Scotland)
- 2014: Breast Cancer Campaign (UK)
- 2014: IMS Scientific Day poster award
- 2014: Cancer Research UK
- 2013: IMS Summer Undergraduate Scientific day oral presentation award
- 2012: IMS Scientific Day poster award
- 2012: IMS Laidlaw manuscript award
- 2012: SGS Vanier Awards committee
- 2012: Prostate Cancer UK Project Grant
- 2012: KWF (Dutch Cancer Society) Operating Grant
- 2012: OGS adjudication panel
- 2012: NVRB conference poster award
- 2012: EIRR21 Research Day poster award
- 2011-2012: IMS Summer Undergraduate Scientific Day Poster award (2x)
- 2005: Wolfsberg conference poster award

Reviewer for scientific journals:

Acta Oncologica
American Journal of Pathology
Breast Cancer Research
Cancer Chemotherapy and Pharmacology
Cancer Research
Major Awards and Grants:

2016: Cancer Research Society (CRS), 120K CAD to support “The role of Peroxiredoxin 4 (PDRX4) as a novel target in pancreatic cancer”. Principal Investigator.

2016: Michael Fry Award, Radiation Research Society. “The Michael Fry Award is to recognize an individual early in his/her career who has made extraordinary contributions to the field of radiation research.

2015: Terry Fox Research Institute Training Grant, 300K CAD to support “Excellence in Radiation Research for the 21st Century”. Co-Director.

2015: Canadian Cancer Society Research Institute (CCSRI) Innovation Grant, 200K CAD to support “Regulation of extracellular protein expression in hypoxia through ER-localized protein folding”. Principal Investigator.


2014: University of Toronto Department of Radiation Oncology Seed grant, 50K CAD to support “Metformin with neoadjuvant chemoradiation to improve pathologic responses in rectal cancer: a phase I-II trial.”. Co-Principal Investigator.

2014: Canadian Institutes of Health Research, 100K CAD to support “Targeting hypoxia in cancer through the UPR”. Co-applicant.

2014: Terry Fox Foundation New Frontiers Project Program Grant, 6.7M CAD to support “A research pipeline for hypoxia-directed precision medicine”. Principal Investigator of Project 1 “Regulation of Protein Folding in the Hypoxic Tumor Microenvironment” with 900K CAD share.

2013: Prostate Cancer Canada Team Grant Competition, 5M CAD to support “Lineage Plasticity and Treatment-Resistant Prostate Cancer”. Co-Investigator with 150K CAD share.


2011: Terry Fox Foundation New Investigator Award, 450K CAD to support “The impact of hypoxia on the maturation of extracellular proteins that regulate tumor metabolism and microenvironment”. Principal Investigator.

2009: Canadian Institutes of Health Research, 1M CAD to support “Adaptation to hypoxia in cancer through the unfolded protein response”. Co-applicant.

2009: Canadian Cancer Society Research Institute – Terry Fox Foundation, 5M CAD to support the program “Hypoxia in tumours: clinical and experimental studies”. Co-Principal Investigator.


2007: ESTRO-VARIANT-Juliana-Denekamp Research Award “Young scientists (junior radiobiologists/radiotherapists) who already at a very early stage in their career have demonstrated excellence and passion for biologically driven cancer research relevant for radiation oncology, and who show promise to assume a scientific leadership role in this field in the future.”

2005: VENI grant awarded by the Netherlands Organization for Scientific Research (NWO). “Provides excellent, talented, creative researchers the opportunity to conduct their own research programme independently and promote talented researchers to enter and remain...
committed to the scientific profession.” 200K Euro to support “The role of integrated stress response in determining tolerance to cycling oxygen”. Principal Investigator.

2000: Visiting scientist award from The Norwegian Research Council to facilitate 6 months research at McGill University

Other awards

2007: Keystone Symposia Scholarship to attend Translational Regulatory Mechanisms, Coeur d'Alene, Idaho, USA
2003: Travel award to 12th International Conference of Radiation Research, Brisbane, Australia
2003: EDRO fellowship to attend the 2nd ESTRO Workshop on Biology in Radiation Oncology, Bergen, The Netherlands
2002: Travel award by NVRB from the Klaas Breur fond for the 49th Annual Radiation Research Meeting, USA
2001: Travel award to The Tumor Microenvironment and Its Impact on Cancer Therapies; 7th International Workshop, Atlanta, USA
2001: Travel award for the 48th Annual Meeting of the Radiation Research Society, San Jose, USA
1998: Wolfsberg Poster Award at the 2nd International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Ermatigen, Switzerland, 1998

Invited lectures at international venues

2016: 62nd Annual International Meeting of the Radiation Research Society, USA. Award lecture.
2016: 4th International Agean Conference on Tumor Microenvironment and Cellular Stress, Rhodes, Greece.
2016: Clinical and Experimental Research in Radiation Oncology 31, Les Menuires, France.
2015: FASEB Conference, Saxtons River, USA. “Regulation of UPR in FH deficient cells”
2015: 3rd Oxford Institute for Radiation Oncology Symposium, Oxford, UK. “Role of fumarate hydratase (FH) in hypoxia tolerance and cell cycle regulation”
2015: 3rd ESTRO Forum, Barcelona, Spain. “Career development – working smarter”
2015: Clinical and Experimental Research in Radiation Oncology 30, Les Menuires, France. “Hypoxia response in pseudohypoxic cells”
2014: 3rd International Agean Conference on Tumor Microenvironment and Cellular Stress, Mykonos, Greece. “Regulation of protein folding in the tumor microenvironment”
2014: Clinical and Experimental Research in Radiation Oncology 28, Les Menuires, France. “Requirements for oxygen in the endoplasmic reticulum”
2013: 2nd Canadian Cancer Research Conference, Toronto, Canada. “Regulation of protein folding in the hypoxic tumor microenvironment”
2013: FASEB Conference, Saxtons River, USA. “Maturation of ER cargo in the tumor microenvironment”
2013: Clinical and Experimental Research in Radiation Oncology 27, Les Menuires, France. “Reprogramming metabolism with metformin improves tumor oxygenation and radiation response”
2012: International Conference on Translational Research in Radiation Oncology, Geneva, Switzerland. “Oxygen sensing mechanisms as a therapeutic target”
2012: Clinical and Experimental Research in Radiation Oncology 26, Les Menuires, France. “A pharmacological approach to mitigating tumor hypoxia”
2010: 56th Annual Meeting of the Radiation Research Society, USA. “Mechanisms of adaptation to hypoxia and their relevance in cancer”
2010: Clinical and Experimental Research in Radiation Oncology 25, Les Menuires, France. “Regulation of miRNA during hypoxia”

2008: 27th ESTRO Meeting, Sweden. “Getting your paper published; Tricks of the trade”

2007: Clinical and Experimental Research in Radiation Oncology 22, Les Menuires, France. “Regulation of protein folding during hypoxia”

2007: 10th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Switzerland; Award lecture “Regulation of mRNA translation during hypoxia”

2007: 13th International Conference of Radiation Research, San Fransisco, USA. “Regulation of protein folding during hypoxia”


2005: Clinical and Experimental Research in Radiation Oncology 20, Les Menuires, France. “Gene specific regulation during hypoxia through multiple mechanisms of translational control”

2004: Clinical and Experimental Research in Radiation Oncology 19, Les Menuires, France. “Regulation of gene expression during hypoxia through mRNA translation”

2003: 13th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Ermatigen, Switzerland. “Gene-specific regulation of mRNA translation during hypoxia”


2002: 12th Annual Meeting of the European Society for Therapeutic Radiology and Oncology, Prague, Czech Republic. “New genomic tools in cancer diagnosis, prognosis and treatment”

2002: Gray Laboratory Cancer Research Trust, Mount Vernon Hospital, Middlesex, UK. “Mechanisms of hypoxia-induced inhibition of translation”

2002: 3rd International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Ermatigen, Switzerland. “Hypoxia-induced down-regulation of protein synthesis through the eukaryotic initiation factors eIF4E and eIF2-α”

2001: Clinical and Experimental Research in Radiation Oncology 16, Les Menuires, France. “Regulation of protein translation during hypoxic conditions”

Oral (proffered) presentations at international meetings

2013: 13th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Switzerland. “Metabolic reprogramming by metformin increases tumor oxygenation and radiation response”

2011: Canadian Cancer Research Conference, Toronto, Canada. “Hypoxia inhibits disulphide bond formation and protein folding in the endoplasmic reticulum”

2010: Tumor Microenvironment Workshop, Toronto, Canada. “Hypoxia inhibits disulfide bond formation and protein folding in the endoplasmic reticulum”

2009: Metabolism and Cancer (AACR meeting), La Jolla, USA. “The unfolded protein response protects cells during hypoxia through preservation of autophagic capacity.”

2008: 27th annual meeting of ESTRO, Gothenburg, Sweden. “Hypoxia inhibits disulfide bond formation and protein folding in the endoplasmic reticulum”

2005: 5th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Ermatigen, Switzerland. “Gene-specific regulation of mRNA translation during hypoxia”


2002: 3rd International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Ermatigen, Switzerland. “Hypoxia-induced down-regulation of protein synthesis through the eukaryotic initiation factors eIF4E and eIF2-α”

2001: 48th Annual Meeting of the Radiation Research Society, San Juan, USA. “Regulation of protein translation during hypoxic conditions”

2001: Tumor Microenvironment Workshop, Atlanta, USA. “Regulation of protein translation during hypoxic conditions”


1999: Tumour Microenvironment Workshop, Belfast, Northern-Ireland. “Radiation survival of synchronized cells following prolonged hypoxia”


Poster presentations at international meetings (presenting author only)

2011: 12th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Switzerland. “AMPK regulates metabolism and survival in response to ionizing radiation”
2010: 56th Annual Meeting of the Radiation Research Society, USA. “Hypoxia inhibits disulfide bond formation and protein folding in the endoplasmic reticulum”.

2008: Keystone Symposia: Translational Regulatory Mechanisms, USA. “Hypoxia inhibits protein folding in the endoplasmic reticulum (ER)”

2007: 10th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Switzerland.

2004: Oxygen sensing in physiology, pathology and development, USA

2003: 12th International Conference of Radiation Research, Australia

2002: 49th Annual Meeting of the Radiation Research Society, USA

2002: 93rd Annual Meeting of the American Association for Cancer Research, USA

2001: 1st ESTRO workshop on biology in radiation oncology, Denmark

2000: 2nd International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Switzerland

2000: 47th Annual Meeting of the Radiation Research Society, USA

1999: 11th International Meeting of Radiation Research, Ireland

1998: 1st International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Switzerland

Book chapters:


Publications (*Corresponding author):


Levitin F, Meester M, Wong A, Koritzinsky M*. Selective oxygen-independent disulfide bond formation promotes VEGF secretion in hypoxia. Submitted


17. Cojocari D, Vellanki R, Sit B, Uehling D, Koritzinsky M, Wouters BG. New small molecule inhibitors of UPR activation demonstrate that PERK, but not IRE1α signaling is essential for promoting adaptation and survival to hypoxia. Radiotherapy and Oncology 2013, Sep;108(3):541-7.


Curriculum Vitae

Rosanna Macri

A. Date of Curriculum Vitae

April 3, 2012.

B. Biographical Information

Contact

Office Address: Ontario Shores Centre for Mental Health Sciences 700 Gordon Street, Whitby, ON L1N 5S9 Tel: (905) 668-5881 x 6779 Cell: (905) 242-2504 Toll Free: 1-800-341-6323 x6779 Mailing Address: 210 Victoria Street, Unit 2803 Toronto, Ontario Tel: (905) 668-5881 x 6779 M5B 2R3

1. Education

Degrees

2010 Master of Health Science (Bioethics), Institute of Medical Science, University of Toronto

2000-2003 Bachelor of Science (Radiation Sciences), Faculty of Medicine, University of Toronto

1998-2000 Bachelor of Science Program (Human Biology and Ecology), University of Toronto

Fellowships and Internships

2011 Senior Ethics Fellow, Toronto East General Hospital, Toronto, Ontario

2010-2011 Academic Fellow in Clinical and Organizational Ethics, University of Toronto Joint Centre for Bioethics

2009 Bioethics Practicum, Bloorview Kids Rehab, Toronto, Ontario

Certificates and Diplomas


2011 Tutorial for the McMaster University Chart Review.
2010  **Ethics in Healthcare**, Ontario Hospital Association, Toronto, Ontario
2008  **Clinical Ethics Summer Institute**, Theme: Building a Foundation for Effective Ethics Programs, Hamilton Health Sciences.
2008  **Introductory Tutorial** for the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (on-line)
2007  **Introduction to Bioethics Course** (distance education course), Provincial Health Ethics Network (PHEN), Red Deer, Alberta
1998  **Bilingual Certificate (French)**, Loretto Abbey of Toronto

2.  Employment Experience

**Current Appointments**

2011-present  **Bioethicist**, Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario
2012-  **Course Co-Director**, MSC3008Y Applied Learning in Bioethics (Practicum), MHSc in Bioethics Program, Institute of Medical Science, University of Toronto (anticipated start July 2012)

**Previous Appointments**

2011  **Senior Ethics Fellow**, Toronto East General Hospital, Toronto, Ontario
2010-2011  **Academic Fellow in Clinical and Organizational Ethics**, University of Toronto Joint Centre for Bioethics
2006-2010  **Medical Radiation Therapy Technologist**, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario
2007-2010  **First Aid and CPR Instructor**, Heart and Stroke Foundation, Toronto, Ontario
2003-2007  **First Aid and CPR Instructor**, Canadian Red Cross, Toronto, Ontario
2006-2007  **Medical Radiation Therapy Technologist**, Durham Evening Clinic, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario
Rosanna Macri

2006  **Medical Radiation Therapy Technologist**, Hammersmith and Charring Cross Hospital, London, England

2005  **Medical Radiation Therapy Technologist**, Mount Vernon Hospital, London, England

2005  **Medical Radiation Therapy Technologist**, Royal Derbyshire Infirmary, Derby, England

2004-2005  **Medical Radiation Therapy Technologist**, Durham Evening Clinic, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario

2003-2005  **Medical Radiation Therapy Technologist**, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario

3. Professional Affiliations & Activities

2012-present  **Board of Directors**, St. Clair West Services for Seniors, Toronto, Ontario

2010-present  **Radiation Research Ethics Consultant**, Canadian Radiation Research Network, Toronto, Ontario

2010  **Invited Member**, Ontario Health Technology Advisory Committee (OHTAC), Societal and Ethical Values Sub-Committee

2010  **Member**, Expert Panel (Celiac Disease), Medical Advisory Secretariat, Ontario Ministry of Health and Long-Term Care.

2008-present  **Member**, Joint Centre for Bioethics, University of Toronto, Ontario

2008-present  **Member**, Radiation Therapist Editorial Review Board, American Society of Radiologic Technologists (ASRT), Albuquerque, New Mexico

2006-2010  **Ethics Education Facilitator for Oncology**, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario

University Committees

2010-present  **Member**, Clinical, Organizational, and Research Ethics (CORE) Network, University of Toronto Joint Centre for Bioethics

2010-present  **Member**, Research Ethics and Education Working Group, University of Toronto Joint Centre for Bioethics

2010-present  **Member**, Bioethics Professionalization Working Group, University of Toronto Joint Centre for Bioethics
2010-2011  **Member**, CORE Network Consult Documentation Task Force, University of Toronto Joint Centre for Bioethics

**Hospital/Community Committees**

2011-present  **Member**, Research Ethics Board, Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario

2011-present  **Member**, Medical Advisory Council, Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario

2011-present  **Member**, Academic Council, Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario

2011-present  **Member**, Accreditation Steering Committee, Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario

2011-present  **Member**, Integrated Programs and Services Committee, Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario

2011-present  **Member**, Interprofessional Practice Advisory Committee, Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario

2011-present  **Member**, Difficult to Discharge Committee, Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario

2011  **Member**, Clinical Ethics Committee, Baycrest, Toronto, Ontario

2011  **Member**, Sexuality Committee, Baycrest, Toronto, Ontario

2010-2011  **Member**, Ethics Committee, Villa Colombo, Toronto, Ontario

2010-2011  **Member**, Community Ethics Network Steering Committee, Community Care Access Centre, Toronto Central

2010  **Member**, End-of-Life Steering Committee, Humber River Regional Hospital, Toronto, Ontario

2010  **Member**, Ethics Committee, Leisure World, Norfinch, Toronto, Ontario

2010  **Member**, Accreditation Senior Leadership Committee, Humber River Regional Hospital, Toronto, Ontario

2009-2010  **Co-Chair**, Ethics Advisory Group, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario
2009  **Member**, Planning Committee, Community Ethics Network Fall Workshop, Theme: Defining and Enhancing Ethical Standards in Community Practice, Sunnybrook, Vaughan Estate, Toronto, Ontario

2009  **Co-Coordinator**, End of Life Policy Rollout, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario

2007  **Golden Apple Nominee for Exceptional Student Teaching**, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario

2004-2008  **Member**, Hospital Ethics Committee, Sunnybrook Health Sciences Centre, Toronto, Ontario

2003-2005  **Member**, Radiation Therapy Research Committee, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario

2003-2005  **Member**, CPR Executive Committee, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario

4. **Professional Associations/Licenses**

**International**

2007-present  American Society of Radiologic Technologists

2005-2006  Health Professions Council, UK

2003-present  The American Registry of Radiologic Technologists

**National**

2011-present  Canadian Bioethics Society

2003-2009  Canadian Association of Medical Radiation Technologists

**Provincial**

2003-present  The College of Medical Radiation Technologists of Ontario

2003-2009  Ontario Association of Medical Radiation Technologists

5. **Other Research and Professional Activities**

**Critical Appraisal**


2010  Guideline for Palliative Sedation Therapy in Canada. Toronto, Ontario

**Resource Development**

2012  Invited Guest Participation, Allocating Injectable Narcotics During a Period of Undersupply, Draft Criteria. Fraser Health Ethics Services, Surrey, British Columbia
C. Publications

Peer-Reviewed


Manuscripts in Preparation or Submitted for Peer-Review

1. **Macri R,** Mistry N. To friend or not to friend, that is the question…or is it? Submitted to *CMAJ.*


Non-Peer-Reviewed

1. Parke B, **Macri R.** Quotidian ethics: Bioethics beyond hospital walls. Preventative ethics: Educating the community. *JCB Voice*; University of Toronto, Joint Centre for Bioethics, Toronto, Ontario, Feb 2011; 16 (6).

D. Presentations and Special Lectures

1. **INTERNATIONAL**

**Papers/Posters/Abstracts**


2. **NATIONAL**

**Papers/Posters/Abstracts**


3. **PROVINCIAL**

**Papers/Posters/Abstracts**


2010  **Macri R**, Burnett J. Strengthening the Wheel: From a Single Program Spoke to an Interdisciplinary Team. IPE/IPC Showcase, Sunnybrook Health Sciences Centre, Toronto, Ontario.


**Invited Lectures and Presentations**


2011  **Macri R**. The Modern Use of Social Media in Health Care: A Discussion of the Role of the HCP. CCU Rounds. The Hospital for Sick Children, Toronto, Ontario.


2011  **Macri R**. Social Media and Professional Boundaries: Drawing the Line Between HCP and BFF. Informatics Rounds. The Hospital for Sick Children, Toronto, Ontario; April 2011.


2010  Parke B, **Macri R**. The Ethics About the Right to Refuse Treatment. Mental Health Grand Rounds. Humber River Regional Hospital, Toronto, Ontario.


**E. Teaching and Design**

**University Lectures**

2012  **Macri R.** Eldercare and Ethics. Medical Radiation Sciences Program, University of Toronto.

2012  **Macri R.** Ethics and Mental Health. Medical Radiation Sciences Program, University of Toronto.

2012  Wagner F, **Macri R.** Ethics and the Interprofessional Health Care Team. Interprofessional Education Series. University of Toronto; January 2012-March 2012.

2011  Mistry N, **Macri R, Zlotnik Shaul R.** To ‘friend’ or not to ‘friend’, that is the question. PeRLS Lecture Series. Hospital for Sick Children, Toronto, Ontario.

2011  **Macri R.** Internet forums and HTA: An exploration of social media as a tool for public engagement. JCB Bioethics Seminar, University of Toronto; May 2011.

2011  **Macri R.** Eldercare and Ethics. Medical Radiation Sciences Program, University of Toronto; March 2011.


2011  Wagner F, **Macri R.** Ethics and the Interprofessional Health Care Team: The practice and teaching of core competencies for ethical decision-making. Wilfred Laurier University, The Lyle S. Hallman Faculty of Social Work, Waterloo, Ontario; March 2011.


### Hospital and Community Presentations

<table>
<thead>
<tr>
<th>Year</th>
<th>Speaker(s)</th>
<th>Title</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-present</td>
<td>Macri R</td>
<td>Unit Specific Introduction to Bioethics with Case Review. Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario; October 2011-present.</td>
<td>Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario; October 2011-present.</td>
<td></td>
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<tr>
<td>2010</td>
<td>Macri R, Parke B</td>
<td>What’s Ethics Got to do With It? Occupational Therapy Week, Humber River Regional Hospital, Toronto, Ontario; October 2010.</td>
<td>Humber River Regional Hospital, Toronto, Ontario; October 2010.</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Wagner F, Macri R</td>
<td>Ethics Orientation. Toronto Central Community Care Access Centre (CCAC), Toronto, Ontario; September, 2010.</td>
<td>Toronto Central Community Care Access Centre (CCAC), Toronto, Ontario; September, 2010.</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Wagner F, Macri R</td>
<td>Ethics and the Hospice/Palliative Care Team. Perram House, c/o Community Care Access Centre (CCAC), Toronto Branch, Toronto, Ontario; June, 2010.</td>
<td>Perram House, c/o Community Care Access Centre (CCAC), Toronto Branch, Toronto, Ontario; June, 2010.</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Macri R &amp; Burnett J</td>
<td>There’s no ‘I’ in Team but what does that have to do with Ethics? Interprofessional Education Ethics Presentation, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario; March, 2010.</td>
<td>Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, Ontario; March, 2010.</td>
<td></td>
</tr>
</tbody>
</table>

CURRICULUM VITAE

Howard Brian Michaels

BUSINESS ADDRESS: Department of Radiation Physics
University Health Network / Princess Margaret Hospital
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Toronto, Ontario
M5G 2M9

Gamma Knife Centre / Toronto Western Hospital
399 Bathurst Street
Toronto, Ontario
M5T 2S8
phone: (416)-603-5800  ext 3444
FAX: (416)-603-5155
e-mail: Howard.Michaels@rmpuhn.on.ca

DATE UPDATED: 9 June 2009

EDUCATION:

DEGREES:

1971  B.A.Sc. (Honours)  Engineering Science  University of Toronto
1973  M.Sc.  Medical Biophysics  University of Toronto
1976  Ph.D.  Medical Biophysics  University of Toronto

SCHOLARSHIPS AND FELLOWSHIPS:

1967  Ontario Scholarship
1967  University of Toronto New College Admission Scholarship
1967  University of Toronto Engineering Alumni Admission Scholarship
1971-1972  Medical Research Council of Canada Studentship
1972-1973  Medical Research Council of Canada Studentship
1973-1974  Medical Research Council of Canada Studentship
1974-1975  Medical Research Council of Canada Studentship
1975-1976  National Cancer Institute of Canada: K.M. Hunter Fellowship
**ADVANCED / SPECIALIZED TRAINING:**

1982  Atomic Energy of Canada (AECL) Theraplan radiation therapy computerized treatment planning system training course and certification (Toronto, Ontario)

1984  Atomic Energy of Canada (AECL) Therac-25 medical linear accelerator service course (Kanata, Ontario)

1995-1998  Radionics/RSA stereotactic radiosurgery system training courses and certification:

  1995  XKnife® system (Boston, USA)
  1995  Computer system and UNIX (Boston, USA)
  1996  XKnife-3® treatment planning software (Boston, USA)
  1996  ImageFusion® software (Boston, USA)
  1998  XPlan® treatment planning software (Boston, USA)

2005-2007  Elekta Leksell Gamma Knife stereotactic radiosurgery system training courses and certification:

  2005  GammaKnife system (Cleveland, USA)
  2005  GammaPlan treatment planning software (Cleveland, USA)
  2007  GammaKnife Perfexion technical training (Stockholm, Sweden)

**HONOURS AND AWARDS:**

1969-1971  Elected to Faculty Council, University of Toronto Faculty of Applied Science and Engineering

1970  Delegate to Congress of Canadian Engineering Students (Quebec City)

1971  Second Mile Engineer Award, University of Toronto Faculty of Applied Science and Engineering

1971  Honours Designation Conferred with Bachelor’s Degree

1973-1975  Elected Chairman of Graduate Students’ Association, Department of Medical Biophysics, University of Toronto

1974  5th International Congress of Radiation Research Travel Award (Seattle, U.S.A.)

1976  Radiation Research Society Travel Award (San Francisco, U.S.A.)

1978  Radiation Research Society Young Scientist Award

1979  6th International Congress of Radiation Research Travel Award (Tokyo, Japan)

1983  7th International Congress of Radiation Research Travel Award (Amsterdam, Netherlands)

1984  Selected for inclusion (biographical listing) in Who’s Who in Frontiers of Science and Technology
1985   Selected for inclusion (biographical listing) in Who’s Who in Frontiers of Science and Technology, 2nd edition
1987   8th International Congress of Radiation Research Travel Award (Edinburgh, Scotland)

EXPERIENCE:

HOSPITAL APPOINTMENTS:

1976-1978   Research Fellow in Radiation Medicine, Massachusetts General Hospital, Boston, Massachusetts
1978-1981   Assistant Radiation Biophysicist, Department of Radiation Medicine, Massachusetts General Hospital, Boston, Massachusetts
1978-1981   Physicist, Intraoperative Radiotherapy Program, Department of Radiation Medicine, Massachusetts General Hospital, Boston, Massachusetts
1979-1981   Radiobiologist, Radiosensitizer Clinical Trial, Department of Radiation Medicine, Massachusetts General Hospital, Boston, Massachusetts
1981-1990   Chief Physicist, Ontario Cancer Treatment and Research Foundation Toronto-Bayview Regional Cancer Centre, Toronto, Ontario
1981-1990   Director, Division of Medical Physics, Ontario Cancer Treatment and Research Foundation Toronto-Bayview Regional Cancer Centre, Sunnybrook Medical Centre, University of Toronto, Toronto, Ontario
1982-1990   Radiation Safety Officer, Ontario Cancer Treatment and Research Foundation Toronto-Bayview Regional Cancer Centre, Toronto, Ontario
1987-1990   Scientific Staff, Department of Radiological Sciences, Sunnybrook Medical Centre, University of Toronto, Toronto, Ontario
1987-1990   Scientific Staff, Department of Oncology, Sunnybrook Medical Centre, University of Toronto, Toronto, Ontario
1994-1996   Coordinator, Radiation Decommissioning, Ontario Cancer Institute / Princess Margaret Hospital, Toronto, Ontario
1994-1999   Physicist and Program Coordinator, Stereotactic Radiosurgery and Stereotactic Radiotherapy Program, Radiation Services Division, Ontario Cancer Institute / Princess Margaret Hospital, Toronto, Ontario
1994-1998  Physicist, Department of Clinical Physics, Ontario Cancer Institute / Princess Margaret Hospital, Toronto, Ontario
1995-1996  Team Leader, Radiation Services Clinical Research and Development, Princess Margaret Hospital, Toronto, Ontario
1998-2000  Senior Physicist, Department of Clinical Physics, Ontario Cancer Institute / Princess Margaret Hospital, Toronto, Ontario
2000-present  Senior Physicist, Department of Radiation Physics, Ontario Cancer Institute / Princess Margaret Hospital, Toronto, Ontario
2002-present  Senior Physicist, Stereotactic Radiosurgery and Radiotherapy Program, Radiation Medicine Program, Princess Margaret Hospital / University Health Network, Toronto, Ontario
2003-2005  Lead Physicist, Central Nervous System (CNS) Site Group, Princess Margaret Hospital / University Health Network, Toronto, Ontario
2003-2005  Back-up Lead Physicist, Eye Site Group, Princess Margaret Hospital / University Health Network, Toronto, Ontario
2005-2007  Back-up Lead Physicist, GammaKnife Site Group, Princess Margaret Hospital / Toronto Western Hospital / University Health Network, Toronto, Ontario
2005-present  Treatment Planning and Quality Assurance Physicist, GammaKnife Team, Princess Margaret Hospital / Toronto Western Hospital / University Health Network, Toronto, Ontario
2007-present  Radiation Safety Officer Designate, GammaKnife Facility, Toronto Western Hospital / University Health Network, Toronto, Ontario
2007-2008  Lead Physicist, GammaKnife Site Group, Princess Margaret Hospital / Toronto Western Hospital / University Health Network, Toronto, Ontario

**ACADEMIC APPOINTMENTS:**

1969  Summer Research Student, Ontario Cancer Institute, Toronto, Ontario
1969-1971  Research Student (undergraduate), Ontario Cancer Institute, Toronto, Ontario
1970  Summer Research Student, Ontario Cancer Institute, Toronto, Ontario
1971-1974  Laboratory Demonstrator, Department of Physics, University of Toronto, Toronto, Ontario
1974-1975  Tutor, Department of Physics, University of Toronto, Toronto, Ontario
1976  Post-doctoral Fellow, Physics Division, Ontario Cancer Institute, Toronto, Ontario
1976-1979  Research Fellow in Radiation Therapy, Harvard Medical School, Harvard University, Boston, Massachusetts
1979-1981  Assistant Professor of Radiation Therapy (Radiation Biophysics), Harvard Medical School, Harvard University, Boston, Massachusetts
1982-1992 Assistant Professor, Department of Radiology, Faculty of Medicine, University of Toronto, Toronto, Ontario
1982-1990 Assistant Professor, Department of Medical Biophysics, School of Graduate Studies, University of Toronto, Toronto, Ontario
1982-present Assistant Professor, Department of Medical Biophysics, Faculty of Medicine, University of Toronto, Toronto, Ontario
1988-1992 Adjunct Professor, Department of Physics, University of Waterloo, Waterloo, Ontario
1992-1999 Assistant Professor, Institute of Biomedical Engineering, University of Toronto, Toronto, Ontario
1993-1995 Special Lecturer, Department of Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, Ontario
1994-present Associate Member, Department of Medical Biophysics, School of Graduate Studies, University of Toronto, Toronto, Ontario
1998-present Assistant Professor, Department of Radiation Oncology, Faculty of Medicine, University of Toronto, Toronto, Ontario
1999-present Assistant Professor, Institute of Biomaterials and Biomedical Engineering, University of Toronto, Toronto, Ontario

MEMBERSHIP IN SOCIETIES:

1967-1971 Engineering Institute of Canada
1973-present Radiation Research Society
1974-1992 Canadian Association of Physicists, Division of Medical and Biological Physics
1976-present Association of Professional Engineers of the Province of Ontario
1977-present American Association of Physicists in Medicine
1980-1981 Committee on Basic Science Practice, New England Society for Radiation Oncology
1982-1987 Ad Hoc Subcommittee on Society Journal, Radiation Research Society
1990-present Canadian Organization of Medical Physicists

LICENCE / CERTIFICATION:

1976-present Registered Professional Engineer (P. Eng.) Association of Professional Engineers of the Province of Ontario (P.Eng. # 3517220)
UNIVERSITY AND HOSPITAL COMMITTEE EXPERIENCE:

University of Toronto (U of T)

1969-1971 Member, Faculty Council, Faculty of Applied Science and Engineering
1969-1971 Member, Decanal Committee to Restructure Faculty Council, Faculty of Applied Science and Engineering
1969-1971 Member of Executive, Engineering Institute of Canada Students’ Association
1969-1971 Chairman, Campus Technical Council, Engineering Institute of Canada Students’ Association
1970 Member, Committee for Delegation to Congress of Canadian Engineering Students (Quebec City)
1971 Member, Committee for Delegation to Congress of Canadian Engineering Students (Ottawa)
1973-1975 Chairman, Graduate Students’ Association, Department of Medical Biophysics
1983-1990 Member of graduate student M.Sc. and Ph.D. examination committees, Department of Medical Biophysics
1987-1990 Member, Cooperative Research in Ovary Group (CROG) (U of T + TBRCC + SMC)
1989 Member, Selection Committee, Second Mile Engineer Award, Faculty of Applied Science and Engineering
1989 Member, Use of Human Subjects in Research (Ethics Review) Committee, Faculty of Medicine
1996 Member, Selection Committee, Second Mile Engineer Award, Faculty of Applied Science and Engineering

Toronto-Bayview Regional Cancer Centre (TBRCC)

1981-1990 Member, Department Heads Committee
1981-1990 Member, Planning Committee
1981-1990 Member, Combined Radiation Oncology, Medical Physics, and Radiotherapy Committee
1981-1990 Member of various Search Committees (Department Heads, Physicians, Physicists)
1982-1983 Member, Patient Orientation Committee
1983-1990 Chairman, Research Committee
1984-1995 Member, Joint Task Group: TBRCC Research Space (TBRCC + SMC)
1984-1985 Member, Working Sub-Committee, Joint Task Group: TBRCC Research Space (TBRCC + SMC)
1984 Member, Radiotherapy Working Group
1984-1990  Member, Joint Oncology Committee (TBRCC + SMC)
1985-1990  Member, Space Use Committee
1986-1990  Member, Safety Committee
1987-1990  Member, Cooperative Research in Ovary Group (CROG)
            (U of T + TBRCC + SMC)
1988-1989  Member, Planning Committee for New Treatment Planning and
           Simulator Facilities
1988-1990  Member, Education Advisory Committee, School of Radiotherapy
           Technology
1988-1990  Member, Faculty Liaison Committee, School of Radiotherapy
           Technology
1989-1990  Member, Radiation Services Committee

**Sunnybrook Medical Centre (SMC)**

1983-1990  Member, NMR Imaging Committee
1983-1984  Member, Radiation Safety Group
1984-1985  Member, Joint Task Group: TBRCC Research Space (TBRCC + SMC)
1984-1985  Member, Working Sub-Committee, Joint Task Group: TBRCC
           Research Space (TBRCC + SMC)
1984-1990  Member, Joint Oncology Committee (TBRCC + SMC)
1987-1989  Member, Planning Committee for New SMC Research Building
           (Reichmann Research Building)
1987-1990  Member, Cooperative Research in Ovary Group (CROG)
           (U of T + TBRCC + SMC)

**Ontario Cancer Treatment and Research Foundation (OCTRF)**

1983  Member, Program Committee, 1983 OCTRF Couchiching Conference
1984  Member, Search Committee for Chief Physicist, Ottawa Regional
      Cancer Centre
1985-1987  Member, Ad Hoc Committee to Inquire into the Safety of the
           Therac-25 Linear Accelerator
1985-1990  Member, Committee for the Selection of Radiation Therapy
           Equipment

**Ontario Cancer Institute / Princess Margaret Hospital (OCI/PMH)**

1994-1996  Member, Task Group on Radiation Decommissioning
1994-1996  Member, Task Group on Radiation Safety Training for OCI/PMH
           Research Staff
1994-1995  Member, Task Group on Laboratory Decommissioning
1994-1996  Member, OCI/PMH Global Hospital Decommissioning Planning Committee
1994-1999  Member, Stereotactic Radiosurgery Implementation Group
1994-1999  Member, Terry Fox Program Project Research Group: Measuring Hypoxia in Tumours: Experimental and Clinical Studies
1995-1996  Member, Radiation Services Re-engineering Implementation Working Group
1995-1996  Member, Radiation Services Team Leaders Group
1995-1996  Member, Radiation Services Policies, Procedures and Protocols Committee
1996-1997  Member, Radiation Services CNS (Central Nervous System) Site Group Accreditation Team
1997-1998  Member, Radiation Services Strategic Planning Discussion Group
1997-1998  Chairman, Radiation Services Clinical Physics Strategic Planning Committee
1998-present  Member, Radiation Medicine Program CNS (Central Nervous System) Site Group
1998-present  Member, Radiation Medicine Program Pediatric Site Group
1998-1999  Member, Radiation Medicine Program Senior Advisory Committee
1998-1999  Member, Radiation Medicine Program Research Committee
2002  Member, Radiation Medicine Program Education Group Strategic Planning Committee
2003-present  Member, Radiation Medicine Program Eye Site Group
2004-2009  Member, Quality Investigation Consultants (QUINCy) Team, Radiation Medicine Program Quality Assurance Monitoring Committee
2007-present  Member, External Beam Radiation Safety Group

REFEREE FOR RESEARCH GRANT APPLICATIONS:

1982-1990  Ontario Cancer Treatment and Research Foundation
1988-present  Medical Research Council of Canada / Canadian Institutes of Health Research
1994-1999  Medical Research Council of Canada University - Industry Program

REFEREE FOR MANUSCRIPTS / PAPERS FOR JOURNALS:

1979-present  Radiation Research
1983-present  International Journal of Radiation Oncology, Biology and Physics
1984-present  International Journal of Radiation Biology
1984-present  Cancer
1986-present  Medical Physics
RESEARCH:

MAJOR RESEARCH INTERESTS: SIGNIFICANT EXPERIENCE:

1. Radiation sensitization by oxygen, and chemical radiosensitizers and radioprotectors of hypoxic mammalian cells
2. Chemical modifiers of radiation damage
3. Detection and measurement of hypoxia in tumours
4. Radiation biology as applied to cancer radiotherapy
5. Radiation chemistry
6. Clinical use of radiosensitizers in radiotherapy
7. Medical radiation physics of radiotherapy and nuclear medicine
8. Intraoperative radiation therapy
9. Stereotactic radiosurgery and stereotactic radiotherapy
10. Radiolabelled monoclonal antibodies for cancer treatment
11. Clinical trials in oncology

OTHER RESEARCH INTERESTS:

1. Radiobiological mechanisms in photodynamic therapy
2. Biological effects of non-ionizing electromagnetic radiation: low frequency electric and magnetic fields
3. Biomedical engineering
4. Cross-disciplinary science: astronomy, geology, meteorology, engineering
5. History and philosophy of science and technology
6. Scientific fraud
7. Ethics in medicine and biomedical research

RESEARCH SUPPORT / GRANTS:

1976-1979  Research Associate: Fast Time Processes in Cancer Radiobiology
National Cancer Institute (United States): Research Grant #CA-18614
ER Epp, Principal Investigator

1979-1983  Co-investigator: Radiation Sensitization Applied to Cancer Radiobiology
National Cancer Institute (United States): Research Grant #CA-18614
ER Epp, Principal Investigator

1981-1984  Co-investigator: Intraoperative Radiotherapy
National Cancer Institute (United States): Research Grant
#N01-CM-17481
W.U.Shipley, Principal Investigator
1990  
Principal Investigator: The Density Scaling Method for Dosimetry of Radiolabelled Antibody Treatment for Cancer  
Ontario Centre for Large Scale Computation at the University of Toronto / Cray Canada: Research Grant  
M. Woo, Co-investigator  
[$22,000/yr]

1993  
Senior Research Associate: The Clinical Significance of Vapour Detection from Living Tissues and Organs  
Institute of Biomedical Engineering, University of Toronto / Scintrex: Research Contract  
H. Kunov and A. Dolan, Co-principal Investigators  
[$45,000]

1996-1999  
Group Member: Measuring Hypoxia in Tumours: Experimental and Clinical Studies  
National Cancer Institute of Canada: Terry Fox Program Project Research Grant #006867  
R.P. Hill, Principal Investigator  
[$1,259,853 / 3 years]

PUBLICATIONS:

REFEREED PUBLICATIONS:


NON-REFEREED PUBLICATIONS:


5. Leung PMK, Michaels HB: Technical Report: Radioactivity Decommissioning of the Princess Margaret Hospital [submitted to the Atomic Energy Control Board of Canada]. Ontario Cancer Institute / Princess Margaret Hospital, Toronto, Ontario, 244 pages (1996)

PUBLISHED ABSTRACTS:

2. Michaels HB, Hunt JW: Reaction of oxygen with polynucleotides following attack by hydroxyl radicals. At the 5th International Congress of Radiation Research, Seattle, 1974 (Radiat Rsch 59, 192, 1974)


10. Michaels HB, Ling CC, Epp ER, Peterson EC: Radiosensitization of mammalian cells irradiated at ultra-high dose rates in the simultaneous presence of a hypoxic cell sensitizer and a low level of oxygen. At the 6th International Congress of Radiation Research, Tokyo, 1979
11. Ling CC, Michaels HB, Epp ER, Peterson EC: Interaction of misonidazole and low concentrations of oxygen in the radiosensitization of cultured CHO cells. At the 6th International Congress of Radiation Research, Tokyo, 1979


20. **Michaels HB**: Effects of nitroaromatic radiosensitizers on radiolytic oxygen depletion in mammalian cells and in aqueous solution. At the 7th International Congress of Radiation Research, Amsterdam, 1983


22. **Michaels HB**: Increased radiosensitivity of aerobic mammalian cells following pre-incubation with misonidazole in hypoxia. At the Conference on Chemical Modifiers of Cancer Treatment, Banff, Alberta, 1983

23. Rauth AM, McClelland RA, **Michaels HB**, Battistella R: The oxygen dependence of the reduction of nitroimidazoles in a radiolytic model system. At the Conference on Chemical Modifiers of Cancer Treatment, Banff, Alberta, 1983


26. **Michaels HB**: Radiolytic depletion of oxygen in aqueous solutions. At the 33rd Annual Meeting of the Radiation Research Society, Los Angeles, 1985

27. **Michaels HB**: Oxygen depletion in irradiated aqueous solutions containing electron affinic hypoxic cell radiosensitizers. At the Conference on Chemical Modifiers of Cancer Treatment, Clearwater, 1985

28. **Michaels HB**: Radiolytic oxygen depletion in solutions of nitroaromatic radiosensitizers: Effect of electron affinity. At the 34th Annual Meeting of the Radiation Research Society, Las Vegas, 1986

29. Siwek RA, O’Brien P, Leung P, **Michaels H**: Shielding effects of Selectron applicator and pellets on isodose distributions. At the 4th International Selectron Users Meeting, Vancouver, 1986
30. **Michaels HB**: Oxygen depletion and peroxide formation in irradiated solutions and mammalian cells. At the 8th International Congress of Radiation Research, Edinburgh, 1987


34. Leung PMK, **Michaels HB**: Radioactivity decommissioning of a large treatment and research facility. At the 42nd Annual Meeting of the Canadian Organization of Medical Physicists, Vancouver, 1996 (Med Phys 23, 806, 1996)


44. Laperriere NJ, Sahgal A, Millar BA, Michaels H, Jaywant S, Chan H, Heon E and Gallie B: Focal stereotactic radiotherapy for macular/peripapillary retinoblastoma. At the 15th International Society for Genetic Eye Disease / 12th International Retinoblastoma Symposium / 12th International Congress of Ocular Oncology, Whistler, 2005


57. Van Prooijen M, Michaels HB, Cho YB and Galbraith DM: Comparison of TG-21 and TG-51 calibrations of a Gamma Knife Unit. At the 14th International Meeting of the Leksell Gamma Knife Society, Quebec City, 2008

58. Schwartz M, Tsao M and Michaels H: A possible strategy for radiosurgery of large (>15 cc) arteriovenous malformations (AVMs). At the Canadian Radiosurgery Society Meeting, St. John’s, 2009

OTHER PUBLICATIONS:


PRESENTATIONS:

INVITED PRESENTATIONS:


2. “Kinetics of oxygen diffusion and radiosensitization in mammalian cells irradiated by single and double pulses of high intensity electrons”. At the Ontario Cancer Institute, Toronto, Ontario, 1977

3. “Rationale of hypoxic cell sensitizers in radiotherapy” (Refresher Session). At the New England Society for Radiation Oncology Winter Meeting, Newton, Massachusetts, 1979

4. “Radiation sensitization of mammalian cells at ultrahigh dose rates”. At Tufts University - New England Medical Centre, Boston, Massachusetts, 1979

5. “In vitro studies with radiosensitizers”. At the Ontario Cancer Treatment and Research Foundation Hamilton Clinic, Hamilton, Ontario, 1980

6. “Exploring the time scale of radiosensitization”. At the International Conference on Oxygen and Oxy-Radicals in Chemistry and Biology, Austin, Texas, 1980

7. “Experiments on radiosensitization and hypoxic cell toxicity of misonidazole in CHO cells”. At the Ontario Cancer Institute, Toronto, Ontario, 1980

8. “Ultrasound dose rate (10^{11} \text{ rad/s}) irradiation and sensitization of mammalian cells”. At Harvard Medical School / Massachusetts Institute of Technology, Boston, Massachusetts, 1981

9. “Irradiation of mammalian cells at ultrahigh dose rates”. At Massachusetts General Hospital, Boston, Massachusetts, 1981

10. “Intraoperative radiotherapy”. At Princess Margaret Hospital, Toronto, Ontario, 1981

11. “Radiation hardware”. At the First Oncology Clinical Day, Toronto-Bayview Clinic and Sunnybrook Medical Centre, Toronto, Ontario, 1982


13. “Radiation chemistry in radiobiology”. At Massachusetts General Hospital / Harvard Medical School, Boston, Massachusetts, 1982


18. “Radiation in our environment: science and public perception”. At the Institute of Biomedical Engineering, University of Toronto, Toronto, Ontario, 1992


20. “The stereotactic radiosurgery and stereotactic radiotherapy program at Princess Margaret Hospital”. At the Ontario Cancer Institute / Princess Margaret Hospital School of Radiation Therapy Technology, Toronto, Ontario, 1996

21. “Stereotactic radiosurgery and radiotherapy for brain tumours”. At the Institute of Biomedical Engineering, University of Toronto, Toronto, Ontario, 1996

22. “Stereotactic radiosurgery: Anatomical and physiological considerations”. At the Department of Physiology, Theoretical Graduate Division, University of Toronto, 1997

23. “Med Physconsiderations for stereotactic radiosurgery and radiotherapy”. At the Department of Physics, Carleton University, Ottawa, Ontario, 1998


CONFERENCE / CHAIRMANSHIP EXPERIENCE:

1969-1971 Chairman, Campus Technical Council, Engineering Institute of Canada Students’ Association, University of Toronto

1973-1975 Chairman, Graduate Students’ Association, Department of Medical Biophysics, University of Toronto
1974  Co-chairman of session, 5th International Congress of Radiation Research, Seattle, Washington
1983  Co-chairman of session and member of program committee, 9th Clinical Cancer Research Conference of the Ontario Cancer Treatment and Research Foundation, Geneva Park, Lake Couchiching, Ontario
1983  Panellist, “All About Radiation” information program, Sunnybrook Medical Centre, Toronto, Ontario
1983-1990  Chairman, Research Committee, Toronto-Bayview Regional Cancer Centre
1984  Chairman, Ontario Cancer Treatment and Research Foundation Physicists’ Meeting, 23rd Clinical Conference of the Ontario
1995  Chairman of session, 43rd Annual Meeting of the Radiation Research Society, San Jose, California
1996  Organizer and Chairman, Joint Meeting of Ontario Cancer Institute / Princess Margaret Hospital Department of Med Phys and University of Toronto Institute of Biomedical Engineering
1997-1998  Chairman, Radiation Services Clinical Physics Strategic Planning Committee, Princess Margaret Hospital

RESEARCH SUPERVISION:

UNDERGRADUATE STUDENT SUPERVISION:

Arts and Science Program
McMaster University, Hamilton, Ontario
Thesis title:  Level of Patient Exposure to Ionizing Radiation During Neurointerventional Procedures and Risk of Tumorogenesis After Neurointerventional Procedures

GRADUATE STUDENTS:

1998-1999  Lindsay Auld  M.H.Sc.
Institute of Biomaterials and Biomedical Engineering
University of Toronto
Thesis title:  Dose Verification in Stereotactic Radiosurgery
EXPERIENCE AS AN EXAMINER:

1981-1990  Examiner on Medical Physicist ‘Peer Review A’ and ‘Peer Review B’ examination panels, Ontario Cancer Treatment and Research Foundation
1983-1990  Examiner on graduate student M.Sc. and Ph.D. examination committees, Department of Medical Biophysics, University of Toronto
1988-1990  Examiner, School of Radiotherapy Technology, Toronto-Bayview Regional Cancer Centre
1989  Member, Use of Human Subjects in Research (Ethics Review) Committee, Faculty of Medicine, University of Toronto
1998  External Examiner for Ph.D. thesis examination, Department of Physics, Faculty of Graduate Studies and Research, Carleton University, Ottawa, Ontario
2003-present  Examiner on Medical Physicist Resident ‘Peer Review A’ examination panels, Princess Margaret Hospital
2003-present  Examiner on graduate student M.H.Sc. examination committees, Institute of Biomaterials and Biomedical Engineering, University of Toronto
2008-present  External Examiner for 4th-year engineering students cooperative program work reports, Department of Mechanical and Mechatronic Engineering, Faculty of Engineering, University of Waterloo, Waterloo, Ontario

TEACHING EXPERIENCE:

ACADEMIC / SUPERVISORY COMMITTEES:

1977-1978  Supervisor of summer research students, Department of Radiation Medicine, Massachusetts General Hospital
1983-1989  Supervisor of summer research students, Division of Medical Physics, Toronto-Bayview Regional Cancer Centre and Physics Division, Ontario Cancer Institute
1983-1990  Member of graduate student supervisory and examination committees, Department of Medical Biophysics, University of Toronto
1988-1990  Member of Education Advisory Committee, School of Radiotherapy Technology, Toronto-Bayview Regional Cancer Centre
1988-1990  Member of Faculty Liaison Committee, School of Radiotherapy Technology, Toronto-Bayview Regional Cancer Centre
1994-1995  Supervisor of summer research students, Department of Medical Biophysics, University of Toronto, and Department of Clinical Physics, Ontario Cancer Institute
1994-1995  Member of curriculum development and implementation committee for course Radiation Safety in the Laboratory, Ontario Cancer Institute / Princess Margaret Hospital

LECTURES AND COURSES:

1977-1980  Lectures on radiation chemistry, radiation biology and radiation sensitizers and protectors, for graduate course Cell and Tissue Radiation Biology, Harvard Medical School
1977-1980  Lectures on radiation chemistry and radiation biology to residents, Department of Radiation Medicine, Massachusetts General Hospital
1979   Invited Lecture “Rationale of hypoxic cell sensitizers in radiotherapy” (Refresher Session), at New England Society for Radiation Oncology Winter Meeting, Newton, Massachusetts
1982   Invited Lecture “Radiation chemistry in radiobiology”, Harvard Medical School
1985-1989  Lectures on radiation biology and radiotherapy physics to radiation therapy technologists in Advanced Certification Program, Toronto-Bayview Regional Cancer Centre
1988-1989  Lectures on basic physics, radiation physics, radiation biology, radiotherapy physics, radiation safety and protection, to radiation therapy technologists/students, School of Radiotherapy Technology, Toronto-Bayview Regional Cancer Centre
1993-2004  Lectures on radiation therapy and nuclear medicine, for graduate course Clinical Engineering Instrumentation, Institute of Biomaterials and Biomedical Engineering, University of Toronto
1993-1994  Lectures on nuclear physics, radiation physics, radiation chemistry, radiation biology and radiological health physics, for graduate course Basic Applied Nuclear Processes, Department of Chemical Engineering and Applied Chemistry, University of Toronto
1994-1995  Lectures on sources of radiation in the environment, radiation physics, radiation chemistry, radiation biology, radiation measurement and dosimetry, and radiological health physics, for graduate course Ionizing Radiation in the Environment, Department of Chemical Engineering and Applied Chemistry, University of Toronto
1994-1995  Lectures on sources of radiation in the environment, radiation physics, radiation chemistry, radiation biology, radiation measurement and dosimetry, radiological health physics, and radiation protection, for course Radiation Safety in the Laboratory, Ontario Cancer Institute / Princess Margaret Hospital
1996-2005 Lectures and detailed intensive training of Radiation Therapy staff
(radiotherapy technologists/therapists and others) in theory,
applications, and clinical practice of stereotactic radiosurgery
and stereotactic radiotherapy, Ontario Cancer Institute /
Princess Margaret Hospital

2002-present Lectures on special techniques in external-beam radiotherapy, stereotactic
radiosurgery and radiotherapy, radiation measurement and protection,
for course Radiation Physics for Radiation Oncology Residents,
Department of Radiation Oncology, University of Toronto

2003-present Lectures on radiation safety in radiation therapy research and radiation
safety for new brachytherapy procedures, for course Advanced
Radiotherapy and Medical Physics, Institute of Medical Science /
Department of Radiation Oncology, University of Toronto

2003-2004 Lectures on structure of matter, types of radiation, interactions of radiation
with matter, photon beam characteristics, physics and mathematics of
radioactivity, for undergraduate course Radiation Science 1: Ionizing
Radiation and Its Interaction with Matter, Faculty of Medicine,
University of Toronto / Michener Institute for Applied Health Sciences

2007-present Lectures on treatment planning techniques for stereotactic radiosurgery
and radiotherapy, for course Radiation Physics, Physics Residency
Program, Department of Radiation Oncology, University of Toronto
A. Date Curriculum Vitae is Prepared: 2016 August 3

B. Biographical Information

Primary Office
Centre for Addiction and Mental Health
33 Russell Street
Room 2063A
Toronto, Ontario, Canada
M5S 2S1
Telephone 416.535.8501 x39577
Cellphone 416.432.5453
Fax 416.532.1360
Email david.wiljer@camh.ca

1. EDUCATION

Degrees
1992 Sep - 2004 Nov PhD, Medieval Studies, University of Toronto
1991 Sep - 1992 Nov MA, Medieval Studies, University of Toronto
1987 Sep - 1990 Nov BA, McGill University

Qualifications, Certifications and Licenses
2015 Nov Collaborative Institutional Training Initiative (CITI) / Good Clinical Practice (GCP), Centre for Addiction and Mental Health, Toronto, Ontario, Canada
2015 Jun Advanced Health Leadership Program, Rotman School of Management, University of Toronto, Toronto, Ontario, Canada
2014 Mar Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS 2: CORE), Panel on Research Ethics on Navigating the ethics of human research, Toronto, Ontario, Canada
2009 Jul Best Practices in Clinical Research, UHN
2004 Jul Rotman Leadership Development Program, University Health Network, Toronto, Ontario, Canada

2. EMPLOYMENT

Current Appointments
2013 Feb - present Associate Professor, Psychiatry, Faculty of Medicine, University of Toronto
2012 Sep - present Senior Director, Transformational Education and Academic Advancement, Centre for
Addition and Mental Health, University of Toronto

2012 Jul - present  Associate Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
2012 Jul - present  Associate Professor, Health Policy, Management and Evaluation, Faculty of Medicine, University of Toronto
2015 Apr 1 - 2018 Apr 1  Managing Course Director, Trillium Health Partners, Ontario, Canada

*Medical Psychiatry Collaborative Care Certificate (MP3C Program) is being created as a program to build capacity and accelerate the speed of adoption of collaborative care across the MPA and the province of Ontario.*

Previous Appointments

HOSPITAL

2009 Nov - 2012 Sep  Co-Director, Communications and Knowledge Transfer, TECHNA Institute, University Health Network, Toronto, Ontario
2009 Apr - 2012 Sep  Associate Director, ELLICSR, Princess Margaret Cancer Program, University Health Network, Toronto, Ontario
2005 Jun - 2012 Sep  Director, Knowledge Management and Innovation, Oncology Education/Radiation Medicine Program, Princess Margaret Hospital, University Health Network, Toronto, Ontario
2002 Mar - 2004 May  Manager, Educational Informatics, Princess Margaret Hospital, University Health Network, Toronto, Ontario

RESEARCH

2013 May 1 - 2014 Aug 31  Adjunct Faculty, Interfaculty Program in Public Health, The Western Centre for Public Health and Family Medicine, Western University, London, Ontario, Canada
1995 Sep - 1996 Jun  Research Assistant for James Farge, Michael M. Sheehan, CSB, University of Toronto Press
1991 Sep - 2000 Aug  Senior Researcher for the Periphyseon Project, University of Toronto, Quebec, Canada
1989 May - 1991 May  Research Assistant for Professor Paul Piehler, McGill University

UNIVERSITY

2012 Jan - 2012 Sep  Director, Strategy & Implementation, Continuing Education & Professional Development, University of Toronto
1998 Aug - 1998 Dec  Teaching Assistant for PhD Latin at CMS, Centre for Medieval Studies, University of Toronto
*Instructed Latin at the graduate level, conducted small tutorial groups, set and marked quizzes, taught two plenary sessions*
1997 Jan - 1997 May  Teaching Assistant for PhD Latin, Centre for Medieval Studies, University of Toronto
*Instructed Latin at the graduate level, conducted small tutorial groups, set and marked quizzes*
1996 Jan - 1996 May  Teaching Assistant for MA Latin, Centre for Medieval Studies, University of Toronto
*Instructed Latin at the graduate level, conducted small tutorial groups, set and marked quizzes*
1995 Sep - 1998 Jul  Latin Instructor (September), Centre for Medieval Studies, University of Toronto

UNIVERSITY - CROSS APPOINTMENT

2009 Jul - 2012 Jul  Assistant Professor, Health Policy, Management and Evaluation, Faculty of Medicine, University of Toronto
2007 Jul - 2012 Jul  Associate Member, Institute of Medical Science, Faculty of Medicine, University of Toronto

UNIVERSITY - RANK

2004 Jul - 2012 Sep  Assistant Professor, Radiation Oncology, Faculty of Medicine, University of Toronto
3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

INTERNATIONAL

Received

2013 Sep  
**Best Poster Award (1st Place),** American Association for Cancer Education. (Distinction)

2013 Sep  
**Fellow of the American Association for Cancer Education,** American Association for Cancer Education. (Distinction)

2011 Apr  
**Outstanding Paper Award,** International Association for the Development of Information Society (IADIS). (Distinction)


2010 Sep  
**R. Davilene Carter Presidential Prize for Best Paper (1st Place),** American Association for Cancer Education (AACE) International Cancer Education Conference. (Distinction)


2009 Oct  
**R. Davilene Carter Presidential Prize for Best Paper (2nd Place),** American Association for Cancer Education (AACE) International Cancer Education Conference. (Distinction)


2007 Oct  
**Gold Star Award,** American Cancer Patient Education Network (CPEN). (Distinction)

For outstanding service and excellence in developing electronic based solutions for patient education.

2007 Sep  
**VIP Award for Innovation,** McKesson. (Distinction)

To Shared Information Management Services (SIMS) Partnership and to Oncology Education, University Health Network for their work on InfoWell, an innovative personal health record. Leads: David Wiljer and Selina Brudnicki. Total Amount: 10,000 CAD

NATIONAL

Received

2012 Jun  
**E.I. Hood Award,** Canadian Association of Medical Radiation Technologists. (Distinction)

1995 Sep - 1996 Sep  
**Doctoral Fellowship,** Social Sciences and Humanities Research Council of Canada (SSHRC). (Research Award)

Total Amount: 14,000 CAD

PROVINCIAL / REGIONAL

Received

2006 Nov  
**Minister’s Innovation Award,** Ministry of Health and Long Term Care (MOHLTC). (Distinction)
David WILJER

Health Care Expo, granted to Princess Margaret Hospital, University Health Network for their work on Getting Results, an innovative personal health record for hematology patients.
Leads: David Wiljer, Mark Minden, Janice Stewart, Cindy Murray, Sima Bogomilsky, and Selina Brudnicki.

2006 Nov

**Team Innovation Award**, Cancer Care Ontario. (Distinction)
To Oncology Education at Princess Margaret Hospital / University Health Network for outstanding innovation and service in developing an innovative patient education program.
Program Leads: Pamela Catton, Audrey Friedman, David Wiljer.

1996 Sep - 1997 Aug

**Ontario Graduate Scholarship**, Government of Ontario. (Research Award)
Total Amount: 12,000 CAD

LOCAL

Received

2016 May

**Best Oral Presentation in the eHealth category for IHPME Research Day**, University of Toronto, Toronto, Ontario, Canada. (Research Award)
Presentation Title: Should mHealth apps answer to the RCT? A review of the appropriateness of mHealth clinical trial methodology.
Authors: Quynh Pham, David Wiljer, Joseph A Cafazzo.

2015 Mar

**Best Faculty poster for the Donald Wasylenki Education Day**, University of Toronto, Toronto, Ontario, Canada. (poster)
For poster titled: A Pilot Survey to Assess Mental Health Teaching Professionals’ Attitudes toward Involving Patients in Education
Carmen Wiebe, Sophie Soklaridis; David Wiljer; Karen MacCon; Sacha Agrawal; michael-jane.levitan, Sandra Cunning; Dana-Lea Thompson.

2015 Feb

**Best Poster Presentation in International Health at Medical Student Research Day**, Collaborator, University of Toronto, Toronto, Ontario, Canada. (Poster)
Best poster for Perceptions and Experiences of Perinatal Metal Disorders in Rural North Vietnamese Communities.
Authors: Abrams, D., Nguyen, L.T., Murphy, J., Younji, L., Wiljer, D.

2014 Feb

**Best Faculty Poster Award - Donald Wasylenki Education Day 2014**, University of Toronto, Toronto, Ontario, Canada. (Poster)
Best Faculty poster: David Wiljer, Co-applicants: Sandra Cunning, Andrew Johnson, Michael-Jane Levitan, Karen McCon. “The multi-faceted role of clients and families in medical education”.

2012 Jun

**Building recipie and understanding nutrition for cancer-survivor health (BRUNCH)**, University Health Network Allied Health Research Day - Best poster by an experienced researcher. (Distinction)

2012 Jun

**Dr. Petrie Memorial Award**, Canadian Association of Medical Radiation Technologists. (Distinction)
Barriers to accessing radiation therapy in Canada: a systemic review.

2011 May - 2012 May

**Research Leadership Award**, Radiation Medicine Program, Princess Margaret Hospital. (Distinction)

1998 Sep - 1999 Aug

**Colin Robert Chase Award**, University of Toronto. (Distinction)
Graduate student award. Total Amount: 2,500 CAD

1994 Sep

**Open Fellowship**, University of Toronto. (Research Award)
Total Amount: 4,500 CAD
Teaching and Education Awards

LOCAL
Received
2011 May  Radiation Medicine Program Education Mentorship Award, Dept of Radiation Oncology, Faculty of Medicine, Princess Margaret / University Health Network. (Multilevel Education) For mentorship to undergraduate and graduate students.

Student/Trainee Awards

NATIONAL
Received
2010 Sep - 2011 Aug  Master’s Award: Frederick Banting and Charles Best Canada Graduate Scholarships, Supervisor, Awardee Name: Moeinedin F M. Canadian Institutes for Healthcare Research (CIHR) Improving Transition of Care Among Cancer Patients, General Practitioners, and Oncologists through the Electronic Means of Communication. Total Amount: 17,500 CAD

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

2016 May - present  Cross-Appointed Researcher, The Wilson Centre
2012 Jan - present  Member, Association for Medical Education in Europe (AMEE)
2011 - present  Member, Society for Academic Continuing Medical Education (SACME)
2004 - present  Member, American Association of Cancer Education (AACE)
2004 - present  Member, Canadian Association of Radiation Oncology
2004 - present  Member, Cancer Patient Education Network (CPEN) Canada
2004 - present  Member, Cancer Patient Education Network (CPEN) US
2011 - 2013  Member, International Association for Development of Information Society (IADIS)
2004 - 2008  Member, Canada’s Health Informatics Association, COACH
1999  Member, Canadian Patristic Society
1998  Member, American Academy of Religion
2016 Apr  Member, The Wilson Centre

Administrative Activities

INTERNATIONAL
2014 International Cancer Education Conference

American Association of Cancer Education (AACE)
2013 - 2014  Past President, American Association of Cancer Education (AACE), United States.
David WILJER

2011 - 2012 Chair, 2012 International Cancer Education Conference Planning Committee
2011 - 2012 President Elect, American Association of Cancer Education (AACE), United States.
2010 Sep - 2011 Sep Vice President, American Association of Cancer Education (AACE), United States.
2010 - 2014 Oct Member, AACE Executive Council, United States.
2010 - 2011 Member, 2011 International Cancer Education Conference Planning Committee
2009 - 2012 Member, Web Development Committee
2008 - 2010 Treasurer
2007 - 2008 Member at Large, Executive Council
2007 - 2008 Chair, Finance Committee

American Cancer Patient Education Network (CPEN)
2003 - 2006 Co-Chair, Electronics Committee

Mayo Clinic/Society of Academic Continuing Medical Education (SACME)
2008 Member, Continuing Medical Education Consensus Committee, Continuing Education

National Cancer Institute
2009 - 2012 Co-Chair, United States of America Cancer Education Task Force

NATIONAL
Canadian Committee for Patient Access to Electronic Health Records (CCPAEHR)
2005 - 2009 Founding Chair

Canadian Partnership Against Cancer (CPAC)
2008 - 2009 Portal Evaluation Lead

Cancer Patient Education Network (CPEN)
2004 - 2007 Member, Steering Committee
2003 Co-Chair, Canada Conference Planning Committee

Centre for Addiction and Mental Health
2013 Aug - present Member, Portico National Editorial Board, Toronto, Ontario, Canada.

Oncology Advanced Practice Nursing (APN)
2008 - 2009 Member, National Steering Committee
For the e-Mentorship Program, a national initiative supported by the Canadian Partnership Against Cancer.

The Association of Faculties of Medicine of Canada
2016 Feb - present AFMC Research Subcommittee, Canada.

PROVINCIAL / REGIONAL
Canadian Urological Association
2010 - 2011 Conference Co-Chair, Fostering Partnership, Genitourinary (GU) Cancer Survivorship Meeting, Toronto.
Cancer Care Ontario

2009  
**Chair**, E-Resource Working Group, Ontario Oncology Nursing Mentorship Program  
*A provincial initiative supported by Cancer Care Ontario.*

2009  
**Member**, Knowledge Transfer and Integration of Knowledge Working Group, Ontario Oncology Nursing Mentorship Program  
*A provincial initiative supported by Cancer Care Ontario.*

2007 - 2009  
**Team Leader**, Electronic Infrastructure, Advanced Practice Nursing (APN) eMentorship Project  
*A provincial initiative supported by Cancer Care Ontario.*

Cancer Quality Council of Ontario

2009  
**Member**, Review Committee 4th Annual Quality and Innovation Awards  
*Supported by Cancer Care Ontario and the Canadian Cancer Society.*

Centre for Addiction and Mental Health

2013 Mar - present  
**Member**, Provincial Council, Toronto, Ontario, Canada.

Knowledge Integration for Better Healthcare

2010  
**Co-Chair**, Insight Meeting, Toronto.

Ministry of Labour & Ministry of Health and Long-Term Care

2016 Jan - present  
Communication and Knowledge Translation Working Group, Ontario, Canada.

Ontario Ministry of Health and Long Term Care (MOHLTC)

2008  
**Infrastructure Lead**, De Souza Institute  
*A provincial oncology nursing initiative supported by MOHLTC.*

University of Toronto

2010 - 2012  
**Member**, Conference Planning Committee  
*Radiation Therapy: Inquire, Inspire, Innovate (RTi3), annual radiation therapy conference hosted by the Department of Radiation Oncology.*

2009 - 2012  
**Member**, Target Insight Planning Committee  
*Annual radiation medicine conference hosted by the Department of Radiation Oncology.*

LOCAL

Baycrest Centre for Geriatric Care

2014 Apr - present  
Education Advisory Committee Meeting, Ontario, Canada.

Centre for Addiction and Mental Health

2015 Nov - present  
**Member**, Slaight Centre Research Committee, Toronto, Ontario, Canada.

2014 Sep - present  
**Member**, Building Association Committee, Toronto, Ontario, Canada.

2014 Apr - present  
**Member**, CAMH education scholarship group, Toronto, Ontario, Canada.

2014 Feb - present  
**Member**, Quality of Care Committee, Toronto, Ontario, Canada.

2014 Jan - present  
**Member**, Centre for Transition Aged Youth Steering Committee, Toronto, Ontario, Canada.

2013 Dec - present  
**Member**, By Students, For Students Steering Committee, Toronto, Ontario, Canada.

2013 Apr - present  
**Member**, Business Operations Leadership Team Committee, Toronto, Ontario, Canada.
David WILJER

2012 Sep - present  Member, Academic Council, Toronto, Ontario, Canada.
2012 Sep - present  Co-Chair, Education Council, Toronto, Ontario, Canada.
2014 Jan - 2015 Sep  Member, Tobacco-Free Task Force, Toronto, Ontario, Canada.
2013 Feb - 2015 Feb  Member, Liaison Committee, Toronto, Ontario, Canada.
2012 Oct - 2014 Sep  Member, Communications Leadership (C4), Toronto, Ontario, Canada.

MPA Partnership (CAMH/UofT/Trillium/Sick Kids)
2015 Jan - present  MPA Advisory Council, Toronto, Ontario, Canada.
2015 Jan - present  MPA/CAMH Committee, Toronto, Ontario, Canada.
2014 Mar - present  Member, MPA Management Committee, Toronto, Ontario, Canada.

MPA Partnership (CAMH/UofT/Trillium/Sick Kids)
2016 May - present  Member, MP3C Coordinations Committee, Toronto, Ontario, Canada.
2016 May - present  Co-Chair, MP3C Research and Curriculum Development, Toronto, Ontario, Canada.
2015 Dec - 2016 May  Chair, MP3C Operations Committee, Toronto, Ontario, Canada.

Princess Margaret Cancer Centre
2005 Nov - 2012 Mar  Member and Managing Principal Investigator, Image Guided Radiation Therapy (IGRT) Courses, Planning Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education
2012 January 11th-13th, February 22nd-24th, March 29th-31st
2011 January 12th-14th, April 07th-09th, October 27th- 29th, 16th-19th Nov
2010 February 18th-20th, April 22nd-24th, October 14th-16th
2009 June 25th-27th, November 12th-14th
2008 January 24th-26th, April 03rd-05th, June 05th-07th, October 02nd-04th, November 13th-15th
2007 January 26th-28th, April 30th-01st I, June 22nd-24th, September 07th-09th, November 09th-11th
2006 January 27th-29th, March 31st- April 02nd, May 12th-14th, August 25th-27th, November 17th-19th
2005, November 11th-14th, December 2nd-3rd.

Princess Margaret Cancer Program/ University Health Network
2011 - 2012  Chair, Princess Margaret Cancer Program Website Redevelopment
2009 - 2012  Chair, Radiation Medicine Program (RMP) Education Committee
2009 - 2012  Member, Living Laboratory for Interdisciplinary Cancer Survivorship Research (ELLISCR) Steering Committee
2007 - 2012  Chair, Princess Margaret Innovation Rounds
2005 - 2012  **Member**, Steering Committee, Accelerated Education Program (AEP): Image Guided Radiation Therapy (IGRT)

2005 - 2009  **Member**, Radiation Medicine Program (RMP) Education Advisory Group

2005 - 2006  **Co-Chair**, Radiation Medicine Program (RMP) Innovation Rounds

2003 - 2012  **Member**, Oncology Education Executive Committee

2003 - 2005  **Member**, Radiation Medicine Program (RMP), Web Development Committee

2002 - 2012  **Member**, Radiation Medicine Skills Lab

2002 - 2006  **Member**, Oncology Interactive Board Executive

2002 - 2005  **Member**, Education Strategic Planning Committee

**Princess Margaret Hospital (PMH), University Health Network**

2003 - 2004  **Co-Chair**, Navigating the System Advisory Committee

**Toronto Academic Health Science Network**


**University Health Network**

2011 - 2012  **Co-Chair**, Web Working Group

2010  **Member**, Web Task Force

2007 - 2009  **Member**, Chronic Disease Management (CDM) Patient Portal Advisory Committee

2005 - 2012  **Member**, Management Forum

2005 - 2006  **Member**, e-learning Council

2004  **Member**, eLearning Search Committee

2003 - 2005  **Co-Chair**, Technology Sub-committee for eLearning

2002 - 2009  **Member**, Patient Education Advisory Committee, Faculty of Medicine, Dept of Radiation Oncology, Patient and Public Education

2002 - 2004  **Member**, Patient Education Task Force, Faculty of Medicine, Dept of Radiation Oncology, Patient and Public Education

2002 - 2003  **Member**, Patient Education Steering Committee, Faculty of Medicine, Dept of Radiation Oncology, Patient and Public Education

**University of Toronto**

2015 Feb - present  **Panel**, MHI Admissions, School of Graduate Studies, IHPME, Toronto, Ontario, Canada.

2014 May - present  Ivan Silver Award for Excellence in Canadian Mental Health Education, Faculty of Medicine, Dept of Psychiatry, Continuing Education, Toronto, Ontario, Canada.

2014 Apr - present  HSICT Board of Directors, Toronto, Ontario, Canada.

2014 Mar - present  **Member**, Continuing Professional and Practice Development, Faculty of Medicine, Dept of Psychiatry, Toronto, Ontario, Canada.

2014 Mar - present  **Member**, MHI Advisory Committee, Toronto, Ontario, Canada.

2015 Dec - 2016 Jan  EDF Internal Review Committee, Faculty of Medicine, Dept of Psychiatry, Toronto, Ontario, Canada.

2015 Jan - 2015 May  **Member**, Search committee for Curriculum Research Scientist, Faculty of Medicine, Undergraduate Medical Education, Ontario, Canada.

2014 May - 2015 May  ae4Q Workshop Planning Committee, Toronto, Ontario, Canada.

2013 Feb - 2014 Feb  **Member**, Community Based Research Fellowship Committee, Ontario, Canada.

2011 - 2012  **Member**, Continuing Education and Professional Development Committee, Office of Continuing Education and Professional Development, Faculty of Medicine, Dept of Radiation Oncology, Patient and Public Education
David WILJER

Oncology, Continuing Education

2010 - 2012  **Member**, Continuing Education (CE) Strategic Planning Committee, Office of Continuing Education and Professional Development, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

2010 - 2011  **Chair**, Continuing Education (CE) Strategic Plan sub-Committee (Patient & Public Engagement), Office of Continuing Education and Professional Development, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

2009 - 2012  **Member**, Executive Council, University of Toronto Department of Radiation Oncology (UTDRO)

2008 - 2012  **Director**, Continuing Education, University of Toronto Department of Radiation Oncology (UTDRO), Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

2008 - 2012  **Member**, Continuing Education Directors & Leaders Committee, Faculty of Medicine, Dept of Radiation Oncology, Continuing Education

2008 - 2009  **Member**, Planning Committee, Toronto Radiation Medicine Conference (TRMC)

2006 - 2009  **Member**, External Relations Committee, Department of Radiation Oncology

2003 - 2004  **Member**, Decanal Advisory Committee on eBased Education and Communication, Faculty of Medicine, Dept of Radiation Oncology

**OTHER**

**MPA Partnership (CAMH/UofT/Trillium/Sick Kids)**


**Toronto East General Hospital**


**University of Toronto**

2014 Nov - 2015 Feb  Don Wasylenki Abstract and Poster Judging Review Committee, Faculty of Medicine, Dept of Psychiatry, Toronto, Ontario, Canada.

**Peer Review Activities**

**ASSOCIATE OR SECTION EDITING**

**Assistant Editor**


**Associate Editor**

2009 - present  Journal of Cancer Education

2009 - present  Journal of Cancer Education (JCE)

**EDITORIAL BOARDS**

**Member**

2013 Aug - present  Centre for Addiction and Mental Health, Portico National Editorial Board
David WILJER

2010 - 2011 Editorial Review Board of the International Journal of Privacy and Health Information Management (IJPHIM)
2007 - 2009 Journal of Cancer Education

GRANT REVIEWS
Member
2009 Canadian Breast Cancer Foundation (CBCF), Fellowship Review Process

MANUSCRIPT REVIEWS
Reviewer
2009 - present Canadian Medical Association Journal
2008 - present Journal of Cancer Education
2008 - present Journal of Medical Internet Research
2008 - present Patient Education and Counselling

Abstract Reviewer
2007 American Association of Cancer Education

OTHER
Editor
1991 - 1999 Senior Research Assistant/Editor for Professor Edouard Jeaneau

Reviewer
2010 - present University of Toronto, Continuing Education Accreditation, Department of Continuing Education and Professional Development
2007 - 2008 Ontario Ministry of Health and Long Term Care (MOHLTC), Innovation Awards

Other Research and Professional Activities

INTERNALLY FUNDED STUDIES
Wiljer D, Urowitz S, Jones J, Secord S, Walton T, Catton P.

2005 Co-Principal Investigator. System for Patients’ Active Involvement in their Electronic Medical Record: Development, Educational Challenges and Benefits - Getting Results.
Minden M, Wiljer D, Catton P, Jones E, Bogomilsky S, Stewart J, Murray C.

Holt D, Wiljer D, Nyhof-Young J.

2005 Co-Investigator. An Online Survey to Determine Whether an Internet Virtual Tour of Princess Margaret Hospital Reduces Anxiety and Depression Independent of Socio-Economic Status (SES) in New Cancer Patients (DOCH Study).
Talsky A, Wiljer D, Nyhof-Young J.
C. Academic Profile

1. RESEARCH STATEMENTS

Statement of Scholarly and Professional Activity.
This research program is focused on transforming the patient experience in cancer care by empowering the individuals, the organizations and the communities through education and knowledge exchange. The scholarly and professional activities are clustered around three major themes:

1) Utilizing new technologies and innovations to promote the exchange of information from health providers to providers and patients and from patient to patients. In particular the research focuses on the role of personal health information as a vehicle for the dissemination of tailored health information that supports self-managed care.

2) Fostering innovative health professional and continuing education that is designed to transform the patient experience. In particular, this research focuses on the use of new technologies that bridge the barriers of time and geography, as well as the traditional silos of health disciplines.

3) Measuring organizational change and assessing the impact of innovation and new practices on health behaviours and health outcomes.

The research has had two main focal points: 1) examining new technologies to enhance the patient experience and 2) investigating and assessing new technologies for effective knowledge exchange for health care professionals.

The framework for the research on the patient experience is based on the Wagner Model of Chronic Care. Within this framework, this research platform specifically examines the role that technologies can play in establishing productive interactions within the cancer care system. There are four focal points or pathways that have been identified for this activation process. The first is the clinical encounter itself, the second is the provision of general information, the third is the provision of personal health information and finally the access to the experiences of others, experiential or social learning.

While the research platform encompasses all four pathways, the focus to date has been on two particular pathways: 1) access to personal health information (PHI) and 2) the use of social networking (SN) applications to promote the exchange of experiential information. The PHI pathway story has evolved greatly over the past decade. Through the work of this research platform, we have developed a framework for understanding how this pathway works as well as the role that access to real-time PHI has on the patient experience and the clinical practice. The focus on real-time PHI allows for the investigation of the role of access to PHI in self-managed care. The experiential pathway has been examined through the development and study of social networking applications. A social networking platform has been developed and the role of real-time chat as a mechanism for distance-based clinical teaching and education has been assessed.
From the health professional perspective, the primary focus has been on investigating the role of effective knowledge transfer in accelerating the adoption of new technologies to enhance cancer care and cancer control. A number of conceptual frameworks and models have been utilized to guide this work, including the Lau framework for evaluating eHealth technologies, the Technology Acceptance model and Rogers’s Diffusion of Innovation model. In addition, the research has focused on the role of inter-professional practice and education on technology adoption.

D. Research Funding

1. GRANTS, CONTRACTS AND CLINICAL TRIALS

PEER-REVIEWED GRANTS

FUNDED


2015 Oct - 2019 Oct Principal Investigator. ThoughtSpot: Enhancing self-efficacy for help-seeking among transition-aged youth in postsecondary settings with mental health and/or substance use concerns using crowd-sourced online and mobile technologies. Canadian Institutes of Health Research. Oper Grant:eHealth Innov Partnership Program(eHIPP)-Youth&Ad. Collaborator(s): Ms. A. Abi-Jaoude Ms. G. Chaim Dr. K. Cleverley Prof. G. Eysenbach Dr. J. Henderson Dr. J. Hoch Dr. W. Isaranuwatchai Dr. H. Jiang Dr. M. Law Dr. A. Levinson Ms. J. Robb Dr. A. Voineskos. 749,980 CAD. [Grants]


Mon repère-santé is a project that will map culturally and linguistically appropriate services related to mental health and addiction across Ontario and share the information through a mobile application, text-messaging service and website. This project seeks to empower Francophone youth in grades 9 to 12 in Ontario to find the services that meet their needs through using technologies that they have literally at hand.


2012 Oct - 2016 Sep Co-Investigator. A randomized controlled trial of an online support group sexual distress due to gynecologic cancer. Canadian Institutes of Health Research (CIHR). Ovarian Cancer Canada. PI: Classen, Catherine Clara. Collaborator(s): Ferguson, Sarah, Barbera, Lisa; Brotto, Lori; Carter, Jeanne; Chivers, Meredith; Koval, John; Robinson, John; Urowitz, Sarah; Wiljer, David. 637,056 CAD. [Grants]


End of Grant Knowledge Supplement.


Partnership in Health System Improvement, meeting planning and dissemination grant.


David WILJER


Research Community Development Funding Program Workshop.


NON-PEER-REVIEWED GRANTS

FUNDED

2015 Jul - present  Principal Investigator. Youth Education Program. Slaight Centre. Education. 320,000. [Grants]

2015 - present  Principal Investigator. Personalized Patient Education Program. CAMH Foundation. Etherington Funding. 300,000. [Grants]

Projects include Digital initiatives, Family engagement, Patient- and Family-as-Teacher, Quality improvement/patient safety.

Next Steps: What’s next? Meeting the information needs of our patients, serving transition-aged youth and implementing a strategy to engage families.

2015 - present  Co-Principal Investigator. MP3C. MPA/THP. PI: Wiljer, D. 860,000 CAD. [Grants]


2016 Jan - 2017 Aug **Principal Investigator.** Working on CIHR funded project on ThoughtSpot: Enhancing self-efficacy for help-seeking among transition-aged youth in postsecondary settings with mental health and/or substance use concerns using crowd-sourced online and mobile technologies. University of Toronto, Faculty of Medicine. CREMS Research Scholar Program. Collaborator(s): Yunlin Xue (Student). 7,500 CAD. [Grants]

2015 - 2020 **Co-Principal Investigator.** Simulation Centre (MPA). CAMH Foundation. PI: Nirula, L. Collaborator(s): Wiljer, D. 2,000,000. [Grants] *development of simulation projects to support MPA.*

2015 - 2018 **Co-Principal Investigator.** Well at Work. CAMH Foundation. PI: Nirula, L. 850,000 CAD. [Grants] *to develop well at work program with a mandate to help transform the workplace.*


2011 Jul - 2015 Jun **Principal Investigator.** Quality Care: Innovating with Confidence for Tomorrow’s Radiation Therapy. Varian Canada Inc. Collaborator(s): Wiljer D, Catton P, Jaffray D, Harnett N, Montgomery F, Gospodarowicz M. 1,000,000 CAD. [Industrial Grants]

2011 Jul - 2012 Jun **Principal Investigator.** Testicular Cancer Survivorship Follow-up Care. Princess Margaret Testicular Site Group. Collaborator(s): Wiljer D, Bender J, Gospodarowicz M. 8,000 CAD. [Grants]


2010 Jul - 2013 Jun **Co-Principal Investigator.** Navigating your cancer journey: Improving the patient experience. Anonymous Donor. Collaborator(s): Wiljer D, Friedman A, Catton P. 500,000 CAD. [Contracts]


2010 Jul - 2011 Jun **Principal Investigator.** The patient experience and the diagnostic phase of the cancer journey: Phase II. Cancer Care Ontario. Collaborator(s): Wiljer D, Urowitz S, Moeinedin M. 64,916 CAD. [Grants]


2009 Jan - 2009 Dec **Co-Principal Investigator.** Oncology interactive navigator: A pilot study. Canadian


Princess Margaret Hospital Foundation and UHN Health Chair.


Co-Principal Investigator. Caring voices. Klick Communications. Princess Margaret Hospital Foundation (The). Collaborator(s): Catton P, Wiljer D. 120,000 CAD. [Grants]

This study is supported by non-peer reviewed funding provided by the National Cancer Institutes of Canada (NCIC).


Principal Investigator. PMH virtual tour. Princess Margaret Hospital Foundation (The). Collaborator(s): Wiljer D, Nyhof-Young J, Friedman A, Catton P. 30,000 CAD. [Grants]

2003 Jul - 2004 Jun

2003 Jul - 2004 Jun
**Co-Investigator.** The impact of SARS on information seeking and psychosocial functioning of newly diagnosed patients and their family members. Princess Margaret Hospital. Department of Radiation Oncology. Collaborator(s): Nyhof-Young J, Friedman A, Wiljer D, Catton P. 6,000 CAD. [Grants]

### E. Publications

#### 1. MOST SIGNIFICANT PUBLICATIONS


   As part of a much larger research program that represents a multi-institutional study, this paper suggests the important impact that online support groups can have for women with sexual dysfunction after treatment for a gynaecological cancer. In addition, it is one of the first studies to explore the use of multiple online strategies including forums and chat to provide support. This study helped to demonstrate that women benefited from the anonymity of an online support group and still obtained the required social support. This feasibility study is being developed into a RTC and will lead to the development of clinical interventions that will assist with the potentially devastating sequelae of gynaecologic cancers. In addition, it has helped to bring attention to issues that have not been well studied or clinically supported. This paper has been recognized for its contribution to the field of cancer education by the American Association of Cancer Education.


   This paper contributes significantly to the literature in the field of personal access to health information by demonstrating the positive impact that access to personal health information has on patients and suggests that real time access to certain types of personal health information does not negatively impact on patient anxiety levels. In addition, this paper reports that patients feel empowered and better prepared to interact with their health care professionals with access to this type of health information.


   This paper demonstrated a novel approach to providing patients with the information they need to guide them through the cancer experience. It demonstrated that a clinically led, reflective process has an important impact on patient self-efficacy and patient’s ability to identify the services that they required throughout the cancer journey. This study has provided important guidance in the development of this clinical intervention and was recognized for its contribution to cancer education by the American Association of Cancer Education.

This paper examined the state of electronic health records across Canada, demonstrating that adoption had not only been slow, but also very fragmented from an organizational perspective. Financial issues and clinician buy-in were identified as two of the major barriers to adoption. In addition, the study informed a group of national experts developing a framework for providing access to health information.


This paper presents a seminal framework for the implementation of accessible health records online. The work is built on the engagement of national and international experts from across North America and lays a solid groundwork for ensuring that education and organizational change are integral components of patient accessible health records.

2. PEER-REVIEWED PUBLICATIONS

Journal Articles


Books


Book Chapters


Newspaper Articles


3. NON-PEER-REVIEWED PUBLICATIONS

Journal Articles


10. Wiljer D, Friedman A, Catton P. Empowering cancer patients through the use of information and communication technologies. Supportive Care Quarterly. 2007. Principal Author.


Editorials


Multimedia


Conference Publications


Reports


4. SUBMITTED PUBLICATIONS

Journal Articles

1. Pham, Q., Cafazzo, J. Wiljer, D. Beyond the RCT: a review of alternatives in mHealth clinical trial methods. JMIR mHealth and uHealth. 2016 May. Senior Responsible Author.


5. O’Grady L, Wathen N, Wiljer D, Jadad A. “So it was a very clear decision. There was no decision”: Credibility guides treatment for women with breast cancer. Health Educ Res. (Submitted for review). Coauthor or Collaborator.

F. Presentations and Special Lectures

1. INTERNATIONAL

Invited Lectures and Presentations


2015 Sep 18 Invited Speaker. KT Leadership: Leading the change required for effective knowledge translation. SPARK Institute: Mental Health Leaders Workshop. Vancouver, British Columbia, Canada. Presenter(s): Wiljer, D. & Watters, N.

2013 Dec 19 Invited Speaker. Transforming lives through innovative health education. Department of Public Health, University of Hanoi. Hanoi, Viet Nam. Presenter(s): Wiljer D.


2013 Apr Keynote Speaker. Time for change: empowering transformation through education. European Association for Cancer Education. Wroclaw, Poland. Presenter(s): Wiljer D. (Continuing Education).


2009  

2009  

2006  
Social Networking in Cancer Care: A New Paradigm for CDM. UICC. Geneva, Switzerland.

2006  
Assessing the impact of ICT modalities on patient education and survivorship programs. 3rd Conference of Cancer on the Internet. Washington, United States.

2006  

2004  

**Presented Abstracts**


2015 Nov 13  **Presenter.** A Pilot Survey To Assess Mental Health Teaching Professionals’ Attitudes Toward Involving Patients In Education. 2nd International Conference: Where’s the Patient’s Voice in Health Professional Education 10 Years On? Vancouver, British Columbia, Canada. Presenter(s): Wiebe, C., Agrawal, S., **Wiljer D.** poster presentation.


2015 Sep 8  **Presenter.** HackaThought: Co-creating solutions for student mental health. AMEE 2015. Glasgow City, United Kingdom. Presenter(s): **Wiljer D.**, Johnson, A., Downes, E., MacCon, K. Verburg, M., Law, M.

2015 Mar 26 Presenter. mMOM - Improving maternal and child health for ethnic minority people in mountainous region of Thai Nguyen province of Vietnam through integration of mHealth in HMIS and user-provider interaction. 2015 CUGH Global Health Conference, Mobilizing Research for Global Health. Boston, Massachusetts, United States. Presenter(s): Liam Nguyen, Nguyen Cong Vu, Hong V. Duong, John O'Neil, David Wiljer; Nguyen, • Cuong K. Nguyen.


2013 Aug Beyond mood trackers and whale calls in mHealth: A systematic review of depression apps. International Cancer Education Conference. Seattle, United States. Presenter(s): Wiljer D, Johnson A, Levitan MH,


2012  Lessons learned: An evaluation of caringvoices.ca, an online community for cancer survivors. Union for International Cancer Control (UICC). World Congress. Montreal, Quebec, Canada. Authors: Bender J, Papadakos J, Reid S, Wiljer D, Alkazaz N, Cyr A, Pulandiran M.


2010  Evaluating the effectiveness of a national, web based portal to support and advance cancer control in Canada. International Union for Cancer Control (UICC) World Cancer Congress. Shenzhen, China. Presenter(s): Wiljer D.

2010  The development and pilot testing of a web-based support group for women with sexual problems due to gynecologic cancer. International Psycho-Oncology Society (IPOS) 12th World Congress of Psycho-Oncology. Quebec City, Quebec. Authors: Classen C, Ferguson S, Chivers M, Urowitz S, Barbera L, Wiljer D.


2010  Capturing contributions of the Oncology Interactive Navigator (OIN) to patients’ experience with cancer.

2010


2010


2009


2009


2009


2009

The role of a clinician-led reflective interview on improving self-efficacy in breast cancer patients. 2009 International Cancer Education Conference. Joint Annual Meeting – American Association for Cancer Education (AACE), Cancer Patient Education Network (CPEN), European Association for Cancer Educat. Houston, United States. Authors: Wiljer D, Urowitz S, Secord S, Frasca E.

2009


2009

Self-Managed access to personalized healthcare through automated generation of tailored health educational materials from electronic health records. Association for the Advancement of Artificial Intelligence (AAAI). Washington, United States. Authors: DiMarco C, Wiljer D, Hovy E. Published Proceedings.

2008 Oct


2008 Sep 4


2008


2007 Patient access to the electronic health record. The Electronic Patient Record (TEPR) Conference. Dallas, United States. Presenter(s): Wiljer D.


2007 UCH Audio Conference speaker/presentation. Patient access to electronic medical records: Health System Shares Lessons Learned. Health Information Portability and Accountability Act (HIPAA) Compliance Alert. Presenter(s): Wiljer D.

2006 From Policy to Practice: Assessing the impact of staging policies for stage across Canada. International Union for Cancer Control (UICC) World Cancer Congress. Washington, United States. Authors: Wiljer D, Brierley J, Logan H.


2006.

2005  

2005  

2005  

2004 Oct 14  

2004 Oct 14  

2004  
Off the record: Providing malignant haematology patients access to their electronic health record to promote patient-centered care. 4th World Conference for Cancer Organizations, International Union for Cancer Control. Dublin, Ireland. Authors: Wiljer D, Bogomilsky S, Catton P, Murray C, Stewart J, Minden M.

2004  

2004  
One size doesn’t fit all: Using a systematic search tool to tailor information to individual needs. Cancer Culture and Literacy Conference. Tampa, United States. Authors: Jusko Friedman A, Arbuckle M, Nyhof-Young J, Wiljer D, Catton P. Poster presentation.

2004  

2004  

2004  

2004  

2003 Nov 20  

2003  

2003  
David WILJER


Other Lectures and Presentations

2006 Patients and providers, partners in learning: An organizational strategy for improving patient teaching. AACE. San Diego, United States. Authors: Friedman A, Wiljer D, Wright I. (Continuing Education).

Peer Reviewed Proceedings


Other Presentations

2. NATIONAL

Invited Lectures and Presentations

2012 May  Invited Speaker. Personal Health Information: Empowering Patients One Record at a Time. PHR Research Symposium. Montreal, Quebec, Canada. Presenter(s): Wiljer D.


2009 Empowering the Health System: A New Information Paradigm. eHealth Summit. Montebello, Quebec.


Presented Abstracts


2016 Sep 22 Presenter. Collaborative Care: Our Social Responsibility. Canadian Psychiatric Association (CPA) Conference. Toronto, Ontario, Canada. Presenter(s): Kljenak, D, Geist, R., Wiljer, D.


2016 Apr 16 Presenter. Facilitating the Integration of Quality Improvement (QI) and Continuing Professional Development (CPD) at both the Hospital and Departmental Levels within the Discipline of Psychiatry.

2015 Apr  

2012  
Thyroid cancer survivors supportive care needs. A cross-sectional survey. 82nd Annual Meeting of the American Thyroid Association. Quebec City, Quebec, Canada. Authors: Bender J, Wiljer D, Sawka A, Alkazaz N. Brierley J.

2011 May 30  

2011 May 4  

2010  
Survivorship empowerment model for integrated cancer care (SEMICC). Canadian Partnership Against Cancer Symposium. Montreal, Quebec. Authors: Catton P, Jusko Friedman A, Secord S, Urowitz S, Wiljer D.

2010  

2010  

2010  

2010  

2009  
Empowering the Health System: a new information paradigm. 9th Annual e-Health Summit. Montebello, Quebec. Presenter(s): Wiljer D.

2009  

2009  

2009  
Supporting access: Understanding the needs of patients receiving personal health information. GOPUBLIC – Global Leadership Forum for Cancer Control. Ottawa, Ontario. Authors: Wiljer D, Urowitz S, Leonard K, Aputu E, Quartey N.

2009  


2006 Sep The role of the virtual coach in learning radiation treatment planning. Canadian Association of Radiation Oncology (CARO) 2006. Calgary, Alberta. Authors: Rauth S, **Wiljer D**, Palmer C, Kane G.

Gospodarowicz.

2006  
Caring to the end of Life: How information professionals contributed to developing an outline tailored palliative care resource for patients, caregivers and health care professionals. Canadian Health Libraries Association. Vancouver, British Columbia. Authors: Arbuckle M, Wiljer D, Jones E, Friedman A, Catton P.

2006  

2006  

2006  

2005  

2005  

2005  

2005  

2005  

2005  

2005  

2004 Sep 9  

2004  

2004  


Other Lectures and Presentations


3. PROVINCIAL / REGIONAL

Invited Lectures and Presentations


The Engaged & Empowered Patient: Innovative Paradigms for the Health Information Technologies. Waterloo Institute for Health Informatics Research (WIHIR) Research Seminar, University of Waterloo.

From Information to Action: a New Paradigm for Chronic Disease Management (CDM). Insight: Information Technology Within LHINs. Toronto, Ontario.

E platforms and Resources. eMentorship National Steering Committee Meeting. Toronto, Ontario.


Getting Results: Giving Haematology Patients Access to Their EHR. OHA Wait Times Strategy Minister’s Innovation Award Winners. Toronto, Ontario. Invited to present.


Tailored Resource for Patient-Centred Care Moving Beyond a One Size Fits All Approach. William Osler Hospital. Toronto, Ontario.

Presented Abstracts


Other Lectures and Presentations


The engaged & empowered patient: innovative paradigms for the health information technologies. WIHIR Research Seminar, Waterloo Institute for Health Informatics Research. Waterloo, Ontario. Presenter(s):
David WILJER

Wiljer D. (Continuing Education).


Peer Reviewed Proceedings


4. LOCAL

Invited Lectures and Presentations

2015 Dec 1 Invited Speaker. Co-creating and crowd-sourcing educational approaches and online solutions with transition aged youth. CAMH Slaight Family Centre for Youth in Transition Conference / Education Day. Toronto, Ontario, Canada. Presenter(s): Wiljer, D.


2015 Oct 7 Invited Moderator. Is Self Employment Right for You? by Ari Cohen from RISE. 3rd annual Mindfest, University of Toronto, Department of Psychiatry. Toronto, Ontario, Canada. Presenter(s): Wiljer, D.


2013 Dec 3 Presenter. Defining Interprofessional Teaching Competencies at a Large Mental Health Teaching Hospital. Presenter(s): Wiljer D, Pottinger A, Soklaridis S, Nirula L. Poster presented at IME/CFD/CHSE Summit on Faculty Development.

2012 May Invited Speaker. Learning From Failure. Centre for Innovation in Complex Care, Innovation Rounds. Toronto, Ontario, Canada. Presenter(s): Wiljer D.


2007 From Electronic Health Record (EHR) to Personal Health Record (PHR): How Do we Get There? Canada Health InfoWay. Toronto, Ontario.


Presented Abstracts


2016 Jan 26 Presenter. Innovation through student engagement. CAMH Education Achieve Week. Toronto, Ontario, Canada. Presenter(s): Wiljer D., Johnson, A., Abi-Joude, A.


2013 Dec Defining interprofessional teaching competencies at a large mental health teaching hospital. Integrated Medical Education Summit on Faculty Development. Toronto, Ontario, Canada. Presenter(s): Nirula L, Pottinger A, Soklaridis S, Wiljer D, Silver I.


2012 May **Presenter.** Princess Margaret Online. Princess Margaret Cancer Centre, Innovation Rounds. Toronto, Ontario, Canada. Presenter(s): Wiljer D and Willson D.


2003 “It was an added burden”: Understanding the patient response to efforts to isolate and contain SARS at Princess Margaret Hospital. SARS commission. Toronto, Ontario. Authors: Nyhof-Young J, Friedman A, Wiljer D, Catton P. Podium presentation to the public hearings of the SARS commission.

**Presenter.** A ‘Top 5’ Education Paradigm? Uof T Department of Radiation Oncology Rounds. Toronto, Ontario, Canada. Presenter(s): Wiljer D, Catton P.

**Other Lectures and Presentations**

2010 Reviewer Recognition Certificate. Office of Continuing Education and Professional Development, Faculty


Other Presentations


G. Teaching and Design

1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION

2012 Jul - 2012 Aug Summer Series - A Road Map for Global Health (2011-2016), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
Designed and organized a Summer rounds series devoted to exploring Global Health.

2012 Jan - 2012 Jul Innovation Rounds, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
Designed and organized a rounds series devoted to exploring a wide rage of cancer innovations in the clinical setting.

2011 Jul - 2011 Aug Summer Series - UT DRO Summer of Science Series, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
Designed and organized a Summer rounds series devoted to Science.

2011 Jan - 2011 Dec Innovation Rounds, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
Wiljer D, Director, Knowledge Management & Innovation
Designed and organized a rounds series devoted to exploring a wide range of cancer innovations in the clinical setting

24-Nov-11 Dante Morra, Navigating the Perfect Storm through Innovation An Introduction to the Centre for innovation in Complex Care

27-Oct-11 Timothy Chan, Brendan Eagan, Engineering an optimized ambulatory clinic schedule at Princess Margaret Hospital

22-Sep-11 Maria Tassone, Frances Hoy, Creating a generative future – Stories of innovation through collaboration

28-Jul-11 Eilidh Giraudy, Terri Stuart-McEwan, The waiting is over: Rapid diagnostic assessment programs in cancer at UHN

23-Jun-11 Ralph S. DaCosta, Innovations in biophotonics at UHN: Advancing basic
research and clinical

26-May-11 Madeline Li, Alyssa Macedo, DART at PMH: Taking distress out of distress screening translation in oncology

28-Apr-11 Lisa Barbera, Kim Pearson, Martha Wyatt, What’s function got to do with it?

24-Mar-11 Bruce R. Thomadsen, Quality in Brachytherapy

24-Feb-11 Lyle J. Palmer, The Ontario Health Study: Enabling revolutionary and translational science


2010 Jul - 2010 Sep
Summer Series - Innovating with Confidence: Advancing Quality, Safe Care (Course Director), Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
Designed and organized a Summer Rounds series devoted to exploring notions of quality and safety from a multi-disciplinary perspective

02-Sep-10 David Jaffray/Jean-Pierre Bissonnette Life at the Bleeding Edge: Can We Build a System to Innovate with Confidence?
26-Aug-10 Ted Reesor/Tony Teti Lessons from Aviation
19-Aug-10 Bryce Taylor The Surgical Check List: Implementing the Impossible
12-Aug-10 Steve Pevere/Brenda Kenefick Lean in Healthcare – It’s All About the Patient Journey
05-Aug-10 Kerry Bowman Ethical Considerations in Quality and Safety
29-Jul-10 Jeffrey Hoch Not Everything Worth Doing is Worth Doing Well: The Opportunity Cost of Perfect
22-Jul-10 Kaveth Shojania Patient Safety and Medical Error in Radiation Oncology
15-Jul-10 Edward Etchells Making Patients Safer.

2010 Jan - 2010 Dec
Innovation Rounds, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
Wiljer D, Director, Knowledge Management & Innovation
Designed and organized a Rounds series devoted to exploring a wide range of cancer innovations in the clinical setting

16-Dec-10 Mary Gospodarowicz, Sarah Downey, The Kuwait Adventure

25-Nov-10 Danny Nashman, Lue-Ann Swanson, What if PMH were more like the Four Season? Taking the Service We Provide to the Next Level

28-Oct-10 Vishal Kukreti, Rachel White, Safer Chemotherapy Administration? High Fidelity Usability Testing of Barcoding Technology

23-Sep-10 Elizabeth Abraham, Grace Eagan, Caring Across the Language Barrier at PMH Leveraging Technology to Reach More LEP Patients Through Remote Interpretation

22-Jul-10 Arjun Sahgal, Spine Stereotactic Body Radiotherapy Minimal Access Spine Surgery: Pushing the Limits of our Technology and Co-operation

27-May-10 Sarah Downey, Brenda Kenefick, Steve Pevere, Lean in Healthcare, It’s all about the patient’s journey.

2010 - 2010 Aug
Evaluation Methods for Health Informatics. Graduate Education, Faculty of Medicine, Inst of Health Policy, Mgmt & Evaluation, University of Toronto

2009 Jan - 2009 Dec
Innovation Rounds, Continuing Education, Faculty of Medicine, Dept of Radiation Oncology
Wiljer D, Director, Knowledge Management & Innovation
Designed and organized a Rounds series devoted to exploring a wide range of cancer innovations in the clinical setting

17-Dec-09 Dr. R. A. Badwe, Tata Memorial Centre and Cancer Tata Memorial Centre in India

26-Nov-11 Anna Greenberg, Introducing Cancer View Canada

22-Oct-09 Sandy Buchman, Toronto Regional Cancer Program Primary Care and the Care Program; A Partnership for Patients

24-Sep-09 Sarah Downey, Michael Caesar, Neil Fleschner, John Kuruvilla, “Lean on Me”: A Transformational Journey Begins

23-Jul-09 Dr. Michael Gardam, Medical Director IPAC, UHN Airing our dirty laundry: public reporting of infection rates

25-Jun-09 Audrey Friedman, Director, Patient Education and Survivorship, Patient Education@PMH: an Innovative Journey


23-Apr-09 Edward Rubinstein, More Than Talkin’ Trash: Greening @UHN

26-Mar-09 Linda Rabeneck Launching Ontario’s Colorectal Cancer Screening Program

26-Feb-09 Azizunissa Irumnaz, Anne Eisenhauer Ontario Translational Research Network, Translational Research – Sounds good!! Wh.

2005 - 2007 eHealth for Clinical Practice: A Selective Course Developed for the Radiation Science Program, Undergraduate MD, Faculty of Medicine, Dept of Radiation Oncology, Michener and the University of Toronto


H. Research Supervision

1. PRIMARY OR CO-SUPERVISION

Undergraduate Education


2010 Co-Supervisor. Emily Lovrics. Reviewing tools and metrics for measuring Inter-professional practice.

2010 Primary Supervisor. Matthew To. Understanding the needs of testicular cancer survivors.


2004 Primary Supervisor. David Neligan. Information and Education in the New Clinical
2004  **Primary Supervisor.** Amanda Schwartz. *Information and Education in the New Clinical Encounter.*

2004  **Primary Supervisor.** Ben Roffey. *Information and Education in the New Clinical Encounter.*


### Graduate Education


2013 Sep - 2019 Sep  **Primary Supervisor.** Alaina Cyr, Health Policy, Management and Evaluation. *An ethnographic exploration of healing on Twitter.*


2010  **Primary Supervisor.** Emma Apatu. *Qualitative research understanding patient perceptions on InfoWell.*

2009 - 2010  **Primary Supervisor.** MSc. Marjan Fatima Moeinedin. *Improving transition of care among cancer patients, general practitioner, and oncologist through the electronic means of communication.* Collaborator(s): Kevin Leonard (Committee Chairperson), Julie Gilbert (Committee Member).

### Undergraduate MD


2010  **Primary Supervisor.** Melanie Maurus. *Understanding patient and provider perceptions of barriers to accessing radiation therapy treatments.*

2010  **Primary Supervisor.** Alex Goytiso. *Understanding patient and provider perceptions of barriers to accessing radiation therapy treatments.*

2010  **Primary Supervisor.** Jasdeep Badwal. *Creating online referral systems.*

2009  **Primary Supervisor.** Jasdeep Badwal. *Creating online referral systems.*

### Other

2013 Sep - 2014 Aug  **Primary Supervisor.** Laurie Manwell. Supervisee Position: Fellow, Social Aetiology of Mental Illness.

2013 Jul - 2014 Jun  **Primary Supervisor.** Carmen Wiebe. Supervisee Position: Fellow, Education Scholars Program.
2. OTHER SUPERVISION

Graduate Education

Thesis Committee Member

2009 - 2010  **Master of Public Health.** Emma Jane Isobel Apatu, Rollins School of Public Health, Emory University. *A drive through web 2.0: an exploration of driving safety promotion on Facebook.* Collaborator(s): Melissa Aplerin (Committee Chairperson), Kathleen Miner (Committee Member). Completed 2010.

Thesis Examiner


Practicum Primary Supervisor


2016 May - 2016 Sep  **Master of Health Informatics.** Nicole van Heerwaarden. Supervisee Institution: University of Toronto. *eHIPP grant: thoughtshpot project, Non-thesis Project.*


Undergraduate MD

Agency Research Supervisor

2008 - 2009  Erica Frasca. *Survivorship Empowerment Model for Integrated Coordinated Care (DOCH Study).*

2006 - 2007  David Holt. *The Virtual Tour. (DOCH Study).*

2002 - 2003  Susan Krajewski. *Needs Assessment of Pediatric Radiation Therapy Patients (DOCH Study).*

Primary Practicum Supervisor

2016 Jan - 2017 Jul  **Year 1.** Yunlin Xue. Supervisee Institution: University of Toronto. *eHIPP grant: thoughtshpot project.*

I. Creative Professional Activities

1. PROFESSIONAL INNOVATION AND CREATIVE EXCELLENCE

CURRICULUM VITAE

Bradly G Wouters, PhD

PROFESSIONAL ADDRESS:
Princess Margaret Cancer Centre
Princess Margaret Cancer Research Tower
101 College St  Rm 12 - 314
Toronto, ON    M5G 1L7
Tel.: (416) 581-7840
E-mail: bwouters@uhnresearch.ca

PRIMARY APPOINTMENTS
2016-present  Executive Vice President, Science and Research, University Health Network
2014-2016     Director of Research (Interim), Princess Margaret Cancer Centre,
               University Health Network, Toronto, ON
2008-present  Senior Scientist, Princess Margaret Cancer Centre, University Health Network, Director,
               Hypoxia and Microenvironment Program, Toronto, ON

OTHER ACADEMIC APPOINTMENTS:
2016-present  Pohang University of Science and Technology (POSTECH)
               Division of Integrative Biosciences and Biotechnology
               Faculty member (non-tenured track), Gyeongbuk, Korea
2010-present  University of Toronto, Department of Radiation Oncology
               Associate Chair, Graduate Studies, Toronto, ON
2008-present  University of Toronto, Department of Radiation Oncology,
               Professor, Toronto, ON
2008-present  University of Toronto, Department of Medical Biophysics,
               Professor (cross-appointed), Toronto, ON
2008-present  Ontario Institute for Cancer Research (OICR),
               Senior Investigator Program, Toronto, ON
2008-present  University of Toronto, Department of Radiation Oncology,
               Director of Radiation Biology, Toronto, ON
2008-present  Maastricht University, Molecular Radiation Biology
               Professor (10%), Maastricht, The Netherlands

Past appointments:
2005-2008     Maastricht Radiation Oncology Laboratory, azM/University of Maastricht
               Professor /Head Scientist, Maastricht, The Netherlands
2001-2005     Maastricht Radiation Oncology Laboratory, azM/University of Maastricht
               Associate Professor/Head Scientist, Maastricht, The Netherlands
1999-2001     Research Institute, Ottawa General Hospital
               Associate Research Scientist (Cross-appointed), Ottawa, ON
1999-2001     University of Ottawa, Faculty of Medicine, Dept of Radiology
               Assistant Professor, Ottawa, ON
1998- 2001   Centre for Cancer Therapeutics, Ottawa Regional Cancer Centre
               Career Scientist, Ottawa, ON
TRAINING AND EDUCATION:

1996-1998 Stanford University School of Medicine, Dept of Radiation Oncology
  Post-doctoral fellow in Radiation Oncology with Dr. J. Martin Brown
1992-1996 University of British Columbia, Dept of Medical Biophysics, BC Cancer Research Centre, Vancouver, BC,
  Ph.D. in Physics, Department of Medical Biophysics, Supervisor: Dr. Lloyd D. Skarsgard
1991-1992 University of British Columbia, BC Cancer Research Centre,
  Physics M.Sc. candidate, Supervisor: Dr. Lloyd D. Skarsgard - After 1 year of study, required qualifications were met to proceed directly to the Ph.D. program.
1987-1991 University of Saskatchewan, Saskatoon, SK,
  Bachelor of Engineering Physics (cum laude)

AWARDS:

**Major personal awards:**

2013 Senior Investigator Award, Ontario Institute for Cancer Research - Renewal – 5 year award
2011 ESTRO Klaas Breur Gold Medal Award – the highest honour that can be conferred on an ESTRO (European Society of Radiother Oncol) member, awarded in recognition of a major contribution made by the winner to European Radiotherapy
2008 Michael Fry Research Award, Radiation Research Society – awarded to a single society member each year who has made extraordinary contributions to the field of radiation research
2008 Senior Investigator Award, Ontario Institute for Cancer Research – 5 year award
2000 Scholar of the Medical Research Council of Canada (Assistant Professor) – 5year award
2000 Premier’s Research Excellence Award (PREA) – Government of Ontario
1999 Polanyi Prize in Medicine – Government of Ontario
1998 Junior Fellow of the National Cancer Institute of Canada – 1 Year Renewal
1996 Junior Fellow of the National Cancer Institute of Canada – 2 Year PDF
1993 Natural Sciences and Engineering Research Council Postgraduate Scholarship (2 years)
1991 Natural Sciences and Engineering Research Council Postgraduate Scholarship (2 years)
1987 University of Saskatchewan College of Engineers Book Prize (top entering student)
1987 Governor General’s award (Bronze medal)

**Other personal awards:**

2012 Cummings Education Leadership Award – University of Toronto
2011 Excellence in Research Leadership Award - University of Toronto
2006 Invited Visiting Professor, Dept of Radiation Oncology, University of Toronto
1999 Radiation Research Society, Travel Award, 11th ICRR Meeting, Dublin, IR
1998 AACR-Genetics Institute Travel Award- 1998 AACR Annual Meeting, New Orleans,
1995 Junior Scientist Travel Award, 9th Int. Conference on Chemical Modifiers, Oxford, UK
1995 BCCA Travel Award, 9th Int. Conference on Chemical Modifiers, Oxford, UK
1995 Junior Scientist Travel Award, 10th ICRR, Wurzburg, Germany
1995 UBC Travel Award, 10th International Congress of Radiation Research, Wurzburg, Germany
1994 BCCA Travel Award, 42nd Annual Meeting, RRS, Nashville, Tennessee
1993 Radiation Research Society Travel Award, 41st Annual Meeting RRS, Dallas, Texas
1991 Faculty of Graduate Studies, NSERC top-up award, University of B.C.
1991 Graduated from Engineering Physics, with Great Distinction, University of Saskatchewan
1990  University of Saskatchewan Undergraduate Scholarship (Engineering Physics- 4th year)
1989  NSERC Undergraduate Student Research Award
1989  University of Saskatchewan Undergraduate Scholarship (Engineering Physics- 3rd year)
1988  University of Saskatchewan Undergraduate Scholarship (Engineering Physics- 2nd year)
1987  Valedictorian Scholarship (Top graduate at High School Graduation)

PEER-REVIEW / MEMBERSHIPS / COMMITTEES

Peer review: granting agencies:

2016  Member of review panel - CCSRI Impact Grant 2017
2016  Member of review panel – Cancer Research UK Review of Oxford Cancer Centre
2015  Member of review panel - Cancer Research UK’s quinquennial review (QQR) of Professor Ruth Muschel of the Oxford Institute of Radiation Oncology
2014-2016  Canadian Cancer Society Research Institute Impact Grant Committee
2014-2016  Member of the review panel, Alberta Cancer Foundation Transformative Program Comprehensive Research Plan
2014  Committee Member - CIHR Peer Review Committee
2012  External review (site visit) CRUK Molecular Imaging Center Oxford Gray Institute
2012  Wellcome Trust Review
2010 – 2014  Scientific Officer, CIHR, Cancer Biology & Therapeutics Panel
2011  External referee CRUK/MRC, Quinquennial Review of Oxford Gray Institute
2009 – 2011  Member of review panel – CCSRI Panel E
2008 – 2010  Member of review panel – CIHR Cancer Biology & Therapeutics Panel
2010  Member of LOI review panel – CCSRI Team Grant: Terry Fox New Frontiers Program in Cancer
2003 – Present  External Grant Referee, Dutch Science Organisation (NWO)
2002 – Present  External Grant Referee, Dutch Cancer Society (KWF)
2010  External Grant Referee – A*STAR Biomedical Research Council (BMRC)
2007 – 2008  Site Visit Review Committee – CRUK London Research Institute
2006 – 2008  Member of the Science Funding Committee - Cancer Research UK (CRUK)
2005  External Grant Referee – Austria Science Foundation
2004  External Grant Referee – Swiss Cancer Foundation
2003  External Grant Referee, Association for International Cancer Research (AICR)
2000  External Grant Referee, Medical Research Council of Canada
2000  Member of review panel, Molecular Biology A, Canadian Cancer Research Society

Peer-review: Journals:

Acta Oncologica  Clinical Cancer Research
Antioxidants and Redox signaling  Experimental Cell Research
Autophagy  Expert Reviews in Molecular Medicine
Biochimica et Biophysica Acta (BBA - Gene Regulatory Mechanisms)  FASEB J
BMC Cancer  International Journal of Biochemistry and Cell Biology
British Journal of Cancer  International Journal of Cancer
Cancer Letters  International Journal of Radiation Biology
Cancer Research  Journal of Clinical Investigation
Clinical Cancer Research  International Journal of Radiation Oncology, Biology, and Physics
Molecular Cancer Therapeutics
Cell Stress and Chaperones  Lancet Oncology
Medical Physics
Molecular Cancer Research
Molecular Cancer Therapeutics
Molecular Cell
Molecular and Cellular Biology (MCB)
Nature
Nature Reviews Cancer
Nature Communications
Neoplasia

Oncogene
PloS Computational Biology
PNAS
Radiother Oncol
Radiation Research
Science
Science Signalling
Trends in Cell biology

International standing committees:

2011 – present Chair, Radiobiology Committee, European Society for Radiother Oncol, (ESTRO)
2011 – present Member, Science Council, European Society for Radiother Oncol (ESTRO)
2013 – present Member, American Society for Therapeutic Radiation Oncology (ASTRO), Science Advisory Committee
2011 – 2013 Member, American Society for Therapeutic Radiation Oncology (ASTRO) Radiobiology Committee
2011 - 2012 Associate Editor, ASTRO Radiation and Cancer Biology (RBC) Practice Examination and Study Guide
2009 – 2012 Chair, Education and Training Committee, Radiation Research Society
2001 – 2003 Co-Chairman, Tissue-bank group European Organisation for Research and Treatment of Cancer (EORTC) Translational Research Committee

Scientific Committees/Advisory Boards:

2016 Scientific Advisory Board (SAB) of the Cancer Research Institute of Northern Alberta (CRINA) at the University of Alberta.
2015 Organizer and Chair National Cancer Institute (NCI) “The Future of Radiobiology Workshop”
2015 Member of the Board of Directors, Princess Margaret Cancer Foundation (PMCF)
2015 Member of the Board of Directors, Centre for Commercialization of Antibodies and Biologics (CCAB)
2015 Organizing Committee, 14th International Wolfsberg Meeting, Molecular Radiation Biology/Oncology, Wolfsberg, Germany
2015 Chair, International Symposium of Tumor Control by Radiation: Recent Progress in Targeting Hypoxic Tumor Cells: From Bench to Clinic, 15th International Congress of Radiation Research (ICRR), Kyoto, Japan
2015 Scientific Program Committee, European Society for Radiation Oncology (ESTRO) 33, Barcelona, Spain
2015 Organizing Committee, 14th International Wolfsberg Meeting, Molecular Radiation Biology/Oncology, Wolfsberg, Germany
2015 Chair, International Symposium of Tumor Control by Radiation: Recent Progress in Targeting Hypoxic Tumor Cells: From Bench to Clinic, 15th International Congress of Radiation Research (ICRR), Kyoto, Japan
2015 Committee member, Technology, Development and Commercialization (TDC) Strategic Planning Committee, Toronto, ON
2014 Scientific Program Committee, 18th ECCO – 40th ESMO European Cancer Congress (ECC) Expert - Innovation in Radiation Oncology Track
2013 28th Working Party on Clinical and Experimental Research in Radiation Oncology (CERRO), Les Menuires, France
2013  Scientific Program Committee, European Society for Therapeutic Radiology and Oncology (ESTRO) Planning Meeting, Brussels, Belgium
2013  Scientific Program Committee, European Society for Therapeutic Radiology and Oncology (ESTRO) Forum, Geneva, Switzerland
2013  17th ECCO – 38th ESMO – 32 ESTRO European Cancer Congress, Amsterdam, Scientific Advisory Committee
2013  Scientific Program Committee, European Society for Radiation Oncology (ESTRO) 33, Brussels, Belgium
2013  2nd International Conference on Tumor Microenvironment and Cellular Stress: Signaling, Metabolism, Imaging and Therapeutic Targets, Corfu Greece
2012  Scientific Program Committee, European Society for Radiation Oncology ESTRO 31, Barcelona, Spain
2012  Scientific Program Committee, European Society for Therapeutic Radiology and Oncology (ESTRO) Abstract Meeting, Brussels, Belgium
2012  Scientific Program Committee, European Society for Therapeutic Radiology and Oncology (ESTRO) Strategy Meeting, Portugal, Spain
2012  Scientific Program Committee, ICTR International Conference on Translational Research in Radiation Oncology, Geneva, Switzerland
2012  Scientific Committee, 4th Symposium on Novel Targeting Drugs and Radiotherapy: From the Bench to the Clinic, Toulouse, France
2012  Scientific Committee, 13th International Wolfsberg Meeting on Molecular Radiation Biology, Wolfsberg, Germany
2012  Scientific Program Committee, ESTRO 31, Geneva, Switzerland
2011  Track Expert in Basic Science, Multidisciplinary Cancer Congress (ECCO), Stockholm
2011  Associate Editor, ASTRO Radiation and Cancer Biology (RBC) Practice Examination and Study Guide
2011  Scientific Program Committee, 3B Forum: Benchtop to Bedside and Back Program Committee, ASTRO, Atlanta, Georgia
2011  Scientific Committee, 12th International Wolfsberg Meeting on Molecular Radiation Biology,
2010  Chair, Tumour metabolism as a new target, ESTRO 29, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Barcelona, Spain
2010  Scientific Committee, ESTRO 29, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Barcelona, Spain
2010  Scientific Program Committee, Radiation Research Society (RRS) Maui, Hawaii
2009  Scientific Program Committee, 4th International Congress on Translational Research, Geneva, Switzerland
2009  Scientific Program Committee, 55th Annual Meeting of the Radiation Research Society Savannah
2009  Scientific Program Committee, 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology
2008  Scientific Program Committee 54th Annual Meeting of the Radiation Research Society, Boston
2008  Scientific Program Committee, ESTRO 27, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Gothenberg, Sweden
2007  Scientific Program Committee, 13th International Congress of Radiation Research, San Francisco
2007  Scientific Program Committee, 10th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology
2006  Scientific Program Committee, 53rd Annual Meeting of the Radiation Research Society, Philadelphia,
2006  Scientific Program Committee 3rd International Congress on Translational Research, Lugano Switzerland
2006  Scientific Program Committee ESTRO 25, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Leipzig
2005  Scientific Program Committee 9th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology
2004  Scientific Program Committee ESTRO 23, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Amsterdam
2004  Scientific Program Committee 8th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology
2003  Scientific Program Committee 2nd ESTRO Radiobiology Meeting, Nijmegen
2002  Scientific Program Committee 6th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology
2002  Scientific Program Committee ESTRO 21, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Prague
2002  Scientific Program Committee 6th EORCT/AACR/NCI Symposium: Molecular Targets and Cancer Therapeutics, Frankfurt

Local committees:

Executive Committees:

2016 - present  Executive Committee, Princess Margaret Cancer Committee
2015 – present  Director, Princess Margaret Cancer Foundation (PMCF) Board of Directors
2014 – present  Executive Committee, Research Council Executive (RCE), University Health Network
2014 – present  Executive Committee, Cancer Stem Cell (CSC) Program, Ontario Institutes for Cancer Research (OICR)
2012 – present  Executive Appointments Committee, Ontario Cancer Institute (OCI)
2010 – present  Executive Committee, Princess Margaret Cancer Centre, University Health Network
2010 – present  Executive Committee, Research Council on Oncology (RCO), University Health Network
2010 – present  Executive Committee, University of Toronto, Department of Medical Biophysics (MBP)
2009 – present  Executive Committee, University of Toronto, Department of Radiation Oncology

Other Local Committees

2015 – present  Member, Radiation Medicine Program (RMP/UTDRO) Education Committee
2015 – present  Member, Donnelly Princes Margaret Screening Centre (DPSC) Committee
2015 – present  Advanced Research Cores & Facilities (ARCF) Committee
2015 – present  Leadership Board of Directors, Princess Margaret Cancer Centre (PMCC) Innovation Accelerator Fund Committee
2015 – present  Laboratory Task Force member, Ontario-wide Cancer Targeted Nucleic Acid Evaluation (OCTANE)
2015 – present  Bioinformatics Task Force member, Ontario-wide Cancer Targeted Nucleic Acid Evaluation (OCTANE)
2015 – present  Member, Orsino Cell Processing Laboratory Committee
2015 – present  Member, Cancer Genomics Program (CGP) Operational Committee
2015 – present  Member, Medical BioPhysics (MBP) U of Toronto Curriculum Committee
2015 – present  Member, Cancer Genomics Program Committee
2015 – present  Member, RMP Research Committee, University of Toronto, Department of Radiation Oncology
2015 – present  Member, PM Tumour Immunotherapy Program (TIP) Committee
2015 – present  Member, Cancer Informatics Committee
2015 – present  Member, Personalized Cancer Medicine (PCM) Cabinet Committee
2014 – present  Member, Strategic Planning Committee, Road map to 2017, University of Toronto, Department of Radiation Oncology
2014 – present  Member, Ontario Cancer Institute (OCI) Programs Committee
2014 – present  Member, Brain Tumour Program Committee, Princess Margaret Cancer Centre
2014 – present  Member, Continuing Education (CE) Committee, University of Toronto, Department of Radiation Oncology
2013 – present  Member, Toronto Antibody NewCo Committee
2013 – present  Member, Princess Margaret Genomics Centre Advisory Board
2013 – present  Member, Cancer Informatics Steering Committee, University of Toronto Department of Radiation Oncology
2013 – present  Member, Planning Committee, Personalizing Cancer Medicine Conferences 2014 and 2015
2013 – present  Member, Promotions Committee, University of Toronto Department of Radiation Oncology
2013 – present  Member, Curriculum Committee, University of Toronto Department of Medical Biophysics
2012 – present  Member, Admissions Committee, University of Toronto Medical Biophysics Department
2011 – present  Member, Website Committee, Princess Margaret Hospital Foundation
2011 – present  Member, program Advisory Committee (PAC), University of Toronto, - Excellence in Radiation Oncology for the 21st century CIHR training program (EIRR21)
2010 – present  Member, Tissue Committee, OCI Gynecology
2010 – 2013 Member, Teaching Effectiveness Committee, University of Toronto, Department of Radiation Oncology
2010  Member, UHN Strategic Planning Committee, “Research Hospital of the Future” / Genomics, University Health Network
2010  Member, Pancreatic Cancer Think Tank, Ontario Institute for Cancer Research (OICR)
2009 – 2010  Member, Strategy Committee, University of Toronto, Department of Radiation Oncology
2008 – 2009  Member, Strategy Committee, Ontario Cancer Institute
2003 – 2008  Member, Education committee, Research Masters in the department of life sciences, Maastricht University
2001 – 2008  Member, Strategy Committee, GROW Department of Oncology, Maastricht University
2001 – 2008  Clinical trials Committee, Maastricht Radiation Oncology
2003 – 2005  Member, Strategy workgroup, MUCH workgroup ZKO2 Oncology, Academic Hospital Maastricht
2001 – 2003  Member, Users committee, Transgenic and knockout mouse facility, Maastricht University
2001 – 2005  Member, Users committee Maastricht centre for proteomics, Maastricht University
1998 – 2000  Member, Library committee- Ottawa Hospital Research Institute

Associations/Societies
2011 - present  Member of the American Society for Therapeutic Radiology and Oncology (ASTRO)
2001 – present  Member of the European Society for Therapeutic Radiology and Oncology (ESTRO)
1997 – present  Member of the American Association for Cancer Research (AACR)
1997 – present  Member of the American Association for the Advancement of Science (AAAS)
1992 – present  Member of the Radiation Research Society (RRS)

Editorial boards

2012 - present  Associate Senior Editor Biology – International Journal of Radiation Oncology, Biology, Physics
2012 – present  Member, Editorial Board Tumor Microenvironment and Therapy Editorial Advisory Board
2011 – present  Review Editor, Frontiers in Molecular and Cellular Oncology
2008 – present  Associate Editor, Biology, International Journal of Radiation Biology (IJRB)
2011 – present  Associate Senior Editor, International Journal of Radiation Oncology, Biology, Physics
2010 – present  Member - Editorial Board, BMC Cancer
2010 – present  Associate Editor, Radiation Research
2007 – present  Member – Editorial board for the Journal Radiotherapy Oncology

Industrial Connections, Patents, etc.

Intellectual Property

Patents

   Patent Status: In Progress
   Patent Status: Completed
   Patent Status: Completed
   Patent Status: In Progress

Disclosures

1. Antibodies against PTPRJ and their uses. Status: In Process
2. Targeting Lipophagy as a Mechanism to Treat Cancer UHN 2015-048 Status: Disclosed Filing Date: 2015-04-10
3. Identification of hypoxic cells using an organotellurium tag compatible with mass cytometry UHN 2015-037 Status: Disclosed Filing Date: 2015-04-02
GRANTS:

**Active:**

**Agency:** Canadian Institutes of Health Research (CIHR) – Project Scheme
**Title:** Hypoxic regulation of DICER influences metastasis, stemness, tumour regrowth and reveals new opportunities for therapy
**Term:** 2016 - 2021
**Role:** Nominated Principal Applicant, Co-Applicants Paul Boutros, Richard Hill, Michael Milosevic
**Amount:** $750,000

**Agency:** Canadian Institutes of Health Research (CIHR) – Project Scheme
**Title:** A novel 3D tissue-engineered platform to identify novel therapy targets in head and neck squamous cell carcinoma
**Term:** 2016 - 2019
**Role:** Co-Applicant, Nominated Principal Applicant Alison McGuigan, Other Co-Applicant Laurie Ailles
**Amount:** $325,000

**Agency:** Canadian Institutes of Health Research (CIHR – CHRP)
**Title:** A tissue-engineered tumour to probe signatures of therapy resistance niches resulting from hypoxia and stromal-tumor cell interactions
**Term:** 2016 - 2019
**Role:** Principal Investigator with Alison McGuigan, Co-Applicant Laurie Ailles, Knowledge User Jeanne Magram
**Amount:** $415,600 total

**Agency:** Canadian Cancer Society Research Institute (CCSRI)
**Title:** Analysis of the tumour microenvironment
**Term:** 2016 - 2019
**Role:** Co PI with Mark Nitz, Collaborators: David Hedley and Cameron Koch
**Amount:** $450,000 (Wouters total $270,000)

**Agency:** Ontario Institutes for Cancer Research (OICR)
**Title:** PanCuRx Theme 2: Early Translation
**Term:** 2015 - 2017
**Role:** Principal Investigator, Co-Investigators Benjamin Haibe-Kains, David Hedley, Malcolm Moore, Senthil Muthuswamy, Michael Roehrl
**Amount:** $330,200

**Agency:** Canadian Institutes of Health Research (CIHR) OOGP
**Title:** Targeting hypoxia in pancreatic cancer through the unfolded protein response
**Term:** 2015 - 2019
**Role:** Principal Investigator, Co-Applicants Benjamin Haibe-Kains, Marianne Koritzinsky, Senthil Muthuswamy, David Hedley
**Amount:** $738,505

**Agency:** Ministry of Research and Innovation - Ontario Research Fund (ORF)-Research Excellence competition
**Title:** A comprehensive antibody platform for targeting tumour heterogeneity
**Term:** 2015-2020
Role: Co-Investigator (with Sachdev Sidhu and Ben Neel))  
Amount: $72,000 over 5 years $14,400 per year  
Agency: **Canadian Institutes of Health Research (CIHR)**  
Title: Image-based quantitative assessment of tumor hypoxia  
Term: 2015 - 2020  
Role: Co-PI with David Jaffray (Principal Investigator)  
Amount: $1,923,621  

Agency: **Canadian Cancer Society Research Institute (CCSRI)**  
Title: Targeting lactate and pyruvate transport in tumours  
Term: 2014 - 2016  
Role: Principal Investigator  
Amount: $200,000.00  

Agency: **Terry Fox New Frontiers Program Project Grant (TFRI)**  
Title: A Research Pipeline for Hypoxia-Directed Precision Cancer Medicine  
Term: 2014 - 2019  
Role: Co Lead PI with Robert Bristow  
Total amount: $6,688,974.00  
Amount: $1,009,114.00 (Wouters Project 2 only)  

Agency: **Canadian Cancer Society Research Institute (CCSRI) Innovation Grant**  
Title: Mass cytometry probes to evaluate tumour hypoxia  
Term: 2014-2016  
Role: Principle Applicant with Mark Nitz  
Amount: $199,500.00  

Agency: **Prostate Cancer Canada (PCC)**  
Title: Tumour Cell Plasticity in Treatment-Resistant Prostate Cancer  
Term: 2013-2018  
Role: Co-Applicant, Ralph Butyan PI  
Amount: Project 3 - Total $1,057,420.00  

Agency: **Ontario Institutes for Cancer Research (OICR) Cancer Stem Cell Program**  
Title: The influence of hypoxia on epigenetic regulation of gene expression and stemness in cancer  
Term: 2012 - 2016  
Role: Principal Investigator  
Amount: $600,000  

**Previous:**  
Agency: **Canadian Institutes of Health Research (CIHR)**  
Title: Role of PTP1B in Her2+ breast cancer  
Term: 2010-2015  
Role: Co-applicant, Ben Neel PI  
Amount: $870,050  

Agency: **Coalition to Cure Prostate Cancer (CCPC)**  
Title: A randomized pilot study of the effect of Metformin in patients undergoing active surveillance for prostate cancer.  
Term: 2012 - 2015  
Role: Co-Applicant, Anthony Joshua PI
Amount: $225,000
Agency: Canadian Institutes of Health Research (CIHR)
Title: Excellence in Radiation Research Training Grant
Term: 2009-2015
Role: Co-Applicant, Fei Fei Liu PI
Amount: $1,950,000

Agency: Princess Margaret Cancer Foundation (PMCF) Large Scale Collaborative Grant
Title: Harnessing Next Gen Data for HNC Therapy
Term: 2013-2015
Role: Principle Applicant with Fei Fei Liu
Amount: $100,000.00

Agency: Canadian Institutes of Health Research (CIHR)
Title: Targeting hypoxia in pancreatic cancer through the unfolded protein response
Term: 2014 - 2015
Role: Principal Investigator
Amount: $100000.00

Agency: Canadian Institutes of Health Research (CIHR)
Title: Hypoxia: Effects on Tumour Response and Progression in Cervix Cancers
Term: 2010-2014
Role: Co-applicant, Richard Hill PI
Amount: $700,068

Agency: Ontario Research Fund – Global Leadership in Genomics & Life Sciences (ORF-GL2)
Title: Functional genomics of solid tumors for discovery & development of new biologics and biomarkers
Term: 2010 – 2014
Role: Co Lead PI with Ben Neel
Amount: $10,109,310

Agency: Canadian Institutes of Health Research (CIHR)
Title: Adaptation to hypoxia in cancer through UPR
Term: 2009-2014
Role: Principal Investigator
Amount: $845,045

Agency: Ontario Institutes for Cancer Research (OICR)
Title: MicroRNA and mRNA Expression Profiling to Predict Outcome and Characterize the Cervix Cancer Microenvironment
Term: 2011 - 2014
Role: Co-applicant, Fei Fei Liu and Anthony Fyles PI’s
Amount: $634,407

Agency: Terry Fox New Frontiers Program Project Grant (TFRI)
Title: Hypoxia in Tumours: Clinical and Experimental Studies
Term: 2009-2014
Role: Co Lead PI with Robert Bristow
Total amount: $4,986,535 $1,228,750 (Wouters Project 3 only)

Agency: National Institutes of Health (NIH)
Title: NIH training grant – Radiation Research Society – SIT (Scholars in Training) travel grant
Grant #: R13CA141926
<table>
<thead>
<tr>
<th>Term</th>
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<tr>
<td>Role</td>
<td>Co-Applicant, Kathryn Held PI</td>
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<td>Amount</td>
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<td>Agency</td>
<td>European Union, 7th Framework Program – Integrated Project</td>
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<td>Title</td>
<td>Metastatic tumours facilitated by hypoxic microenvironments Metoxia</td>
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<td>Role</td>
<td>Principal Investigator, Program leader Eric Pettersen</td>
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<td>Amount</td>
<td>$664,240 Ca (Wouters)</td>
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<td>Agency</td>
<td>PMH Head &amp; Neck Cancer Translational Research Program – IDEAS GRANTS COMPETITION</td>
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<tr>
<td>Title</td>
<td>The potential of metformin to improve oxygenation and radiation response of head and neck cancers</td>
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<td>Term</td>
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<td>Role</td>
<td>Co-applicant with Marianne Koritzinsky</td>
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<td>Amount</td>
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<td>Agency</td>
<td>PMH Head &amp; Neck Cancer Translational Research Program – IDEAS GRANTS COMPETITION</td>
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<tr>
<td>Title</td>
<td>Novel therapies targeting hypoxic cells in head and neck cancer</td>
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<td>Role</td>
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<td>Agency</td>
<td>Ontario Institute for Cancer Research (OICR)</td>
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<td>Title</td>
<td>Mechanisms and Consequences of Hypoxia in Pancreatic Cancer Patients</td>
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<td>Role</td>
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<tr>
<td>Proj Leader</td>
<td>David Hedley</td>
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<td>Agency</td>
<td>Terry Fox Research Institute\Ontario Institute for Cancer Research (OICR)</td>
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<td>Title</td>
<td>Cluster II: DNA damage and stress response in cancer: Selective Therapies Program</td>
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<td>Role</td>
<td>Principle Applicant, Rob Rottapel  Project Leader:</td>
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<td>Agency</td>
<td>National Institutes of Health (NIH)</td>
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<td>Title</td>
<td>Imaging Tumor Hypoxia with Radiohalogenated Inhibitors of Carbonic Anhydrase IX</td>
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<td>Term</td>
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<td>Role</td>
<td>Co-Applicant, John Joyal PI</td>
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<td>Amount</td>
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<td>Agency</td>
<td>Dutch Cancer Society (KWF)</td>
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<td>Title</td>
<td>Hypoxic regulation of ER stress responses and their exploitation for cancer therapy</td>
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<td>Term</td>
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<td>Role</td>
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<td>Amount</td>
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<td>Agency</td>
<td>Ontario Cancer Institute – PMHF Invest in Research Program</td>
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Identification of lung cancer mutations that contribute to treatment response:
A Pilot Study

Term: 2009-2010
Role: Principal Investigator
Amount: $100,000

Received funding from industry

Previous:
Agency: Pfizer Inc
Title: Pop-Cure - Pfizer, OICR, OCI collaboration in Colon Cancer
Term: 2009-2012
Role: Principle Investigator
Amount: $6,001,162 Ca

Agency: National Institutes of Health (NIH)& Molecular Insight Pharmaceuticals
Title: Imaging Tumor Hypoxia with Radiohalogenated Inhibitors of Carbonic Anhydrase IX
Term: 2009-2011
Role: Co-Applicant, Principal Investigator John Joyal
Amount: $108,843 USD (Wouters)

Agency: Siemens Medical
Title: Optical imaging in small animals
Role: Co-Applicant, Coordinator Philippe Lambin
Term: 2004-2010
Amount: 200,000. Eur.

Agency: pBar Labs
Title: The biological effectiveness of antiproton annihilation
Role: Project Coordinator
Others: CERN, UCLA, UBC
Term: 2003-2005
Amount: 100,000 Eur.

PUBLICATIONS


Koritzinsky M, Wouters BG. The roles of reactive oxygen species and autophagy in mediating the tolerance of tumor cells to cycling hypoxia. Semin Radiat Oncol. 23(4):252-61, 2013.


Cojoca D, Vellanki RN, Sit B, Uehling D, Koritzinsky M, Wouters BG. New small molecule inhibitors of UPR activation demonstrate that PERK, but not IRE1α signaling is essential for promoting adaptation and survival to hypoxia. Radiother Oncol. 108(3):541-7, 2013.


105. Theys J, Pennington O, Dubois L, Anlezark G, Vaughan T, Mengesha A, Landuyt W, Anne J, Burke PJ, Durre P, Wouters BG, Minton NP, Lambin P. Repeated cycles of Clostridium-


153. Skarsgard LD, Acheson DK, Vinczan A, **Wouters BG**, Heinrichs BE, Loblaw DA, Minchinton AI, Chaplin DJ. Cytotoxic effect of RB 6145 in human tumour cell lines:


Books Chapters:


TALKS AND PRESENTATIONS

2016


2. 4th International Conference on Tumor Microenvironment and Cellular Stress: Signaling, Metabolism, Imaging and Therapeutic Targets, Session Chair, Stress resistance & cancer I: Targeting organelle-specific stress responses, Rhodes, Greece, June 2016
3. 4th International Conference on Tumor Microenvironment and Cellular Stress: Signaling, Metabolism, Imaging and Therapeutic Targets, Session speaker, Stress resistance & cancer II: ER stress and the Unfolded Protein Response, The unfolded protein response promotes tolerance to hypoxia through maintenance of mitochondrial and ER homeostasis through ULK1
Rhodes, Greece, June 2016
4. Determinants of hypoxia and its importance in tumors, Martin Brown Retirement Symposium, Palo Alto, CA May 2016
5. Grand Rounds, Universitätssklinik für Radioonkologie, Universitätssklinikum Tübingen, Targeting phenotypic diversity in tumors, Tübingen, Germany, March 2016.
6. The role of ULK1 in hypoxia tolerance, Conference on Clinical and Experimental Research in Radiation Oncology (CERRO), Le Menieures, France, Jan 2016
7. Tackling phenotypic diversity to increase cures, E. Vander Schueren Award Lecture, International Conference on Translational Research in Radiation Oncology, Physics for Health in Europe (ICTR-PHE 2016), Geneva, Switzerland, Feb 2016
9. Targeting phenotypic diversity in tumors, University Hospital and Faculty of Medicine Eberhard Karls University Tübingen, Grand Rounds, Tuebingen, Germany, Mar 2016.
11. Targeting metabolic and hypoxia induced phenotypic diversity in cancer, Madison School of Medicine and Public Health, Madison, WI, Apr 2016

2015

1. Development of a new marker for assessing oxygen dynamics, Conference on Clinical and Experimental Research in Radiation Oncology (CERRO), Le Menieures, France, Jan 2015
2. Understanding the determinants of hypoxia and its importance in tumours, RMP Rounds, Department of Radiation Oncology, University of Toronto, Radiation Medicine Program, Princess Margaret Cancer Centre, Toronto, Feb 2015
3. The need for biology in future radiation oncology, Symposium – Future in Radiation Oncology: Uncertainties and Economics, ESTRO 33, Barcelona, Spain, April 2015
4. Radiation Oncology will be an integrated component of curative precision medicine, ESTRO 33, Barcelona, Spain, April 2015
5. Meet the Professor, ESTRO 33, Barcelona, Spain, April 2015
9. Keynote Speaker, Therapeutic Approaches to Tumor Hypoxia, Integrating Radiobiology with Medical Physics (IBPRO), Detroit, MI, May 2015
11. Therapeutic challenges and opportunities arising from phenotypic diversity in tumours, 29th Canadian Association of Radiation Oncology (CARO) Annual Scientific meeting, Kelowna, BC, Sept 2015
13. Regulation of phenotypic diversity through oxygen sensitive signaling pathways, 17TH Cancer Biology Research Center (CBRC) Biennial Meeting, Tel Aviv, Israel, Nov 2015

2014
1. Hypoxic regulation of epigenetic state controls stemness and metastasis in breast cancer, Keystone Symposium, Breckenridge, CO, USA, Jan 2014
2. Functional genomics of head and neck cancer, Conference on Clinical and Experimental Research in Radiation Oncology (CERRO), Le Menieures, France, January 2014
6. The rationale for targeting hypoxia, past, present, and future, ESTRO 33, Vienna, April 2014
7. Biological considerations in particle radiotherapy, Target Insight VIII, Toronto, Canada May 2014
8. UPR activation and its importance during hypoxia, National Cancer Institute (NCI), Maryland, USA, June 2014
10. Detection and therapeutics: Epigenetic regulation of DICER and miRNA biogenesis during hypoxia promotes stem cell phenotypes in breast cancer, Terry Fox Ontario Node Symposium, Toronto, December 2014

2013
1. Identifying new targets in head and neck cancer, 28th Clinical and Experimental Research in Radiation Oncology (CERRO) Meeting, Les Menuires, France, Jan 2013
2. The UPR promotes hypoxia tolerance through mitigation of ROS, Oxidants and Anti-Oxidants in Cancer Genesis and Treatment, Banbury Center, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, February 2013
3. LAMP3 mediates hypoxia induced metastasis downstream of the UPR, 4th Annual Metoxia Meeting, Munich, Germany, March 2013
4. Epigenetic regulation of DICER by hypoxia promotes metastasis and stemness, 2nd European Society for Radiation Oncology (ESTRO) Forum 2013, Switzerland, April 2013
5. Microenvironment-gene interactions drive phenotypic diversity and poor outcome, Terry Fox Research Institute (TFRI) 4th Annual Scientific Meeting, Ottawa ON, May 2013
10. The basis and importance of UPR activation during hypoxia, 2nd International Conference on Tumor Microenvironment and Cellular Stress: Signaling, Metabolism, Imaging and Therapeutic Targets, Corfu, Greece, Sept 2013

2012
1. Functional Genomics of Hypoxia, Conference on Clinical and Experimental Research in Radiation Oncology (CERRO), Le Menieures, France, January, 2012
3. Biological responses to tumor hypoxia and their potential as therapeutic targets, Workshop on Mathematical Oncology IV: Integrative Cancer Biology, Fields Institute and University of Waterloo, University of Toronto, Ontario, Canada, March 2012
4. Biological responses to tumor hypoxia and their potential as therapeutic targets, Meet the expert session, American Association for Cancer Research (AACR) 2012 Annual Meeting, Chicago, April, 2012
5. The Biology of Hypofractionated Radiotherapy, Target Insight VI - Forging the hypofractionation Frontier:SBRT, HDR Brachytherapy and Beyond, Toronto, ON, Canada, May 2012
6. Novel mechanisms of oxygen sensing and adaptation to hypoxic stress, European Society for Radiotherapy and Oncology Annual Meeting (ESTRO-31), Barcelona, Spain, May 2012
8. Pattern of UPR- and mTOR responsive genes as markers of hypoxia-mediated treatment resistance: Possible new targets. Metastatic tumours facilitated by hypoxic tumour microenvironment (METOXIA) Annual Meeting, Bratislava, Slovakia, June 2012
9. Even more reasons to be interested in hypoxia, University of Toronto Department of Radiation Oncology (UTDRO) Grand Rounds, Toronto, ON, Canada, June 2012
10. Evening plenary lecture : Functional genomic approaches to novel target discovery in radiotherapy 4th Symposium on Novel Targeting Drugs and Radiotherapy: From the Bench to the Clinic, European Society for Radiotherapy and Oncology (ESTRO) Toulouse, France, Sept 2012
11. Epigenetic regulation of DICER during hypoxia promotes metastasis and stemness through suppression of miR200 1st International Conference on Tumor Microenvironment and Cellular Stress: Signaling, Metabolism, Imaging and Therapeutic Targets, Crete, Greece, Oct 2012

2011
1. The Influence of hypoxia on the epigenome, CERRO 26th Working Party on Clinical and Experimental Research in Radiation Oncology, Le Menuires, France, Jan 2011
2. Unfolded Protein Response: Part 1, IRE-1 Biology Ontario Institute for Cancer Research (OICR) Annual Scientific Meeting, Alliston, ON, Feb 2011
3. Addressing the Challenges of Tumor Heterogeneity, Sunnybrook Health Sciences, Radiation Oncology Research Grand Rounds, Toronto, ON, Mar 2011
4. Mechanisms of hypoxia tolerance, Adrian Begg and Bert van der Kogel Farewell Conference, Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands, April 2011
5. Tumor microenvironment: Hypoxia and metabolism, American Association of Cancer Research (AACR), Orlando, FLA, April 2011
6. From Genomics to Individualized Treatment, European Society for Radiotherapy and Oncology (ESTRO) Anniversary Conference: Three Decades of Innovation and Cancer Care, London, UK, May 2011
8. New Directions in Cancer Research and Treatment, Princess Margaret Hospital Foundation, Toronto, Aug 2011
9. Effects of hypoxia on the epigenome, International Congress of Radiation Research (ICRR), Warsaw Poland, Aug 2011
10. The UPR promotes hypoxia tolerance through the UPR and metabolic control, International Congress of Radiation Research (ICRR), Warsaw, Poland, Aug 2011
11. The importance of tumor heterogeneity, MBP 2011 Summer Student Seminar Series, Toronto, ON, Aug 2011
12. The challenge of tumor heterogeneity, Awardee Lecture, European Society for Radiotherapy and Oncology (ESTRO), Klaas Breur Gold Medal Award, Stockholm, Sweden, Sept 2011
13. Novel responses to hypoxia and their potential as therapeutic targets, Auckland Cancer Society Research Centre, University of Auckland, Auckland, NZ, Oct 2011

2010
2. Translational control of cell phenotype in the hypoxic tumor microenvironment, American Association of Cancer Research AACR, Special Conference entitled Protein Translation and Cancer, San Diego, CA, February 2010
3. Tumor microenvironment and cellular adaptation: Opportunities for imaging, European Association of Nuclear Medicine and the European Society for Therapeutic Radiology and Oncology (ESTRO), 1st Annual Molecular Imaging in Radiation Oncology (MIRO) Conference, Brussels, Belgium, March 2010
4. The POPCURE program in colorectal cancer. Pfizer Ontario Medical Team Meeting, Mississauga, ON, April 2010
5. The UPR protects hypoxic cells and promotes tumour radioresistance through autophagy, Tumour Microenvironment Meeting, Toronto, ON, May 2010
6. Hypoxia and Autophagy, OCI Annual Retreat, Huntsville, ON, May 2010
7. Regulation of autophagy during hypoxia by the unfolded protein response, ESTRO 3rd Annual Symposium, Novel targeting drugs and Radiotherapy from Bench to Clinic, Plenary speaker, Toulouse, France, June 2010
8. Hypoxia and cellular metabolism, Metoxia Annual General Assembly Meeting, Norway, June 2010
9. Targeting autophagy sensitizes tumours to irradiation by reducing hypoxia, ESTRO 29, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Barcelona, Sept 2010
10. Mechanisms of adaptation to hypoxia and their relevance in cancer, ESTRO 29, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Barcelona, Sept 2010
WOUTERS_BRADLY – CV

June 2016

11. Hypoxia and metabolism as potential targets, 9th meeting of the European Association for Neurooncology (EANo), Maastricht, The Netherlands, Sept 2010
14. The Importance of Tumor Heterogeneity, Department of Medical Biophysics Annual Retreat, Geneva Park, ON, Oct 2010
15. Targeting Autophagy Sensitizes Tumours to Irradiation by Reducing Hypoxia, 52nd Annual Meeting, American Society for Radiation Oncology (ASTRO), San Diego, CA, Oct/Nov 2010
16. Addressing the Challenges of Tumor Heterogeneity, RMP Grand Rounds, Department of Radiation Oncology, University of Toronto / Radiation Medicine Program, Princess Margaret Hospital, Toronto, CA, Nov 2010

2009

1. Autophagy promotes cell survival in the hypoxic tumor microenvironment” CERRO France, Jan 2009
2. Hypoxia, UPR and mTOR, Euroxy, Copenhagen, Denmark, Jan 2009
3. The UPR protects hypoxic cells in the tumor microenvironment through autophagy, 2nd Workshop On: Radiation and Multidrug Resistance Mediated via the Tumor Microenvironment, Dresden Germany, Feb 2009
4. The unfolded protein response protects against hypoxia induced endoplasmic reticulum stress by regulation of autophagy , Fourth International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR), Geneva, Switzerland, March 2009
5. The unfolded protein response protects against hypoxia induced endoplasmic reticulum stress by regulation of autophagy , NVRB, The Netherlands, April 2009
6. Understanding what feeds a tumor, “Back to the future”, Behind the Scenes, Princess Margaret Foundation, Toronto, ON, April 2009
7. Tackling Tumor Heterogeneity, Princess Margaret Hospital Foundation Board of Directors, Toronto, ON, April 2009
8. The UPR protects against hypoxia induced ER stress through autophagy, OCI Applied Molecular Oncology (AMO) Annual Divisional retreat, Building Bridges between the AMO and Cell Signaling Divisions, Toronto, ON, May 2009
9. Activation and Importance of the UPR during hypoxia, Department of Cell Biology Seminar Series, University of Alberta, Edmonton, May 2009
11. Hypoxia Signaling Pathways, Metoxia subgroup meeting, Models for the study of Hypoxia Induced Metastasis, Stockholm, Sweden, May 2009
12. Adaptation to the hypoxic microenvironment in cancer, DMOH/RMP Grand Rounds, Toronto, June 2009
14. The UPR protects against hypoxia induced ER stress through autophagy, Molecular and Cellular Biology Seminar Series, Sunnybrook Research Institute, Toronto, June 2009
15. The UPR protects against hypoxia induced ER stress through autophagy, The 11th International Wolfsberg Meeting on Molecular Radiation Biology/Oncology, Wolfsberg, Germany, June 2009
16. The UPR protects against hypoxia induced ER stress through autophagy, Novartis Institute for Biomedical Research, Cambridge MA, July 2009
17. Xenograft treatment with CA9 inhibitors, Metoxia Annual General Assembly Meeting, Manchester, UK, Sept 2009
19. The UPR protects against hypoxia induced ER stress through autophagy, UHN Public Symposium, Shanghai, China, Oct 2009
20. The UPR protects against hypoxia induced ER stress through autophagy, Southern Alberta Cancer Research Institute, University of Calgary Seminar Series, Calgary, Nov 2009
21. Discovery, characterization and exploitation of hypoxic signaling pathways in tumors, Department of Radiation Oncology, Maastricht, NL, Dec 2009

2008

1. Hypoxia inhibits disulfide bond formation and protein folding in the endoplasmic reticulum (ER), Keystone Meeting: Molecular, Cellular, Physiological, and Pathogenic Responses to Hypoxia, Vancouver, January 2008
2. The role of ER stress and the unfolded protein response in response to hypoxia, Paterson Institute Seminar Series, University of Manchester, Manchester, UK, March 2008
5. Cellular adaptation to Hypoxia, Applied Molecular Oncology Retreat, Ontario Cancer Institute, Toronto, May 2008
6. Tumor Microenvironment Heterogeneity: Opportunities for imaging and therapy, Ontario Cancer Institute Retreat, Toronto, May 2008
7. Is the Microenvironment of Tumors Important? Summer of Science Rounds Series, Princess Margaret Hospital, Toronto, August 2008
8. Targeting translational control pathways in hypoxic cells sensitizes tumors to irradiation, ESTRO Annual Meeting, Gothenburg, Sweden, Sept 2008
10. Adaptation to hypoxia through activation of the unfolded protein response, Breast Cancer Research Rounds, Campbell Family Breast Cancer Research Institute, Toronto, Dec 2008

2007

1. The multifaceted cellular response to the tumor microenvironment and its exploitation for imaging and targeted cancer therapy, Ontario Cancer Institute, Invited Lecture, Toronto, Jan 2007
2. The How to (dose) paint by numbers, European Society for Therapeutic Radiology and Oncology, Les Menuires, France, Jan 2007
4. Activation and influence of translational control pathways in hypoxic tumors, University of Madison Radiation Oncology Department, Invited Lecture, Madison, WI, August 2007

2006

1. The influence of mRNA translation on hypoxia regulated gene expression and tumor growth, European Society for Therapeutic Radiology and Oncology, Les Menuires, France, January 2006
4. Control of the hypoxic response through regulation of mRNA translation, Invited Lecture at the 3rd International Conference on Translational Research and Pre-Clinical Strategies in Radio-Oncology (ICTR), Lugano, March 2006
5. Contributions of mRNA translational control to the hypoxia response, Lecture as Invited Visiting Professor, Department of Radiation Oncology, Princess Margaret Hospital, Toronto ON, April 2006
6. Regulation of mRNA translation and its impact on gene expression and tumor growth, Lecture as Invited Visiting Professor, Department of Radiation Oncology, Princess Margaret Hospital, Toronto ON, April 2006
7. Translational Research in Radiation Oncology, Lecture as Invited Visiting Professor, Department of Radiation Oncology, Princess Margaret Hospital, Toronto ON, April 2006
8. Polyubiquitination of PCNA protects against TLS induced mutations, Invited Lecture DNA Repair Group, Karlsruhe Germany, August 2006
9. EGFR and Radiotherapy, Invited Discussant at the Presidential Highlights session, 25th Annual European Society for Therapeutic Radiology and Oncology (ESTRO) meeting, Leipzig Germany, October 2006
10. Biobanks in Radiation Oncology, 25th Annual European Society for Therapeutic Radiology and Oncology (ESTRO) meeting, Leipzig Germany, October 2006
11. The potential therapeutic gain of redistributing dose to hypoxic regions using dose-painting: a modeling study, 25th Annual European Society for Therapeutic Radiology and Oncology (ESTRO) meeting, Leipzig Germany, October 2006

2005

1. Polyubiquitination of PCNA protects against DNA damage induced mutation – European Society for Therapeutic Radiology and Oncology, Les Menuires, France, January 2005
2. Polyubiquitination of PCNA protects against DNA damage induced mutation, Gordon Conference on Radiation Oncology, Ventura California, January, 2005
3. Regulation of the hypoxic response through changes in mRNA translation, Department of Radiation Oncology, University of Nijmegen, Nijmegen NL, April 2005
4. Regulation of the hypoxic response through changes in mRNA translation, Department of Radiation Oncology, MD Anderson Cancer Center, Houston Texas, May 2005
5. Regulation of the hypoxic response through changes in mRNA translation, Netherlands Cancer Institute (NKI), Amsterdam NL, May 2005
6. Polyubiquitination of PCNA protects against DNA damage induced mutation, University of Saskatchewan Department of Microbiology, Saskatoon SK, July 2005
7. Towards realistic biological models of oxygenation for dose-painting algorithms, Plan Beyond Imaging - Exploring New Paradigms in Planning and Treatment, An educational symposium by Siemens Medical in association with the AAPM annual meeting, Seattle Washington, July 2005

2004

1. The role of ubiquitin in the bypass of polymerase blocking DNA lesions CERRO meeting – European Society for Therapeutic Radiology and Oncology, Les Menuires, France, January 2004
2. The role of novel ubiquitin chains in the resolution of stalled replication forks, Department of Radiation Oncology University of Essen, Essen Germany, February 2004
3. Control of gene expression by hypoxia, 26th German Cancer Congress, Berlin, Germany, February 2004
4. Molecular mechanisms of oxygen sensing and hypoxia tolerance, DoHad symposium on Hypoxia, Maastricht NL, June 2004
5. Biological Mechanisms of Hypoxia Tolerance, 23rd Annual European Society for Therapeutic Radiology and Oncology (ESTRO) meeting, Amsterdam, Oct 2004

2003

1. Ubiquitin and the resolution of stalled replication forks CERRO meeting – European Society for Therapeutic Radiology and Oncology, Les Menuires, France, January, 2003
2. Regulation of gene expression via changes in mRNA translation, University of Pennsylvania, Philadelphia PN, February 2003
3. Regulation of gene expression during hypoxia via changes in mRNA translation, Netherlands Radiobiological Society Annual Meeting, Leiden The Netherlands, February 2003
4. Regulation of protein expression during hypoxia, Second International Conference on Translational Research and Pre-Clinical Strategies in Radio-Oncology, Lugano Switzerland, March 2003
5. Exploiting Biological Response to Hypoxia, ESTRO biology workshop, Nijmegen The Netherlands, June 2003
6. Exploiting biological responses to hypoxia, Symposium Speaker, 12th International Congress of Radiation Research, Brisbane Australia, Aug 2003
7. Translational Research in Radiation Oncology, Symposium Speaker, The European Cancer Conference, Federation of European Cancer Societies, Ecco 12, Copenhagen, Denmark, September 2003
8. Regulation of gene expression during hypoxia via changes in mRNA translation, Institut Gustave Roussy Department of Radiation Oncology, Paris France, December 2003

2002

2. The role of ubiquitin in DNA repair and cancer, Dresden University, Dresden, Germany, Feb 2002
3. Tumor hypoxia, expression profiling and clinical prognosis: Establishment of a tissue bank for functional genomic analysis in a randomized clinical trial setting, EORTC translational research meeting, Brussels, Mar 2002
6. The role of ubiquitin in DNA repair and cancer, Rotterdam University, Netherlands, June 2002
7. Control of gene expression during hypoxia, Symposium speaker and chair, 32nd Annual Meeting of the European Society for Radiation Biology, Liege, Belgium Aug 2002
8. Regulation of gene expression during hypoxia, Symposium on Interactions between the microenvironment, normal cells and tumor cells, European Society for Therapeutic Radiology and Oncology 21st Annual Meeting, Prague, Czech Republic, Sept 2002

2001

1. The role of the RAD6 postreplication repair pathway in mammalian cells, CERRO meeting – European Society for Therapeutic Radiology and Oncology, Les Menuires, France, March 2001
2. Measurements of cell survival at very low radiation doses: Challenges and surprises, Kongsvold, Norway, March 2001
3. Exploiting the tumor microenvironment, ESTRO biology workshop, Aarhus Denmark, May 2001
4. Radiation and hypoxia-phase I/II trials, Target Insight: Innovative Strategies to Improve Target Definition in Radiation Oncology, Toronto, May 2001
5. Hypoxia regulated gene expression, University of Liege, Belgium, June 2001

2000

1. The importance of intermediate hypoxia in human tumours, CERRO meeting – European Society for Therapeutic Radiology and Oncology, Les Menuires, France, January 2000
2. The RAD6 post-replication repair pathway mediates the response of mammalian cells to DNA damage, International 4th Wolfsburg Meeting on Molecular Radiation Biology/Oncology 2000, Wolfsburg, Switzerland, June 2000
1999

1. The tumour microenvironment reveals a role for p21 in radiotherapy, International Workshop: The Tumour Microenvironment, Belfast, Northern Ireland, July 1999
2. The RAD6 post-replication repair pathway mediates the response of mammalian cells to DNA damage, Prediction of Tumor Response to Therapy: Molecular Markers and the Microenvironment, Montreal, October 1999

1998

1. In Vivo Sensitization of Tumors Following Disruption of p21waf1 occurs via a p53 and apoptosis independent mechanism (presented in a symposium at the 89th Annual Meeting, American Association for Cancer Research, New Orleans, Louisiana, March 1998

1997


1995

1. Factors Affecting the Hypersensitive Radiation Response in Human Tumour Cell Lines, Workshop 09 - Radioresistance Induced by Low Doses: Is it Real), 43rd Annual Meeting, Radiation Research Society, San Jose, California, April 1995

1994

1. Substructure in the Radiation Response of Mammalian Cells, Canadian Cancer Society Awards Announcement Breakfast, Vancouver, B.C., April 1994

1993

1. Enhancement at Low Doses of Radiation in Human Tumour Cell Lines by Two Hypoxic Radiosensitizers: Effects on $\alpha$ and $\beta$ in the Linear Quadratic Model, 41st Annual Meeting, Radiation Research Society, Dallas, Texas, March 1993

ACADEMIC ACTIVITIES

Student supervision
Current:

Postdoctoral fellows:

- 09/13 – present: Stefano Marastoni, University of Parma
- 09/13 – present: Sergio Rey, visiting scientist Italy
- 09/13 – present: Luana Schito, visiting scientist Italy
- 08/12 – present: Sujeeve Jegananthan, Princess Margaret Cancer Centre
- 11/11 – present: Maria Kondratyev, Ontario Cancer Institute
- 11/15 – present: Michael Cohen, Princess Margaret Cancer Center

Graduate students:

PhD Stream:

- 04/12 - present: Ron Wu – University of Toronto, Medical Biophysics
- 03/09 – present: Elizabeth Koch – University of Toronto, Medical Biophysics
- 08/09 – present: Dan Cojocari – University of Toronto

MSc Stream:

- 01/15 – present: Pedro Boasquevisque - University of Toronto, MBP / Fac of Med Int’l
- 01/16 to present: Ji Zhang - University of Toronto, Medical Biophysics

Graduate Student Supervisory Committee:

- Arushi Jaiswal - University of Toronto, Medical Biophysics
- Ryan Elliott - University of Toronto, Institute of Biomaterials and Biomedical Engineering
- Osman Mahumud – University of Toronto, Medical Biophysics
- Darrin Gao – University of Toronto, Medical Biophysics
- Osman Mahumud – University of Toronto, Medical Biophysics
- Elizabeth Huyn - University of Toronto, Medical Biophysics
- Yulong Sun - University of Toronto, Medical Biophysics
- Darren Rodenhizer – University of Toronto, Medical Biophysics
- Corey Lourenco – University of Toronto, Medical Biophysics
- James Stewart - University of Toronto, Medical Biophysics
- Zsuzsa Buchwald - University of Toronto, Medical Biophysics
- Ali Fateh Hassanabad - University of Toronto, Medical Biophysics
- Yedan Chan - University of Toronto, Medical Biophysics
- Rania Chehade - University of Toronto, Medical Biophysics
- Rosemary Yu - University of Toronto, Medical Biophysics
- Yan Wu - University of Toronto, Medical Biophysics
- Andras Lindenmaier – University of Toronto, Medical Biophysics
- Steve Bartolac - University of Toronto, Medical Biophysics
- Erin Stewart - University of Toronto, Medical Biophysics
- Robert Bahn – University of Toronto, Medical Biophysics
- Arun Chandrakumar – University of Toronto, Medical Biophysics
- Florence Wu - University of Toronto, Medical Biophysics
- Jan Zak, University of Toronto, Institute of Medical Science
- Bozhena Livck, University of Toronto, Institute of Medical Science
- Ali Fatehi - University of Toronto, Medical Biophysics
- Ken Tse– University of Toronto, Medical Biophysics
- Isaac Harris– University of Toronto, Medical Biophysics
James Tran – University of Toronto, Medical Biophysics
Eric Leung – University of Toronto, Medical Biophysics
Michelle Lenarduzzi– University of Toronto, Medical Biophysics
Jas Sagger– University of Toronto, Medical Biophysics

Student Oral Exams
Mojdeh Shakiba
Stephanie Oliveri
Diana Merino
Kevin Chan
Daniel Markel
Noufissa Kabli
Monica Clifford
Isaac Harris

Past supervision:

Postdoctoral fellows (past):

10/08 – 11/15 Anthony Joshua, Ontario Cancer Institute
02/08 – 01/15 Twan van den Beucken, Ontario Cancer Institute
04/12 – 08/15 Fiana Levitin, Princess Margaret Cancer Centre
06/13 – 07/15 Sue Li, Princess Margaret Cancer Centre
11/11 – 2014 Yi Wang, Ontario Cancer Institute
03/10 – 11/13 Mei Ding, Ontario Cancer Institute
02/11 – 06/12 Javier Menendez, Ontario Cancer Institute
05/09 – 2010 Fahima Khan, Ontario Cancer Institute
12/05 – 2010 Kasper Rouschop, University of Maastricht
08/09 – 07/10 Wissam Assaily, Ontario Cancer Institute
12/05 – 01/08 Jan Theys, University of Maastricht
04/03 – 01/08 Marianne Koritzinsky, University of Maastricht
01/01 – 01/08 Roland Chiu, University of Ottawa, University of Maastricht
02/05– 06/07 Renaud Seigneuric, University of Maastricht
11/03 – 05/05 Lin Weng, University of Maastricht
10/00 – 01/01 Jan Brun, University of Ottawa.
11/00 – 01/01 Jamie St. Louis, University of Ottawa

PhD students (past):

02/08 – 06/13 Hilda Mujcic – Maastricht University
09/05 – 08/11 Maud Starmans – Maastricht University
04/05 – 2011 Chantal Ramaekers, Ontario Cancer Institute, University of Maastricht
03/04 – 02/10 Ludwig Dubois, University of Maastricht
01/02 – 10/09 Sherry Weppler, University of Maastricht
01/02 – 03/09 Asferd Mengesha, University of Maastricht
10/03 – 02/08 Michael Magagnin, University of Maastricht
08/03 – 02/08 Twan van den Beucken, University of Maastricht
01/01 – 12/05 Ludy Lutgens, University of Maastricht
02/03 – 12/04 Gudio Lammering, University of Maastricht

MSc students (past):

08/11 – 07/13 Ryan Rumantir – University of Toronto
05/10 – 11/12 Vanessa Zannella – University of Toronto
<table>
<thead>
<tr>
<th>Period</th>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/09 – 11/11</td>
<td>Dan Cojocari</td>
<td>University of Toronto</td>
</tr>
<tr>
<td>03/09 – 08/11</td>
<td>Elizabeth Koch</td>
<td>University of Toronto Medical Biophysics Dept (transferred to PhD program)</td>
</tr>
<tr>
<td>10/07 – 06/08</td>
<td>Hilda Mujcic</td>
<td>Maastricht University</td>
</tr>
<tr>
<td>04/99 – 12/99</td>
<td>Jodine Klippenstein</td>
<td>Simon Fraser Univ.co-op student– University of Ottawa</td>
</tr>
<tr>
<td>01/99 – 07/11</td>
<td>Peggy Hew</td>
<td>Simon Fraser Univ.co-op student– University of Ottawa</td>
</tr>
</tbody>
</table>

### Summer Students (past):

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
</tr>
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<tbody>
<tr>
<td>2016</td>
<td>Jessie Anne Brazier</td>
</tr>
<tr>
<td>2016</td>
<td>Sarah Elizabeth Tsimerman</td>
</tr>
<tr>
<td>2016</td>
<td>Mark Zaidi</td>
</tr>
<tr>
<td>2015</td>
<td>Prathiba Thape</td>
</tr>
<tr>
<td>2015</td>
<td>Cameron Irani</td>
</tr>
<tr>
<td>2015</td>
<td>Lisa Tsimerman</td>
</tr>
<tr>
<td>2013</td>
<td>Sarah Ryan</td>
</tr>
<tr>
<td>2013</td>
<td>Asm Borham</td>
</tr>
<tr>
<td>2012</td>
<td>Jae Boem Ahn</td>
</tr>
<tr>
<td>2012</td>
<td>Hilary Stone</td>
</tr>
<tr>
<td>2011</td>
<td>Brandon Sit</td>
</tr>
<tr>
<td>2011</td>
<td>Paul Zamiara</td>
</tr>
<tr>
<td>2011</td>
<td>Melanie Kalbfleish</td>
</tr>
<tr>
<td>2011</td>
<td>Marian Zulueta</td>
</tr>
</tbody>
</table>

### International Students (past):

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 – 2014</td>
<td>Manlio Fusciello</td>
<td>University of Maastricht</td>
</tr>
<tr>
<td>2013 – 2014</td>
<td>Jody Blaauwendraad</td>
<td>University of Maastricht</td>
</tr>
<tr>
<td>2013</td>
<td>Eva–Leone Gottgens</td>
<td>University of Nijmegen</td>
</tr>
<tr>
<td>2012</td>
<td>Selim Chaib</td>
<td>University of Maastricht</td>
</tr>
<tr>
<td>2012</td>
<td>Mette Winther</td>
<td>University of Maastricht</td>
</tr>
<tr>
<td>2011</td>
<td>Maarten Smeekens</td>
<td>University of Nijmegen</td>
</tr>
<tr>
<td>2011</td>
<td>Anne van Brussels</td>
<td>University of Maastricht</td>
</tr>
<tr>
<td>2010</td>
<td>Susan Hilgendorf</td>
<td>University of Maastricht</td>
</tr>
<tr>
<td>2010</td>
<td>Anna Hagenkort</td>
<td>University of Maastricht</td>
</tr>
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</table>

### Graduate student exam committees:

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11</td>
<td>Ken Tse</td>
<td>University of Toronto, Medical Biophysics Qualifying Exam, Chair</td>
</tr>
<tr>
<td>11/10</td>
<td>Patrick McVeigh</td>
<td>University of Toronto, Medical Biophysics, Qualifying Exam, Chair</td>
</tr>
<tr>
<td>10/10</td>
<td>Steven Bartolac</td>
<td>University of Toronto, Medical Biophysics, Qualifying Exam, Examiner</td>
</tr>
<tr>
<td>08/10</td>
<td>Eli Lechtman</td>
<td>University of Toronto, Medical Biophysics, Qualifying Exam, Examiner</td>
</tr>
<tr>
<td>09/10</td>
<td>Mamta Khurana</td>
<td>University of Toronto, Medical Biophysics (MBP), PhD Defense, Examiner</td>
</tr>
<tr>
<td>09/10</td>
<td>James Clendening</td>
<td>University of Toronto, Medical Biophysics (MBP), PhD Defense, Examiner</td>
</tr>
<tr>
<td>09/10</td>
<td>Baskor Chondra</td>
<td>University of Toronto, Medical Biophysics (MBP), Qualifying Exam, Chair</td>
</tr>
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</table>
